

40 MEMORIAL AVENUE, BELLA VISTA, NSW

ABORIGINAL CULTURAL HERITAGE ASSESSMENT REPORT

Report to The Orion Group
on behalf of Landen Property Group

LGA: The Hills Shire

May 2025





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.

Aboriginal people are advised that this report contains reference to deceased people. Further, this report includes high level discussions of sites which may be culturally sensitive, including gender-based restricted sites.

DOCUMENT CONTROL

The following register documents the development and issue of the document entitled '40 Memorial Avenue, Bella Vista, NSW: 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	Rebecca Bryant	Jenni Bate	Issue for client review	27 January 2023
2 – Draft	Jenni Bate	Orion	Issue for RAP review	17 February 2023
3 – Final	Jenni Bate	RAPs	Issue of final	29 March 2023
4 – Final	Jenni Bate		Minor updates	16 May 2025



EXECUTIVE SUMMARY

Apex Archaeology have been engaged to assist The Orion Group on behalf of Landen Property Group to undertake an Aboriginal Cultural Heritage Assessment (ACHA) for a proposed residential development at 40 Memorial Avenue, Bella Vista and construction of a bridge over Elizabeth Macarthur Creek at the end of Hodges Street, Bella Vista within The Hills Shire Local Government Area (LGA). The project will be assessed as a State Significant Development (SSD).

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.

The study area is located within the suburb of Bella Vista and is legally known as Lot 1 DP 1237055, and also includes part of Lot 1 DP 1180837 and part of Lot 403 DP 1125136. It is bound by Memorial Avenue to the north, vacant blocks to the east and south, and an unnamed access road runs parallel to the western boundary.

Two multidwelling buildings with basement car parking are proposed to be constructed within the study area, along with construction of a bridge and approach road. This will also include the installation of services, including sewerage, electricity, town water. The study area comprises approximately 2 ha in size and is bound by Memorial Avenue to the north, vacant blocks to the east and south, and an unnamed access road runs parallel to the western boundary.

The proposed works will include the demolition of the existing residential dwelling and associated structures for the proposed construction of two multidwelling buildings within the study area. The construction of a bridge and approach road at the corner of Free Settlers Drive and Hodges Road, along with associated services, are also proposed. These activities and the construction of services such as water, electricity and telecommunications are expected to result in subsurface excavations and modification to the natural landscape.

A total of 20 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:

- A1 Indigenous Services
- Amanda Hickey Cultural Services



- Aragung Aboriginal Cultural Heritage Site Assessments
- Bariyan Cultural Connection
- B & H Consultants
- Corroboree Aboriginal Corporation
- Darug Custodian Aboriginal Corporation
- Didge Ngunawal Clan
- Gunjeewong
- Gunya Aboriginal Cultural Heritage Services Pty Ltd
- Kamilaroi Yankuntjatjara Working Group
- Murrabidgee Mullangari
- Ngambaa
- Tocomwall
- Wailwan Aboriginal Group
- Waawaar Awaa
- Woka
- Wori Woilywa Darug Custodian Aboriginal Corporation
- Yulay Cultural Services
- Yurrandaali

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

There are three previously recorded Aboriginal sites registered on the Aboriginal Heritage Management Information System (AHIMS) within 50m of the current study area. One site is a potential archaeological deposit (PAD) and is registered as AHIMS #45-5-3063 (Burns Road Compound PAD). It is approximately 35 m to the east of the northeast boundary of Lot 1 DP 1237055. The other two sites are both listed as PADs with the same site name (NWRL PAD7) and are registered as AHIMS #45-5-4262 and AHIMS #45-5-4841. They are duplicates of the same site and are mapped as being on, and within 20m (respectively), of the southwest boundary of Lot 1 DP1237055. The site status of AHIMS #45-5-4262 is listed as 'partially destroyed' and the site status of AHIMS #45-5-4841 is listed as 'valid'.

A previous archaeological salvage excavation was undertaken by Kelleher Nightingale Consultants (KNC) in 2013 with a salvage report issued in 2015 in relation to AHIMS #45-5-4262 (NWRL PAD7) PAD. The portion of the PAD excavated was in close proximity to the southern boundary of the current study area and a total of 2,893 artefacts were recovered including a number of stone-tool types. The site was dated to approximately 4,000 years ago. The remainder of PAD that extends into Lot 1 DP1237055 and Lot 1 DP1180837 of the current area was *not* included in the KNC salvage report and it was stated in the updated AHIMS site card #45-5-4262 submitted by KNC that the 'remaining portion of the site is likely to have a similar archaeological deposit and would require an Aboriginal Heritage Impact Permit prior to any impact'. This remaining site *is* within the current study area.

A recent due diligence report was undertaken by McCardle Heritage for 40 Memorial Avenue in 2022 for the residential development. The investigation assessed the site as having no archaeological potential. However, this assessment did not take into consideration the abundance of archaeological material found in the surrounding areas during comprehensive excavations in relatively undisturbed contexts. As part of this assessment, the site card for #45-5-4841 was updated to excise Lot 1 DP 1237055 from the area of PAD. It was unclear as to why this area was excised.



Apex Archaeology was engaged to assess the portion of the current project area between Hodges Road and Free Settlers Drive for the proposed construction of a new bridge in relation to 40 Memorial Avenue. During the background investigation it was apparent that AHIMS #45-5-4262 (NWRL 7) PAD extended into this area of investigation, as well as across the entire southern boundary of 40 Memorial Avenue. As such it was recommended that 40 Memorial Avenue also be reassessed and that the remaining area of AHIMS #45-5-4262 (NWRL 7) be subject to archaeological test excavations. This was also the recommendations provided by the consultants that initially identified the site and KNC that undertook archaeological salvage excavations.

A subsequent test excavation undertaken by Apex Archaeology in December 2022 recovered 64 stone artefacts within a 5.25 m² area. The artefacts included a recognised tool type and remnants of the tool/implements manufacturing process. The variety of stone material used to make the artefacts was consistent with those found in the portion of the site excavated by KNC in 2015 and were also in an undisturbed context. However, the artefact density in the Apex Archaeology test excavation of 7.6 stone artefacts per 1m² is substantially higher than the 2.6 stone artefacts per 1m² recovered in the KNC 2015 test excavation that led to the recovery of 2,879 artefacts. This suggests that there is likely to be a considerable amount of subsurface archaeological deposit that warrants further investigation.

Given the artefact deposit identified within the study area, the site is considered to have cultural significance to the Aboriginal community as a tangible link to their culture and ancestors. All tangible evidence of Aboriginal occupation is considered to have a level of significance to the community; however, Aboriginal people are the primary determinants of the significance of their culture and their input is required to determine the cultural significance of any sites.

The site has been assessed as containing a moderately significant archaeological deposit which cannot be avoided by the proposed development within the study area. The area containing archaeological deposits cannot be avoided due to the necessity of constructing a bridge over Elizabeth Macarthur Creek to facilitate access for the increasing number of residents in the area. The bridge is not able to be moved elsewhere due to the existing lot layout and street network in the area, and thus the connecting road cannot be realigned to avoid the archaeological deposits. As such, impact cannot be avoided and mitigation of the impact on the archaeological resource is necessary. Salvage of these deposits is recommended. A salvage strategy has been prepared and is attached to the AR as an appendix.

Under Part 4, division 4.7 State Significant Development of the EP&A Act, there is no requirement to obtain consent from Heritage NSW under the provisions of s.90 of the NPW Act. Instead, an Aboriginal Cultural Heritage Management Plan (ACHMP) guides the management of Aboriginal cultural values within the study area. a separate ACHMP has been prepared to fulfil this requirement.



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

RECOMMENDATION 1: APPLICATION FOR AHIP REQUIRED

Aboriginal cultural material is present within the study area which cannot be avoided. Preparation of an Aboriginal Cultural Heritage Management Plan (ACHMP) is required to guide future management of the Aboriginal cultural heritage resource within the study area, including to permit harm to the registered sites within the study area, namely AHIMS #45-5-4262 & duplicate recording 45-5-4841 (NWRL 7).

Salvage excavation is recommended for AHIMS #45-5-4262/45-5-4841 (NWRL 7). Salvage should be undertaken in accordance with the Salvage Strategy attached to this report and detailed in the separate ACHMP.

RECOMMENDATION 2: MAINTAIN ABORIGINAL COMMUNITY CONSULTATION

Consultation with the RAPs regarding the project should continue, in order to keep the RAPs informed about the management of Aboriginal cultural heritage within the study area. This includes notifying the RAPs when an AHIP application is lodged, and also in the event an AHIP is issued.

Consultation undertaken for this project must be maintained at least every six months in order to maintain validity. It is the Proponent's responsibility to ensure consultation remains valid. In the event a gap of more than six months occurs between consultation events, it may be necessary to restart the consultation process to support any AHIP applications that are necessary.

RECOMMENDATION 3: DEVELOPMENT BOUNDARIES

The proposed development works must be contained within the assessed boundaries for this project. If there is any alteration to the boundaries of the proposed development to include areas not assessed as part of this archaeological investigation, further investigation of those areas should be completed to assist in managing Aboriginal objects and places which may be present in an appropriate manner.

RECOMMENDATION 4: STOP WORK PROVISION

Should unanticipated Aboriginal archaeological material be encountered during site works, 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 any Construction Environmental Management Plan (CEMP) developed for the site.

RECOMMENDATION 5: REPORTING

One digital copy of this report should be forwarded to Heritage NSW to support the required AHIP application for the project, along with required supporting documentation.

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

One copy of this report should be forwarded to each of the registered Aboriginal stakeholders 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
Due Diligence	Taking reasonable and practical steps to determine the potential for an activity to harm Aboriginal objects under the <i>National Parks and Wildlife Act 1974</i> and whether an application for an AHIP is required prior to commencement of any site works, and determining the steps to be taken to avoid harm
Due Diligence Code of Practice	The DECCW Sept 2010 <i>Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales</i>
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
RAPs	Registered Aboriginal Parties



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1.0 INTRODUCTION

Apex Archaeology have been engaged to assist The Orion Group on behalf of the Landen Property Group to undertake an Aboriginal Cultural Heritage Assessment (ACHA) for a proposed residential development within 40 Memorial Avenue, Bella Vista, NSW. The project is located within The Hills Local Government Area (LGA).

This report 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 is located within the suburb of Bella Vista and is legally known as Lot 1 DP 1237055, and also includes part of Lot 1 DP 1180837 and part of Lot 403 DP 1125136. The area is approximately 2 ha in size and is bound by Memorial Avenue to the north, vacant blocks to the east and south, and an unnamed access road runs parallel to the western boundary. The study area is approximately 40 km to the northwest of the Sydney CBD and is within The Hills Shire LGA, Parish of Castle Hill, County of Cumberland, and within the boundaries of Deerubbin Local Aboriginal Land Council (LALC) (Figure 1 and Figure 2).

It is proposed to construct two multidwelling buildings within the study area with basement car parking, along with construction of a bridge and approach road at the corner of Free Settlers Drive and Hodges Road. This will also include the installation of services, including sewerage, electricity and town water. There are three registered sites within 50 m of the study area AHIMS #45-5-3063 (Burns Road Compound), AHIMS #45-5-4262 (NWRL PAD7) and AHIMS #45-5-4841 (NWRL PAD7) that are all listed as Potential Archaeological Deposits (PAD). However, AHIMS #45-5-4262 and AHIMS #45-5-4841 are the same site that has been recorded twice under different numbers. As these are mapped as being on and near the southwest corner of the study area, and includes an area of PAD that extends across the southern section of the study area, further investigation is required. This will determine the condition of the site and whether cultural material is located within the area.

1.2 PROJECT BRIEF

A previous archaeological salvage excavation was undertaken by Kelleher Nightingale Consultants (KNC) in 2013 with a salvage report issued in 2015 in relation to AHIMS #45-5-4262 (NWRL PAD7) PAD. The portion of the PAD excavated was in close proximity to the southern boundary of the current study area and a total of 2,893 artefacts were recovered including a number of stone-tool types. The site was



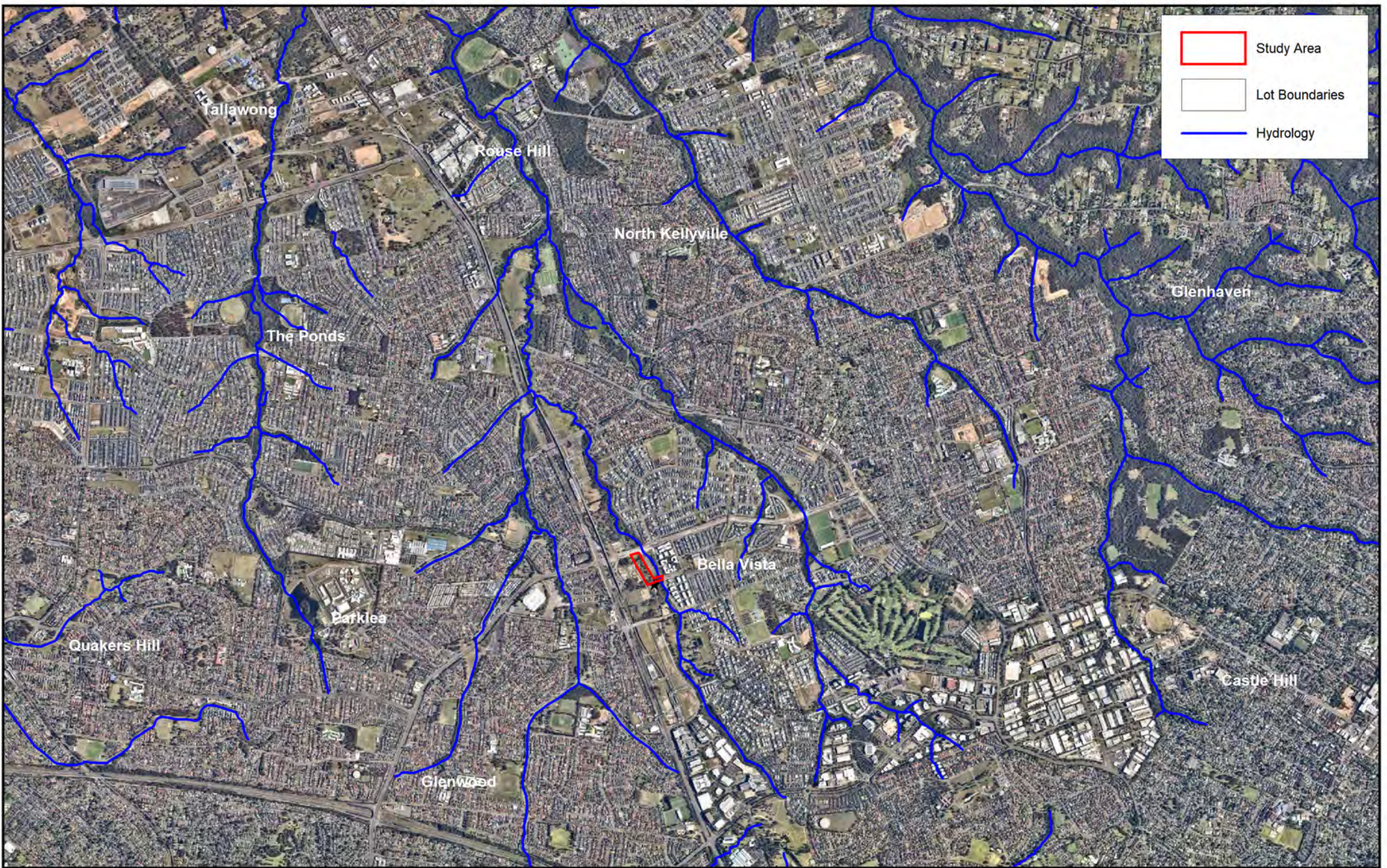
dated to approximately 4,000 years ago. The remainder of PAD that extends into Lot 1 DP1237055 and Lot 1 DP1180837 of the current area was *not* included in the KNC salvage report and it was stated in the updated AHIMS Site card #45-5-4262 submitted by KNC that the 'remaining portion of the site is likely to have a similar archaeological deposit and would require an Aboriginal Heritage Impact Permit prior to any impact'. This remaining site *is* within the current study area.




A recent due diligence report was undertaken by McCardle Heritage for 40 Memorial Avenue in 2022 for the residential development. The investigation assessed the site as having no potential. However, this assessment, did not take into consideration the abundance of archaeological material found in the surrounding areas during comprehensive excavations in relatively undisturbed contexts.




Apex Archaeology was engaged in 2022 to undertake an Aboriginal due diligence assessment for the portion of the current project area between Hodges Road and Free Settlers Drive for the proposed construction of a new bridge in relation to 40 Memorial Avenue. During the background investigation it became apparent that AHIMS #45-5-4262 (NWRL 7) PAD extended into this area of investigation, as well as across the entire southern boundary of 40 Memorial Avenue. As such it was recommended that 40 Memorial Avenue also be reassessed and that the remaining area of AHIMS #45-5-4262 (NWRL 7) be subject to an ACHA and archaeological test excavations to determine the condition of the site and to identify the nature and extent of any sub surface cultural material that may be present. This was also the recommendations provided by the consultants that initially identified the site and KNC that undertook archaeological salvage excavations.

The assessment will inform a State Significant Development Application (SSD-80102979) under Part 4 Division 4.7 of the *Environmental Planning and Assessment Act 1979*. This report has been prepared to inform the Environmental Impact Statement (EIS) required for the project, and to meet the Planning Secretary's Environmental Assessment Requirements (SEARs) for the project. Specifically, Section 21 of the SEARs requires preparation of an Aboriginal Cultural Heritage Assessment Report (ACHAR) to describe and assess any impacts on any Aboriginal cultural heritage values on the land. This report has been prepared to meet this requirement.

Where impact to Aboriginal cultural heritage values is identified and cannot be avoided, an Aboriginal Cultural Heritage Management Plan (ACHMP) is required to be prepared to appropriately manage these impacts. A separate ACHMP has been prepared for the project.



	Study Area
	Lot Boundaries
	Hydrology

 <p>PO Box 236 NOWRA NEW SOUTH WALES 2541</p>	<p>0 1.6 3.2</p>  <p>kilometres</p>	<p>Projection: MGA Zone 56 (GDA 94) Base Map: NearMaps 2023 Image Date: 18/01/2023 Final - Version 1</p>	<p>Figure 1: Study area within its regional context.</p>	
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Study Area
Lot Boundaries
Hydrology

<p>PO Box 236 NOWRA NEW SOUTH WALES 2541</p>	<p>0 100 200</p> <p>Meters</p>	<p>Projection: MGA Zone 56 (GDA 94) Base Map: NearMaps 2023 Image Date: 18/01/2023 Final - Version 1</p>	<p>Figure 2: General location of the study area in its local context.</p>	
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1.3 OBJECTIVES OF THE ABORIGINAL CULTURAL HERITAGE ASSESSMENT

The archaeological investigation was undertaken to meet the requirements of the Code of Practice and ACHCRs.

The purpose of the archaeological investigation is to understand and establish the potential harm the proposed development 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 study area 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; and
- 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 to what extent 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.

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 Landen Property Group. The project manager for the project was Oscar Saunders of The Orion Group.

1.5 INVESTIGATORS AND CONTRIBUTORS

This archaeological assessment was commissioned by Landen Property Group. Apex Archaeology thanks Oscar Saunders from The Orion Group for his assistance with the project. Thanks are also extended to the registered Aboriginal groups for their participation and assistance with the project, with particular thanks to Raymond Adams of Aragung and Rodney Gunther of Waawaar Awa.

This report has been prepared by Leigh Bate, Director and Archaeologist with Apex Archaeology and Rebecca Bryant, Archaeologist with Apex Archaeology. The report was reviewed by Jenni Bate, Director and Archaeologist with Apex Archaeology. Both Jenni and Leigh have over sixteen years of archaeological consulting experience within NSW, and Rebecca has eleven years' experience in archaeological research projects (inc five years in consultancy). Dr Beth White of Beth White Archaeology prepared the lithic analysis presented in Section 6. Project team roles and qualifications are shown in Table 1.

Table 1: Project team roles and qualifications

Name	Role	Qualifications
Jenni Bate	Project Manager; Report Author; Field Inspection; Review	B.Archaeology; Grad. Dip. CHM
Leigh Bate	Field inspection, Excavation Director, Report Author; Review; GIS	B.Archaeology; Grad. Dip. Arch; Dip. GIS
Rebecca Bryant	Report Author	B.Science (Arch/Paleo); Mphil
Dr Beth White	Lithic analysis	BA(Hons); MPhil; PhD; MAACAI

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 and test excavation. 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 tables outline the requirements of both the Guide and the Code of Practice, and how they 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 provides details of the lithic analysis completed by Dr Beth White for the project.

Section 7 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 8 details the impact assessment of the proposed works on Aboriginal cultural heritage, in accordance with Section 2.5 of the Guide.

Section 9 provides management and mitigation measures to avoid or minimise harm in accordance with Sections 2.6 and 2.7 of the Guide.

Section 10 outlines the details of the ACHMP prepared for the project, and Section 11 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 environmental sites 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. Therefore, actions must be referred to the Australian Government Minister for the Environment and Heritage. A decision will be made as to whether the



proposed action will have a significant impact on any matters of national significance.

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 people 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 did not identify any registered/or pending Native Title claims over the study area, and no determined Native Title claims currently exist 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* 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 of the Department of Climate Change, Energy, the Environment and Water. However, under the EP&A Act, the need to obtain an AHIP for impact for SSD projects is 'turned off' and instead an ACHMP is prepared.



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 AND ASSESSMENT ACT 1979

Part 4, Division 4.7 State Significant Development outlines the requirements for assessment of SSD Projects. Section 4.41 outlines approvals and legislation that does 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 purpose of complying with any environmental assessment requirements under this Part in connection with a development application for any such development.

The EPA Act is administered by the Department of Planning, Housing and Infrastructure and the Minister will determine this project. 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.

2.2.4 THE HILLS LEP 2019

The Hills Local Environmental Plan (LEP) 2019 is the overarching planning instrument applicable to The Hills LGA.

Clause 5.10(1) (d) identifies that the objectives of this clause are to conserve Aboriginal objects and Aboriginal places of heritage significance. Further, Clause 5.10(2) requires consent for: (a) the demolishing or moving of an Aboriginal object; (c) disturbing or excavating an archaeological site; (d) disturbing an Aboriginal place of heritage significance; (e) erecting a building on land on which an Aboriginal object is located, or that is within an Aboriginal place of heritage significance; (f) subdividing land on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance.

Exceptions to the requirement for development consent are detailed by Clause 5.10(3) (a) and include work that is minor in nature or is for the maintenance of a heritage item, Aboriginal object, Aboriginal place, archaeological site or heritage conservation area, and would not adversely affect the heritage significance of the heritage item, Aboriginal object, Aboriginal place, archaeological site or heritage conservation area, or (b) the development is in a cemetery or burial ground and the proposed development would not cause disturbance to human remains, relics, Aboriginal objects in the form of grave goods, or to an Aboriginal place of heritage significance.

Clause 5.10(8) (a & b) requires that the effect of any development on an Aboriginal place of heritage significance must be considered, and the Aboriginal community must be notified of any proposed developments and take into consideration any responses received within 28 days after the notice was sent. This document details the notification to the registered Aboriginal community regarding the intention to develop the study area and the consultation undertaken regarding the proposed development's potential impact on Aboriginal cultural heritage in the area.



There are no known items of Aboriginal heritage significance identified within the LEP that fall within the current study areas (Figure 3). However, there is an Archaeological item shaded in yellow that is mapped as being approximately 250 m to the east of the study area (outlined in blue). This comprises the original alignment of Windsor Road, including the road and culverts. This area is not considered to extend into the current study area. It should be noted that a lack of Aboriginal sites registered on the LEP does not mean that the site does not possess Aboriginal significance.

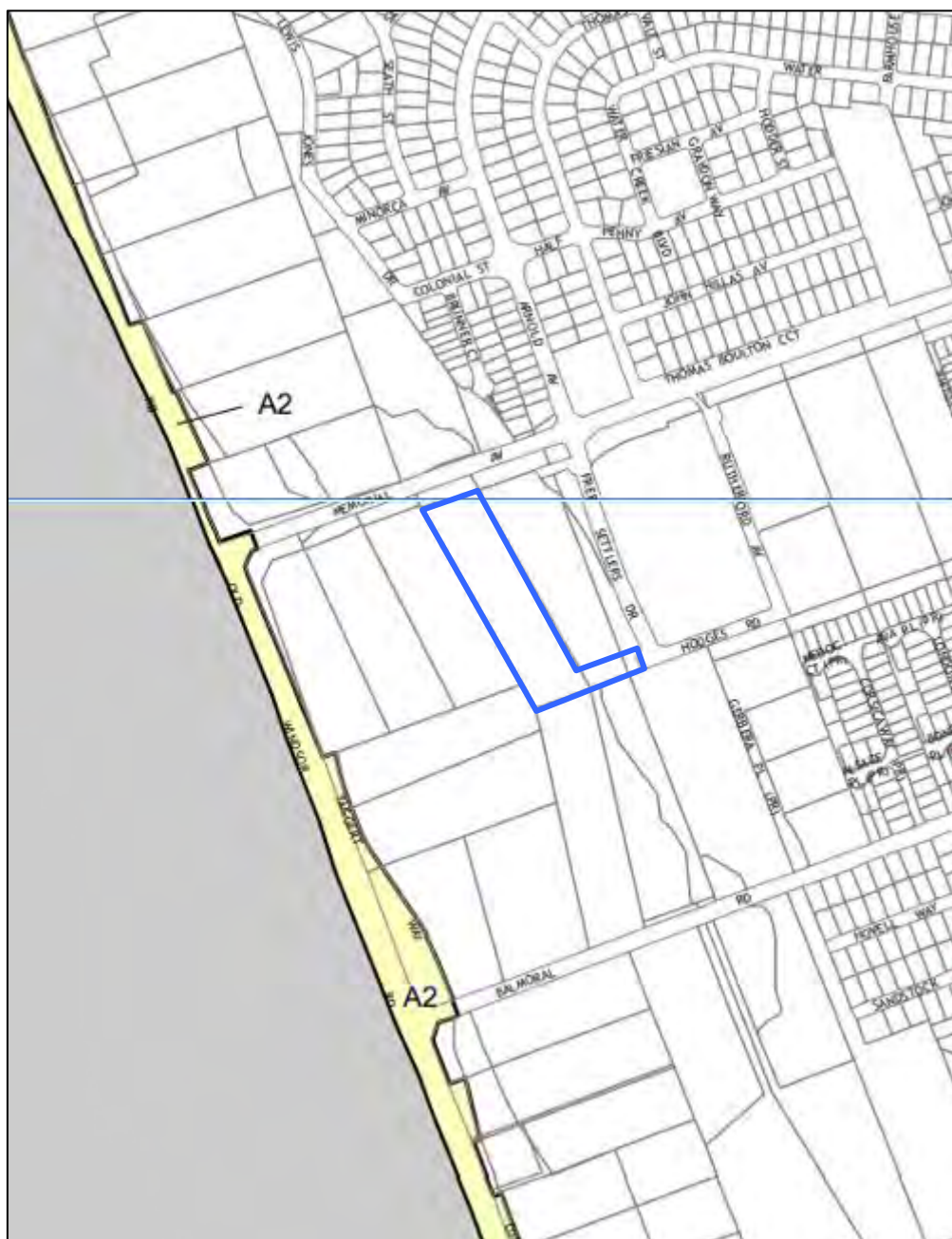


Figure 3: The Hills LEP 2019 Heritage Map, with approximate study area outlined in blue. (Source: The Hills LEP 2019 Sheet HER_015 & HER_016).



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, and 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 26th September 2022. 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 (GSLLS)
- The Hills Shire Council (THSC)
- Deerubbin Local Aboriginal Land Council (DLALC)
- Office of the Registrar, *Aboriginal Land Rights Act 1983 (NSW)* (ORALRA)
- Native Title Services Corp (NTSCorp)

Responses were received from Heritage NSW and GSLLS. Heritage NSW provided a list of Aboriginal people and organisations to contact and GSLLS advised that Heritage NSW should be contacted. 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) was undertaken over the study area and no native title claimants or registrations were identified.



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 10th October 2022, inviting them to register an interest in the project. Registrations were accepted until 24th October 2022. This is Step 2 of Stage 1 of consultation. Copies of these letters are attached in Appendix C.

In addition, an advertisement was placed online on the 10th October 2022 for the News Corp publications which includes the Daily Telegraph and local community papers for the Bella Vista area. The notice invited registrations of interest from people who may have cultural knowledge of the project area. A copy of the advertisement is attached in Appendix D.

A total of 20 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:

- A1 Indigenous Services
- Amanda Hickey Cultural Services
- Aragung Aboriginal Cultural Heritage Site Assessments
- Bariyan Cultural Connection
- B & H Consultants
- Corroboree Aboriginal Corporation
- Darug Custodian Aboriginal Corporation
- Didge Ngunawal Clan
- Gunjeewong
- Gunya Aboriginal Cultural Heritage Services Pty Ltd
- Kamilaroi Yankuntjatjara Working Group
- Murrabidgee Mullangari
- Ngambaa
- Tocomwall
- Wailwan Aboriginal Group
- Waawaar Awaa
- Woka
- Wori Woilywa Darug Custodian Aboriginal Corporation
- Yulay Cultural Services
- Yurrandaali



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 25th October 2022. Comments were accepted until 21st November 2022. Responses were received from the following four groups:

- A1 Indigenous Services
- Bariyan Cultural Connections
- Gunya
- Waawaar Awaa Aboriginal Corporation

All of the responses were favourable. Gunya made the additional observation that investigations should be aware of 'shaped quartz/crystal material' as it is 'highly significant' to the Aboriginal community. Rebecca Bryant from Apex Archaeology had previously responded to this for another project. She advised that Apex Archaeology agrees that it is essential to pay attention to material that is unusual and/or out of context. Even though rock material may not have flake scars present indicating that the stone had been knapped to make tools and implements, it doesn't mean it wasn't used. In fact, it may indicate a broader and deeper cultural meaning for the area. Waawaar Awaa Aboriginal Corporation also recommended that harm to Aboriginal objects be avoided where possible and that a program of archaeological test excavation within the study area be undertaken.



The RAP responses are attached in Appendix E.

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 ACHA and accompanying Archaeological Report were provided to all RAPs on 17 February 2023, with comments accepted until 17 March 2023.

Comments were received from three of the RAP groups, namely Amanda Hickey Cultural Services, DCAC and KYWG. All were supportive of the report and its recommendations. It is noted that DCAC represent Dharug people, with the study area located within Dharug lands, and DCAC consider it culturally inappropriate for non-Dharug people to speak for Country. No comments were received from any of the other RAPs for the project.

These comments are detailed further in Table 2 below.

Table 2: Responses regarding draft report

Group	Comment	Response
AHCS	Thank you for your email. AHCS is happy with the ACHA.	Noted with thanks
DCAC	Dharug Custodian Aboriginal Corporation have received and reviewed the report 40 Memorial Ave, Bella Vista. We support the recommendations set out in this report.	Noted with thanks
	Our Country is the traditional land of the Dharug people, who speak the Dharug language. Our Country isn't defined or identified by government bodies and their agencies. These agencies and bodies do not support the people of our Country and are not the traditional custodians and therefore should not be in a position to speak for the	Noted and appreciated.



	Dharug people, Dharug land or Dharug knowledge.	
	Maintaining cultural protocols is fundamental in obtaining knowledge and invoking discussion for Country. To speak directly to and consult with the people of traditional lands, in this case the Dharug people, is necessary to maintain correct protocol and acquire accurate knowledge.	Noted and agreed. Apex Archaeology are required to consult with all parties registering an interest in consultation and will prioritise Dharug voices wherever possible; however we must consider all responses from RAPs.
	It is culturally inappropriate for any Non-Dharug person or group/s to speak on Dharug cultural heritage.	Noted and agreed.
	Dharug people are the only people that have the authority to speak for Dharug Country, and hence should be the only peoples that can and must speak for Dharug Country.	Noted with thanks.
KYWG	Thank you for your report, we would like to agree and support your draft report regarding 40 Memorial Ave, Bella Vista.	Noted with thanks

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.

3.5 PROJECT UPDATES

In order to maintain consultation with the Aboriginal community, a number of updates were sent to the RAPs. These were sent in August 2023, March 2024, September 2024 and March 2025. Responses are detailed in Table 3 below.

Table 3: Responses regarding project updates

Date of Update	RAP	Comment
August 2023	DCAC	“Cheers”
	Bariyan	“Thank you for the update”
	Phillip Boney	“Thank you Rebecca I look forward to hearing from you with more info on this project”
	KYWG	“Thanks for the update. We look forward to working with you on this project”
March 2024	Bariyan	“Thank you for the update”
	KYWG	“Thanks for the update”
September 2024	No responses	
March 2024	Bariyan	“Thank you for the update”



3.6 ACHMP

Additionally, an Aboriginal Cultural Heritage Management Plan (ACHMP) was prepared to guide the future management of the study area with regard to Aboriginal cultural heritage. This document was provided to all RAPs for their review and comment on 4 April 2025.

Two responses were received, with one from A1 Indigenous Services stating “I have reviewed the document and fully support the ACHMP.” A second response from Ngambaa Cultural Connections was received, registering their interest in the project. Apex Archaeology advised they were already registered and noted any comments on the ACHMP would be gratefully received. No further correspondence was received from any of the other RAPs for the project.

The final ACHMP is attached as Appendix I, including relevant consultation.



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 Sydney Basin, which is roughly bounded by the Great Dividing Range to the west, the coast to the east, Newcastle to the north and Durras near Batemans Bay to the south. It is the geographic extent of the Hawkesbury sandstone (Branagan and Packham 2000). The study area is within the Cumberland Plain region within the Sydney Basin and is formed on shale geology with open plain woodlands, and is surrounded by the Hornsby Plateau to the north, the Woronora Plateau to the south, and the Blue Mountains Plateaux to the west (Branagan and Packham 2000). The Cumberland Plain is comprised of generally low gradient, rolling topography, located on shale-dominated Triassic formations, including Tertiary and later alluvial based sediments.

The current study area has been disturbed by previous land-use practices, including land clearing, and construction of residences and sheds in the northern section. All of which have altered the original landscape to some degree. The southern portion of the site has been cleared somewhat and has had ongoing landscape maintenance, however there is less disturbance than within the northern portion of the site. Furthermore Elizabeth Macarthur Creek that meanders through the southwestern portion of the study area appear to be relatively undisturbed.

4.1.1 GEOLOGY, SOILS AND TOPOGRAPHY

The geology within the study area is mapped as Ashfield Shale which was formed from sediment deposited by a large river millions of years ago when Australia was still connected to Antarctica. This has decomposed into a capping layer of clay that underlies the Blacktown soil landscape. In this type of land formation an intact soil profile can consist of up to 30 cm of friable brownish black loam A1 (topsoil) horizon and 10-30cm of brown loam A2 horizon, on clay subsoil. This is relevant because the remains of archaeological cultural material tend to be restricted to the original A1

topsoil horizon but can extend in to the A2 profile by downward movement through natural processes like bioturbation and/or historical man-made impacts. These soils are also vulnerable to erosion if the vegetation cover is no longer present.

The topography of the Blacktown soil landscape in general is characterised by gently undulating rises and broad crests and ridges. The land within the study area slopes gently down to south west.

4.1.2 HYDROLOGY

Watercourse classification ranges from first order through to fourth order (and above) with first order being the lowest, ie a minor creek or ephemeral watercourse, and fourth or above being a large watercourse such as a river, as defined by the Department of Planning and Environment. The closest water course to the study area is Elizabeth Macarthur Creek which is approximately 40 m to the east. It flows parallel to the entire eastern boundary of the study area, except for a portion that is within the southwestern section of the study area, near the junction of Hodges Road and Free Settlers Drive. According to the Strahler System, pictured below, it is a second order water course which would likely to have been an ephemeral water course. A more reliable water course would have been approximately 1.5 km to the north where Elizabeth Macarthur Creek meets Caddies Creek (DPE; Figure 4).

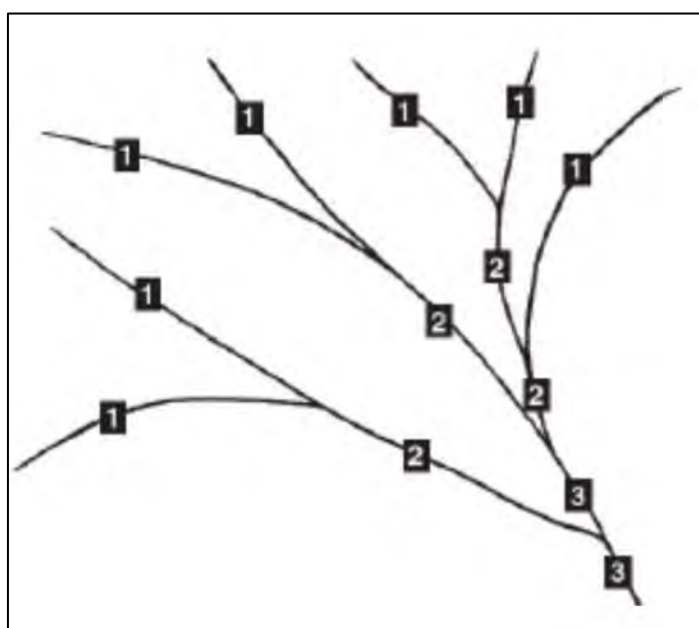


Figure 4: The Strahler system (Source: Department of Planning and Environment 2016).

4.1.3 FLORA AND FAUNA

The native vegetation would have consisted of open forest and open-woodland (dry sclerophyll forest), with tree species including forest red gum (*E.tereticornis*), narrow-leaved ironbark, grey box and spotted gum. This has been extensively cleared across the landscape, but patches of native or regrowth vegetation may remain in undeveloped areas, and in particular along watercourses.



Many of these plants and trees would have provided resources for Aboriginal people, either for dietary needs or to provide tools. These would have provided habitat and food for animals such as possums, wombats, snakes, lizards, and fish in the creeks that were hunted for food, and whose skin and bones were used to make clothing, ornaments, tools and weapons.

4.2 ETHNOHISTORY

Ethnohistorical evidence is based on the reports of colonisers and do 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 Bella Vista 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 original Aboriginal inhabitants of the Bella Vista region were clans of the Dharug (Daruk/Dharuk/Dharruk/Darug) language group (Tindale 1974). Early recorded accounts of European settlers identify some aspects of the traditional lifestyles of Aboriginal people. By studying these accounts, we can reconstruct portions of the Dharug traditional lifestyle.

The traditional lifestyles of Aboriginal groups such as the Dharug depended largely on the environment in which they lived. Whilst hinterland groups relied on freshwater and terrestrial animals and plants, coastal groups utilised marine and estuarine resources. Bella Vista falls within the hinterland region, and the people of the area would have accessed resources associated with Elizabeth Macarthur Creek immediately to the east and its associated tributaries. Animals such as kangaroos, wallabies, possums, gliders, bandicoots, wombats, quolls, fruit bats, echidnas, native rats and mice, emus, ducks, tortoises, snakes and goannas (Attenbrow, 2010), played a major role in the subsistence of hinterland groups.

Plant resources were available year round within the western Cumberland Plain area and a number of important fruits were available in the autumn and winter months, with a greater variety available all year round (Kohen in Attenbrow 2010).

The different environments of the Bella Vista area contain a diverse range of plant and animal species. On creek banks and surrounds, a wide variety of game would have been found. 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.

Inland population densities were assessed by early settlers as being smaller than those on the coast. Historical sources regarding the Cumberland Plain suggest that



there was a minimum population density of 0.5 persons per km². This is comparable to the coastal zone around Port Jackson with estimates being around 0.75 persons per km² (Attenbrow, 2010).

The Dharug people 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 the Dharug were reported to make use of either rockshelters or huts constructed from bark, branches and leaves. Coastal groups tended to build larger huts than the hinterland groups, and on the Cumberland Plain huts were the dominant choice of shelter due to the limited nature of rockshelters (Attenbrow 2010). 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.

Aboriginal society in general 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 (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".

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. Tuff, however, forms from the tiny ash particles that are also released during volcanic explosions. When it cools it hardens into a fine-grained rock.

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'.

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, 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.

Exploration of the wider region continued, and in 1791 expeditions travelled the Hawkesbury and Nepean areas, identifying them as likely spots for agriculture. The first land grants in Bella Vista were made in 1799 to Joseph Foveaux, a soldier in the military who was later appointed Lieutenant-Governor of Norfolk Island. Accounts vary but he was granted somewhere between 300ha to 400ha of land.

Foveaux sold his large estate to John Macarthur a couple of years later who subsequently doubled his land holdings through additional purchases totalling 810 ha. Macarthur used his property to establish one of the first major Australian sheep breeding farms. The land was acquired by the Pearce family in the 1850s and at the time it was known as 'Robertson's Farm'. The large acreage was renamed Bella Vista and remained in the Pearce family for over a hundred years until it was sold in the 1950s (Horner 2022). An article from the Sydney Morning Herald proclaimed "Mr Pearce's orchard is reputed to be one of the largest, if not the largest in the colony, something like 300ha are covered with rows of orange and lemon trees and the fruit seem to rival the leaves in number" (SMH 13 Sep 1887).

Until the mid-1990s Bella Vista was primarily used for small-scale agriculture farms. However, after the construction of the M2 in 1997 it experienced an increase in commercial and residential development due to the proximity to the Sydney CBD. The motor way reduced commute time to just over half an hr in good traffic conditions.

To assess the disturbance that may have resulted from historical occupation, a series of historical aerial photographs dating back to the mid-twentieth century were reviewed. The images show that in 1955 (Plate 1) the study area had been cleared of original vegetation, except for some scattered trees in the southern section. Memorial Avenue has been constructed to the north, and Elizabeth Macarthur Creek is visible and close to the eastern boundary and cutting into the bottom of the study area. The creek appears to follow a natural unaltered path, however the majority of original vegetation would have likely been cleared.

An image from 1978 (Plate 2) shows that the study area remained largely unchanged for 20 years. By 1986 (Plate 3) the current residence and sheds had been built in the northern and middle sections. The vegetation in the southern section around the creek that is seen in historical imagery since 1955 is still visible. A recent 2022 (Plate 4) aerial shows that the original residence is still present and vegetation has thickened throughout the study area. The surrounding blocks have also been subdivided to accommodate new residences.

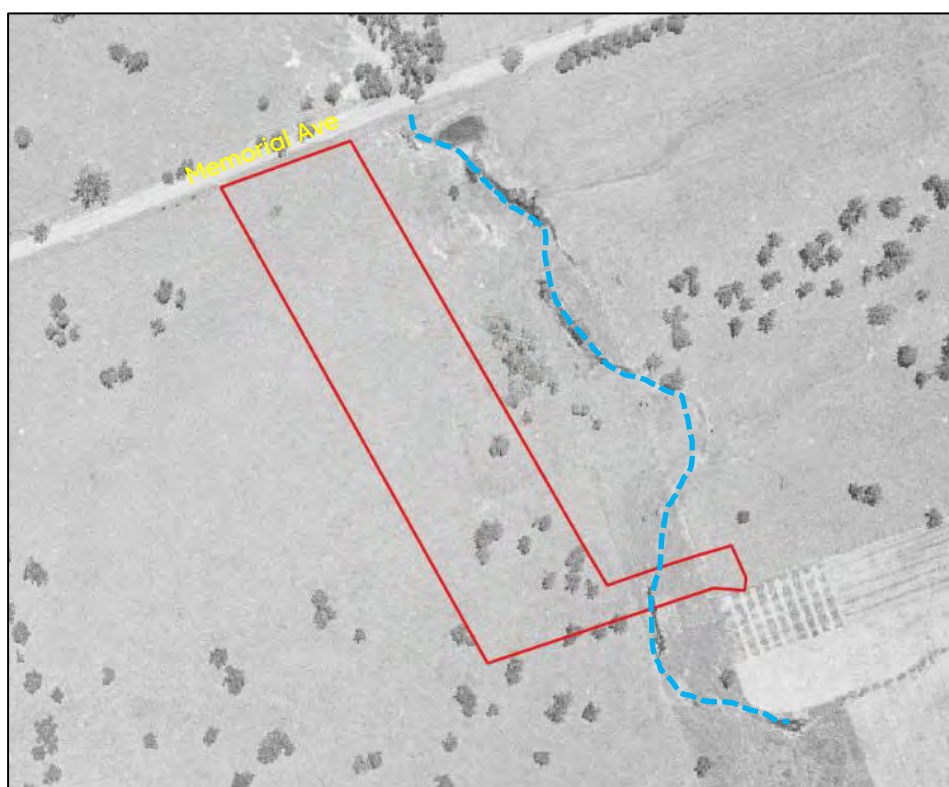


Plate 1: 1955 aerial. Study area outlined in red

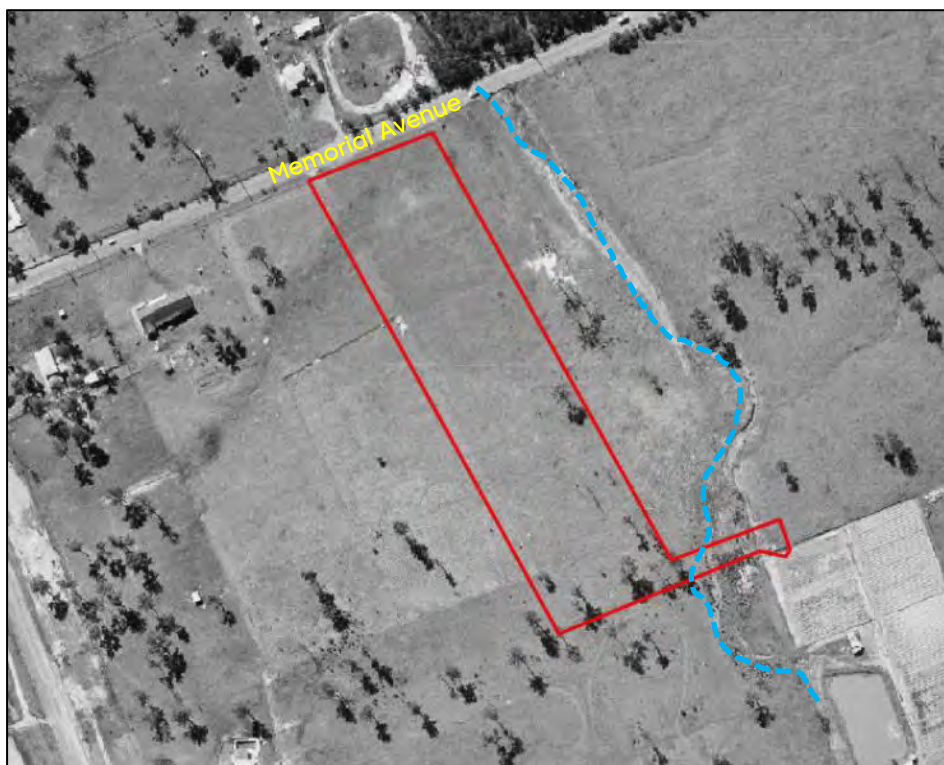


Plate 2: 1978 aerial. Study area outlined in red



Plate 3: 1986 aerial. Study area outlined in red



Plate 4: 2022 aerial. Study area outlined

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

An extensive search of the study area was undertaken on 24 October 2022 within a 1 km x 1 km search area of the lot boundaries. A total of 25 sites were identified. However, one AHIMS #45-5-0989 was 'deleted' as it was a duplicate, AHIMS #45-5-4261 is noted as a duplicate of AHIMS# 45-5-4846, and AHIMS #45-5-4264 is noted as a potential duplicate of 45-5-4839. For the remaining 22 sites they are all listed as 'open sites', meaning they are not within a rock shelter. Rock shelters are generally present where bedrock outcrops on escarpments and the underlying geology of this area is shale.

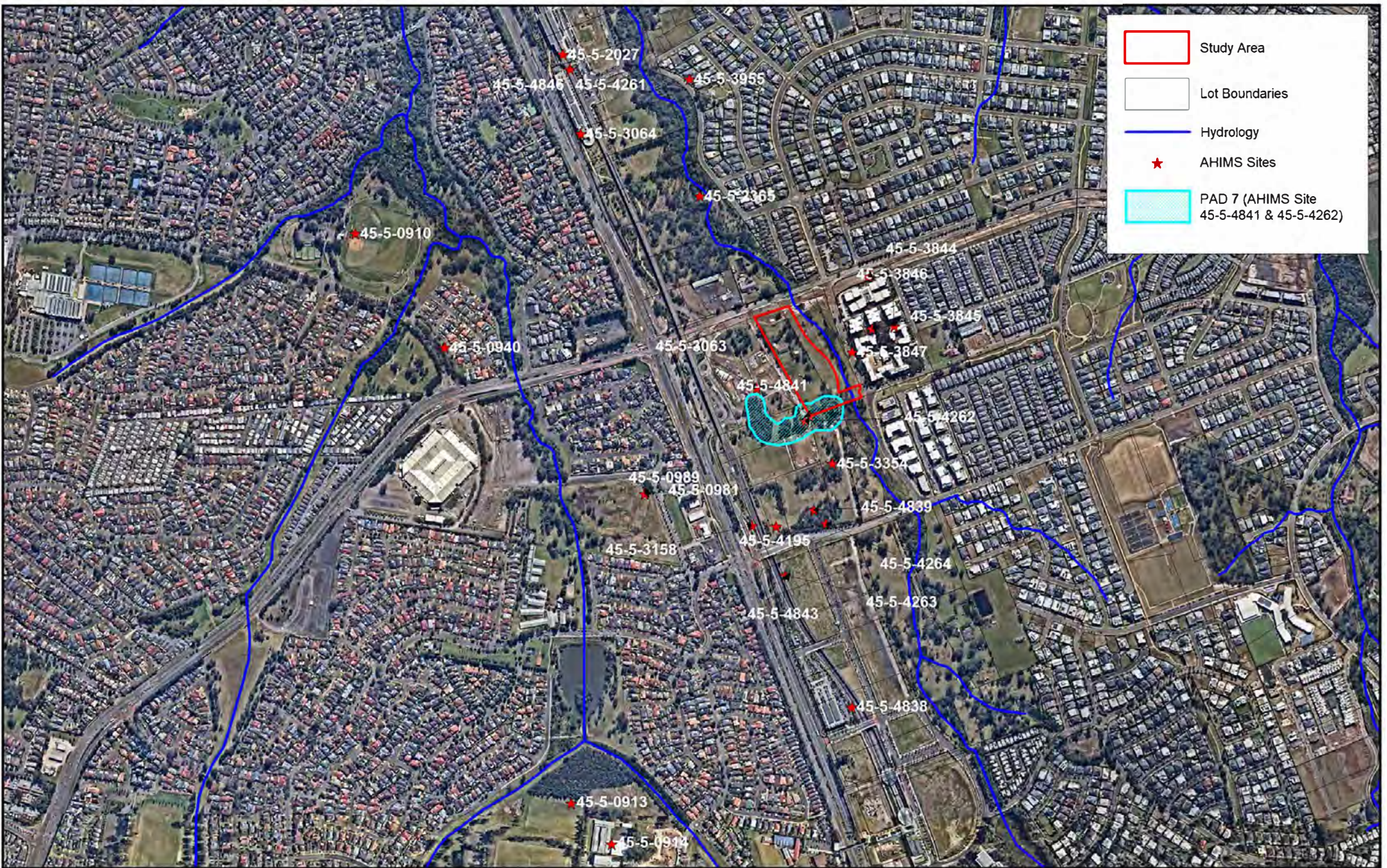
Sites are also recorded with one or more of a set of twenty-two site features specified by AHIMS. For the 22 sites in the search area there are only two site features, 'artefact (stone)' and potential archaeological deposit (PAD)'. Fifteen sites had 'artefact', four had 'artefact' and 'PAD', three had 'PADs'. The artefact sites



could be an isolated stone or a scattering of stone artefacts. The results of this search are shown in Table 4 and Figure 5.

Table 4: Sites identified during AHIMS search

Site ID	Site Name	Site Status	Site Features
45-5-2027	Pk/GD1 near Parklea	Partially Destroyed	Artefact
45-5-0981	OWR IF 2	Valid	Artefact
45-5-0989	OWR IF 2	Deleted	Artefact
45-5-0910	PK/CD 1 Rouse Hill	Valid	Artefact
45-5-0913	PK/CD 4 Rouse Hill	Valid	Artefact
45-5-0914	PK/CD 5 Rouse Hill	Valid	Artefact
45-5-0940	PK/CD 7 Rouse Hill	Valid	Artefact
45-5-2365	KV/CD1 and NWRL PAD 8	Valid	Artefact; PAD
45-5-3063	Burns Road Compound PAD	Valid	PAD
45-5-3064	Burns Road North IF1	Open	Artefact
45-5-3158	WR-IF-1	Destroyed	Artefact
45-5-3354	BRO1	Destroyed	Artefact
45-5-3844	MA1 (Riverstone)	Destroyed	Artefact
45-5-3945	MA2 (Riverstone)	Valid	Artefact
45-5-3846	MA3 (Riverstone)	Valid	Artefact
45-5-3847	MA14 (Riverstone)	Destroyed	Artefact
45-5-3955	Arnold Avenue IF1	Valid	
45-5-4261	NWRL PAD 9 - Duplicate of 45-5-4846	Destroyed	Artefact; PAD
45-5-4262	NWRL PAD7 - Potential duplicate of 45-5-4841	Partially Destroyed	Artefact; PAD
45-5-4264	NWRL PAD 4 - Potential Duplicate of 45-5-4839	Destroyed	Artefact; PAD
45-5-4195	Corner of Taggart Way and Balmoral Road	Destroyed	Artefact
45-5-4838	14 Cumbelege Lane1 and NWRL PAD 6	Destroyed	Artefact; PAD
45-5-4839	NWRL PAD 4 - Potential Duplicate of 45-5-4264	Destroyed	PAD
45-5-4841	NWRL PAD7	Valid	Artefact; PAD
45-5-4846	NWRL PAD 9 - Duplicate of 45-5-4261	Destroyed	PAD





As can be seen in Figure 5, a number of registered sites are on, or in close proximity to Caddies Creek in the western portion of the map, and on or near Elizabeth Macarthur Creek on the eastern side. These sites are within creek corridors that may have only been minimally impacted by historical and natural land disturbance, and can contain intact archaeological deposits as was discussed in the previous section. There are also a series of sites through the middle of the map and a cluster just east of the study area. These sites were, or are, generally within remnant vegetation corridors along Old Windsor Road and in pockets of remnant original vegetation scattered throughout the search area.

There are three sites within 50 m of the study area and are detailed below:

- AHIMS #45-3-3063 (Burns Road Compound PAD) is a Potential Archaeological Deposit (PAD) and is mapped on AHIMS as being approximately 30m to the east of the study area on Elizabeth Macarthur Creek.
- AHIMS #45-5-4841 (NWLR PAD 7) is mapped as being on the southwestern corner of the study area. It is a duplicate of AHIMS #45-5-4262 and has been discussed in detail in Section in 4.1.2 within the summaries of the Kelleher Nightingale Consultancy's 2015 Salvage Excavation report, and the McCardle Cultural Heritage's 2022 Archaeological Due Diligence Assessment.
- AHIMS #45-5-5262 (NWLR PAD 7) is mapped as being approximately 18 m from the southwestern corner of the study area boundary. It is the duplicate of the above mentioned AHIMS #45-5-4841.

As far as can be determined no previous AHIPs have been issued for the study area. However, it was recommended on the site card submitted by KNC in 2015 that an AHIP should be submitted for the remaining PAD within the AHIMS #45-5-5262 site that was partially impacted by KNC's 2015 salvage excavation discussed in section 4.5.2 of this report.

4.4.2 AHIMS SEARCH UPDATE

An updated search of the AHIMS database was completed in May 2025 as the previous search was more than 12 months old. The search returned the same number of sites as originally identified and no additional sites were located within the search area. Thus, the original search results are considered valid. A copy of the updated search is included in Appendix G.

4.5 LITERATURE REVIEW

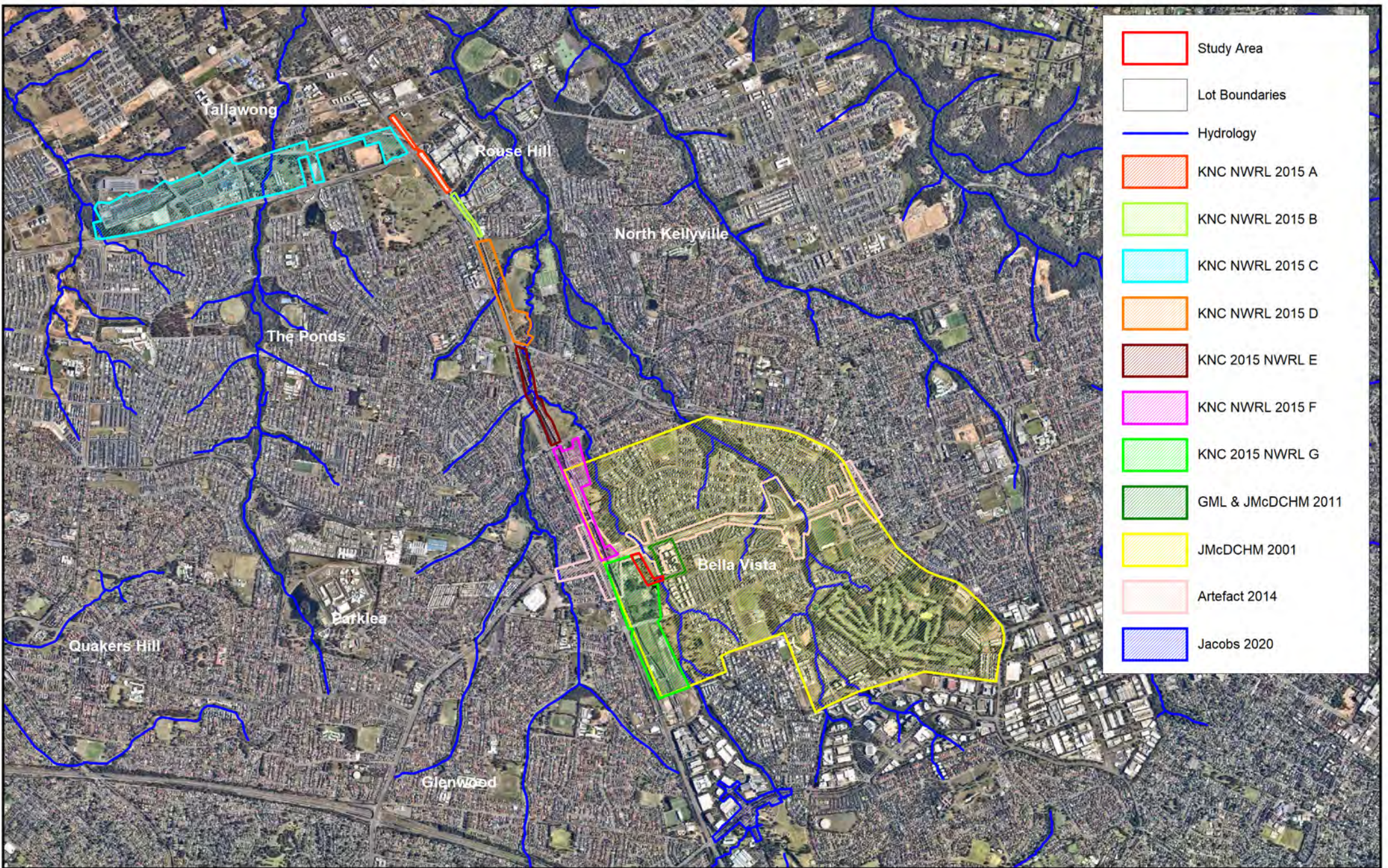
Many archaeological and cultural assessments have been conducted within the Cumberland Plain over the last five decades (Table 5 and Figure 6). A number of these have been undertaken within Bella Vista and the neighbouring suburb of Rouse Hill, that shares the same geology. The majority of these investigation are in response to residential expansion, and associated infrastructure and business developments. However, some projects, where possible, have also included a more-in-depth research component. One of the most influential studies undertaken with



regards to predicting where archaeological sites might be, is the one carried out by Beth White and Jo McDonald within Rouse Hill (White and McDonald 2010). They analysed the spatial and distributive nature of Aboriginal objects and found that the highest artefact densities would generally be found within close proximity to reliable freshwater sources and are on terraces and lower slopes. Known as the stream order model, it also proposed that artefact densities become higher as the stream order increases, and that confluences of creek lines are likely to have stratified deposits and that artefact density.

Table 5: Previous heritage assessments undertaken by archaeological consultants in the region

Consultant	Date	Sites Identified	Region
Vanessa Hardy	2007	None, but recommendations were made for further excavation and assessment.	Rouse Hill
AHMS	2009-2015	27	Rouse Hill, Schofields, Riverstone
Kelleher & Nightingale Consulting	2010	19 artefact sites and seven PADs	Blacktown LGA
GML & Jo McDonald	2011	Four	Memorial Avenue, Bella Vista
GML & Jo McDonald	2012	27 and PADs	Rouse Hill, Bella Vista, Kellyville, Epping, Castle Hill, Cherrybrook
Artefact	2014	Four	Memorial Ave, Bella Vista
Comber	2015	None	Kellyville
Kelleher & Nightingale Consulting	2015	27 sites and 24 were subjected to archaeological salvage excavations with thousands of stone artefacts identified.	Cherrybrook, Castle Hill, Bella Vista, Kellyville, Rouse Hill
AHMS	2015	None – Predictive Archaeological Deposit Map	Riverstone East
Comber	2016	None	Rouse Hill
Apex Archaeology	2017	Test excavation - 6 artefacts recovered	Rouse Hill
Apex Archaeology	2019	Test excavation – eight artefacts	Riverstone
AECOM	2021	Two previously impacted sites within study area	Elizabeth Macarthur Creek, Bella Vista
Apex Archaeology	2022	Test excavation – no artefacts recovered	Riverstone
McCardle Cultural Heritage Pty Ltd	2022	None	Current Study Area
Apex Archaeology	2022	One	40 Memorial Avenue, Bella Vista





4.5.1 REGIONAL HERITAGE ASSESSMENTS

VANESSA HARDY 2007

Cultural Heritage Connections Pty Ltd were commissioned by Integral Energy in 2007 to undertake an Aboriginal archaeological impact assessment for a proposed electrical substation switch building on the corner of Schofields Road and Cudgegong Road, Rouse Hill. The report details previous work undertaken within the area and immediate surrounds and paints a detailed picture of occupation within the Rouse Hill and wider Cumberland plain region. No specific archaeological field work was undertaken as part of this assessment. Recommendations for further excavation and assessment were identified including compilation of a detailed research design and open area excavation to locate discrete activity areas.

ARCHAEOLOGICAL HERITAGE MANAGEMENT SOLUTIONS (AHMS) 2009 – 2015

AHMS was engaged by Sydney Water to undertake a literature review and to develop a predictive model for Aboriginal archaeological for the North West Growth Centre and South West Growth Centre in relation to water related services (pipelines), approximately 2km to the north of the current study area. Thirty-eight km of pipeline was assessed during the field assessment and testing of the predictive model. Twenty-seven Aboriginal sites were identified. These included one artefact scatter, six artefact scatters with associated Potential Archaeological Deposit (PAD), 15 PADs, one scarred tree, and four isolated finds. All of the sites were found within close proximity to major creek lines.

Of particular mention in their report was the A7 Archaeological Complex (45-5-4311). It is an artefact scatter and PAD comprising a low alluvial flat directly east of First Ponds Creek, first identified by ENSR AECOM (2008) as part of a survey of water-related infrastructure for the growth centres. Later the subject of test excavation and salvage (AHMS), in which the site revealed high artefact densities of $>42/m^2$. These excavations revealed a high density, highly significant site, with more than 1,200 artefacts recovered. From a regional perspective, the A7 deposits are not as intact or as archaeologically dense as other sites excavated close to Eastern Creek and Second Ponds Creek. However, the preliminary results from this site demonstrate that First Ponds Creek formed a significant component within the occupation of the region.

KELLEHER & NIGHTINGALE 2010

In 2010 Kelleher & Nightingale completed an Aboriginal Heritage Assessment of the Area 20 Precinct for the NSW Department of Planning. The Area 20 Precinct is located in the North West Growth Centre within the Blacktown Local Government Area, approximately 3.6 km to the north of the current study area. The Area 20 precinct comprises approximately 245 hectares of land to the east of the current study area. Nineteen artefact sites and seven Potential Archaeological Deposits (PAD) were recorded for this assessment. Various management recommendations were also made regarding conservation of sites, test excavation and salvage excavation.



GML & JMCD CHM 2011

Godden Mackay Logan Pty Ltd and Jo McDonald Cultural Heritage Management (GML and JMCD CHM) prepared an Aboriginal Heritage Management Plan (AHMP) for two lots on Memorial Avenue across an area that covered approximately 4 ha. It was located just east of the current study area, on the eastern side of Free Settlers Drive, and contained four registered Aboriginal sites. The area had already been assessed by JMCD CHM who had identified four Aboriginal sites comprising stone artefact scatters and an isolated stone artefact. The purpose of the AHMP was to ensure the protection of an area being preserved for its cultural heritage values. The details of the four sites are as follows:

- AHIMS #45-5-3844 (MA1 Riverstone) is an isolated red silcrete flake located amongst road gravel in the driveway off Memorial Avenue.
- AHIMS #45-5-3845 (MA2 Riverstone) consisted of four red silcrete artefacts (one core and 1 flake, 2 flake pieces) found within a 2 m x 2 m area along an exposed track within a stand of Eucalypts. This surface material was believed to be representative of the type of material that would be buried within an intact deposit. The surface artefacts were assessed to be outside the proposed conservation area, but the associated intact deposit was considered to be within the conservation area.
- AHIMS #45-5-3846 (MA3 Riverstone) consisted of three red silcrete flakes (one complete and two broken). It was located near a wire fence within a 2 m x 5 m area of exposure at the northern edge of remnant woodland, and was within the area that forms part of the proposed conservation area.
- AHIMS #45-5-3847 (MA4 Riverstone) consisted of four red and pink silcrete (one core, one flake with retouch and two angular fragments) found in a 3 m x 4 m exposure within a mound of dirt built up on the northern edge of a motor cross track. These artefacts were considered to be in a less intact context and because of the high levels of previous disturbance this site was not considered to be of conservation value.

It was recommended that the development preserve a woodland corridor within the proposed residential facility. This would include a large portion of remnant Cumberland Plain Woodland, and the widest (eastern) part of the woodland corridor be designated as a 'Core Aboriginal Conservation Zone'. It was concluded that this would result in the preservation of a good sample of potentially intact archaeological deposit with moderate archaeological sensitivity.

ARTEFACT 2014

Artefact was engaged to prepare an Aboriginal heritage assessment for the proposed road upgrade works along a two-kilometre stretch of Memorial Avenue in Kellyville, between Old Windsor Road and Windsor Road, and immediately north of



the study area. The assessment identified a duplicate recording of AHIMS #45-5-0989. Two other sites were identified as being within the study area, namely AHIMS #45-5-3844 and AHIMS #45-5-3847, but these had been destroyed. AHIMS #45-5-2652 was found to be partially located within the development but would not be impacted by the development.

Overall, the assessed area was found to be heavily disturbed and it was recommended that there were no Aboriginal heritage constraints on the proposed upgrade works.

COMBER 2015

Comber Consultants were engaged to provide advice to the Department of Planning & Environment in respect of Aboriginal Cultural Heritage issues for the Kellyville Station Priority Precinct rezoning proposal. The report outlines the following:

- Advice on how Aboriginal heritage items and places should be considered;
- Any development controls that should be considered; &
- The method of how liaison with the Aboriginal community members, Land Council and other relevant stakeholders should be undertaken.

ARCHAEOLOGICAL HERITAGE AND MANAGEMENT SOLUTIONS 2015

AHMS were commissioned by the NSW Department of Planning and Environment (DPE) to undertake an Aboriginal Cultural Heritage Assessment of the Riverstone East Growth Centre Precinct, approximately 4.5 km to the northwest of the study area. Specifically, a map showing PAD potential was developed for the Riverstone East Growth Centre. Recommendations for further work across the entire area were made, including targeted test excavations.

COMBER 2016

In 2016 Comber Consultants were engaged by the Wickwood Property Group to conduct an archaeological assessment of a property located at 59 Cudgegong Road, Rouse Hill, located approximately 6.5 km northwest of the current study area.

APEX ARCHAEOLOGY 2017

Apex Archaeology were engaged by the Wickwood Property Group to undertake further investigations at 59 Cudgegong Road, Rouse Hill, approximately 6.5 km northwest of the current study area. This was based on the 2016 report recommendations of Comber Consultants Pty Ltd. Aboriginal consultation was undertaken in accordance with OEH's *Aboriginal cultural heritage consultation requirements for proponents 2010*. Test excavation under the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* was subsequently conducted and an Aboriginal Technical Report (ATR) was prepared, along with an Aboriginal Cultural Heritage Assessment Report (ACHAR). Twenty-nine test pits were excavated across the property with a total of 6 artefacts being



recovered. The area was assessed to have low archaeological significance within the wider region.

APEX ARCHAEOLOGY 2019

Apex Archaeology undertook an Aboriginal Cultural Heritage Assessment and test excavation program for a proposed residential subdivision at 9 Clarke Street, approximately 10 km northwest of the current study area. The site was identified on the Riverstone East, Schedule 8 Development Control Plan as being within an area of 'Moderate to High Archaeological Potential'. As such, areas considered to potentially contain archaeological subsurface material were targeted for test excavation.

A total of 40 test pits measuring 50 cm x 50 cm were excavated to between 2 cm to 43 cm. All of them generally consisted of natural compact silty clay loam (greyish brown) onto a clay base with evidence of bioturbation throughout, and varying levels of man-made disturbance including road base glass and ceramics.

The excavation resulted in 8 stone artefacts recovered from four test pits. They comprised five silcrete flakes and three indurated mudstone flakes. The small assemblage was considered to represent a low-density background scatter, rather than evidence of long-term density artefact scatter. It was also considered comparable to other sites within the area and conforms to regional site patterning for sites not in close or immediate proximity to higher order watercourses or within elevated landforms.

It was recommended that an application for an AHIP be submitted to impact CS-AD-01 (#45-5-5018) prior to commencement of development works at the site. And that the artefacts retrieved during the excavation be reburied on site and this be recorded on a site card and submitted to the AHIMS data base.

APEX ARCHAEOLOGY 2022

Apex Archaeology undertook an Aboriginal Cultural Heritage Assessment and test excavation program for a proposed residential subdivision at 12 Clarke Street, approximately 10 km to northwest of the study area. The area had initially been subjected to an Aboriginal due diligence assessment by Dominic Steele Consulting Archaeology (DSCA) that had noted that the study area contained areas of subsurface potential along the ridgeline within the northern portion of the property and recommended that the ridgeline be incorporated into two existing registered sites to the east (AHIMS #45-5-5024 and AHIMS #45-5-4956). However, this was not completed.

A total of nine 50 cm x 50 cm test pits were excavated within the study area based on the DSCA due diligence assessment and an additional site survey conducted by Apex Archaeology that focused on less disturbed areas. No artefacts were recovered, and the site was confirmed to have no subsurface potential for Aboriginal cultural material to be present based on the lack of recovered material.



The site cards proposed by DSCA to be updated were not made as the area did not demonstrate Aboriginal archaeological evidence, and it was recommended that no further archaeological assessment was required.

4.5.2 PREVIOUS HERITAGE ASSESSMENTS WITHIN THE CURRENT STUDY AREA

The subject area has been considered either partially or entirely in a number of cultural and/or archaeological assessments. These are discussed in more detail below.

GML & JMcD CHM 2012

GML & JMcD CHM undertook an Aboriginal heritage study for the major civil construction works component of the North West Rail Link (NWRL) that incorporated eight new stations including Bella Vista and Kellyville. A total of 27 Aboriginal sites and areas of PADs were identified during the investigation including two PADs in close proximity to the current study area, comprising AHIMS #45-5-4262 (NWRL PAD 7) and AHIMS #45-5-4261 (NWRL PAD 9). It was recommended that both of these be subject to subsurface archaeological testing and they are discussed below.

AHIMS #45-5-4262 (NWRL PAD 7) was identified during a pedestrian survey between Balmoral Road to Memorial Avenue. Although there was little ground surface visibility due to dense grass cover, the area, except for building constructions, was considered to have been subject to a low level of disturbance. The ridge top, hill slope and flat landforms (overlooking Macarthur Creek) were considered to have the potential for relatively undisturbed archaeological deposits and an area of PAD was identified and registered as NWRL PAD 7 AHIMS #45-5-4262. A portion this site is within the current study area.

AHIMS #45-5-4261 (NWRL PAD 9). Another area was identified on the pedestrian survey that was conducted from Memorial Avenue to Samantha Riley Drive. A raised landform overlooking Elizabeth Macarthur Creek was considered to have moderate archaeological potential for undisturbed archaeological deposits, and was also in close proximity to a previously registered site that contained an isolated stone artefact.

KNC 2015

KNC was engaged to undertake an archaeological salvage for the Sydney Metro Northwest infrastructure project for Transport NSW. The project involved a 23 kilometre rail link to Sydney's North West region and included the construction of eight new railway stations at Cherrybrook, Castle Hill, Showground, Norwest, Bella Vista, Kellyville, Rouse Hill and Cudgegong Road, twin 15 kilometre tunnels from Bella Vista and Rouse Hill and 4,000 commuter car parking spaces.

Archaeological salvage was undertaken to mitigate the impact of project construction on the 27 Aboriginal archaeological sites identified in the Aboriginal heritage technical report. The archaeological salvage program commenced early in



the overall Sydney Metro Northwest construction program. KNC salvaged 24 of the identified Aboriginal archaeological sites between Bella Vista and the stabling area at Tallawong Road at the western extent of the project. The archaeological salvage of the remaining three sites in the eastern portion between Epping and Showgrounds Station was undertaken by RPS Australia East Pty Ltd (RPS).

The salvage program for the 24 identified sites between Bella Vista Station and Tallawong Road involved the hand excavation of 1,168m² of soil resulting in the recovery of 13,019 artefacts, including 250 backed artefacts and a ground-edged axe. Around 90% of all artefacts were made from red silcrete. It was proposed that the salvage areas described a domestic picture, an industry of tool production, and a series of selective activity areas ranging from exploration camps to strategic landscapes. Many of the excavated archaeological sites displayed a continuity of places through time.

A total of seven radiocarbon samples were analysed and it was found that the occupation dates ranged from 4,385 years ago to 570 years ago.

At three of the identified Aboriginal archaeological sites project impacts were limited through design changes, resulting in large portions of these sites to be outside the study area. It was recommended that relevant approvals and associated salvage activities would be required prior to any impact to these remaining sites/portions of sites in accordance with project approvals. Two of the salvages were to the south of the current study area and are discussed separately below.

Details of the salvage of AHIMS #45-5-4262 (PAD NWRL 7)

The KNC investigation included a study area that was bordered by Old Windsor Road to the west, Memorial Avenue to the north, the current study area to the east, and the AHIMS #45-5-3354 (BRO1) archaeological salvage site to the south. Two Aboriginal sites were identified within this area and both were listed as Potential Archaeological Deposits (PADs) that were originally identified in 2012 by Godden Mackay Logan and Jo McDonald Heritage Consultancies as AHIMS #45-5-4262 and AHIMS #45-5-4841 discussed above.

However, these sites are registered under the same site name (NWRL 7) but with different site ID numbers, AHIMS #45-5-4262 and AHIMS #45-5-4841. They are duplicates of the same site and are mapped as being on, and within 20 m (respectively), of the southwest boundary of the current study area. For the purpose of KNC salvage excavation summary, this duplicate site will be referred to as AHIMS #45-5-4262. Although KNC identified that the whole PAD also extends into the current study area, as seen in Figure 6 below, only the portion of the PAD within KNC's study area was subject to salvage.

The PAD site AHIMS #45-5-4262 was positioned on the lower and mid slopes of Elizabeth Macarthur Creek. The excavation involved two phases and was focused on



these lower creek slopes, as the western portion of the PAD (upslope) had suffered erosion and most of the A soil horizon, which is typically the artefact-bearing horizon, was missing. Phase one included the excavation of 13 m² and a total of 34 stone artefacts were retrieved. One of the squares that was positioned 40 m above the creek on a remnant terrace yielded 20 artefacts. Based this high artefact count, phase two was centred around this square and an area of 99 m² was excavated, resulting in 2,859 stone artefacts been recovered.

The artefacts were mainly made from silcrete, which comprised 90% of the assemblage, but other stone including grey silicified tuff, chert, medium-grained silicious material and petrified wood was also used. The artefact types comprised 83 cores, along with tools/implements including recognised tool types and flakes that had evidence of being used, either through further modification or signs of use wear. These included 72 backed artefacts, 7 geometric artefacts, 6 Elouera scrapers, 1 hammerstone fragment, 65 flakes with retouch and 5 with signs of usewear.

The remaining 2,688 artefacts comprised of various flakes that are by-products of the tool-making process. However, these flakes did establish there were two types of manufacturing taking place. One is the percussion method, whereby stone is held in one hand and hit with another stone (hammerstone) to remove flakes. The other is referred to as bi-polar knapping and involves positioning stone on an anvil and hitting it with another rock to remove flakes. This was generally used on small pieces of stone that are difficult to hold by hand such as quartz.

There were three peak density zones recorded over the Phase 2 excavation. These were from three adjoining squares and contained over 200 hundred artefacts each. Charcoal samples were also taken from this area to determine dates for these knapping events. One sample resulted in a date of 3,657 +/- 22 BP.

KNC concluded that the AHIMS #45-5-4262 (NWRL PAD7) site was a focused silcrete reduction site that was part of a larger silcrete production process. It most probably functioned as the middle stage of the process where rocks that had already been procured were taken here for further modification. This was seen in the amount of moderate sized silcrete flakes and the proportion of modified flakes and cores. It would probably not have been involved in the late stage of backed-artefact production.

Additionally, KNC observed that the geomorphic processes of the area underscored the survivability of the deposit within this salvage area. The gradient on the upper slope discouraged the deposition and prevented the accumulation of archaeological deposit. However, the terrace containing the artefact-bearing open area was situated just high enough to be above the flood channel. It was in 'the cultural sweet spot: close enough to resources to encourage occupation, but isolated enough to facilitate the survival of cultural material through time' (KNC 2015: 122).



Figure 7: KNC study boundary in yellow, PAD (NWRL PAD7) shaded in blue and current study outlined in red.



Details of the salvage of AHIMS #45-5-3354 (BRO1) area

The KNC investigation also included a study area that was bordered to the north by AHIMS #45-24262 (NWRL PAD7), Lot 2 DP 1107809 to the east, Balmoral Road to the south, and Old Windsor Road to the West. The BRO salvage area was AHIMS #45-5-3354, but also incorporated: AHIMS #45-5-4839 (NWLR PAD4) a potential archaeological deposit; corner of Taggart Way and Balmoral Road AHIMS #45-5-4195, an isolated stone artefact; and AHIMS #45-5-3158 (WR-IF-1), an isolated stone artefact. All these sites are between 130 m to 300 m south of the current study area.

The excavation involved two phases and was focused on the lower and mid slopes of a spur with an easterly aspect overlooking Elizabeth Macarthur Creek. Phase one of the excavation included AHIMS #45-5-3354 and AHIMS #45-5-4195 over a 16 m² area. It resulted in the retrieval of 47 stone artefacts. Only two artefacts were recovered from AHIMS #45-5-4195 on the mid slope, and 45 artefacts were recovered from AHIMS #45-5-3354 the lower slopes - with one square containing 40 artefacts. On the basis of these results, Phase 2 of the salvage excavation was centred around the square containing 40 artefacts, and an area of 80 m² was excavated resulting in 1,286 stone artefacts been recovered.

The artefacts were mainly made from silcrete, which comprised 94% of the assemblage, but other stone including grey silicified tuff (5%), chert, quartz, petrified wood and igneous material was also used. The red-yellow silcrete was of a normal colour range for the Caddies Creek catchment; however, the deeper red-purple colours characteristic of heat effected chemical changes were noted within objects near the burning events. The artefact types comprised 27 cores, along with tools/implements including recognised tool types and flakes that had evidence of being used, either through further modification or signs of use wear. These included 18 backed artefacts, 1 geometric artefacts, 24 flakes or flake fragments that had been retouched, and two that had signs of usewear.

The remaining 1,293 artefacts comprised of angular fragments (47%) and flake fragment (35%), with only 15% being whole flakes. It was proposed that the high number of angular fragments with no identifiable diagnostics was a result of heat shatter.

It was also noted that there was a high percentage of artefacts with cortex and it was proposed that this was because it was a primary reduction site that utilised locally acquired silcrete cobbles. Furthermore, the identification of two possible heat-treatment pits and a high percentage of heat shatter supports the interpretation that this was a primary production site.

Charcoal samples were taken from approximately 13 to 16 cm below the surface and resulted in a date of 4,385 +/- 38 BP.



In summary it was suggested that this site had a strong relationship with the other salvage site AHIMS #45-5-3354 (PAD NWRL 7). It was proposed that BRO1 was the first stage of the tool production and PAD NWRL 7, was the second stage. However, the available radiocarbon dates for both sites place the occupation of both BRO1 and PAD 7 around 1000 years apart. It was proposed that if the two salvage areas are connected, they would represent a very long term production partnership for silcrete manufacture.

AECOM 2021

AECOM prepared an ACHA for trunk drainage development along Elizabeth Macarthur Creek, on behalf of Sydney Water. The assessment noted that two previously registered sites extended into the study area boundary, and several others, including NWRL PAD 7, were located immediately adjacent to the study area.

Test excavations were undertaken at several locations along the trunk main route, with a total of 34 50 cm x 50 cm test pits excavated across the study area. These were all located on the project area's creek bank. A total of seven lithic items were recovered, with five identified as artefactual based on technical criteria. Five were of silcrete with the remaining two formed of silicified tuff. The overall density of artefacts across the study area was considered to be an average of 0.82 artefacts per m². All artefacts recovered were located within AHIMS sites 45-5-2027 and 45-5-2365, in the northern portion of the study area, while the area of PAD in the southern portion of the study area was noted to be disturbed with no subsurface archaeological deposits present.

Overall, the test excavations were considered to suggest small-scale or limited episodes of lithic discard, although it was noted that the artefact densities observed may be linked to post-depositional processes such as historical flooding activities.

As the project was considered to have at least partial impact to registered sites, it was recommended that a whole of area AHIP be obtained prior to the commencement of works. This AHIP included the eastern boundary of the current study area at 40 Memorial Drive. No further archaeological works beyond application for the AHIP were recommended for the site.

MCCARDLE 2022

McCardle was engaged to undertake an Archaeological Desk Top Assessment, which included a pedestrian survey, for the proposed residential development at 40 Memorial Avenue in September 2022, which is the current study area. McCardle considered the geology and hydrology of the area and proposed that the area would be low in natural resources with no reliable fresh water. The land disturbance was assessed as being highly impacted by previous historical land uses and natural processes such as bioturbation which would have affected the archaeological record.



McCardle also conducted a search of the Aboriginal Heritage Management Information Services register (AHIMS) that identified 27 known Aboriginal sites within the search area. McCardle noted that a duplicate site AHIMS #45-5-4841/ AHIMS #45-5-4262 (NWLR PAD7) ran “along the southern end of the project area” but has been partially destroyed. The boundary extent of this PAD is included in an image in her report (see Figure 8 below), and is shaded as a pink area extending across the southern portion of 40 Memorial Avenue.

McCardle summarises what she considers to be the most relevant archaeological investigations in the surrounding areas and highlights that the highest numbers of sites are within 50 m of a water course and the dominant site types are stone artefact scatters and isolated stone artefacts. The report also focuses heavily on the stream order model and she states that as her study area is close to a second order stream it will have relatively sparse artefact distribution and density, and may represent evidence of localised one-off behaviour.

A separate section of the McCardle report focuses on summarising the KNC 2015 excavation report for AHIMS #45-5-4262 (NWLR PAD 7), which extends into the current study area. McCardle’s overview includes an image of the KNC study area boundary and the extent of the NWLR PAD 7 boundaries. The image is also annotated and includes the KNC excavation area, which also borders the southwest corner of the 40 Memorial Avenue lot boundary. McCardle’s summary of this site does not discuss the relevance of the findings of nearly 3,000 stone artefacts, along with dates that shows the site was used nearly 4,000 years ago, in relation to her archaeological assessment of 40 Memorial Avenue.

McCardle (2022:21) provides a prediction model for her study area that states the following:

Based on the AHIMS search and the background environmental research as well as both the regional and local archaeological contexts, it is predicted that whilst a 2nd order creek is approximately 45 metres from the project area, it would not have provided reliable fresh water and associated resources to allow for more than transitory activities such as hunting and gathering with camping by very small numbers of people only. Evidence of such past Aboriginal land uses are manifest in the archaeological record as a background scatter of disused artefacts.

This statement is not consistent with the findings of KNC who proposed, based on the stone artefacts and manufacturing techniques used, that the area was a tool-production site. Furthermore, KNC highlighted that the geomorphology of the area close to the creek contributed to its remarkable preservation that could be reliably dated.

McCardle only discusses her assessment of the study area in connection with the KNC salvage excavation towards the end of the report, as follows:



The project area, being located on an upper slope and at least 45 metres from a 2nd order creek, no archaeological sites were identified during the survey and 45-5-4841/45-5-4262 (NWRL PAD 7) does not extend into the project area. This is likely due to a number of factors including:

- *Distance from reliable water and subsistence resources indicates the project area was unlikely to have been utilised for camping;*
- *Landform of an upper slope is not suitable for camping;*
- *The project area may have been used for travel and/or hunting and gathering which manifest in the archaeological record as very low-density artefact scatters and/or isolated finds; and*
- *Past and present land uses would have displaced and/or destroyed any evidence of past Aboriginal land use.*

Again, this is not consistent with the KNC 2015 report that clearly shows the NWRL PAD 7 extends into 40 Memorial Avenue and there was a tool production site here.

McCardle concludes her report by stating the following:

It is well established that proximity to water was an important factor in past occupation of the area, with sites reducing in number significantly away from water with most sites located within 50 metres of a water source. The project area is located approximately 45 metres from semi reliable fresh water supply (2nd order) and on an upper slope and as such may be considered unsuitable for camping but may have been utilised for transitory movement or hunting/gathering activities and as this area appears to remain relatively undisturbed, such evidence may be present in that area (between the creek bank and the development footprint).

Reiterating what was stated above, the KNC salvage site is *within* 50 m of a water source and contained thousands of stone artefacts including tools and implements, along with the by-products of stone tool manufacture. It was assessed by KNC, based on compelling evidence, as a toolmaking centre that first started being used approximately 4,000 years ago. The site *does* extend into 40 Memorial Drive and was not included in the KNC salvage excavation as it was not within KNC's area of investigation. Furthermore, KNC states on the AHIMS # 45-5-4262 site card that "the remaining portion of the site (outside NWRL impact area) is likely to have a similar archaeological deposit and would require an AHIP prior to any impact".

Even though Elizabeth Macarthur Creek is considered a second order water course there is no evidence that this would not have provided an adequate supply of fresh water to fulfill the needs of the people who once occupied the area for short and/or long-term stays. The stream order is a predictive model that is incorporated in assessments as a useful base. However, it is imperative that all the evidence, especially the results of previous archaeological investigations of the neighbouring area, be taken onto account when undertaking an archaeological assessment.

The only recommendation McCardle includes is, that before works can proceed the persons responsible of the management of onsite works will ensure that all staff, contractors and others involved in construction and maintenance related activities are made aware of the statutory legislation protecting sites and places of significance. And, should any Aboriginal objects be uncovered during works, all work will cease in that location.



Figure 8: Extracted from McCardle Cultural Heritage’s archaeological report for 40 Memorial Ave. The shaded pink area is NWRL PAD 7 (AHIMS site #45-5-4262/45-5-4841).

APEX ARCHAEOLOGY 2022

Apex Archaeology were engaged to undertake an Aboriginal Cultural Heritage Assessment and test excavation for an area near the corner of Hodges Road and Free Settlers Drive for a proposed bridge. The project was part of the 40 Memorial Avenue, Bella Vista proposed development but had not been included in the McCardle 2022 Aboriginal due diligence assessment discussed above. During the background research it was apparent that the registered site AHIMS #45-5-4262 (NWRL PAD 7) that is located near the southern lot boundary of 40 Memorial Avenue extends into the current study area. This site had been partially excavated in 2015 by KNC, and as discussed above, had identified thousands of artefacts. Furthermore, the AHIMS site card # 45-5-4262 stated that the ‘remaining portion of the site is likely to have a similar archaeological deposit and would require an Aboriginal Heritage Impact Permit prior to any impact’.

As such it was recommend that the area near the junction of Hodges Road and Free Settlers Drive be investigated further. Given that the PAD also covers a portion of the southern section of 40 Memorial Avenue that is surrounded by significant Aboriginal sites, it was further recommended that this lot also be reassessed. The following recommendations were made:

- Further Aboriginal archaeological assessment in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (OEH 2010), including full consultation with the Aboriginal



community in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (OEH 2010), should be undertaken. This may include archaeological test excavations in accordance with the Code of Practice to determine the nature and extent of any archaeological deposits present, and an Aboriginal Heritage Impact Permit (AHIP) application may be necessary following DA approval and prior to works commencing.

- The results of the assessment and potential archaeological test excavations will inform the requirement for an AHIP application to be made to Heritage NSW prior to the commencement of works. Should the results of the assessment identify that no further archaeological investigations or AHIP applications are necessary, works may proceed with caution.
- The proposed works must be contained to the area assessed during this archaeological assessment. If the proposed location is amended, further archaeological assessment may be necessary to determine if the proposed works will impact any Aboriginal objects or archaeological deposits.
- No invasive works should be undertaken within the areas of sensitivity within the study area until further Aboriginal archaeological assessment and investigations are completed.

4.5.3 SUMMARY

In summary there have been five comprehensive archaeological investigations undertaken to the east, south and west of the study area. These included two archaeological salvage excavations undertaken by KNC in 2015 that uncovered thousands of artefacts comprising complete tools and remnant flakes from the tool-making process. Furthermore, the carbon dates undertaken during the excavations showed the area surrounding the southern portion of the current study area began to be used approximately 4,000 years ago.

Additionally, the Gracewood retirement village that is just east of the current study area includes several registered sites and has a portion of the development conserved as a 'Core Aboriginal Conservation Zone'. The management plan for this conservation zone was produced by archaeologist Dr Jo McDonald who assessed the area. McDonald has an enormous amount of expertise on site prediction within the Cumberland Plain and produced the management plan based on the stone artefacts that were identified within her study area, and the intactness of the landform that is expected to retain a significant amount of subsurface artefactual material.

These past archaeological investigations conducted by KNC and Jo McDonald, along with consideration of the natural environment that would have been present at the time of occupation, provide evidence that this area would have been rich in natural resources including plants and animals, and an important place for the Aboriginal people. The people who once resided here for short and/or long stays brought additional 'natural resources' in the form of stone material to the area to process them into tools and implements. These stone raw materials would have most



probably have come from one of a number of known silcrete quarries within the Cumberland Plain, or from the cornucopia of stone material types found in cobble form along the banks of the Nepean River.

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 Cumberland Plain 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 100m of permanent fresh water sources (Kohen 1986), and only 8% of sites located more than 500m 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. 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 pedestrian activity, vegetation clearance, the construction of water drainage and structures within the area over the historic period. Natural actions such as erosion and bioturbation are likely to have also impacted not only the surface, but also at least the upper levels of subsurface archaeological deposits. Whilst these actions may impact the integrity of stratigraphy within the deposit, this does not necessarily mean associated archaeological objects will also be disturbed.

4.6.2 APPLICATION TO STUDY AREA

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; and
- 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 (~3-5mm) 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. A large number of stone artefacts have been found on the surface, and within the subsurface bordering the study area. It likely this type of artefact is within the study area either on the surface, or within subsurface soil deposits.

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.

There are no known stone outcrops and cobbles within the study area and as noted in section 3.1.1, a variety of rock types can be found as pebbles and cobbles along the banks of the Nepean/Hawkesbury River, approximately 18 km to the north. There is also a known silcrete source at Plumpton Ridge in Plumpton approximately 12 km to the southwest of the current study area.

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. There is limited potential for this site type to occur within the current study area.

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.

To date, there are no records of burials being identified within the specific study area or within the surrounding areas. The soil profiles in this area would be quite shallow, except for along creek corridors. It is unlikely to expect burials to occur within the study area. There is potential for this site type to occur outside of the current study area.



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.

Geological mapping indicates that outcropping sandstone does not occur in this area, and it is highly unlikely to occur within the study area.

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.

Geological mapping indicates that outcropping sandstone does not occur in this area, and it is highly unlikely for grinding grooves to occur within the study area.

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.

Given the level of historical land clearing in the past, the likelihood of culturally scarred trees remaining within the study areas is considered low. However, historical imagery indicates that there may be scattered remnant vegetation near the middle of the eastern boundary, and within the southern section, close to Elizabeth Macarthur Creek.

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 the Cumberland Plain in 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 Registered Aboriginal Parties (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 proposed development. Areas considered likely to have archaeological potential were closely scrutinised, although the entire study area was considered.

The sampling strategy included assessment of the entirety of the study area due to the nature of the development proposal, in order to provide an accurate assessment of the study area in relation to the proposed impacts.

5.2 SITE INSPECTION

A site survey was undertaken on 5 December 2022 by Leigh Bate of Apex Archaeology, Raymond Adams of Aragung Aboriginal Cultural Heritage Assessments and Rodney Gunther of Waawaar Awa.

5.3 SURVEY COVERAGE

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. The survey was undertaken in accordance with the sampling strategy prepared for the project.

The study area was surveyed in one pedestrian transect (Table 6 & Figure 9) for the entire property across two landform elements by the three survey participants. Each participant was responsible for inspecting a 2m wide portion of the transect walked. This meant that on each pass an area covering 6m would be observed for archaeological material.

Table 6: Survey units

Unit name	Landform Element	Number of participants	Total Length
ATU 1	Gentle Simple Slope/Flat	3	1064m

During the survey completed by Apex Archaeology the study area was inspected for Aboriginal archaeological evidence. An assessment of landform element and slope was made for the study area, with the results presented in Table 7.

Table 7: Survey area results

Survey Area #	Landform Element	Slope	Vegetation	Detection Limiting Factors	Ground Disturbance
ATU 1	Gentle Simple Slope/Flat	Gentle >1.45°-5.45°	Cleared (grass, residential garden)	vegetation/leaf litter/grass	Low to Moderate



The total survey coverage (meaning the areas physically inspected for archaeological evidence) was approximately 6,384m². The total area of the development impact is approximately 20,300m². 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 8.

Table 8: Survey coverage results






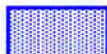
Survey Area #	Total Area Surveyed (m ²)	Surface Visibility (%)	Arch Vis (%)	Exposure Type (A/B)	Effective Coverage (m ²)	% Total Effective Survey Coverage of Context
ATU 1	6,384	15	40	A	383.04	6




Surface visibility across the study areas was low due to surface vegetation such as exotic grasses, leaf litter and weeds. Total effective survey coverage for the entire study area was 1.8 (Table 9).

Table 9: Total effective survey coverage results

Survey Area #	Total Area of Study Area (m ²)	Total Area Surveyed (m ²)	Surface Visibility (%)	Arch Vis (%)	Exposure Type (A/B)	Effective Coverage (m ²)	% Effective Survey Coverage of Context (Total Area)
ATU1	20,300	6,384	15	40	A	383.04	1.8



-  Study Area
-  Lot Boundaries
-  Hydrology
-  Survey Transect
-  Gentle Simple Slope
-  Riparian Corridor

 PO Box 236 NOWRA NEW SOUTH WALES 2541	0 100 200  Meters	Projection: MGA Zone 56 (GDA 94) Base Map: NearMaps 2023 Image Date: 18/01/2023 Final - Version 1	Figure 9: Survey units and survey transect within the study area.	
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5.4 SURVEY RESULTS

The area has clearly been disturbed by past land use practices, particularly in the northern portion of the study area. The area has been used for residential habitation and low intensity animal agistment and has seen vegetation clearance of the entire site along with clearance and ongoing maintenance.

Ground surface visibility (GSV) was low to moderate due to the landuse practices throughout the study area. GSV was rated at 15% overall. No raw material sources were identified within the study area.



Plate 5: Looking west across the northern boundary of the property.



Plate 6: Looking east across the front of the main residence.



Plate 7: Looking south east along the eastern boundary of the property.



Plate 8: Looking south east along the eastern boundary of the property.



Plate 9: Looking south east towards the southern boundary of the property.



Plate 10: Looking north west within the Sydney Water easement and proposed bridge crossing location.



Plate 11: Looking south east within the Sydney Water easement and proposed bridge crossing location.



Plate 12: Looking north across the property from the southern boundary



Plate 13: Looking east across the southern portion of the site showing the area of NWRL PAD 7.



Plate 14: Looking north along the western boundary of the site.



Plate 15: Looking west through the central portion of the site.



5.5 DISCUSSION

Ground disturbance was low to moderate within portions of the study area due to historic vegetation clearance, subsequent agricultural activity and residential development. The majority of the study area is situated on a gentle simple slope running east down towards Elizabeth Macarthur Creek with a generally flat area within the northern portion of the site around the residence. The level of disturbance from prior land clearing activities, agriculture, landscape modification and current land use is observable within sections of the study area, particularly the northern portion. However, landscape modification has not reduced the overall potential for any intact archaeological sub-surface deposits within the southern portion of the study area to occur. Rather, there is a high likelihood of further deposits to occur within the subject site and as such test excavations as described in the following sections were warranted.

5.6 TEST EXCAVATION RESULTS

Test excavation was undertaken across the entirety of the previously identified PAD area (NWRL PAD 7 – AHIMS #45-5-5262).

A total of 21 50cm x 50cm test excavation units were excavated within the study area, as shown on Figure 10. Test pit locations were determined based on visible surface disturbance within the defined PAD area, and areas considered highly disturbed were avoided.

Test excavation pits were placed along transects within the north western portion of the study area. Soils generally conformed to the Blacktown soil landscape. The A1 horizon generally comprised of loose brown silty loam with a high humic level. The A2 horizon is made up of a compact light brown silty loam. Some scattered charcoal flecks were noted from around 20cm depth in some pits. Ironstone and manganese inclusions were also noted close to the basal clay layer of pits. For the majority of test pits basal clay depth ranged between 20 and 30cm.

A total of 64 items were recovered during the test excavation program and are detailed in Section 6.






Plate 16: Example of stratigraphy across site.

Test pits were excavated to a maximum depth of 30cm. Known sites within the study area are shown on Figure 11. Further results of the test excavations are discussed in Section 6.



- Study Area
- Lot Boundaries
- Hydrology
- Test Pits
- Test Pits with Artefacts
- High Density
- NWRL PAD 7
- KNC 2013 Salvage Area (2893 arteacts 112m)

	<p>0 100 200</p>  <p>Meters</p>	<p>Projection: MGA Zone 56 (GDA 94) Base Map: NearMaps 2023 Image Date: 18/01/2023 Final - Version 1</p>	<p>Figure 10: Test Pit layout within the study area.</p>	
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- Study Area
- Lot Boundaries
- Hydrology
- Test Pits with Artefacts
- High Density test pits
- NWRL PAD 7

	<p>0 100 200</p> <p>Meters</p>	<p>Projection: MGA Zone 56 (GDA 94) Base Map: NearMaps 2023 Image Date: 18/01/2023 Final - Version 1</p>	<p>Figure 11: Extent of identified archaeological sites within the study area.</p>	
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6.0 LITHIC ANALYSIS

6.1 INTRODUCTION

This section has been prepared by Dr Beth White of Beth White Archaeology. This report provides an analysis of Aboriginal lithic objects from a test excavation at 40 Memorial Avenue, Bella Vista, on the northern Cumberland Plain. A total of 64 lithic objects were recovered.

6.2 STUDY BRIEF AND CONSTRAINTS

The test excavation was conducted under the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW 2010). This code sets out various requirements of which general requirements #1 to #4 relate to previous archaeological work, landscape context (including potential resources and geomorphic processes), the local and regional character of land use and its material traces, and a predictive model. The lithic analysis is able to contribute to these requirements.

The code has more specific requirements relating to lithic objects, being 18, 19 and part of 26:

- Requirement 18 of the code includes identifying the types of activities which were conducted and evidence for technological change through time (see below sections 6.2.1 and 6.2.2),
- Requirement 19 states that the attributes to be recorded are those on the DECCW AHIMS recording form. The methods used to record objects and meet this requirement are described in Appendix B.

Requirement 26 states that a full catalogue of objects should be prepared, including photographic and drawn records for diagnostic objects if the objects are to be reburied. Photographs and drawings of the backed artefact is included in the body of this report. Photos of some other objects are also included. The catalogue of items is attached as Appendix C.

The Code refers to “artefacts” but in this report the term “object” is used, consistent with the term in the *National Parks and Wildlife Act*. Not all cultural lithics retain the technical features of artefacts (e.g. heat shatters derived from broken artefacts or from heat treatment of lithic materials, unmodified manuports) but they often occur on cultural sites and fit within the definition of object in the legislation (being any deposit, object or material evidence relating to Aboriginal habitation).

6.2.1 DEFINING ACTIVITIES – REQUIREMENT 18

Lithic objects result from sequences of actions relating to the procurement, reduction and use of stone, from when a person first picked up a rock to its discard,



and perhaps subject to further actions after discard (e.g. trampling, recycling, burial). The nature of activities could have varied, resulting in the discard of different numbers of objects and objects with different attributes (Vaquero et al. 2012; Way 2018; White 2012). Literature review has previously identified the following kinds of activities which involved and/or produced stone objects: procurement of stone at its source (e.g. a quarry), preparation of material (e.g. removal of cortex or removal of poor quality stone), carrying objects through the landscape (transport), heat treatment to improve flaking qualities of the stone, reduction of cores to produce flakes, production of shaped tools (e.g. backed artefacts), hafting of tools into handles, tool use, maintenance (retouching) of tool edges, stockpiling, storage (or caching), recycling (reuse of previously discarded stone) and discard (White 2012). In addition, objects and the materials from which they are made may have social or symbolic values which may give other meanings to lithic activities (e.g. Bradley 2008; Brumm 2010; McBryde 1986; Tacon 1991).

Lithic activities could be distinguished by rock type, because objects of different rock types must have originated from different pieces of stone. Some rock types are heterogeneous, such that different pieces of the same rock type have different grain size, inclusions, banding patterns (bedding planes) or flaws. Consequently it is often possible to divide such rock types into separate material units (or analytical nodules) which indicate separate lithic activities (Andrefsky 2009; Larson and Ingbar 1992; Way 2018; White 2012).

The nature of activities could be identified by several methods of analysis, including technical attributes of objects such as flaking stone in different stages of reduction, different core flaking patterns, or production of distinctive tool forms such as backed artefacts. Small size (especially objects less than 10mm in maximum size) generally indicate on-site reduction (flaking or heating) while larger objects could have been produced by on-site reduction or carried (transported) to different sites (White 2012). Conjoining (refitting objects to other objects) is useful because it can demonstrate that some objects came from the same piece of stone (e.g. flakes conjoining to a core or tool) or that some objects could not join due to different size, shape or other attributes. Context may be helpful by considering where particular objects occur and the types or materials of other objects they occur with. Objects from individual activities could also be varied in number or density, e.g. small scale flaking and discard activities would result in few objects and low artefact densities while intensive core flaking may result in larger numbers of objects and high densities focussed in small areas (Way 2018; White 2012).

6.2.2 DEFINING TECHNOLOGICAL CHANGE – REQUIREMENT 18

Requirement 18 also states that recording should “...identify... significant changes in the technologies used to produce stone artefacts throughout time...” (DECCW 2010:28). Change through time occurred on the Cumberland Plain, with a three-phase sequence which could potentially be divided into smaller units.



Phase 1 commenced with initial occupation at or before 35,000 cal BP at Parramatta, Pitt Town and Cranebrook (GML Heritage 2022; JMcD CHM 2005b; Nanson et al. 1987; Stockton and Nanson 2004; Williams et al. 2014, 2017). Lithic assemblages were dominated by IMST and unifacial flaking was the predominant technique (McDonald 2008; White 2017). IMST occurs naturally along the Nepean River and in the Rickabys Creek Gravels on the northern Cumberland Plain (Corkill 1999). Widespread use of IMST suggests the presence of a single group of people who focussed occupation along the Hawkesbury-Nepean River corridor, and who made forays onto the Cumberland Plain and to Parramatta, especially during the Early Holocene (Barry et al. 2021; Williams et al. 2021). Silcrete was sometimes used during the latter part of Phase 1 (Apex Archaeology 2018; White 2018) suggesting increasing use of the Cumberland Plain and its lithic resources.

Phase 2 commenced at c.7,000 cal BP with people making much more use of silcrete, suggesting that people lived permanently on the Cumberland Plain. Backed artefacts were made more frequently after c.5,000 cal BP (Kohen 1986; McDonald 2008; White 2018), possibly accompanied by increasing use of heat treatment of silcrete (JMcD CHM 2005a:323-325, 2005b). A variety of reduction techniques were used to produce flake blanks for backing, including unifacial, bifacial and asymmetric flaking, with varying amounts of core rotation (White 2018). Silcrete occurs naturally at many locations across the northern Cumberland Plain. The subject area is located c.7 km from a silcrete quarry at Westminster Street, Schofields (AECOM 2010) and c.8 km from silcrete quarries on Plumpton Ridge at Colebee (JMcD CHM 2006).

A regional analysis of Phase 2 silcrete assemblages identifies several trends with increasing distance from quarries – the proportions of broken objects decrease, bipolar artefacts increase slightly, large artefacts (more than 30 mm in size) decrease, cortical objects decrease, plain platforms decrease and focal platforms increase. Inter-site variation is present with some related to technological change through time (White 2018). Such trends are common in Australia and are usually referred to as distance-decay (e.g. Byrne 1980; Hiscock 1988).

Within the last 1,500 to 2,000 years people sometimes used quartz more often and sometimes used bipolar flaking to reduce silcrete, IMST and other materials, in addition to bipolar flaking of quartz (Corkill 1999; Koettig 1985; White 2021). Bipolar flaking enabled very small cores to be flaked and has been interpreted as an expedient flaking technology associated with decreased residential mobility (Hiscock 1996; Parry and Kelly 1987) or altered access to material sources (White 2018). This late technological shift suggests that social arrangements may also have been changing, though the nature of such changes are as yet poorly understood.

6.3 SPATIAL DISTRIBUTION OF OBJECTS IN THE LANDSCAPE

The density and nature of lithic distribution within the Rouse Hill district has been analysed (White and McDonald 2010). Sample areas associated with 1st order



streams usually have very low average densities of objects (overall density of less than 1.0 objects/m²) and sparse distributions with most test pits containing no objects. With increasing stream order, average densities tend to increase, and distributions tend to become more continuous; average densities for 2nd order streams increase to c.7 objects/m² and for 4th order streams increase to c.14 objects/m². There are exceptions to the trends, such that a few sites have higher average densities and more continuous distributions than expected for their stream size; and some sites have lower densities and sparser distributions than expected.

An activity overprint model has been developed to describe the nature of lithic accumulations at smaller spatial scales (Baker 2000; Owen and Cowie 2017). Under this model people would have repeatedly occupied sites close to resource areas, especially streams. This would result in a complex activity zone, with numerous and overlapping knapping concentrations and other activity areas. This zone would have patches of higher lithic densities within a near-continuous lithic distribution. Further from the resource zone there would be a dispersed zone, where knapping concentrations and other activity areas would be spatially discrete, due to fewer occupation events and/or the purposeful positioning of activities away from residential areas. Beyond the dispersed zone people would have discarded lithics during use or loss rather than manufacture, resulting in a sparse zone of lithic distribution.

Williams et al. (2021) argue that the nature and distribution of lithic objects in the region describes the history of occupation, with limited widespread ephemeral occupation during Phase 1 and more extensive occupation with more complex and diverse technologies during Phase 2. However White (2018, 2021) suggests that long-term geomorphic processes of soil formation, erosion and deposition could have affected the accumulation and survival of lithic objects, and these processes should be considered when interpreting the nature and distribution of lithic objects in the region.

In the Rouse Hill district many sites occur on alluvial flats or terraces but there have been relatively few investigations to determine how old those landforms are. The most detailed investigations have been carried along Second Ponds Creek at site RH/SP12south (JMCD CHM 2005b). Charcoal from a pond infill was dated to c.9,550-9,430 cal BP (Wk-16231) indicating that sediments accumulated along the stream channel during the Early Holocene, and at other times. The overlying terrace was c.1 m higher than the age determination from pond infill, so the terrace surface formed much more recently than c.9,500 cal BP. Four other age determinations from charcoal within the A horizon soils on the terrace fell between c.3,700 and 290 cal BP (JMCD CHM 2005c), suggesting that the terrace formed an occupiable land surface by c.4,000 cal BP or earlier.

Along Caddies Creek at site PK/CD1+2 eight age determinations are available from charcoal features in A horizon soils on a terrace/flat landform with a complex



surface morphology (Balme et al. 2001; McDonald and Rich 1994; Rich 1993). The oldest feature dates to 7,350-6,150 cal BP (Wk-3606), but most were much younger, ranging between c.1,160 and 290 cal BP (Beta-66451 and Wk-4536). The oldest age determination indicates that part of the terrace/flat was occupiable by the mid Holocene, while other parts of the landform may have formed at different times. About 2km north at NWRL-PAD10/Area C three radiocarbon age determinations were obtained for alluvial soils associated with a 2nd order tributary of Caddies Creek (KNC 2015). These age determinations are relatively young, between 909 and 526 cal BP (WK-38789, 38790, 38791) suggesting active flooding and sediment deposition during the last 1,000 years.

Along Elizabeth Macarthur Creek, immediately south of the current subject area at NWRL-PAD7, a radiocarbon age determination of 4,084-3,898 cal BP (Wk-38788) was obtained by KNC (2015) for charcoal associated with numerous artefacts. At BRO1 on a terrace (possibly the same terrace) 70m further south an age determination of 5,256-4,852 cal BP (Wk-38787) was obtained (KNC 2015).

Overall the available age determinations suggest that flats and terraces associated with 2nd and 3rd order streams within the Rouse Hill district may have formed occupiable land surfaces only within the mid to late Holocene. The presence of rich sites on some terraces could lead to a false impression that the district was occupied intensively only within the late Holocene; a potentially false impression because earlier occupation evidence could not be present on such young landforms.

A broader regional analysis (White 2018, 2021) has found that sites in lower landscapes (below 50m above height datum) drained by 4th order and larger streams often retain older and younger objects (from both Phase 1 and Phase 2 occupation). But sites at higher elevations drained by small streams (1st, 2nd and 3rd order streams) usually have very few or no older Phase 1 objects. Aside from the potentially young age of terrace landforms associated with small streams, it is possible that older objects on hill slope sites may have been present but fragmented (e.g. heat shattered) and/or removed by erosion during the past 7,000 years or so. So long term geomorphic processes could have contributed to the appearance of more intensive occupation of the region during the late Holocene.

6.4 ANALYSIS OF LITHIC OBJECTS FROM THE TEST EXCAVATION

A total of 64 lithic objects were recovered from the test excavation. Most are of silcrete with four of IMST, three of quartz, one of silicified wood and one of quartzite (Table 10). One small triangular silcrete backed artefact is present, which has a high backed artefact symmetry index (BASI) of 0.83 (Plate 17, Figure 12). This BASI is much higher than predicted by Hiscock (2014) for the Greater Sydney region.

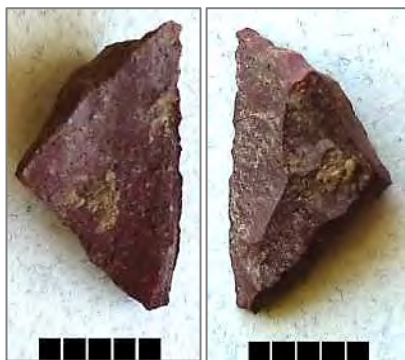


Plate 17: Silcrete backed artefact #10, from TP12 spit 1.

Ventral and dorsal surfaces. Scale in 1mm increments.

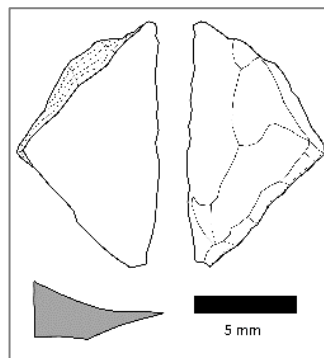


Figure 12: Silcrete backed artefact #10, from TP12 spit 1.

Two silcrete ores were recovered, both from test pit #14. Core #33 (Plate 18) has one asymmetric platform and a single elongate scar with a hinge termination. It was made on a heat shattered piece of a previously flaked artefact. Core #34 (Plate 19) has one asymmetric platform opposite one bifacial platform. The core was flaked back towards a partially cortical surface. Both cores were oriented so that flakes were removed from their long axis. These cores are the only objects in this test pit suggesting that they may have been left at this location at the same time.

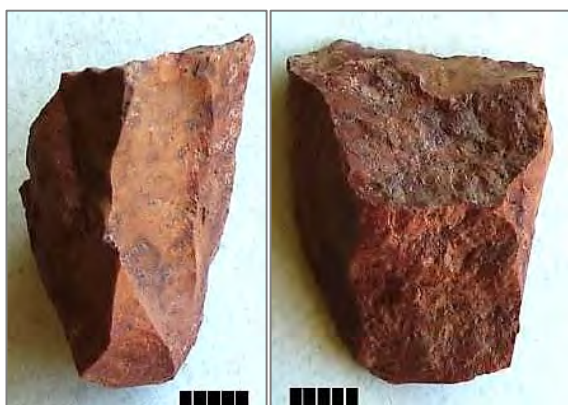


Plate 18 Silcrete core #33, from TP14 spit 2.

Right image shows heat shatter surfaces. Scale in 1mm increments.

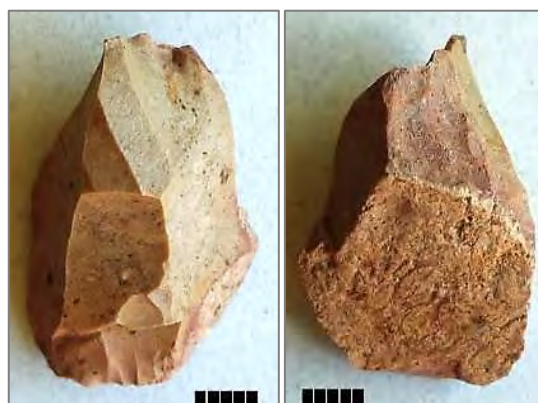


Plate 19 Silcrete core #34, from TP14 spit 3.

Right image shows partial cortex. Scale in 1mm increments.



Table 10 Lithic materials and object types.

Category	Type	Silcrete	IMST	Quartz	S Wood	Quartzite	Total
Backed artefact		1					1
Cores		2					2
Bipolar artefact	Flake			1			1
	Proximal			1			1
Platform artefact	Flake	14	1				15
	Proximal	7	2				9
	Proximal/right	1					1
	Cone-split/left	5					5
	Cone-split/right	4					4
FF/FP artefact	Medial	4	1	1	1		7
	Distal	7					7
	Distal/left	1					1
	Distal/right	1					1
	Flaked piece	1					1
Remnant flaked surfaces		6					6
Indeterminate		1					1
Manuport broken	Cobble piece					1	1
Total objects		55	4	3	1	1	64

The remainder of the assemblage consists of unretouched objects. There is a relatively low rate of breakage, with 17 silcrete objects, of 54 flaked objects, being unbroken (31%, not including recently broken objects refitted for this analysis). This breakage rate is relatively low for the region and consistent with the site's location c.7-8 km from known silcrete quarries (White 2018:236). As the breakage rate is consistent with the regional breakage pattern it is unlikely that modern land use has substantially increased the breakage of objects at the site.

Other notable finds include two quartz bipolar artefacts from test pit #6 and test pit #13. A piece of a broken quartzite cobble manuport was recovered from test pit #19C.

Most silcrete objects are small, with only two objects more than 30 mm in size (Table 2); both from test pit #12B. One (#20) is a heat shattered fragment of a larger flaked object and the other (#23) is an elongate flake. An IMST elongate flake is also relatively long, measuring 59 mm.

Fifteen unretouched silcrete flakes and proximal broken flakes more than 10 mm in size retain classifiable platforms. These are mostly plain or focal, while two have scars and one is faceted. Two quartz artefacts are bipolar. This is a very small sample



but generally consistent with the regional character for a site located 7-8 km from a silcrete quarry.

Table 11 Lithic materials and maximum size.

Lithic material	5.5-10	10.5-15	15.5-20	20.5-25	25.5-30	30.5-35	35.5-40	55.5-60	60.5-65	Total
Silcrete	3	15	16	8	11	1	1			55
IMST	1	1			1			1		4
Quartz	1	2								3
S Wood		1								1
Quartzite									1	1
Total	5	19	16	8	12	1	1	1	1	64

Table 12 Lithic materials and classified platforms on unretouched flakes and proximal broken flakes.

Lithic material	Plain	Ridge	Scars	Faceted	Focal	Bipolar	Total
Silcrete	7	1	2	1	4		15
IMST		1					1
Quartz						2	2

6.5 SPATIAL AND VERTICAL DISTRIBUTION OF THE ASSEMBLAGE

Objects occur as a discontinuous scatter, being present in 9 of the 21 test pits (Table 13, Table 14). Test pits lacking objects are interspersed between test pits containing objects (Figure 13). Test pits #12 and #19 have higher counts of 10 and 16 objects respectively. These were expanded to 1 x 1 m squares and are discussed below. Here it can be noted that the expansion pits (quads B, C and D) have lower counts than the original test pits, with no objects recovered from pit #19D. This suggests that test pits #12 and #19 may have intercepted the edges of two activity areas.

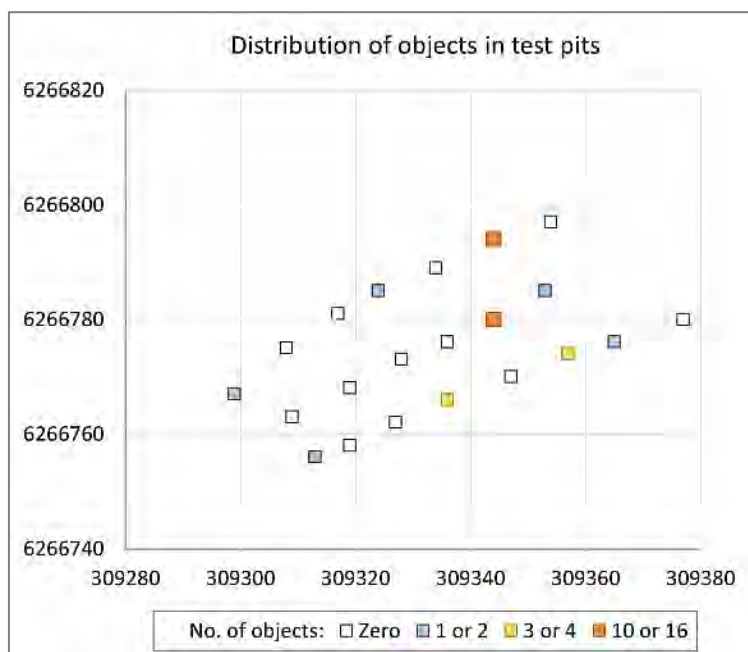


Figure 13 Distribution of objects in test pits.

Table 13 Summary distribution of objects in test pits and expansion pits.

	Numbers of objects in each test pit							Totals
	Zero	1 or 2	3 or 4	5	8	10	16	
No. of test pits	12	5	2			1	1	21
No of expansion pits	1	1		3	1			6
No. of objects	0	8	7	15	8	10	16	64

Most objects occur in spit 2 and spit 3, being the middle to upper part of the deposits (Table 14). This kind of vertical distribution is usual for this region (White 2021) and means that objects have not been moved vertically by natural soil processes (e.g. bioturbation) to form stone lines at the base of the soil's A horizon, as has been previously proposed (Dean-Jones and Mitchell 1993; Hughes et al. 2014; Mitchell 2005, 2006). There is no indication that different material types occur at different depths in the deposit (Table 15).

Table 14 Lithic objects in test pits with depth of deposit (5 cm spits).

Spit	Test pits														Total
	1	4	6	7	12A	12B	12C	12D	13	14	17	19A	19B	19C	
Spit 1					1								1	1	3
Spit 2		2	1		6		2		1	1	1	6	4	4	28
Spit 3	1	2		1	3	2	3		1	1		10		3	27
Spit 4			2			3		1							6
Spit 5															-
Spit 6															-
Spit 7															-
Total	1	4	3	1	10	5	5	1	2	2	1	16	5	8	64

Note to Table 14: Orange shading indicates depth of excavation.

Table 15 Summary of lithic materials with depth of deposit.

Spit	Silcrete	IMST	Quartz	S Wood	Quartzite	Total
Spit 1	3					3
Spit 2	23	2	2		1	28
Spit 3	25	1		1		27
Spit 4	4	1	1			6
Total	55	4	3	1	1	64

6.6 TEST PITS WITH HIGHER COUNTS

6.6.1 TEST PIT #12

Ten (10) objects were recovered from test pit #12 so this test pit was expanded to a 1 metre square by excavation of three additional 50 cm squares. A total of 21 objects were recovered. These include the backed artefact (Plate 17) and elongate IMST flake (Plate 20) noted above. The nature of the silcrete varies, so more than one piece of silcrete may have been flaked (Plate 21 to Plate 24). Some of the material is quite flawed.



Plate 20 Elongate IMST flake #11, from TP12A spit 2.
New break, pieces refit. Scale in 1mm increments.

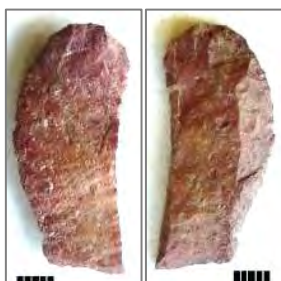


Plate 21 Silcrete elongate flake #23, from TP12B spit 4.
Ventral and dorsal surfaces. Scale in 1mm increments.



Plate 22 Silcrete long flake #17, from TP12A spit 3.
Ventral and dorsal surfaces. Scale in 1mm increments.



Plate 23 Wide silcrete flake #12 from TP12A spit 2.

Note poor quality material distal, right lateral and platform. Scale in 1mm increments.

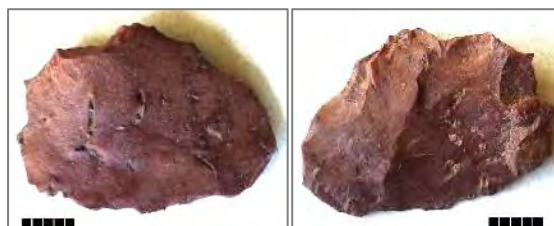


Plate 24 Wide silcrete flake #18 from TP12A spit 3.

Ventral and dorsal surfaces. Scale in 1mm increments.

6.6.2 TEST PIT #19

Sixteen (16) objects were recovered from test pit 19, so this test pit was expanded to a 1 metre square by excavation of three additional 50 cm squares. A total of 29 objects were recovered, with most occurring in spit 2 and spit 3. All but one –the quartzite broken cobble manuport – are of silcrete. The nature of the silcrete varies with some being very fine grained with a low sheen (lustre) and mottled appearance (Plate 25 and Plate 26). Some material is coarser grained and flawed. Multiple pieces of silcrete may have been taken to this location for flaking.



Plate 25 Silcrete distal piece #48, from TP19A spit 3.

Ventral and dorsal surfaces. Scale in 1mm increments.



Plate 26 Silcrete flake #58, from TP19C spit 2.

Ventral and dorsal surfaces. Scale in 1mm increments.



Plate 27 Skewed elongate proximal broken flake #53, from TP19B spit 2.

Scale in 1mm increments.



Plate 28 Silcrete distal piece #52, from TP19B spit 1.

Ventral surface. Scale in 1mm increments.



Plate 29 Silcrete flake #62, from TP19C spit 3.

Ventral surface. Scale in 1mm increments.



6.7 ACTIVITIES

The minimum number of flaking and/or discard activities that were carried out may be indicated by different types of lithic materials and by spatially discrete location (see section 1.3). This approach identifies a minimum of 15 lithic activities (Table 7). The activities indicated by a silicified wood fragment and the quartzite manuport cobble piece are identified only from the expansion test pits, not from the initial testing.

It is difficult to identify the nature of activities as test pits are unlikely to recover all related objects from activities. However increased numbers of objects of similar stone indicate that intensive core flaking was probably conducted at test pits #12 and #19.

Table 16 Lithic materials in test pits and minimum number of activities.

Pit	Silcrete	IMST	Quartz	S Wood	Quartzite	Total	Minimum no. of activities
TP1	1					1	1
TP4	3		1			4	2
TP6	2		1			3	2
TP7	1					1	1
TP12	16	4		1		21	3
TP13	1		1			2	2
TP14	2					2	1
TP17	1					1	1
TP19	28				1	29	2
Total	55	4	3	1	1	64	15

6.8 CHRONOLOGICAL INDICATORS

The backed artefacts and predominance of silcrete objects indicates occupation during Phase 2. The presence of two quartz bipolar artefacts suggests a possibility of occupation during Phase 2B but a larger number of objects (sample size) would be necessary to be confident of this.

There is no evidence from the vertical distribution of objects for occupation during Phase 1. This would be expected if the terrace formed only within the mid to late Holocene (see below).

6.9 COMPARISON WITH NWRL-PAD7

Test excavation, followed by salvage excavation, was carried out within NWRL-PAD7 immediately south and west of the current subject area (KNC 2015). Thirteen (13) test pits were excavated, each measuring 1m² and 34 objects were recovered at an average density of 2.6 objects/m². A maximum count of 20 objects was found in one



square. Objects were present in eight other test pits with fewer than five objects in each of those pits.

The larger test pit size used by KNC (2015), compared to the 50 cm pit size now used by most studies (DECCW 2010) means that the data from the two test excavations are not directly comparable. The available data (Table 17) suggests that 40 Memorial Avenue has a higher average density than the adjacent testing and identified two high density locations compared to one identified by the previous testing.

The two higher density test pits have counts of 10 and 16 objects each (test pits #12 and #19 respectively). These were expanded to a 1 metre square with increased counts of 21 and 29 objects respectively. These latter counts for the 1 metre square are in line with the count of 20 objects for the higher density test pit identified by KNC (2015).

Table 17 Density and distribution of objects at 40 Memorial Avenue compared to KNC testing of NWRL-PAD7.

Project	Test pit size	Total test squares	Total area m ²	Total objects	Average density/m ²	Area m ² with zero counts	No. of high-density squares
KNC testing	1 m ²	13	13	34	2.6	4	1
This study	50 cm ²	21	5.25	40	7.6	3	2

KNC (2015) conducted open area excavation around their high-density test pit, recovering 2,879 objects from a 100m² area. The objects derived from multiple lithic activities. The results from that excavation indicate the archaeological potential of the two higher density test pits at 40 Memorial Avenue.

Additionally, KNC (2015) recovered charcoal in close spatial and vertical association with numerous objects, including backed and retouched artefacts. An age determination of 3,657 ± 22 BP (Wk-38788) (KNC 2015:116), or 4,084-3,898 cal BP, was obtained for the charcoal. KNC (2015) argued that the age determination provides an age for the lithic activities, but it also indicates that the terrace surface had formed by that time (see section 6.3). It would be useful to obtain additional age determinations for comparison with the KNC result.

6.10 COMPARISON OF DENSITY AND DISTRIBUTION WITH OTHER STUDIES

As noted above (section 6.3) several studies have considered the spatial distribution of objects within the Rouse Hill district, and more generally on the Cumberland Plain. As noted above previous analysis was based on 1 metre square test pits (White and McDonald 2010) but the current standard for test excavation is based on 50 cm test pits (DECCW 2010). To assess the density and distribution of lithic objects at 40



Memorial Avenue, available data is compiled for local test excavations which were conducted in 50 cm squares, not including expansion pits (Table 18). Sites are associated variously with 1st, 2nd and 3rd order streams (Apex Archaeology 2022a, 2022b, in prep.; Eco Logical 2016, 2021; GML Heritage 2013). To compare these sites to those associated with larger streams additional data from the St Marys Development Site are also included (GML 2018; GML+JMCD CHM 2013).

The subject area at 40 Memorial Avenue has an average of 1.9 lithic objects per test pit, which is within the range of variation for 2nd order streams (Figure 14). Objects occur in about two-fifths of test pits which is also usual for 2nd order streams (Figure 15). The distribution indicates the presence of a dispersed distribution of the activity overprint model (Baker 2000), with some locations apparently lacking objects and some locations having higher densities from intensive flaking activities.

Table 18 Distribution of lithic objects in test pits at 40 Memorial Ave and comparative projects.

Sample area	Zero	1 or 2	3 to 5	6 to 10	more than 10	Maximum count	Total test pits	Total objects	Reference
40 Memorial Ave, Bella Vista	12	5	2	1	1	16	21	40	This report
160 Cranbourne St, Rouse Hill	20	20	5	2	2	24	49	103	Apex Archaeology 2022c
Hambledon Rd/Area A	24	1	2	2	1	39	30	58	Eco Logical 2021
Hambledon Rd/Area C	7	2				1	8	2	
Hambledon Rd/Transect A	12					-	12	0	
Hambledon Rd/Transect B	11	2				2	12	2	
Hambledon Rd/Transect C	17	1	2			5	20	9	
Hambledon Rd/Transect D	14		2	2	1	16	19	38	
Hambledon Rd/Transect E	16					-	16	0	
Hambledon Rd/Transect F	16	1	2		1	24	20	33	
Hambledon Rd/Transects I&J	4	1	1			2	6	3	
48 Boundary Rd	12	6	2			4	20	15	Apex Archaeology 2022b
54 Boundary Rd	5	2	1			3	8	5	



Sample area	Zero	1 or 2	3 to 5	6 to 10	more than 10	Maximum count	Total test pits	Total objects	Reference
Commercial Rd	12	2	1			3	15	5	Apex Archaeology 2022a
Park Road Area 1	13	4	2			4	19	12	Eco Logical 2016
Park Road Area 4	3	8				-	11	13	
Marsden Park/Transect 2	17	5				1	22	5	GML 2013
Marsden Park/Transect 3	14					-	14	0	
Marsden Park/Transect 4	16	1				1	17	1	
Marsden Park/Transect 5	17	2				1	19	2	
Marsden Park/Transect 6	16	2				1	18	2	
Marsden Park/Transect 7	6					-	6	0	
Marsden Park/Transects 1&8	24	2				1	26	2	
Marsden Park/Transects 9& 10	9	3				1	12	3	
Basin I/Area 4	7	2				1	9	2	GML Heritage 2021
Basin I/Area 5	11	2				1	13	2	
Basin I/Area 6	10	1	2			4	13	8	
Basin I/Area 7	15	1				1	16	1	
Basin I/Area 8	17	8		2	1	14	28	40	
Basin I/Area 9	8	3				2	11	5	
Basin I/PAD1	9	4				2	13	5	
Basin I/PAD2	1	1	3	2		7	7	27	
Basin I/PAD3		23	23	10	1	11	80	210	
Central Precinct/1	4	4	2		2	28	12	53	GML + JMCD CHM 2013
Central Precinct/2	2	4	2			5	8	15	
Central Precinct/3	12	13	18	3		10	46	116	
Central Precinct/4	10	11	8	4	1	14	34	97	
Central Precinct/5	8					-	8	0	
Central Precinct/6	9	14	13	4		9	40	99	

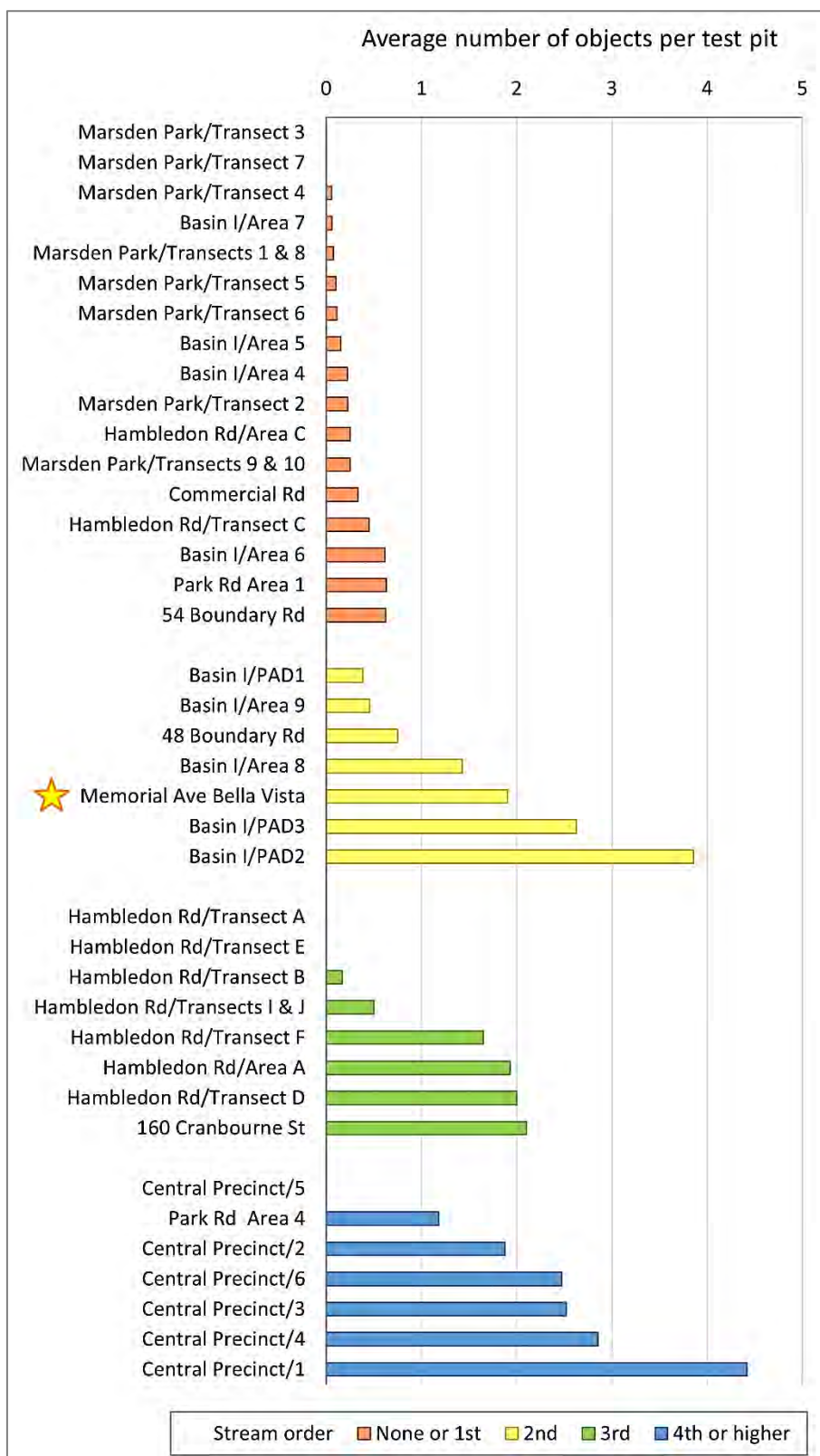


Figure 14 Average number of lithic objects in test pits at Memorial Avenue and other sites.

*Sorted by stream order and average number of objects per test pit.

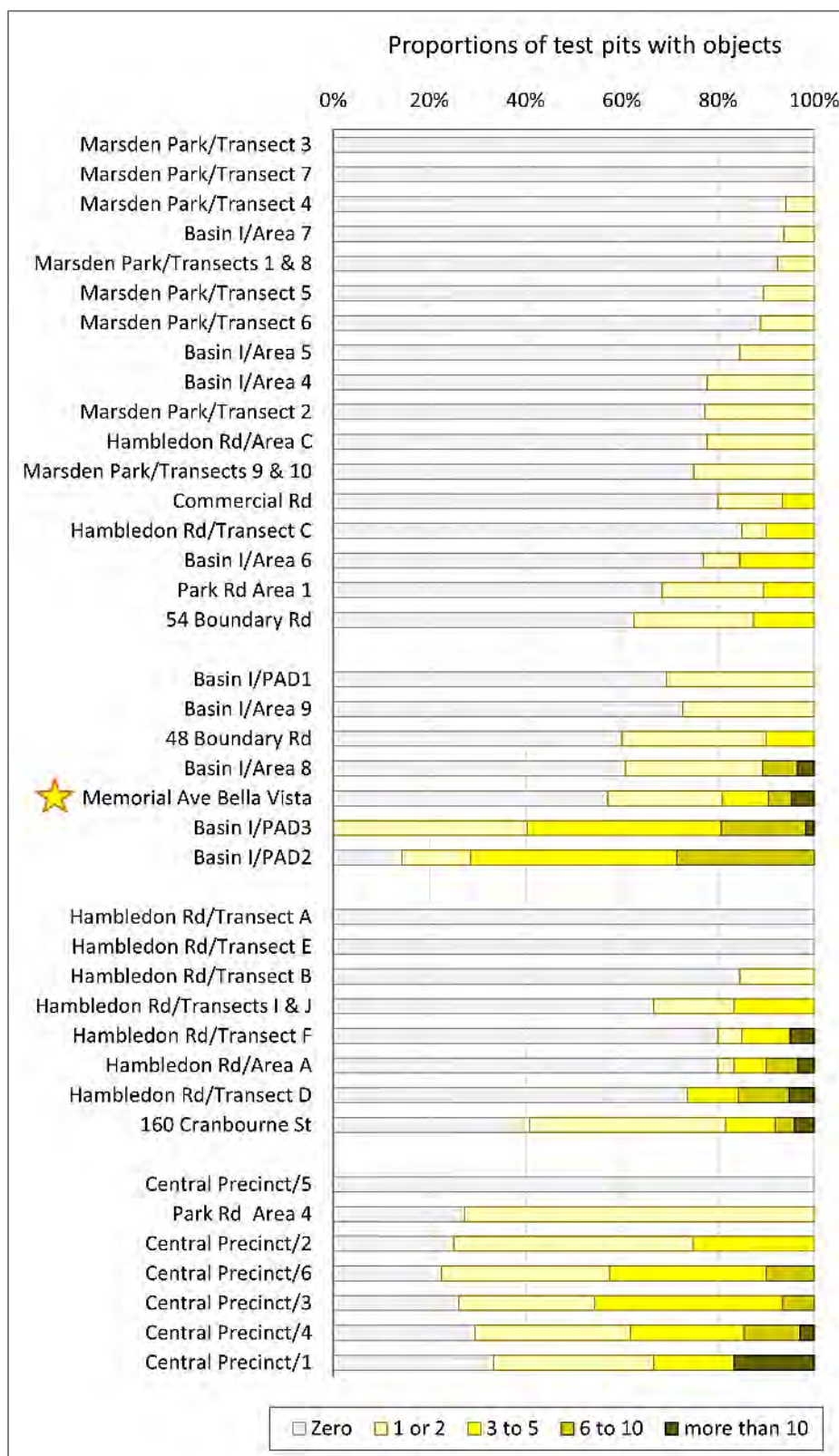


Figure 15 Numbers of test pits containing specified numbers of lithic objects.

*Sorted by stream order and average number of objects per test pit.



6.11 SUMMARY OF LITHIC RESULTS

The main findings of the analysis are:

- A total of 64 lithic objects were recovered from the test excavation – 40 from initial testing and 24 objects from excavation of expansion pits around two test pits. Initial testing indicates an average density of 1.9 objects per test pit, or 7.6 objects/m² of excavation. Objects occur in less than half the test pits. The average density and distribution of objects is within the range occurring on other sites associated with 2nd order streams.
- The distribution suggests the presence of dispersed activity (the middle zone of the activity overprint model, section 6.3, Baker 2000). The spatial distribution, combined with objects of different lithic materials (silcrete, IMST, quartz, silicified wood and quartzite) indicates that the test pits intercept objects from at least 15 lithic activities.
- Most objects occur in spit 2 and spit 3, being 5 cm to 15 cm below the ground surface. This vertical distribution is usual for the Cumberland Plain.
- Two test pits have higher counts of objects: 10 in test pit #12 and 16 in test pit #19. Additional expansion pits were excavated at both test pits to increase their size to 1 metre squares. Totals of 21 objects and 29 objects are similar to the count of 20 objects found in a test square excavated by KNC (2015) immediately south of the subject area. Open area excavation of 100m² around the latter square recovered 2,879 objects, indicating the potential for substantial numbers of objects to occur in the vicinity of test pits #12 and #19.
- Most objects are probably Phase 2 in age, indicated by the dominance of silcrete and presence of a backed artefact.
- A single radiocarbon age determination from the area immediately south of the current testing indicates that the terrace on which the subject area is situated had formed by at least c.4,000 years ago. It would be useful to have additional age determinations which could provide further evidence on the age of the terrace and the objects which occur on it.
- The silcrete component of the assemblage has a relatively low breakage rate (69% of silcrete objects are broken), consistent with the site's distance (c.7-8 km) from known silcrete quarries. The breakage rate indicates that modern land use may not have substantially affected the assemblage.

Only one modern item was recovered, a piece of terracotta in spit 1 of test pit #15. The paucity of modern materials suggests that the subject area may not have been greatly disturbed by modern land use, although field evidence of disturbance may be present.



7.0 ABORIGINAL CULTURAL HERITAGE SIGNIFICANCE ASSESSMENT

7.1 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 developed early in the planning process.

7.2 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 the Heritage Division of the Department of Planning, Industry and Environment) 2009 guideline *Assessing Significance for Historical Archaeological Sites and 'Relics'* defines the grading of significance as follows:

Table 19: 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.

7.3 SIGNIFICANCE ASSESSMENT

The significance of the sites within the study area has been assessed and summarised in the following table, with discussion around the significance assessment for the study area as a whole following.

Table 20: Summary of significance for sites within the study area

Site	Social	Historic	Scientific	Aesthetic	Rep	Rarity	Overall
45-5-4262/ 45-5-4841	H	L	H	L	M	M	M-H

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

Evidence of Aboriginal cultural material is located within the study area's subsurface and is in an intact context. It is highly likely more archaeological deposits are present. Previous archaeological excavations conducted in 2015 immediately south of the study area uncovered thousands of stone artefacts that included recognised tool-types and stone flakes that were part of various stages of connected tool-making manufacturing sites. The results for the lithic analysis undertaken from the test excavation within the current study area shows similar artefact types and stone material. It is highly likely that this current site was part of the wider tool-manufacturing process and has moderate to high scientific value.

AESTHETIC VALUE

Generally, aesthetic value is determined by the response evoked by a setting. The study area is considered to hold moderate aesthetic significance with regards to Aboriginal heritage, based on its context within a gently undulating landscape and close to a creek. However, the site is considered to have limited significance in accordance with this criterion.

RESEARCH POTENTIAL

The study area is considered to possess moderate research potential regarding Aboriginal heritage. The area is considered to be located within a wider archaeological site complex and despite some disturbance, the artefact assemblage has the ability to provide additional information about the way Aboriginal people utilised the area in the past. It is noted that many excavations have been undertaken within the Cumberland Plain region and the current study area has limited potential to add significantly to the archaeological record.

REPRESENTATIVENESS

The archaeological material identified within the study area is representative of moderate density artefact scatters across the Cumberland Plain. The results of the test excavation suggest a minimally disturbed subsurface artefact deposit and as such, the site is considered representative of archaeological deposits within the region.

RARITY

Moderate density artefact scatters are a common site type within the Cumberland Plain, although sites with limited disturbance are relatively rare within the



Cumberland Plain. As such, the site is considered to have moderate significance under this criterion.

INTEGRITY/INTACTNESS

The site has been subject to limited levels of disturbance and as such, the site is considered to have moderate to high integrity and intactness.

7.4 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 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.

The study area located at 40 Memorial Avenue, Bella Vista is considered to have moderate to high Aboriginal cultural significance, due to the amount and nature of the cultural material present within the study area within a relatively undisturbed context, and its connection to surrounding sites that have been dated to more than 4,000 years ago. It is acknowledged that the area was inhabited by Aboriginal people in the past and the evidence of this occupation existed within the area in an undisturbed context.

7.5 STATEMENT OF ARCHAEOLOGICAL SIGNIFICANCE

The study area at 40 Memorial Street, Bella Vista, is considered to have moderate archaeological significance based on its research potential, representativeness, rarity and integrity. The range and number of artefacts recovered are considered consistent with similar sites in the region, although the integrity of the site is relatively rare within the Cumberland Plain.



8.0 IMPACT ASSESSMENT

8.1 PROPOSED DEVELOPMENT

It is proposed to construct two multidwelling buildings with basement car parking. The proposed works (as shown on Figure 16 and Figure 17) will include the demolition of the existing residential dwelling and associated structures for the proposed multidwelling buildings within the subject land. A bridge and an approach road will also be constructed at the junction of Free Settlers Drive and Hodges Road. These activities, along with the implementation of services such as water, electricity and telecommunications are expected to result in subsurface excavations and modification to the natural landscape. There is also a probability that excavated soil will be removed from the study area or redeposited within it, and other fill may be introduced to the site.

8.2 POTENTIAL IMPACT

The study area contains one previously recorded site (AHIMS #45-5-4262 and duplicate recording AHIMS #45-5-4841). The entirety of the site located within the study area would be impacted by the proposed development, although it is noted that the area of subsurface potential extends outside the current study area. The northern section of the study area is considered to be disturbed and has not been assessed as having specific cultural or archaeological value, and as such the proposed works within the northern portion of the site are considered unlikely to impact on Aboriginal cultural heritage.

The proposed works are likely to directly impact on site AHIMS #45-5-4262/45-5-4841 within the study area through the construction of the proposed approach road and bridge. This would, in turn, impact on the cultural heritage values of the site. It is noted that the area of subsurface deposits extends outside the current study area.

Table 21: Summary of harm

Site number	Type of harm	Degree of harm	Consequence of harm
45-5-4262/45-5-4841	Direct	Partial	Partial loss of value

8.3 JUSTIFICATION

A range of options were considered for avoidance of archaeological deposits within the study area. However, the area containing archaeological deposits in the southern portion of the study area is proposed to have a road constructed leading to a bridge spanning Elizabeth Macarthur Creek. The bridge is necessary to facilitate access for the proposed increase in residences in the area and to provide transport links between various roads. The bridge location cannot be altered due to existing surrounding development and land zoning, and as such, the location of the road which would impact the archaeological deposits within the study area.

As such, there was limited opportunity for consideration of alternative options to conserve the archaeological deposit within the study area.



Figure 16: Site layout (study area outlined in red)

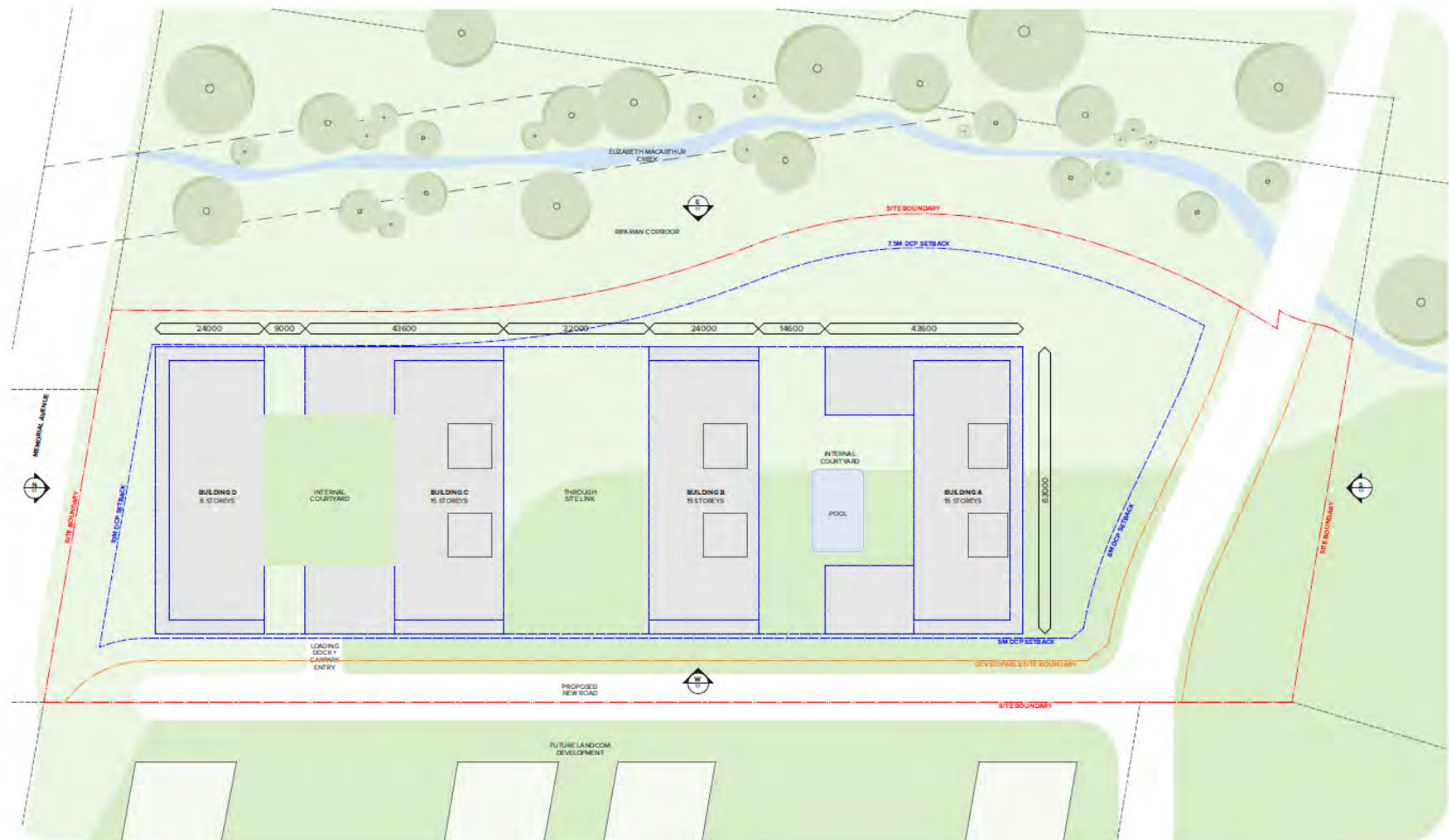


Figure 17: Proposed development within site



8.4 ECOLOGICALLY SUSTAINABLE DEVELOPMENT (ESD)

It is a requirement of Section 2A(2) of the NPW Act to apply the principles of Ecologically Sustainable Development (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 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.

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.

The study area is assessed as being of moderate archaeological significance.

8.4.1 INTERGENERATIONAL EQUITY

The site types within the study area are generally common in the region and destruction of sites would not impact on the knowledge of the past use of the area. Overall, it is considered that the impact of the destruction of these sites would be low with regards to the ongoing transmission of cultural knowledge to future generations, although it is acknowledged that destruction should be avoided where possible. Artefacts would be reburied on site, so could potentially be available in future as a teaching resource if required.



8.4.2 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 contains evidence of Aboriginal occupation in a moderately disturbed context, with high cultural significance.

Whilst the proposal in and of itself is considered to have a high level of impact on Aboriginal cultural heritage values within the study area, the proposed mitigation measures are considered to lessen the overall impact on the cultural heritage values of the area. It is acknowledged that much of the cultural heritage resource within the Cumberland Plain is subject to impact by development due to numerous growth centres being located within these areas.

8.5 ABORIGINAL COMMUNITY INPUT

The RAPs for this project have been consulted in accordance with the requirements of the ACHCRs and their views have been incorporated into this report as appropriate. Their comments on the draft report have been sought and incorporated into the final report, which has been updated as necessary in line with their comments.



9.0 MANAGEMENT, MITIGATION AND RECOMMENDATIONS

9.1 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.

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.

9.1 CONSIDERATION OF OPTIONS

A range of options were considered for avoidance of archaeological deposits within the study area. However, the area containing archaeological deposits in the southern portion of the study area is proposed to have a road constructed leading to a bridge spanning Elizabeth Macarthur Creek. The bridge is necessary to facilitate access for the proposed increase in residences in the area and to provide transport links between various roads. The bridge location cannot be altered due to existing surrounding development and land zoning, and as such, the location of the road which would impact the archaeological deposits within the study area cannot be amended.

As such, there was limited opportunity for consideration of alternative options to conserve the archaeological deposit within the study area.

9.2 HARM AVOIDANCE

The study area contains one previously registered Aboriginal site with two AHIMS numbers. This site cannot be avoided by the proposed works, which require construction of a road connecting Hodges Road to an unnamed road to the west, to provide access for proposed development to supply required housing stock and services for western Sydney. As such, mitigation measures for this site are necessary prior to impact occurring.



9.3 MITIGATION MEASURES

All evidence of Aboriginal occupation of the land is significant to Aboriginal people. Mitigation measures are required to address the impact of the loss of the archaeological resource prior to impact occurring.

Salvage excavation of the site is recommended prior to any development works commencing on site. A detailed Salvage Strategy has been prepared and is included within the ACHMP which is attached as an appendix to this report. In summary, it is proposed to undertake a staged salvage excavation, focussing on three individual test pits. These are the test pits with the highest concentration of artefacts identified during the initial test excavations within the study area. These three test pits would initially be expanded to 9m², and then further expansion to a maximum area of 100m² salvaged within the study area. A range of triggers are identified in the ACHMP which would guide the salvage excavations and which initial salvage pits are expanded. Further details of the ACHMP are provided in Section 10 below.

The salvage excavation would focus on test pits excavated by Apex Archaeology, namely test pits 12, 13 and 19 (Figure 18).

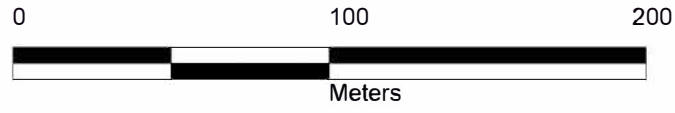
9.3.1 RESEARCH QUESTIONS

The following research questions would guide the archaeological salvage excavations of the site.

- What do the salvage results indicate about the past Aboriginal occupation of the area and within the wider Cumberland Plain region?
- Can site formation processes be identified, and how do these formation processes impact the integrity of the archaeological deposits present?
- How do the salvage excavation results compare to other local and regional archaeological results and predictive models?
- Are the raw material sources consistent with those identified within the wider area? Are they different? Is there change over time? Can this be related to Aboriginal use of the area and does topography influence the results?
- Is it possible to determine the activities undertaken within the site based on the characteristics of the artefact assemblage?
- Can conjoining artefacts be identified within the deposit? What is the vertical and/or horizontal displacement of these artefacts?



- Study Area
- Lot Boundaries
- Hydrology
- Test Pits with Artifacts
- High Density test pits
- NWRL PAD 7



Projection:
 MGA Zone 56 (GDA 94)
 Base Map:
 NearMaps 2023
 Image Date: 18/01/2023
 Final - Version 1

Figure 18: Test pits to be targeted for expansion (circled yellow).





10.0 ACHMP

An Aboriginal Cultural Heritage Management Plan (ACHMP) has been prepared to provide guidance for the management of AHIMS site NWRL 9 (AHIMS #45-5-4262/45-5-4841) which is located within the study area. The ACHMP is designed to be a stand-alone document for contractors working on the site and provides background information regarding the archaeological context of the site and wider area, along with management recommendations.

Specifically, the ACHMP provides a salvage strategy for undertaking salvage excavations within the site which are required to mitigate the impact of the proposed works. The salvage excavation will allow an artefact assemblage to be recovered to provide additional information about how Aboriginal people lived in the Bella Vista area prior to colonisation. Overall, the ACHMP has been developed to:

- Fulfil the Secretary's Environmental Assessment Requirements (SEARs);
- Establish appropriate measures to avoid, minimise, or mitigate identified impacts;
- Outline the protection that will be established for sites which should be avoided;
- Document the roles and responsibilities of the proponent, their contractors, the community, and RAPs, during each stage of the development and into the future;
- Detail the results of the Aboriginal community consultation undertaken for the project, and to provide guidelines for future consultation with RAPs for the project; and
- Document the tasks that must be completed to ensure long term protection of the Aboriginal cultural heritage values of the area designated for protection.

The full ACHMP is attached as Appendix I.

It is further noted that an existing AHIP (AHIP 4298) is located along the eastern boundary of the study area. No further archaeological works were recommended or required as part of this AHIP. The AHIP permitted unmitigated impact to the portions of the registered sites that were located within the AHIP boundary. As the current project is now an SSD project, there is no requirement to apply for an AHIP to permit impact to registered Aboriginal sites within the current study area. The intersection of AHIP 4298 and the current study area is shown in Figure 19.

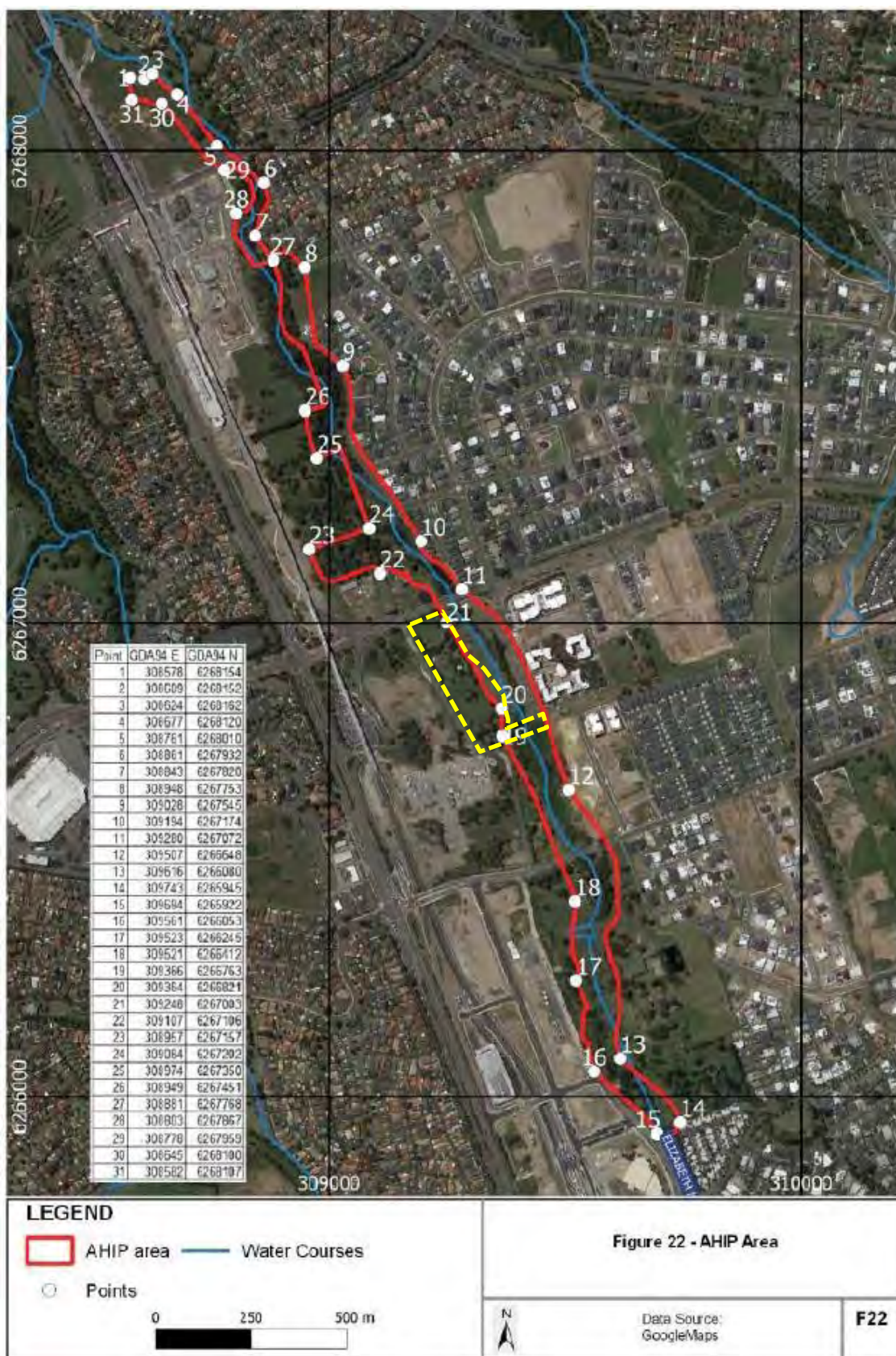


Figure 19: AHIP Boundary for AHIP 4298 with approx current study area outlined in yellow (Source: AECOM 2021 Fig 26)



11.0 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 results of the cultural and archaeological assessment;
- An assessment of the likely impacts of the proposed development; and
- The interests of the registered Aboriginal stakeholders and the cultural heritage record.

It was found that:

- One previously identified Aboriginal site with two separate AHIMS numbers is located within the study area.
- Test excavations identified a moderate density subsurface deposit within the southern portion of the study area.
- The majority of the artefact assemblage was formed on silcrete, although a few items of IMST, quartz, silicified wood and quartzite were identified within the assemblage.
- The entirety of AHIMS site 45-5-4262 and duplicate recording 45-5-4841 (NWRL PAD 7) within Lot 4 DP 1237055 would be impacted by the proposed development, although it is acknowledged that this site extends out of the current study area.

Therefore, the following recommendations have been made.

RECOMMENDATION 1: APPLICATION FOR AHIP REQUIRED

Aboriginal cultural material is present within the study area which cannot be avoided. Preparation of an Aboriginal Cultural Heritage Management Plan (ACHMP) is required to guide future management of the Aboriginal cultural heritage resource within the study area, including to permit harm to the registered sites within the study area, namely AHIMS #45-5-4262 & duplicate recording 45-5-4841 (NWRL 7).

Salvage excavation is recommended for AHIMS #45-5-4262/45-5-4841 (NWRL 7). Salvage should be undertaken in accordance with the Salvage Strategy attached to this report and detailed in the separate ACHMP.

RECOMMENDATION 2: MAINTAIN ABORIGINAL COMMUNITY CONSULTATION

Consultation with the RAPs regarding the project should continue, in order to keep the RAPs informed about the management of Aboriginal cultural heritage within the study area. This includes notifying the RAPs when an AHIP application is lodged, and also in the event an AHIP is issued.

Consultation undertaken for this project must be maintained at least every six months in order to maintain validity. It is the Proponent's responsibility to ensure consultation remains valid. In the event a gap of more than six months occurs



between consultation events, it may be necessary to restart the consultation process to support any AHIP applications that are necessary.

RECOMMENDATION 3: DEVELOPMENT BOUNDARIES

The proposed development works must be contained within the assessed boundaries for this project. If there is any alteration to the boundaries of the proposed development to include areas not assessed as part of this archaeological investigation, further investigation of those areas should be completed to assist in managing Aboriginal objects and places which may be present in an appropriate manner.

RECOMMENDATION 4: STOP WORK PROVISION

Should unanticipated Aboriginal archaeological material be encountered during site works, 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 any Construction Environmental Management Plan (CEMP) developed for the site.

RECOMMENDATION 5: REPORTING

One digital copy of this report should be forwarded to Heritage NSW to support the required AHIP application for the project, along with required supporting documentation.

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

One copy of this report should be forwarded to each of the registered Aboriginal stakeholders for the project.



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APPENDIX A: CORRESPONDENCE LOG

22086 Memorial Avenue Hodges Bridge – Consultation Log

Date	Type of Consultation	Parties Contacted	Outcome
26/09/2022	Requesting details of Aboriginal individuals or organisations with cultural knowledge of the area and who may wish to participate in consultation (Section 4.1.1 of ACHCRs)	Heritage NSW	29/09/2022 – email letter received with list of potential stakeholders.
		Deerubbin LALC	No response
		(Greater Sydney) LLS	27/09/2022 – email received advising that they are not the primary source of contact for First Nations (Aboriginal) communities and advised Apex Archaeology to contact Heritage NSW
		The Hills Shire Council	10/10/2022 – email received advising to contact Kevin Cavanagh at Deerubbin LALC NSW
		NTSCorp	No response
		ORALRA	No response
10/10/2022	Advertisement for registrations of interest for consultation from Aboriginal people or organisations with cultural knowledge relevant to the area	National Native Title Tribunal	No response
		Advertisement placed in <i>Hawkesbury Gazette</i>	No responses
10/10/2022	Letters sent to identified individuals and organisations from Section 4.1.1 of ACHCRs Letter sent via email if address provided; and by post where email not available	Barraby Cultural Services	No response
		Yurrandaali Cultural Services	11/10/2022-- emailed letter received requesting registration
		Deerubbin Local Aboriginal Land Council	No response
		Darug Custodian Aboriginal Corporation	10/10/2022 – emailed letter received requesting registration
		Darug Aboriginal Cultural Heritage Assessments	No response
		Darug Land Observations	No response

	Darug Aboriginal Land Care	No response
	A1 Indigenous Services	10/10/2022 – emailed letter received requesting registration and request to NOT publish the email response
	Eric Keidge	No response
	Corroboree Aboriginal Corporation	10/10/2022 – email received requesting registration.
	Kamilaroi Yankuntjatjara Working Group	10/10/2022 – email received requesting registration
	Wurrumay Pty Ltd	No response
	Tocomwall	10/10/2022 – email received requesting registration
	Amanda Hickey Cultural Services	20/10/2022 – email received requesting registration
	Dhinawan Culture & Heritage Pty Ltd	No response
	Pemulwuy CHTS	No response
	Walgalu	No response
	Thauaira	No response
	Dharug	No response
	Gulaga	No response
	Biamanga	No response
	Callendulla	No response
	Murramarang	No response
	DJMD Consultancy	No response
	Butucarbin Aboriginal Corporation	No response
	Didge Ngunawal Clan	10/10/2022 - email received requesting registration
	Ginninderra Aboriginal Corporation	No response
	Wailwan Aboriginal Group	10/10/2022 – email received requesting registration

	Barking Owl Aboriginal Corporation	No response
	Yulay Cultural Services	26/10/2022 – email received requesting registration
	Thoorga Nura	No response
	Darug Boorooberongal Elders Aboriginal Corporation	No response
	B.H. Heritage Consultants	10/10/2022 – email received requesting registration
	Ngambaa Cultural Connections	10/10/2022 – email received requesting registration
	Goodradigbee Cultural & Heritage Aboriginal Corporation,	No response
	Mura Indigenous Corporation,	No response
	Aragung Aboriginal Cultural Heritage Site Assessments	10/10/2022 – email received requesting registration
	Waawaar Awa Aboriginal Corporation	17/10/2022 – email received requesting registration
	Wori Woilywa	10/10/2022 – email received requesting registration
	Gilay Consultants	No response
	Murra Bidgee Mullangari Aboriginal Corporation	No response
	Woka Aboriginal Corporation	No response

		Gunjeewong Cultural Heritage Aboriginal Corporation	16/10/2022 – email received requesting registration
		Julia Narayan	No response
		Gunya Aboriginal Cultural Heritage Services PTY LTD	18/10/2022 – email received requesting registration
		Bidjawong Aboriginal Corporation	No response
		Bariyan Cultural Connections	10/10/2022 – email received requesting registration
		Yurwang Gundana Consultancy Cultural Heritage Services.	No response
		Mundawari Heritage Consultants	No response
25/10/2022	Provision of project information and methodology to all RAPs	A1 – Carolyn Hickey	07/11/2022 – email received advising that A1 supports the information and methodology. Also requested that their response may be printed but NOT the email.
		Amanda Hickey Cultural Services	No response
		Aragung Aboriginal Cultural Heritage Site Assessments	No response
		Bariyan Cultural Connections	26/10/2022 – Email received advising they agree with the methodology.
		B.H. Heritage Consultants	No response
		Darug Custodian Aboriginal Corporation	No response
		Didge Ngunawal Clan	No response
		Corroboree Aboriginal Corporation	No response
		Gunjeewong	No response

		Gunya	25/10/2022 – received detailed reply advising why the group supports different aspects of the proposed methodology. Adam also advised to pay attention to stone that may be of unusual shape and/or material, such as crystal. This can be of high significance in Aboriginal culture. Rebecca Bryant from Apex Archaeology replied on the same day thanking Adam for bringing this to our attention, she agreed that these sorts of stones may unfortunately get overlooked in excavations because they aren't a conventional 'flaked stone'. Context, as pointed out by Adam, is very important.
		Kamilaroi Yankuntjatjara Working Group	No response
		Murrabidgee Mullangari	No response
		Ngambaa	No response
		Tocomwall	No response
		Wailwan Aboriginal Group	No response
		Wawaa Awar	21/11/2022 – email agreeing to methodology
		Woka	No response
		Wori Woilywa	No response
		Yurrandaali	No response
26/10/2022	Provision of project information and methodology for late registrations	Yulay Cultural Services	No response
17/02/2023	Provision of draft ACHAR for review and comment	A1 – Carolyn Hickey	No response
		Amanda Hickey Cultural Services	6/3/2023 – email advising AHCS is happy with the ACHA
		Aragung Aboriginal Cultural Heritage Site Assessments	No response
		Bariyan Cultural Connections	No response
		B.H. Heritage Consultants	No response

		Darug Custodian Aboriginal Corporation	13/3/2023 – letter advising DCAC support recommendations of report, and noting it is culturally inappropriate for non-Dharug people to speak for Dharug Country.
		Didge Ngunawal Clan	No response
		Corroboree Aboriginal Corporation	No response
		Gunjeewong	No response
		Gunya	No response
		Kamilaroi Yankuntjatjara Working Group	24/3/2023 – email advising KWYG agree with and support draft ACHA.
		Murrabidgee Mullangari	No response
		Ngambaa	No response
		Tocomwall	No response
		Wailwan Aboriginal Group	No response
		Wawaa Aarr	No response
		Woka	No response
		Wori Woilywa	No response
		Yulay Cultural Services	No response
		Yurrandaali	No response
07/08/2023	Project update sent to all the RAPs advising that the project is still ongoing	A1 – Carolyn Hickey	No response
		Amanda Hickey Cultural Services	No response
		Aragung Aboriginal Cultural Heritage Site Assessments	No response
		Bariyan Cultural Connections	7/8/2023 – Thank you for the update
		B.H. Heritage Consultants	No response

		Darug Custodian Aboriginal Corporation	7/8/2023 – cheers
		Didge Ngunawal Clan	No response
		Corroboree Aboriginal Corporation	No response
		Gunjeewong	No response
		Gunya	No response
		Kamilaroi Yankuntjatjara Working Group	8/8/2023 – thanks for the update. We look forward to working with you on this project.
		Murrabidgee Mullangari	No response
		Ngambaa	No response
		Tocomwall	No response
		Wailwan Aboriginal Group	8/8/2023 – thank you Rebecca I look forward to hearing from you with more info on this project.
		Wawaa Aarr	No response
		Woka	No response
		Wori Woilywa	No response
		Yulay Cultural Services	No response
		Yurrandaali	No response
08/03/2024	Project update sent to all the RAPs advising that the project is still ongoing	A1 – Carolyn Hickey	No response
		Amanda Hickey Cultural Services	No response
		Aragung Aboriginal Cultural Heritage Site Assessments	No response
		Bariyan Cultural Connections	8/3/2024 – thank you for the update
		B.H. Heritage Consultants	No response

		Darug Custodian Aboriginal Corporation	No response
		Didge Ngunawal Clan	No response
		Corroboree Aboriginal Corporation	No response
		Gunjeewong	No response
		Gunya	No response
		Kamilaroi Yankuntjatjara Working Group	11/3/2024 – thank you for the update
		Murrabidgee Mullangari	No response
		Ngambaa	No response
		Tocomwall	No response
		Wailwan Aboriginal Group	No response
		Wawaa Aarr	No response
		Woka	No response
		Wori Woilywa	No response
		Yulay Cultural Services	No response
		Yurrandaali	No response
06/09/2024	Project update sent to all the RAPs advising that the project is still ongoing	A1 – Carolyn Hickey	No response
		Amanda Hickey Cultural Services	No response
		Aragung Aboriginal Cultural Heritage Site Assessments	No response
		Bariyan Cultural Connections	No response
		B.H. Heritage Consultants	No response

		Darug Custodian Aboriginal Corporation	No response
		Didge Ngunawal Clan	No response
		Corroboree Aboriginal Corporation	No response
		Gunjeewong	No response
		Gunya	No response
		Kamilaroi Yankuntjatjara Working Group	No response
		Murrabidgee Mullangari	No response
		Ngambaa	No response
		Tocomwall	No response
		Wailwan Aboriginal Group	No response
		Wawaa Aarr	No response
		Woka	No response
		Wori Woilywa	No response
		Yulay Cultural Services	No response
		Yurrandaali	No response
03/03/2025	Project update sent to all the RAPs advising that the project is still ongoing	A1 – Carolyn Hickey	No response
		Amanda Hickey Cultural Services	No response
		Aragung Aboriginal Cultural Heritage Site Assessments	No response
		Bariyan Cultural Connections	3/3/2025 – thank you for the update
		B.H. Heritage Consultants	No response

		Darug Custodian Aboriginal Corporation	No response
		Didge Ngunawal Clan	No response
		Corroboree Aboriginal Corporation	No response
		Gunjeewong	No response
		Gunya	No response
		Kamilaroi Yankuntjatjara Working Group	No response
		Murrabidgee Mullangari	No response
		Ngambaa	No response
		Tocomwall	No response
		Wailwan Aboriginal Group	No response
		Wawaa Aarr	No response
		Woka	No response
		Wori Woilywa	No response
		Yulay Cultural Services	No response
		Yurrandaali	No response
04/04/2025	Provision of draft ACHMP for all RAPs to review and comment, and advising of change of approval pathway from DA to SSD	A1 – Carolyn Hickey	23/4/2025 – I have reviewed the document and fully support the ACHMP. I would like ot be included in all meetings, reports, sharing of cultural information and fieldwork.
		Amanda Hickey Cultural Services	No response
		Aragung Aboriginal Cultural Heritage Site Assessments	No response
		Bariyan Cultural Connections	No response
		B.H. Heritage Consultants	No response

	Darug Custodian Aboriginal Corporation	No response
	Didge Ngunawal Clan	No response
	Corroboree Aboriginal Corporation	No response
	Gunjeewong	No response
	Gunya	No response
	Kamilaroi Yankuntjatjara Working Group	No response
	Murrabidgee Mullangari	No response
	Ngambaa	10/4/2025 – On behalf of Ngambaa Cultural Connections I would like to register my expression of interest for the 40 Memorial Drive Project.
	Tocomwall	No response
	Wailwan Aboriginal Group	No response
	Wawaa Aarr	No response
	Woka	No response
	Wori Woilywa	No response
	Yulay Cultural Services	No response
	Yurrandaali	No response



APPENDIX B: STEP 1 LETTERS AND RESPONSES

From: [Jenni Bate](#)
To: [Undisclosed Recipients](#)
Cc: [Rebecca Bryant](#)
Bcc: heritagemailbox@environment.nsw.gov.au; council@thehills.nsw.gov.au; information@ntscorp.com.au; adminofficer@oralra.nsw.gov.au; reception@deerubbin.org.au; srandall@deerubbin.org.au; gs.service@lls.nsw.gov.au
Subject: 40 Memorial Ave, Bella Vista - Commencement of ACHA process
Date: Monday, 26 September 2022 5:51:49 PM
Attachments: [22086 40 Memorial Ave, Bella Vista Stage 1 Consultation Letter.pdf](#)

Good afternoon,

Please find attached a letter requesting contact details for any Aboriginal individuals or organisations who may be interested in being consulted for a project at Memorial Ave, Bella Vista, within The Hills Shire Council (LGA). Please send any responses to Rebecca Bryant (cc'd to this email).

Kind regards,



Apex Archaeology is proud to support the [Immunisation Foundation of Australia](#) through our workplace giving program.

26 September 2022

Establishing a Register of Interest for an Aboriginal Cultural Heritage Assessment – Proposed residential subdivision and development of 40 Memorial Avenue, Bella Vista, NSW.

This letter is sent in accordance with Section 4.1.2 of the *Aboriginal cultural heritage consultation requirements for proponents 2010* (ACHCRs) in order to initiate Stage 1 of the Aboriginal consultation process in relation to the above project.

Orion Consulting on behalf of Landen Property Group (the proponent) has engaged Apex Archaeology to assist in preparing an Aboriginal Cultural Heritage Assessment (ACHA) for a proposed development at 40 Memorial Avenue, Bella Vista, NSW (Figure 1). The land is legally defined as Lot 1 DP 1237055. The study area also includes part Lot 1 DP 1180837 and part Lot 403 DP 1125136. The project is located within The Hills Shire LGA. The site has been identified as having potential for subsurface archaeological deposits to be present, and the nature and extent of these deposits require investigation in order to understand and manage potential impacts on Aboriginal cultural values and to determine the requirement to apply for an Aboriginal Heritage Impact Permit (AHIP).

A process of Aboriginal community consultation in accordance with the ACHCRs is being initiated by Apex Archaeology on behalf of the proponent. Apex Archaeology will be undertaking a full archaeological assessment under the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales*.

In accordance with Section 4.1.2 of the ACHCRs, I am writing to request any information you may have regarding Aboriginal stakeholders who may have cultural knowledge relevant to determining the significance of Aboriginal objects that may be located within the study area. Any identified Aboriginal individuals or organisations will be invited to register an interest in the project and participate in the consultation process.

Orion Consulting's project manager is Oscar Saunders who can be contacted via email at oscar.saunders@orionconsulting.com.au

Information regarding Aboriginal stakeholders can be sent to PO Box 236, Nowra, NSW 2541, or rebecca@apexarchaeology.com.au.

We would appreciate a response within 14 days of the date of this letter wherever possible.

Kind regards,

Jenni Bate



Director/Archaeologist
Apex Archaeology
E: jenni@apexarchaeology.com.au
M: 0422 229 179



- Study Area
- Lot Boundaries
- Hydrology

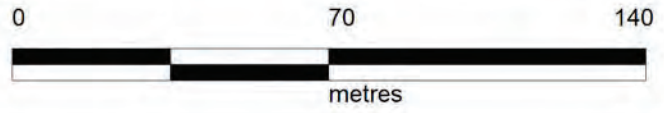


Figure 1: General location of the study area in its local context.



Our reference: Doc22/861200

Rebecca Bryant
Apex Archaeology
PO Box 236, Nowra,
NSW 2541

29/09/2022

Dear Rebecca,

WRITTEN NOTIFICATION OF PROPOSAL AS REQUIRED UNDER DECCW ABORIGINAL CULTURAL HERITAGE CONSULTATION REQUIREMENTS FOR PROPONENTS 2010

Subject: 40 Memorial Avenue, Bella Vista.

Thank you for your correspondence dated 26 September 2022 to Heritage NSW (Department of Premier and Cabinet) regarding the above project.

Attached is a list of known Aboriginal parties for the proposed development at **The Hills** Local Government Area that Heritage NSW considers likely to have an interest in the activity.

Please note this list is not necessarily an exhaustive list of all interested Aboriginal parties.

Receipt of this list does not remove the requirement of a proponent/ consultant to advertise in local print media and contact other bodies seeking interested Aboriginal parties, in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (April 2010).

Under Section 4.1.6. of the Consultation Requirements, you must also provide a copy of the names of each Aboriginal person who registered an interest to the relevant Heritage NSW office and Local Aboriginal Land Council (LALC) within 28 days from the closing date for registering an interest.

Please note that the contact details in the list provided by Heritage NSW may be out of date as it relies on Aboriginal parties advising Heritage NSW when their details need changing. If individuals/companies undertaking consultation are aware that any groups contact details are out of date, or letters are returned unopened, please contact either the relevant stakeholder group (if you know their more current details) and/or Heritage NSW. AHIP applicants should make a note of any group they are unable to contact as part of their consultation record.

If you have any questions about this advice, please email:
heritagemailbox@environment.nsw.gov.au or contact (02) 9873 8500.

Yours sincerely



Barry Gunther, Aboriginal Senior Assessment Officer
Environment and Heritage – Heritage NSW
Department of Planning and Environment
Aboriginal Heritage Regulation Branch – South Heritage NSW

Attachment A:

Registered Aboriginal Interests DPE RAP List for the **The Hills** Local Government Area.

From: LLS GS Service Mailbox <gs.service@lls.nsw.gov.au>
Sent: Tuesday, 27 September 2022 8:49 AM
To: Rebecca Bryant
Subject: Re: 40 Memorial Ave, Bella Vista - Commencement of ACHA process

Dear Ms Bryant

Thank you for the recent letter seeking assistance to identify Aboriginal stakeholder organisations and persons who may hold an interest in Country at the project area designated in your correspondence.

Greater Sydney Local Land Services (GS LLS) acknowledges that Local Land Services (formerly as Catchment Management Authorities) has been listed in Section 4.1.3.(g) of the Aboriginal Cultural Heritage Consultation requirements for proponents 2010, to support Part 6, of the NSW National Parks and Wildlife Act 1974 as a source of information to obtain the 'names of Aboriginal people who may hold cultural knowledge relevant to determining the significance of Aboriginal objects and/or places'.

GS LLS understands and respects the significant role and values that tangible and intangible Aboriginal Cultural Heritage holds for First Nations/Aboriginal people with Country. GS LLS also partners with many First Nations communities on Caring for Country projects that aim to protect and enhance those tangible and intangible values in Country including Aboriginal Cultural Heritage. GS LLS considers Aboriginal Cultural Heritage matters in relation to its role in land management and considers cultural heritage issues in the context of Natural Resource Management.

However, GS LLS feels that it is not a primary source of contact for First Nations (Aboriginal) communities or persons that may inform or provide comment on development or planning issues.

GS LLS strongly recommends you contact Heritage NSW to seek their advice on all-inclusive contact lists of persons and organisations who 'speak for Country' and that may assist with your investigation.

Regards

Customer Service Team

Greater Sydney Local Land Services

Level 4, 2 - 6 Station St Penrith | PO Box 4515, Westfield Penrith NSW 2750

T: 02 4724 2100

E: gs.service@lls.nsw.gov.au | **W:** www.greatersydney.lls.nsw.gov.au

You can also contact us through our [online enquiry form](#)

How would you rate our service today?



Your opinion is valuable and will help us improve our service

Greater Sydney Local Land Services acknowledges we operate in and deliver services throughout Country of First Nations people in the Greater Sydney Region.

We recognise and respect Elders and cultural knowledge holders, past and present, while acknowledging the unique and diverse enduring cultures and histories of all First Nations people.

Always was and always will be Aboriginal land.

From: Jenni Bate <jenni@apexarchaeology.com.au>
Sent: Monday, 26 September 2022 5:51 PM
To: Undisclosed Recipients <jenni@apexarchaeology.com.au>

Cc: Rebecca Bryant <rebecca@apexarchaeology.com.au>

Subject: 40 Memorial Ave, Bella Vista - Commencement of ACHA process

Good afternoon,

Please find attached a letter requesting contact details for any Aboriginal individuals or organisations who may be interested in being consulted for a project at Memorial Ave, Bella Vista, within The Hills Shire Council (LGA). Please send any responses to Rebecca Bryant (cc'd to this email).

Kind regards,



Apex Archaeology is proud to support the [Immunisation Foundation of Australia](#) through our workplace giving program.



THE HILLS
Sydney's Garden Shire

THE HILLS SHIRE COUNCIL
3 Columbia Court, Norwest NSW 2153
PO Box 7064, Norwest 2153
ABN 25 034 494 656 | DX 9966 Norwest

31 March 2023

Jenni Bate
Director/Archaeologist
Apex Archaeology
PO Box 236
Nowra NSW 2541

Via email: jenni@apexarchaeology.com.au
Cc: rebecca@apexarchaeology.com.au

Our Ref: FP18

Dear Sir/Madam,

Request for Aboriginal Stakeholder Contact

Thank you for contacting The Hills Shire Council regarding contact details for interested Aboriginal community groups for land at 40 Memorial Avenue, Bella Vista. The subject site is located within the Deerubbin Local Aboriginal Land Council boundary. The relevant contact details are as follows:

Office location: Level 1, 295 High Street, Penrith
Postal address: PO Box 40, Penrith NSW 2751
Email: KCavanagh@deerubbin.org.au
Office Phone: 02 4724 5600
Fax: 02 4722 9713

Aside from this, Council does not have a register of any individuals who have an interest in these lands.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Ishara Warakagoda'.

Ishara Warakagoda
SENIOR TOWN PLANNER



APPENDIX C: STEP 2 LETTERS AND RESPONSES

10 October 2022

Establishing a Register of Interest for an Aboriginal Cultural Heritage Assessment – Proposed residential subdivision and development of 40 Memorial Avenue, Bella Vista, NSW.

This letter is sent in accordance with Section 4.1.2 of the *Aboriginal cultural heritage consultation requirements for proponents 2010* (ACHCRs) in order to initiate Stage 1 of the Aboriginal consultation process in relation to the above project.

Orion Consulting on behalf of Landen Property Group (the proponent) has engaged Apex Archaeology to assist in preparing an Aboriginal Cultural Heritage Assessment (ACHA) for a proposed development at 40 Memorial Avenue, Bella Vista, NSW (Figure 1 and Figure 2). The land is legally defined as Lot 1 DP 1237055. The study area also includes part Lot 1 DP 1180837 and part Lot 403 DP 1125136. The project is located within The Hills Shire LGA. The site has been identified as having potential for subsurface archaeological deposits to be present, and the nature and extent of these deposits require investigation in order to understand and manage potential impacts on Aboriginal cultural values and to determine the requirement to apply for an Aboriginal Heritage Impact Permit (AHIP).

The purpose of consultation with Aboriginal people for this project is to assist the proponent in identifying Aboriginal people with cultural knowledge relevant to determining the significance of Aboriginal objects at this location.

The proponent invites Aboriginal people who hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and places within the study area to register an interest in the process of Aboriginal community consultation.

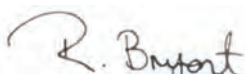
Please note that details of the Aboriginal people or organisations who register an interest in consultation will be forwarded to both Heritage NSW and the Deerubbin Local Aboriginal Land Council (DLALC). Please advise at the time of registration if you do not wish for your details to be forwarded to either entity.

The project manager is Oscar Saunders who can be contacted via email at oscar.saunders@orionconsulting.com.au. Aboriginal stakeholders can register their interest by PO Box 236, Nowra, NSW 2541; via phone on 0405 236 821; or via rebecca@apexarchaeology.com.au

Registrations of interest will be accepted until close of business, **Monday 24 October 2022**.

Kind regards,

Rebecca Bryant



Archaeologist
Apex Archaeology
E: rebecca@apexarchaeology.com.au
M: 0405 236 821

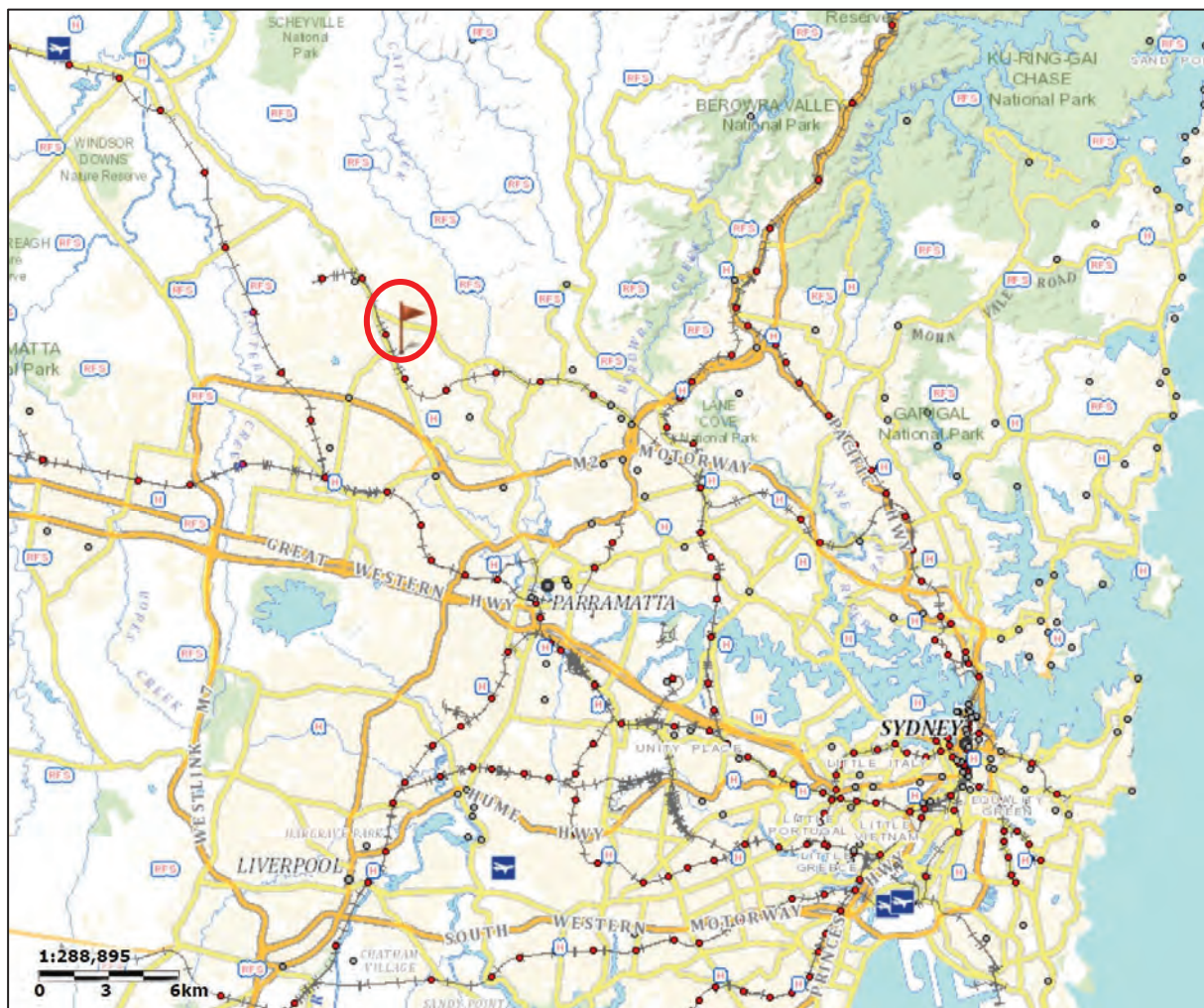


Figure 1. Approximate location of proposed development indicated by flag circled in red (Source: Six Maps NSW Government 2022)



- Study Area
- Lot Boundaries
- Hydrology

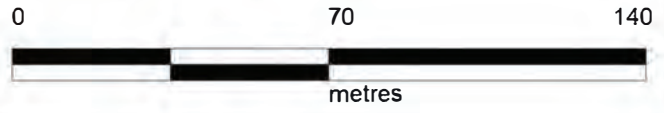


Figure 2: General location of the study area in its local context.



From: rebecca@apexarchaeology.com.au
To: "undisclosed recipients"
Bcc: amandahickey@live.com.au; baryan.culturalconnections@gmail.com; barkingowlcorp@gmail.com; barrabyculturalservices@gmail.com; biamangachts@gmail.com; bidjawong@gmail.com; butuheritage@gmail.com; cal.slater61@gmail.com; cazadirect@live.com; corroboreecorp@bigpond.com; cullendullachts@gmail.com; darrenjohnduncan@gmail.com; daruglandobservations@gmail.com; dharugchts@gmail.com; dhinawan.ch@gmail.com; didgengunawalclan@yahoo.com.au; ginninderra.corp@gmail.com; goodradigbee1@outlook.com; gulagachts@gmail.com; Gunjeewongculturalheritage21@hotmail.com; gunya.ach@gmail.com; hamptonralph46@gmail.com; james.eastwood@y7mail.com; jrcarroll888@gmail.com; juliaannnarayan2018@gmail.com; justinecoplin@optusnet.com.au; KCavanagh@deerubbin.aor.au; KCavanagh@deerubbin.org.au; kinghampton77@gmail.com; markdyer2009@live.com.au; mundawari.hc@gmail.com; mura.indigenous@bigpond.com; murrabidgeemullangari@yahoo.com.au; murramangchts@gmail.com; ngambaa.culturalconnections@gmail.com; ngunawal56@outlook.com; paulhand1967@gmail.com; pemalwuyd@gmail.com; philipkhan.acn@live.com.au; reception@deerubbin.org.au; scott@tocomwall.com; scott@tocomwall.com.au; SRandall@deerubbin.org.au; thauairachts@gmail.com; thoorganura@gmail.com; waarlan12@outlook.com; waawaar.awaa@gmail.com; walgaluchts@gmail.com; wokacorp@yahoo.com; wokacorp@yahoo.com.au; worivoilywa@gmail.com; wurrumay@hotmail.com; yulayculturalservices@gmail.com; yurrandaali_cs@hotmail.com; Yurwang.Gundana.C.H.S@outlook.com
Subject: RE: 40 Memorial Avenue, Bella Vista, NSW - invitation to register
Date: Monday, 10 October 2022 11:29:36 AM
Attachments: [image001.png](#)
[22086 40 Memorial Ave - Stakeholder Invitation.pdf](#)

Good morning,

Your details have been provided by Heritage NSW as an Aboriginal person or organisation who might like to take part in consultation for a project at 40 Memorial Avenue, Bella Vista, NSW.

Please find attached a letter with more information and inviting you to register your interest by the close of business, Monday 24th October 2022.

Please get in touch if you have any questions. I look forward to hearing from you.

Kind regards



Rebecca Bryant
ARCHAEOLOGIST

0405 236 821

REBECCA@APEXARCHAEOLOGY.COM.AU

WWW.APEXARCHAEOLOGY.COM.AU

From: rebecca@apexarchaeology.com.au
To: ["undisclosed recipients"](#)
Bcc: Pemulwuyd@gmail.com
Subject: RE: 40 Memorial Avenue, Bella Vista, NSW - invitation to register
Date: Monday, 10 October 2022 4:17:22 PM
Attachments: [image001.png](#)
[22086 40 Memorial Ave - Stakeholder Invitation.pdf](#)

Good afternoon,

Your details have been provided by Heritage NSW as an Aboriginal person or organisation who might like to take part in consultation for a project at 40 Memorial Avenue, Bella Vista, NSW.

Please find attached a letter with more information and inviting you to register your interest by the close of business, Monday 24th October 2022.

Please get in touch if you have any questions. I look forward to hearing from you.

Kind regards



Rebecca Bryant
ARCHAEOLOGIST

0405 236 821

REBECCA@APEXARCHAEOLOGY.COM.AU

WWW.APEXARCHAEOLOGY.COM.AU



PO Box 236
Nowra, NSW 2541
heritage@apexarchaeology.com.au
www.apexarchaeology.com.au
ABN 56 625 618 993



Gordon Morton
DACHA
9/6 Chapman Ave
Chatswood 2067



PO Box 236
Nowra, NSW 2541
heritage@apexarchaeology.com.au
www.apexarchaeology.com.au
ABN 56 625 618 993



Eric Keidge
11 Olsson Close
Hornsby Heights 2077



PO Box 236
Nowra, NSW 2541
heritage@apexarchaeology.com.au
www.apexarchaeology.com.au
ABN 56 625 618 993



Phillip Carroll
Mura Indigenous Corp
11 Nargal St
Flinders 2529

From: Carolyn .H <cazadirect@live.com>
Sent: Tuesday, 18 October 2022 7:31 PM
To: rebecca@apexarchaeology.com.au
Cc: oscar.saunders@orionconsulting.com.au
Subject: Re: 40 Memorial Avenue, Bella Vista, NSW - invitation to register
Attachments: 2NSW Member Certificate 2022 - A1 INDIGENOUS SERVICES PTY LTD.pdf; A1.WC2023.pdf; A1.PL2023.pdf



Contact: Carolyn Hickey
Mobile: 0411650057
Email: Cazadirect@live.com
Address: 10 Marie Pitt Place, Glenmore Park, NSW 2745
ACN: 639 868 876
ABN: 31 639 868 876

Hi,
Thank you for your email, I would like to register in being involved in all levels of consultation for this project.
Including, Meetings, Reports, Sharing Cultural Information, and available Field Work.

About the founder Carolyn Hickey
I am a Traditional Owner with over 25 years experience in helping preserve Aboriginal cultural heritage on projects.
I hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and values that exist in the project area.
I have attached A1 Indigenous Services Insurances.

When Selecting Groups for Engagement;

Please consider that **A1 INDIGENOUS SERVICES PTY LTD** is a member of the **NSW INDIGENOUS CHAMBER OF COMMERCE.**

We carry the NSWICC Assured logo showing that **A1 Indigenous Services** has met National Policy requirements as upheld by the First Australians Chamber of Commerce and Industry (FACCI) for being identified as a **100% First Nations Owned Indigenous Business** That has demonstrate compliance with Government and Industry Regulators.

A1 INDIGENOUS SERVICES PTY LTD Represents over 100 Indigenous Locals

We would like **you** to consider including **A1's employee's, the Kawalkan workforce and the Women's Circle Employees** for all future field work.

The Kawalkan workforce Program is a designed program created to employ young indigenous youths between the ages of (18-29) years of age.

The Women's Circle was created with the need to always have Experienced Indigenous Women present in all field work.

To aim for not only gender equality in the workplace but, to help identify and protect any women's sacred places.

Please feel free to publish my name, and response but not the email

Please feel free to contact me on details supplied

Kind Regards,
Carolyn Hickey
Managing Director

A1 INDIGENOUS SERVICES PTY LTD is now a member of the NSW INDIGENOUS CHAMBER OF COMMERCE

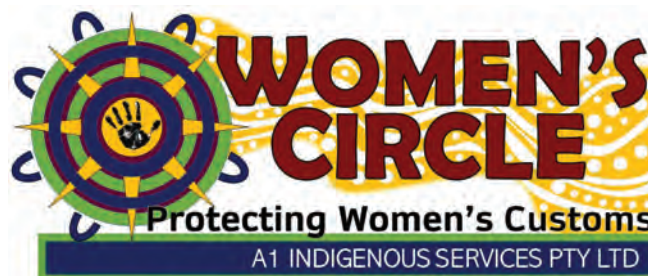
A business or enterprise carrying the NSWICC Assured logo has met National Policy requirements as upheld by the First Australians Chamber of Commerce and Industry (FACCI) for being identified as a First Nations Business Owner or Entrepreneur and the business must demonstrate compliance with Government and Industry Regulators.

(Certificate attached) A certificate confirms that the Enterprise listed above has met all requirements of the NSWICC's Assured Program , operating as a100% Aboriginal Owned, Operated and Controlled Business. The NSW Indigenous Chamber of Commerce (NSWICC) is the Peak body for Aboriginal Business in New South Wales and a member of the First Australians Chamber of Commerce and Industry (FACCI)

A1 Indigenous Services is 100%, Indigenous Owned Australian Company
which offers a range of services to the construction industry.

It is our mission to commit to an innovative approach to a better future for Indigenous employment and community.

While improving ways to close the gap in Aboriginal participation in the construction Industry.
Building strength in aboriginal communities and our Indigenous labour force.





From: rebecca@apexarchaeology.com.au <rebecca@apexarchaeology.com.au>

Sent: Monday, 10 October 2022 11:29 AM

To: 'undisclosed recipients' <jenni@apexarchaeology.com.au>

Subject: RE: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

Good morning,

Your details have been provided by Heritage NSW as an Aboriginal person or organisation who might like to take part in consultation for a project at **40 Memorial Avenue, Bella Vista, NSW.**

Please find attached a letter with more information and inviting you to register your interest by the close of business, **Monday 24th October 2022.**

Please get in touch if you have any questions. I look forward to hearing from you.

Kind regards



Rebecca Bryant
ARCHAEOLOGIST

0405 236 821

REBECCA@APEXARCHAEOLOGY.COM.AU

WWW.APEXARCHAEOLOGY.COM.AU

rebecca@apexarchaeology.com.au

From: Amanda De Zwart <Amandahickey@live.com.au>
Sent: Thursday, 20 October 2022 10:24 AM
To: rebecca@apexarchaeology.com.au
Subject: 40 Memorial Avenue, Bella Vista, NSW
Attachments: Confirmation of Insurance (3) (1).pdf

Hi Rebecca

Thank you for your email AHCS would like to Formally register a interest in this project **40 Memorial Avenue, Bella Vista, NSW.**

Attached is my current insurance
If there is anything else you need please feel free to contact me
Mobile 0434 480 558
Email amandahickey@live.com.au

Have a great day

Amanda AHCS

rebecca@apexarchaeology.com.au

From: rebecca@apexarchaeology.com.au
Sent: Tuesday, 11 October 2022 8:26 AM
To: 'James Eastwood'
Subject: RE: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

Good morning Jamie,

I hope you are well,

I have registered you for this project and will be in touch shortly with more information.

Warm regards,

Rebecca

From: James Eastwood <james.eastwood@y7mail.com>
Sent: Monday, 10 October 2022 1:35 PM
To: rebecca@apexarchaeology.com.au
Subject: Re: 40 Memorial Avenue, Bella Vista, NSW - invitation to register



Good afternoon Rebecca

Thank you for your recent emailed invitation to register for Aboriginal consultation, towards 40 Memorial Avenue Bella Vista NSW. Aragung gladly accept your invitation and wishes to register a expression of interest for this project - Aragung look forward to hearing of more information in regards to this project.

Kind regards

Aragung

Co/ Jamie Eastwood

On Monday, 10 October 2022 at 11:29:40 am AEDT, rebecca@apexarchaeology.com.au <rebecca@apexarchaeology.com.au> wrote:

Good morning,

Your details have been provided by Heritage NSW as an Aboriginal person or organisation who might like to take part in consultation for a project at **40 Memorial Avenue, Bella Vista, NSW.**

Please find attached a letter with more information and inviting you to register your interest by the close of business, **Monday 24th October 2022.**

Please get in touch if you have any questions. I look forward to hearing from you.

Kind regards



Rebecca Bryant
ARCHAEOLOGIST

0405 236 821

REBECCA@APEXARCHAEOLOGY.COM.AU

WWW.APEXARCHAEOLOGY.COM.AU

rebecca@apexarchaeology.com.au

From: rebecca@apexarchaeology.com.au
Sent: Tuesday, 11 October 2022 9:21 AM
To: 'Kayelene Terry'
Subject: RE: Expression of Interest for the Proposed residential subdivision and development of 40 Memorial Ave, Bel

Good morning Kayelene,

I have registered Bariyan Cultural Connections for this project and will be in touch with more information shortly.

Warm regards,

Rebecca

From: Kayelene Terry <bariyan.culturalconnections@gmail.com>
Sent: Monday, 10 October 2022 3:07 PM
To: rebecca@apexarchaeology.com.au
Subject: Expression of Interest for the Proposed residential subdivision and development of 40 Memorial Ave, Bel

Bariyan Cultural Connections would like to register our interest for this project and be involved in all aspects of the project.

--

Kind Regards
Kayelene Terry
Bariyan Cultural Connections
P: 0412 061 893
E: bariyan.culturalconnections@gmail.com
Aboriginal Owned and Operated Cultural and Heritage Business

We would like to acknowledge the Traditional Custodians of the land (Darug Tribe) where we live, work and meet. We would like to pay our respects to our Elders past and present and extend those to all Aboriginal people and our future generation who we meet on our journey connecting to country.

rebecca@apexarchaeology.com.au

From: rebecca@apexarchaeology.com.au
Sent: Tuesday, 11 October 2022 8:22 AM
To: 'Ralph Hampton'
Subject: RE: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

Good morning Ralph,

I have registered you for this project and will be in touch shortly with more information

Warm regards,

Rebecca

From: Ralph Hampton <hamptonralph46@gmail.com>
Sent: Monday, 10 October 2022 11:37 AM
To: rebecca@apexarchaeology.com.au
Subject: Re: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

Good morning my name is Ralph Hampton I would like to register for this project thank you

On Mon, 10 Oct 2022, 11:29 am , <rebecca@apexarchaeology.com.au> wrote:

Good morning,

Your details have been provided by Heritage NSW as an Aboriginal person or organisation who might like to take part in consultation for a project at **40 Memorial Avenue, Bella Vista, NSW.**

Please find attached a letter with more information and inviting you to register your interest by the close of business, **Monday 24th October 2022.**

Please get in touch if you have any questions. I look forward to hearing from you.

Kind regards



rebecca@apexarchaeology.com.au

From: rebecca@apexarchaeology.com.au
Sent: Tuesday, 11 October 2022 8:31 AM
To: 'Corroboree Aboriginal Corporation'
Subject: RE: ATTENTION: Bounced Message Notification, bytes in the mailbox!!

Hi Marilyn,

You're very welcome.

Warm regards,
Rebecca

From: Corroboree Aboriginal Corporation <corroboreecorp@bigpond.com>
Sent: Monday, 10 October 2022 5:54 PM
To: rebecca@apexarchaeology.com.au
Subject: Re: ATTENTION: Bounced Message Notification, bytes in the mailbox!!

Hi Rebecca
That' would be great. Thanks

Kind regards
Marilyn Carroll-Johnson
Director
Corroboree Aboriginal Corporation
Mob: [0415911159](tel:0415911159)
Ph: [0288244324](tel:0288244324)
E: corroboreecorp@bigpond.com
Address: [PO Box 3340](#)
[ROUSE HILL NSW 2155](#)

CAC acknowledges the Traditional Owners of Country throughout Australia and their continuing connection to land, sea & community. We pay our respects to them and their cultures, to the Elders past and present, and emerging.

On 10 Oct 2022, at 4:52 pm, rebecca@apexarchaeology.com.au wrote:

Hi Marilyn,

I tried that email address as well and it bounced back. I can still register you for the project while you fix the mailbox situation. Would you like to do that?

Warm regards,

Rebecca

From: Corroboree Aboriginal Corporation <corroboreecorp@bigpond.com>
Sent: Monday, 10 October 2022 12:04 PM
To: rebecca@apexarchaeology.com.au
Subject: Fwd: ATTENTION: Bounced Message Notification, bytes in the mailbox!!

Hi Rebecca
Please resend to maz_lolli@yahoo.com.au

Kind regards
Marilyn Carroll-Johnson
Director
Corroboree Aboriginal Corporation
Mob: [0415911159](tel:0415911159)
Ph: [0288244324](tel:0288244324)
E: corroboreecorp@bigpond.com
Address: PO Box 3340
ROUSE HILL NSW 2155

CAC acknowledges the Traditional Owners of Country throughout Australia and their continuing connection to land, sea & community. We pay our respects to them and their cultures, to the Elders past and present, and emerging.

Begin forwarded message:

From: admin
Date: 10 October 2022 at 11:29:44 am AEDT
Subject: ATTENTION: Bounced Message Notification, bytes in the mailbox!!

RE: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

DARUG CUSTODIAN

ABORIGINAL CORPORATION



DARUG CUSTODIAN
ABORIGINAL
CORPORATION

PO BOX 81 WINDSOR 2756
PHONE: 0245775181 FAX: 0245775098
MOBILE: 0414962766 Justine Coplin
EMAIL: justinecoplin@optusnet.com.au

Attention Apex

Date: 10/10/22

Subject: 40 Memorial Avenue, Bella Vista

Dear Rebecca

Our group is a non-profit organisation that has been active for over forty years in Western Sydney, we are a Darug community group with over three hundred members. The main aim in our constitution is the care of Darug sites, places, wildlife and to promote our culture and provide education on the Darug history.

The Bella Vista area is an area that our group has a vast knowledge of, we have worked and lived in for many years, this area is significant to the Darug people due to the connection of sites and the continued occupation. Our group has been involved in all previous assessments and works in this area as a traditional owner Darug group for the past 40 plus years.

People from other mobs should be respectful of our country and people if they are not respectful that the Darug are the knowledge holders then they are not cultural, therefore should not be involved on cultural heritage on Darug land.

Therefore, we would like to register our interest for full consultation and involvement in the above project area.

Our Country is the traditional land of the Darug people, who speak the Darug language. Our Country isn't defined or identified by government bodies and their agencies. These agencies and bodies do not support the people of our Country and are not the traditional custodians and therefore should not be in a position to speak for the Darug people, Darug land or Darug knowledge.

Maintaining cultural protocols is fundamental in obtaining knowledge and invoking discussion for Country. To speak directly to and consult with the people of traditional lands, in this case the Darug people, is necessary to maintain correct protocol and acquire accurate knowledge.

It is culturally inappropriate for any Non-Darug person or group/s to speak on Darug cultural heritage.

Darug people are the only people that have the authority to speak for Darug Country, and hence should be the only peoples that can and must speak for Darug Country

Please contact us with all further enquiries on the above contacts.

Regards



Justine Coplin

We acknowledge and pay respect to the Darug people, the traditional Aboriginal custodians of this land.

rebecca@apexarchaeology.com.au

From: rebecca@apexarchaeology.com.au
Sent: Tuesday, 11 October 2022 8:21 AM
To: 'lilly carroll'
Subject: RE: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

Hi Lilly and Paul,

I have registered DNC for this project and will be in touch shortly with more information.

Warm regards,

Rebecca

From: lilly carroll <didgengunawalclan@yahoo.com.au>
Sent: Monday, 10 October 2022 11:31 AM
To: rebecca@apexarchaeology.com.au; 'undisclosed recipients' <jenni@apexarchaeology.com.au>
Subject: Re: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

Hi Rebecca

DNC would like to register an interest into 40 Memorial Avenue, Bella Vista

Kind regards
Paul Boyd & Lilly Carroll
Directors DNC
0426823944

[Sent from Yahoo Mail for iPhone](#)

On Monday, October 10, 2022, 11:29 am, rebecca@apexarchaeology.com.au wrote:

Good morning,

Your details have been provided by Heritage NSW as an Aboriginal person or organisation who might like to take part in consultation for a project at **40 Memorial Avenue, Bella Vista, NSW.**

Please find attached a letter with more information and inviting you to register your interest by the close of business, **Monday 24th October 2022.**

Please get in touch if you have any questions. I look forward to hearing from you.

Kind regards



Rebecca Bryant
ARCHAEOLOGIST

0405 236 821

REBECCA@APEXARCHAEOLOGY.COM.AU

WWW.APEXARCHAEOLOGY.COM.AU

rebecca@apexarchaeology.com.au

From: rebecca@apexarchaeology.com.au
Sent: Monday, 17 October 2022 8:18 AM
To: 'Shayne Dickson'
Subject: RE: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

Good morning Shayne,

I have registered Gunjeewong Cultural Heritage for this project and will be in touch with more information shortly.

Warm regards,

Rebecca

From: Shayne Dickson <Gunjeewongculturalheritage21@hotmail.com>
Sent: Saturday, 15 October 2022 6:35 AM
To: rebecca@apexarchaeology.com.au
Subject: Re: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

Good morning Rebecca,

Thank you for the invitation
Could you please register Gunjeewong for the above project mentioned.

Kind Regards
Shayne Dickson
0421636474

Sent from my iPhone

On 10 Oct 2022, at 11:30 am, rebecca@apexarchaeology.com.au wrote:

Good morning,

Your details have been provided by Heritage NSW as an Aboriginal person or organisation who might like to take part in consultation for a project at **40 Memorial Avenue, Bella Vista, NSW.**

Please find attached a letter with more information and inviting you to register your interest by the close of business, **Monday 24th October 2022.**

Please get in touch if you have any questions. I look forward to hearing from you.

Kind regards

From: rebecca@apexarchaeology.com.au
To: "Adam Gunya"
Subject: RE: 40 Memorial Avenue, Bella Vista, NSW - invitation to register
Date: Tuesday, 18 October 2022 6:24:30 PM
Attachments: [image001.png](#)

Hi Adam,

Thank you're your reply and additional information.

I will be in touch shortly with more information about the project and have noted you would like to be any fieldwork opportunities.

I hope you have an enjoyable rest of the week.

Warm regards,

Rebecca

From: Adam Gunya <gunya.ach@gmail.com>
Sent: Tuesday, 18 October 2022 10:48 AM
To: rebecca@apexarchaeology.com.au
Subject: Re: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

Hi Rebecca,

Please register me for the Aboriginal Cultural Heritage Assessment **for 40 Memorial Avenue, Bella Vista, NSW.**

I have been vaccinated for Covid.

I would like to be involved in any proposed fieldwork opportunities.

Name and contact details of the organisation registering:

- Company: GUNYA ABORIGINAL CULTURAL HERITAGE SERVICES PTY LTD
- Contact Name: Adam Gunther
- email: gunya.ach@gmail.com
- Mobile: 0492 232 606

Insurances attached for future reference

regards

Adam Gunther

On Mon, Oct 10, 2022 at 11:29 AM <rebecca@apexarchaeology.com.au> wrote:

Good morning,

Your details have been provided by Heritage NSW as an Aboriginal person or organisation who might like to take part in consultation for a project at 40 Memorial Avenue, Bella Vista, NSW.

Please find attached a letter with more information and inviting you to
th

register your interest by the close of business, Monday 24 October 2022.
Please get in touch if you have any questions. I look forward to hearing from
you.
Kind regards



Rebecca Bryant
ARCHAEOLOGIST

0405 236 821

REBECCA@APEXARCHAEOLOGY.COM.AU

WWW.APEXARCHAEOLOGY.COM.AU

rebecca@apexarchaeology.com.au

From: rebecca@apexarchaeology.com.au
Sent: Tuesday, 11 October 2022 8:23 AM
To: 'Phil Khan'
Subject: RE: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

Good morning Phil,

Thank you for your reply. I have registered you for KYWG for this project and will be in touch shortly with more information

Warm regards,

Rebecca

From: Phil Khan <philipkhan.acn@live.com.au>
Sent: Monday, 10 October 2022 12:03 PM
To: rebecca@apexarchaeology.com.au
Subject: RE: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

Hi Rebecca,

Thank you for informing us that **Apex Archaeology** will be involved in an Aboriginal Cultural Heritage Assessment at **40 Memorial Avenue, Bella Vista, NSW** & that you are inviting Aboriginal organisations to register, if they wish to be involved in the community consultation process.

As a senior Aboriginal person for the past 50yrs, I actively participate in the protection of the Aboriginal Cultural Heritage throughout the Sydney Basin, & particularly throughout Western Sydney, on behalf of Kamilaroi Yankuntjatjara Working Group I wish to provide to you my organisation's registration of interest.

I wish to be involved & participate in all levels of consultation/project involvement. I wish to attend all meetings, participate in available field work & receive a copy of the report.

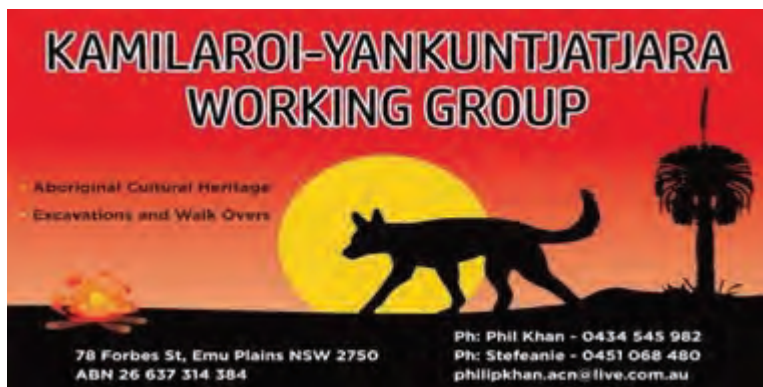
I have attached a copy of Kamilaroi Yankuntjatjara Working group's Public Liability Insurance & Workers Compensation certificate.

Our Rates - \$112.50 per hour, \$450 half day & \$900 full day (Exc. GST)

Our RAPS have up to 15yrs Cultural Heritage experience in – field work which involves manual excavation (digging), sieving, identifying artefacts, setting up transits, setting up equipment, packing equipment, site surveys & attending meetings.

Should you wish me to provide further information, please do not hesitate to contact me on 0434545982 or Stefeanie on 0451068480.

Kind Regards
Phil Khan



Sent from [Mail](#) for Windows 10

From: rebecca@apexarchaeology.com.au

Sent: Monday, 10 October 2022 11:30 AM

To: 'undisclosed recipients'

Subject: RE: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

Good morning,

Your details have been provided by Heritage NSW as an Aboriginal person or organisation who might like to take part in consultation for a project at **40 Memorial Avenue, Bella Vista, NSW.**

Please find attached a letter with more information and inviting you to register your interest by the close of business, **Monday 24th October 2022.**

Please get in touch if you have any questions. I look forward to hearing from you.

Kind regards



rebecca@apexarchaeology.com.au

From: Darleen Johnson <murrabidgeemullangari@yahoo.com.au>
Sent: Wednesday, 19 October 2022 6:03 AM
To: rebecca@apexarchaeology.com.au
Subject: Re: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

Hi Rebecca,
Please register our interest in the above project, we have been doing aboriginal cultural heritage projects for over 26 years.
Kind regards
Ryan Johnson
0460839128

On Monday, 10 October 2022 at 11:29:41 am AEDT, <rebecca@apexarchaeology.com.au> wrote:

Good morning,

Your details have been provided by Heritage NSW as an Aboriginal person or organisation who might like to take part in consultation for a project at **40 Memorial Avenue, Bella Vista, NSW.**

Please find attached a letter with more information and inviting you to register your interest by the close of business, **Monday 24th October 2022.**

Please get in touch if you have any questions. I look forward to hearing from you.

Kind regards



rebecca@apexarchaeology.com.au

From: rebecca@apexarchaeology.com.au
Sent: Tuesday, 11 October 2022 8:30 AM
To: 'Kaarina Slater'
Subject: RE: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

Hi Kaarina,

Thank you for your reply. I have registered you for this project and will be in touch shortly with more information

Warm regards,

Rebecca

From: Kaarina Slater <ngambaa.culturalconnections@gmail.com>
Sent: Monday, 10 October 2022 3:49 PM
To: rebecca@apexarchaeology.com.au
Subject: Re: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

Hi Rebecca

Please register Ngambaa Cultural Services for the above project, Indigenous Site Officer with 12 yrs experience in determining the significance of Aboriginal Artefacts & Objects & places.

Knowledge & Ancestral
Connections to Country
Kind Regards

Kaarina Slater
Manager

On Mon, 10 Oct 2022, 11:29 am , <rebecca@apexarchaeology.com.au> wrote:

Good morning,

Your details have been provided by Heritage NSW as an Aboriginal person or organisation who might like to take part in consultation for a project at **40 Memorial Avenue, Bella Vista, NSW.**

Please find attached a letter with more information and inviting you to register your interest by the close of business, **Monday 24th October 2022.**

Please get in touch if you have any questions. I look forward to hearing from you.

Kind regards



rebecca@apexarchaeology.com.au

From: rebecca@apexarchaeology.com.au
Sent: Tuesday, 11 October 2022 8:25 AM
To: 'Scott Franks'
Subject: RE: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

Thank you for your reply.

I have registered you for this project and will be in touch shortly with more information.

Regards,

Rebecca

From: Scott Franks <scott@toconwall.com.au>
Sent: Monday, 10 October 2022 12:56 PM
To: rebecca@apexarchaeology.com.au
Cc: undisclosed recipients <jenni@apexarchaeology.com.au>
Subject: Re: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

Please register our interest in this project

Regards
Scott Franks

Consultant
Tocomwall Pty Ltd
scott@toconwall.com.au
0404 171544

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On 10 Oct 2022, at 11:29 am, rebecca@apexarchaeology.com.au wrote:

Good morning,

Your details have been provided by Heritage NSW as an Aboriginal person or organisation who might like to take part in consultation for a project at **40 Memorial Avenue, Bella Vista, NSW.**

Please find attached a letter with more information and inviting you to register your interest by the close of business, **Monday 24th October 2022.**

Please get in touch if you have any questions. I look forward to hearing from you.

Kind regards

rebecca@apexarchaeology.com.au

From: rebecca@apexarchaeology.com.au
Sent: Tuesday, 11 October 2022 8:37 AM
To: 'Phillip Boney'
Subject: RE: 40 Memorial Avenue, Bella Vista, NSW

Hello Phil,

Good to hear from you.

I hope you and your family are well. I have registered you for this project and will be in touch shortly with more information.

Warm regards,

Rebecca

From: Phillip Boney <Waarlan12@outlook.com>
Sent: Monday, 10 October 2022 9:59 PM
To: rebecca@apexarchaeology.com.au
Subject: 40 Memorial Avenue, Bella Vista, NSW

Hi Rebecca,

Phil Boney here. I wish to register my interest for the above project in all its entirety including consultations, fieldworks and any other requirements that are necessary for the cultural values for this project. Thank you.

With regards, Phil Boney
Wailwan Aboriginal Group

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From: rebecca@apexarchaeology.com.au
To: "[Rodney Gunther](#)"
Subject: RE: 40 Memorial Avenue, Bella Vista, NSW - invitation to register
Date: Tuesday, 18 October 2022 6:20:28 PM
Attachments: [image001.png](#)

Hi Rodney,

Thank you for your reply and additional information.

I have registered Waawaar Awaab for this project and will be in contact with more information shortly.

Warm regards,

Rebecca

From: Rodney Gunther <waawaar.awaab@gmail.com>
Sent: Monday, 17 October 2022 6:23 PM
To: rebecca@apexarchaeology.com.au
Subject: Re: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

Hi Rebecca,

Please register Waawaar Awaab Aboriginal Corporation for the Aboriginal Cultural Heritage Assessment for the proposed development at **40 Memorial Avenue, Bella Vista, NSW**.

Waawaar Awaab members have been vaccinated for Covid.

Waawaar Awaab Aboriginal Corporation would like to be involved in any proposed fieldwork opportunities.

Relevant insurances are attached for future reference.

regards

Rodney Gunther
0410 580 962

On Mon, Oct 10, 2022 at 11:29 AM <rebecca@apexarchaeology.com.au> wrote:

Good morning,
Your details have been provided by Heritage NSW as an Aboriginal person or organisation who might like to take part in consultation for a project at 40 Memorial Avenue, Bella Vista, NSW.
Please find attached a letter with more information and inviting you to register your interest by the close of business, Monday 24th October 2022.
Please get in touch if you have any questions. I look forward to hearing from you.
Kind regards



Rebecca Bryant
ARCHAEOLOGIST

0405 236 821

REBECCA@APEXARCHAEOLOGY.COM.AU

WWW.APEXARCHAEOLOGY.COM.AU

From: Steven Johnson <wokacorp@yahoo.com>
Sent: Tuesday, 11 October 2022 11:42 AM
To: rebecca@apexarchaeology.com.au; 'undisclosed recipients'
Subject: Re: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

**Woka Aboriginal Corporation
Preservation of Culture & Heritage**

Mob: 0406991221

Email:wokacorp@yahoo.com

Attention: Rebecca Bryant - Apex Archeology

Re: Expressing Interest - 40 Memorial Avenue, Bella Vista, NSW

We are submitting our registration of Woka Aboriginal Corporation for full process on this project. I personally have lived in the area and connect to Mother Earth. We have Culture Knowledge and have worked in the area for over 16 years. We are all Aboriginal people from all over NSW. We are from different clans. We provide employment to all Indigenous people. We are all experienced Aboriginal Cultural Heritage Site Officers. We have worked on number of projects in the area. We are aware that registering for this project does not guarantee work, should field surveys, test excavations, or salvage excavations be required. However, we hope you adhere to equal employment opportunities, fair work practices and equality and share work RAPS, with rotating rosters, so all that register are equally given time to partake with our Culture and Heritage Preservation. And we hope you share the work equally with Indigenous People, not those that send white people for Aboriginal Culture & Heritage fieldwork. Also note that fieldwork should not be given to the same RAPS all the time, as it not fair, nor equal employment opportunity.

Some of the bigger company's we have engaged with are Lendlease, NBN, Transgrid, Rose Hill Camellia project the Sydney Metro, etc. We have worked with the National Parks & Wildlife, WaterNSW, RMS/TFNSW on for over a decade on projects. We have our history & stories passed down to us by our Elders. We have assisted in surveys, test excavations, salvage & consulting with archaeologists over a vast number of years. We are experienced in the field of identifying potential PADS, artefacts, Including our learned history and knowledge passed down to us. We appreciate the opportunity to be part of protecting and preserving our Aboriginal heritage and Culture. We are very proud of our heritage and culture passed to us by our Ancestors and our own histories . We are therefore pleased with being a part of this research and to provide our experience and knowledge.

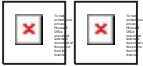
Our organisation has the current Public liability insurance and is WHS compliant, with all member's holding white cards and required PPE.

All our members are extremely experienced in the identification of Aboriginal artefacts and have worked with numerous Archeologists in field surveys, including test and salvage excavations on fieldwork. We are very passionate about our ancestral land and our conservation of our history matters the utmost to us. We hold strong links to our ancestors,

our culture and our heritage and lore. We are motivated to share our history with our current generation and future generations to pass down to our Mob.

Please note we do not want our details forwarded to LALC, please do not release our correspondence. Please register Woka Aboriginal Corporations name for this project. Please feel free to contact me if you have any questions.

Sincerely
Steve
Aboriginal Heritage Custodian
Mob: 0406991221
Email: wokacorp@yahoo.com



We respectfully acknowledge the Traditional Owners of the lands upon which we work and pay our deep respect to Elders past, present and emerging.

On Monday, October 10, 2022, 11:29 am, rebecca@apexarchaeology.com.au wrote:

Good morning,

Your details have been provided by Heritage NSW as an Aboriginal person or organisation who might like to take part in consultation for a project at **40 Memorial Avenue, Bella Vista, NSW.**

Please find attached a letter with more information and inviting you to register your interest by the close of business, **Monday 24th October 2022.**

Please get in touch if you have any questions. I look forward to hearing from you.

Kind regards



Rebecca Bryant
ARCHAEOLOGIST

0405 236 821

REBECCA@APEXARCHAEOLOGY.COM.AU

WWW.APEXARCHAEOLOGY.COM.AU

rebecca@apexarchaeology.com.au

From: rebecca@apexarchaeology.com.au
Sent: Tuesday, 11 October 2022 8:35 AM
To: 'Daniel Chalker'
Subject: RE: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

Yarma Daniel.

I have registered you for this project and will be in touch shortly with more information. I have to say, you provide the most lovely and poetic response. It lifts my spirit.

I hope you have an enjoyable day.

Warm regards,

Rebecca

From: Daniel Chalker <woriwoolywa@gmail.com>
Sent: Monday, 10 October 2022 9:44 PM
To: rebecca@apexarchaeology.com.au
Subject: Re: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

Yarma Rebecca

We would like to acknowledge the land owners as the first nation's families of the country. We would like to acknowledge and pay thanks to mother earth for providing for us, Father for looking over us and the sprites for helping guide us. Also we pay our respects to the old the young and the new.

We thank you for your invitation to register for the Aboriginal Cultural Heritage Assessment at 40 Memorial Avenue, Bella Vista Nsw. We would like to be involved in the consultation process and are also able to provide field workers if required.

Thank you again and please feel free to contact me if you require anything further.

Thankyou
Daniel Chalker
[0409 006216](tel:0409006216)
Wori Woolywa

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From: rebecca@apexarchaeology.com.au <rebecca@apexarchaeology.com.au>
Sent: Monday, October 10, 2022 11:29:09 AM
To: 'undisclosed recipients' <jenni@apexarchaeology.com.au>
Subject: RE: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

Good morning,
Your details have been provided by Heritage NSW as an Aboriginal person or organisation who might like to take part in consultation for a project at **40 Memorial Avenue, Bella Vista, NSW**. Please find attached a letter with more information and inviting you to register your interest by the close of business, **Monday 24th October 2022**.

Please get in touch if you have any questions. I look forward to hearing from you.
Kind regards



Rebecca Bryant
ARCHAEOLOGIST

0405 236 821

REBECCA@APEXARCHAEOLOGY.COM.AU

WWW.APEXARCHAEOLOGY.COM.AU

rebecca@apexarchaeology.com.au

From: Arika J <yulayculturalservices@gmail.com>
Sent: Wednesday, 26 October 2022 3:49 PM
To: rebecca@apexarchaeology.com.au
Subject: Re: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

Dear Rebecca,

Yulay cultural service's would like to register our interest in the above project.

Kind regards
Arika Jalomaki
0481 251 385

On Mon, 10 Oct 2022 at 11:29 am, <rebecca@apexarchaeology.com.au> wrote:

Good morning,

Your details have been provided by Heritage NSW as an Aboriginal person or organisation who might like to take part in consultation for a project at [40 Memorial Avenue, Bella Vista, NSW](#).

Please find attached a letter with more information and inviting you to register your interest by the close of business, **Monday 24th October 2022**.

Please get in touch if you have any questions. I look forward to hearing from you.

Kind regards



Rebecca Bryant
ARCHAEOLOGIST

0405 236 821

REBECCA@APEXARCHAEOLOGY.COM.AU

WWW.APEXARCHAEOLOGY.COM.AU

--
Arika Jalomaki

rebecca@apexarchaeology.com.au

From: Bo Field <yurrandaali_cs@hotmail.com>
Sent: Tuesday, 11 October 2022 2:44 PM
To: rebecca@apexarchaeology.com.au
Subject: Re: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

Good afternoon

Yurrandaali would like to register for this project

Regards,

Bo Field - Manager
Yurrandaali Cultural Services
[0403 048 263](tel:0403048263) | yurrandaali_cs@hotmail.com

From: rebecca@apexarchaeology.com.au <rebecca@apexarchaeology.com.au>
Sent: Monday, 10 October 2022 11:29 AM
To: 'undisclosed recipients' <jenni@apexarchaeology.com.au>
Subject: RE: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

Good morning,
Your details have been provided by Heritage NSW as an Aboriginal person or organisation who might like to take part in consultation for a project at **40 Memorial Avenue, Bella Vista, NSW**. Please find attached a letter with more information and inviting you to register your interest by the close of business, **Monday 24th October 2022**. Please get in touch if you have any questions. I look forward to hearing from you.
Kind regards



Rebecca Bryant
ARCHAEOLOGIST

0405 236 821
REBECCA@APEXARCHAEOLOGY.COM.AU
WWW.APEXARCHAEOLOGY.COM.AU



APPENDIX D: ADVERTISEMENT

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ABORIGINAL CULTURAL HERITAGE ASSESSMENT: PROPOSED DEVELOPMENT OF 40 MEMORIAL AVE, BELLA VISTA, NSW NOTIFICATION AND REGISTRATION OF ABORIGINAL INTERESTS

16/10/2022

Orion Consulting on behalf of Landex Property Group (the proponent) has engaged Apex Archaeology to assist in preparing an Aboriginal Cultural Heritage Assessment (ACHA) for a proposed development at 40 Memorial Avenue, Bella Vista, NSW. The land is legally defined as Lot 1 DP 1237055. The study area also includes part Lot 1 DP 1180927 and part Lot 402 GP 1129736.

The project is located within the Hills Shire LGA. The project manager is Oscar Saunders who can be contacted via email at oscar.saunders@orionconsulting.com.au.

The site has been identified as having potential for subsurface archaeological deposits to be present. An ACHA is required to investigate the nature and extent of these potential deposits, and to determine if an Aboriginal Heritage Impact Permit (AHIP) application will be required. As such, a process of Aboriginal community consultation in accordance with the Aboriginal cultural heritage consultation requirements for proponents 2010 is being initiated by Apex Archaeology. The purpose of consultation with Aboriginal people is to assist the proponent in the preparation of an application for an AHIP and to assist the DPC Secretary in the DPC Secretary's consideration and determination of the application.

The proponent invites Aboriginal people who hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and places within the study area to register an interest in the process of Aboriginal community consultation.

Please note that details of the Aboriginal people or organisations who register an interest in consultation will be forwarded to Heritage NSW and Development Aboriginal Land Council (DALC). Please advise at the time of registration if you do not wish for your details to be forwarded to these entities.

Aboriginal stakeholders can register their interest by post to PO Box 336, Nowra, NSW 2541; via phone on 0405 230 821; or via rebecca@apexarchaeology.com.au. Please include the name and contact details of your preferred contact person in your registration.

Registrations will be accepted until COB Monday 24 October 2022.



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APPENDIX E: METHODOLOGY, COVER LETTERS AND RESPONSES

40 MEMORIAL AVENUE, BELLA VISTA, NSW

METHODOLOGY AND PROJECT INFORMATION

LGA: The Hills Shire

October 2022





Apex Archaeology would like to acknowledge the Aboriginal people who are the traditional custodians of the land in which this project is located. Apex Archaeology would also like to pay respect to Elders both past and present.

DOCUMENT CONTROL

The following register documents the development and issue of the document entitled '40 Memorial Avenue, Bella Vista, NSW – Methodology and Project Information', prepared by Apex Archaeology in accordance with its quality management system.

Revision	Prepared by	Reviewed by	Comment	Issue Date
1 – Draft	Rebecca Bryant	Jenni Bate	Issue for RAP review	25 October 2022
2 – Final	Jenni Bate	RAPs	Issue of final	21 November 2022



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
ACHCRs	The DECCW April 2010 <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
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> . Consultation is not a required step in a due diligence assessment; however, it is strongly encouraged to consult with the relevant Local Aboriginal Land Council and to determine if there are any Aboriginal owners, registered native title claimants or holders, or any registered Indigenous Land Use Agreements in place for the subject land
DA	Development Application
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
DPIE	Department of Planning, Industry and Environment
Due Diligence	Taking reasonable and practical steps to determine the potential for an activity to harm Aboriginal objects under the <i>National Parks and Wildlife Act 1974</i> and whether an application for an AHIP is required prior to commencement of any site works, and determining the steps to be taken to avoid harm
Due Diligence Code of Practice	The DECCW Sept 2010 <i>Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales</i>
GIS	Geographical Information Systems
GSV	Ground Surface Visibility
Heritage NSW	Heritage NSW in the Department of Premier and Cabinet, responsible for heritage matters within NSW
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
LALC	Local Aboriginal Land Council
LGA	Local Government Area
NPW Act	NSW <i>National Parks and Wildlife Act 1974</i>
OEH	Office of Environment and Heritage – now Heritage NSW
RAPs	Registered Aboriginal Parties
THSC	The Hills Shire Council



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1.0 INTRODUCTION

Orion Consulting has engaged Apex Archaeology to assist in preparing an Aboriginal Cultural Heritage Assessment (ACHA) for a proposed residential development located at 40 Memorial Avenue, Bella Vista, NSW.

A process of Aboriginal community consultation in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (the ACHCRs) has been initiated by Apex Archaeology.

The following document provides information about the project, and outlines the detailed methodology for cultural heritage assessment, field survey and test excavation (as required) that Apex Archaeology will be utilising for this project, along with the proposed heritage management activities. It has been developed to address requirements of Section 4.3 in the ACHCRs. The assessment would also be undertaken in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (the Code of Practice).

1.1 STUDY AREA AND PROJECT BRIEF

The study area is located approximately 3 km north of Bella Vista CBD and approximately 40 km north west of the Sydney CBD (Figure 1). It is located at 40 Memorial Avenue, Bella Vista with some portions extending into neighbouring lots (Figure 2). The study area is within The Hills Shire Local Government Area and is legally defined as Lot 1 DP 1237055, and also includes parts of Lot 1 DP 1180837, Lot 403 DP 1125136, and Lot 4 DP 1203920. It is proposed to subdivide the property for residential housing, along with associated road infrastructure.

There are three Aboriginal sites registered on the Aboriginal Heritage Management Information System (AHIMS) within 50 m of the current study area. One site is a potential archaeological deposit (PAD) and is registered as AHIMS #45-5-3063. It is approximately 35 m to the east of the northeast boundary of Lot 1 DP 1237055. The other two sites are both listed as PADs with the same site name (NWRL 7) and are registered as AHIMS #45-5-4262 and AHIMS #45-5-4841. They are duplicates of the same site and are mapped as being on, and within 20 m (respectively), of the southwest boundary of Lot 1 DP1237055. The site status of AHIMS #45-5-4264 is listed as 'partially destroyed' and the site status of AHIMS #45-5-4841 is listed as 'valid'.

A previous archaeological salvage excavation was undertaken by Kelleher Nightingale Consultants in 2015, in relation to AHIMS #45-5-4262 and was in close proximity to the southern boundary of the current study area (Figure 3). A total of 2,893 artefacts were recovered from a large portion of the PAD including a number of stone-tool types. The remainder of PAD that extends into Lot 1 DP1237055 and Lot 1 DP1180837 of the current area was *not* included in the KNC salvage report and warrants further investigation.



As such, the PAD area identified in the KNC 2015 report is proposed to be investigated to determine the condition of the site and whether cultural material is located in this area, and to identify the nature and extent of any such material present.

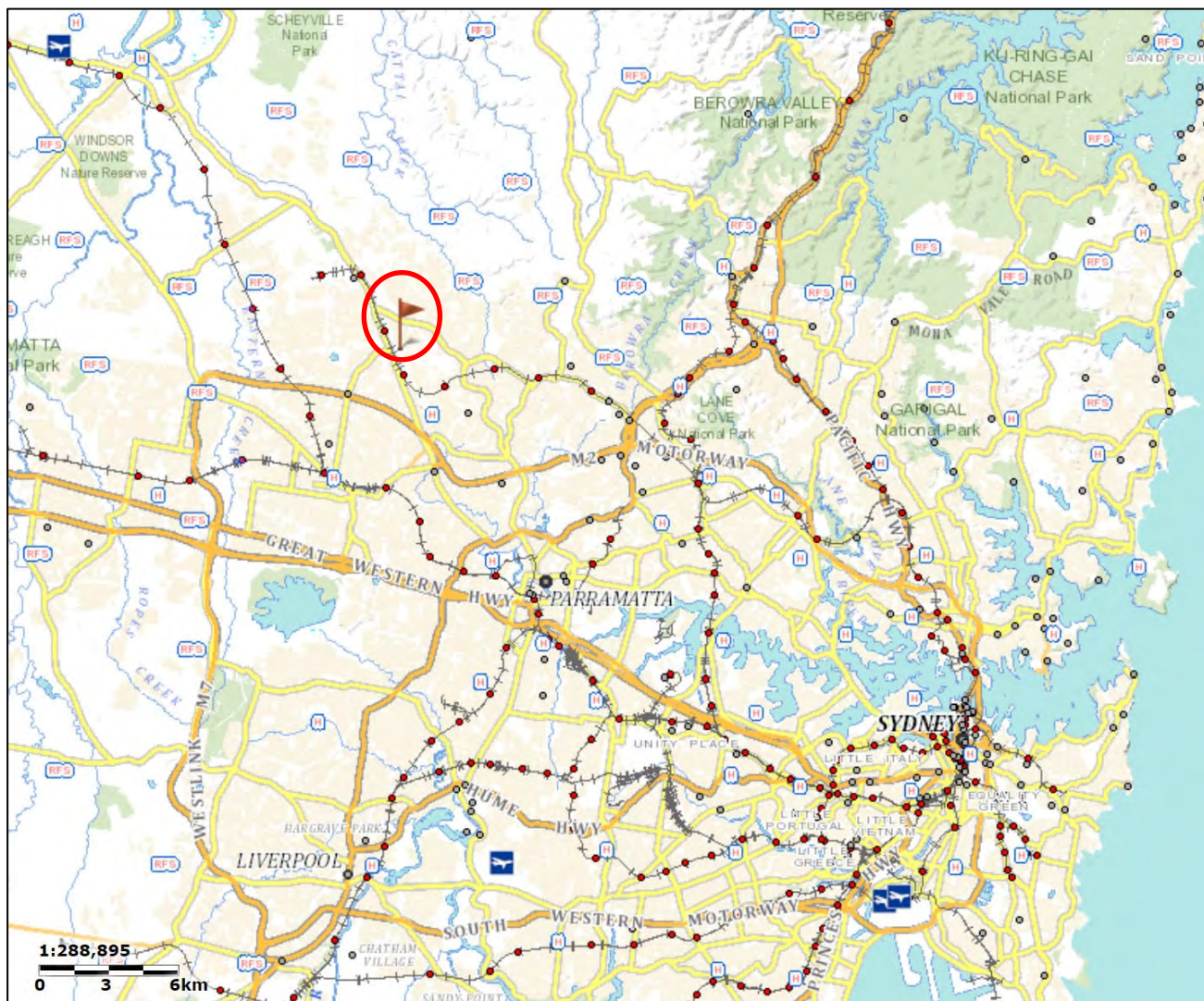


Figure 1: General location of the study area (red circled flag) in its local context.



- Study Area
- Lot Boundaries
- Hydrology

	<p>0 70 140</p> <p>metres</p>	<p>Projection: MGA Zone 56 (GDA 94) Base Map: NearMaps 2022 Image Date: 24/08/2022 Final - Version 1</p>	<p>Figure 2: General location of the study area in its local context.</p>	
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Figure 3: Map of PAD (shaded in blue) within current study area (outlined in red). Current registered AHIMS sites indicated by yellow dots and site no. (Source: KNC 2015; AHIMS site search 1km).

1.2 PURPOSE OF CONSULTATION

In accordance with the ACHCRs, the purpose of consultation with Aboriginal people and organisations is to:



- Understand Aboriginal people's views and concerns about the proposed project;
- Understand the Aboriginal cultural heritage values present within the area;
- Assist in gathering relevant information about the cultural significance and values of the area;
- Consider cultural and scientific significance and values as part of the design of the methodology;
- Assist in developing cultural heritage management options and recommendations for the area; and
- To assist the Chief Executive in their consideration and determination of any AHIP application that may be required.

Please note, Section 3.4 of the ACHCRs states the following:

The consultation process involves getting the views of, and information from, Aboriginal people and reporting on these. It is not to be confused with other field assessment processes involved in preparing a proposal and an application. Consultation does not include the employment of Aboriginal people to assist in field assessment and/or site monitoring. Aboriginal people may provide services to proponents through a contractual arrangement however, this is separate from consultation...The proponent is not obligated to employ those Aboriginal people registered for consultation. Consultation as per these requirements will continue irrespective of potential or actual employment opportunities for Aboriginal people.

Reasonable costs will be paid by the proponent to any Aboriginal people engaged to assist with site inspections or other activities which may be required, such as salvage excavation. However, these activities are separate to the consultation process and do not form part of the process itself.

1.3 COVID POLICIES

Apex Archaeology takes the safety of our staff and the wider community very seriously. All recommendations from both the NSW Government and NSW Health will be implemented as necessary, including social distancing, wearing of masks, limiting the number of participants in meetings, ensuring adequate locations for meetings are selected if they should occur, and any other restrictions that may be implemented. As such, we are encouraging communications via phone, email, post, or video conferencing as appropriate.

1.4 SITE ASSESSMENT

An area of PAD, AHIMS #45-5-4262, was identified by Kelleher Nightingale Consultancy in their 2015 archaeological salvage report for the Sydney Metro Northwest Rail link works. The PAD extends into the southern areas of Lot 1 DP1237055 and Lot 1 DP1180837 within the current study area. KNC undertook a two-staged salvage excavation within a large portion of the AHIMS #45-5-4262 PAD, which is close to the southern boundary of Lot 1 DP 1237055. Stage 1 consisted of the excavation of 26 test squares that resulted in the recovery of 34 artefacts. Stage 2 involved a further 100m² being excavated around the test pit with the highest



artefact concentration. This resulted in a further 2,879 artefacts being recovered including a number of stone-tool types. The site name is currently listed on AHIMS as 'NWRL PAD7 - Potential duplicate of 45-5-4841', the site status is listed as 'partially destroyed', and the Site ID is '45-5-4262'.

As the remaining area of PAD (AHIMS #45-5-4262) within the current study area has *not* been destroyed and has *not* been subjected to archaeological testing, it warrants further investigation to determine the site condition and whether cultural material is located in this area. This will enable the current investigation to identify the nature and extent of any such material present.

2.0 CULTURAL HERITAGE ASSESSMENT

Apex Archaeology recognises that “Aboriginal people are the primary determinants of the cultural significance of their heritage” (DECCW 2010). As such, Apex Archaeology will undertake consultation with the Aboriginal community to provide an opportunity for cultural knowledge relating to the study area to be recorded and included in the Cultural Heritage Assessment.

2.1 FULL ASSESSMENT

A full assessment would comprise production of an Aboriginal Cultural Heritage Assessment Report (ACHAR) to meet the ACHCRs and the Code of Practice requirements.

The ACHAR would outline the results of the Aboriginal community consultation as well as the results of the Aboriginal archaeological assessment of the study area. The report would be prepared in order to support any Aboriginal Heritage Impact Permit (AHIP) application necessary. The Consultation Guidelines and the Code of Practice are complementary and work with each other to allow a comprehensive assessment of Aboriginal cultural heritage within an area.

2.2 THE ACHCRs

The *Aboriginal cultural heritage consultation requirements for proponents* (ACHCRs) detail how consultation with the Aboriginal community is to be undertaken in order to assess the cultural significance of an area. There are four stages, as detailed below. Each stage has statutory timeframes associated to ensure sufficient time is allowed for registered Aboriginal parties (RAPs) to provide an appropriate response.

STAGE 1: NOTIFICATION OF PROJECT PROPOSAL AND REGISTRATION OF INTEREST

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.

This stage has been completed for this project and a total of nineteen Aboriginal stakeholders have registered an interest in being consulted for the project.

STAGE 2: PRESENTATION OF INFORMATION ABOUT THE PROPOSED PROJECT

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.

STAGE 3: GATHERING INFORMATION ABOUT CULTURAL SIGNIFICANCE OF THE PROJECT

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. Any feedback must be considered and implemented as appropriate into the methodology.

In this instance Apex Archaeology is providing this document in fulfilment of Stage 2 and 3 of the Consultation Guidelines.

STAGE 4: REVIEW OF DRAFT CULTURAL HERITAGE ASSESSMENT REPORT

Stage 4 sees the preparation of the draft ACHA Report, 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.

2.3 THE CODE OF PRACTICE

The Code of Practice provides a guideline for undertaking the archaeological and scientific assessment of Aboriginal archaeological sites within NSW. There are a number of requirements to be followed which will enable an assessment of the nature and extent of any archaeological deposits within the study area.

Previous archaeological work within an area can provide important information about the archaeological context of an area which can be used in the development of a predictive model for the specific study area, along with the ethnohistorical context of a study area. Sources of information include previous archaeological assessment reports and searches of the Aboriginal Heritage Information



Management System (AHIMS), and the results will be included in the ACHAR prepared for the project.

An understanding of the landscape context in which a study area is located can assist in the assessment of the likelihood of archaeological material being preserved (if present), and if it is likely to be present, how well it may have been preserved. It can also assist in predicting how Aboriginal people may have used the area in the past and therefore how any archaeological material may have been distributed across the landscape. A number of factors must be included, such as past land use, landforms present, geomorphic activity within the study area, any erosion, types of soils present and natural resources within the area.

Based on the information identified during the above process, a predictive model of Aboriginal land use of the area will be developed, which considers how archaeological evidence may have been distributed across the landscape. This predictive model will include an assessment of how and why Aboriginal people may have utilised the area in the past (for example, for subsistence activities, camping, ceremonial purposes, etc) and will consider both the spatial and temporal relationships of archaeological sites. Statements about the archaeological potential of specific areas within the study area will be made and presented in the ACHAR.

2.4 TEST EXCAVATION

This document forms a part of the Aboriginal community consultation in accordance with the Consultation Guidelines, which must have been implemented and completed to the stage of inviting comments on the methodology at a minimum, prior to undertaking test excavation. A detailed sampling strategy for both survey and test excavation is also proposed in this document. Test excavations are proposed within the study area, and will be undertaken in accordance with the detailed methodology proposed in Section 3.3.

Test excavations must be conducted in accordance with Requirement 16 of the Code of Practice, which details the size of test pits, spacing, sieving methodology, and other details relating to test excavations. Any archaeological objects recovered during excavation must be recorded and managed appropriately.

2.5 RAP INPUT

If comments are received from RAPs stating that an alternative method would be preferred for any of the following sections, these will be considered and alternatives may be proposed, with this document updated to reflect the amendments.

RAPs are under no obligation to share any cultural knowledge that they do not wish to share. It should be noted that our ultimate goal is to protect and avoid any known sites of archaeological and/or cultural significance, and if we do not know the location of these, we cannot ensure they are avoided.



All feedback received from the RAPs was supportive of the proposed methodology and no amendments were requested.

3.0 DETAILED METHODOLOGY

Apex Archaeology has prepared the following detailed methodologies for assessment of cultural significance, field survey, preparation of test pit locations, manual excavation of test pits, additional salvage and recording of test pits.

3.1 CULTURAL SIGNIFICANCE

In order to gather information about the cultural significance of the study area, the following methodology will be followed for the project:

Aboriginal people who have registered an interest in being consulted for the project (registered Aboriginal parties – RAPs) may have an opportunity to visit the site and discuss the impacts that have already occurred within the site, and what is proposed as part of the development. During this visit, RAPs may have an opportunity to discuss any cultural knowledge that they may have regarding the site, should they wish to disclose such. RAPs would also have the opportunity to share knowledge either in writing or via telephone if they prefer. Additionally, requests for cultural knowledge may be made in writing.

Wherever possible, we prefer to communicate in writing, generally via email if possible. This is for a number of reasons, as follows:

- It ensures all information shared is recorded appropriately, which can be missed in phone conversations.
- It ensures all participants in consultation are able to provide a measured and considered response, rather than being ‘put on the spot’ by a phone call, and thus all participants can respond at their leisure within the consultation timeframes.
- It ensures consultation can be undertaken in an appropriately civil manner by all participants.

Any cultural knowledge provided by the RAPs will be treated in the manner determined by the RAPs. Any requests for knowledge to be kept confidential or restricted in terms of who may access the information would be respected. Electronic documents would be password protected where necessary to protect the integrity of the information. Information would only be included in reports where permission to include such is given.

Should you prefer to be consulted in a manner other than in writing (email or letter), please advise as a response to this document and advise your preferred manner of consultation.



3.2 FIELD SURVEY SAMPLING STRATEGY

The field survey will be completed in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW, September 2010) (the Code of Practice); and the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (April 2011) and *Applying for an Aboriginal Heritage Impact Permit: Guide for Applicants* (May 2011). The field survey is not intended to be an opportunity for gathering information regarding the cultural significance of the area, but rather is a scientific inspection of the area to determine the current state and archaeological potential of the site. The survey will be undertaken in accordance with the following:

- The study area will be visually inspected by pedestrian survey;
- The study area will be surveyed utilising pedestrian transects, with each participant responsible for inspecting a 2m wide transect on each pass;
- If stone artefacts are identified on the ground each item will have a flag placed at its location;
- The Archaeologist will record each item as per the lithic site recording form and lithic item recording form detailed below;
- The study area will be recorded utilising survey recording forms. The following is a list of attributes that will be recorded for each area surveyed:
 - Survey area;
 - Recorder name;
 - Date;
 - Landform element;
 - Slope;
 - Distance to watercourse;
 - Vegetation;
 - Land surface;
 - Rock outcrops;
 - Detection limiting factors; and
 - Ground disturbance.
- The study area will be divided into survey units based on landform and given ratings in the following categories:
 - Survey area (as defined by the length of area surveyed multiplied by two. A participant in this instance can only see 1m either side at a time. Survey area covered increases when more participants are added);
 - Total area surveyed;
 - Percentage of sample inspected;
 - Archaeological visibility (this is a percentage of potential within the landform);
 - Surface visibility;
 - Exposure type; and
 - Effective survey coverage
- Photos of each survey unit will be taken and identifying photograph file numbers recorded on the survey recording forms.



- Aboriginal lithic site recording forms will be used to record artefact scatters and isolated finds. The following list of attributes will be recorded for each site:
 - Site Number;
 - Survey Area;
 - Date;
 - Recorder name;
 - Total number of artefacts recorded;
 - Visible extent of artefacts;
 - Extent of surface exposure;
 - GPS reading;
 - Sub-surface potential;
 - Research potential;
 - Raw stone material available;
 - Ground Disturbance;
 - Vegetation;
 - Photographs of site; and
 - Site plan.
- Each artefact will be recorded using a lithic item recording form with the following attributes recorded:
 - Artefact number;
 - Locus;
 - Colour;
 - Stone material;
 - Lithic item type;
 - Length, Width & Thickness (mm);
 - Cortex Percentage;
 - Cortex type; and
 - Comments.

3.3 TEST PIT LAYOUT

Test excavations are proposed to be undertaken in areas identified as having potential for sub surface archaeological deposits (ie PAD) - see Figure 4. An indicative test pit layout has not been provided given the relatively small size of the area. Locations for test pits will be determined upon completion of the initial site survey.

The following methodology would be implemented during the completion of test excavations:

- Transects will be spaced at 10m, with pits at 20m intervals, in a 'checkerboard' fashion, in accordance with the method described in Orton 2000:90 whereby a staggered square grid is considered more efficient than a square grid for undertaking subsurface sampling;
- Test pits will be oriented north – south using a handheld compass for accuracy;
- Test pits will avoid areas clearly disturbed;



- The location of the north west corner of the first test pit will be recorded by GPS, and following pits will be tied into the transect using the distance and bearing technique. This method requires a 60m or 100m tape measure and compass to measure from the initial test pit. The tape is run out from the first pit and subsequent pits laid out at 20m intervals;
- Each test pit will have a flag placed in the north-west corner with the test square number in sequence and Easting and Northing of its location written on it, taken from the GPS coordinate for the initial pit and extrapolated based on the location of the pit in relation to the initial pit; and
- Each test pit will be planned to scale using 1mm grid paper (additional landscape features including trees, fence lines, creeks and contour lines will also be added).

3.4 EXCAVATION METHODOLOGY

- Test pits will be 50 x 50cm;
- All test pits will be excavated in 5cm spits by hand using a shovel, mattock and trowel. Spit depths will be consistently checked with a hand tape measure to ensure accuracy of excavation depth. Once the first test pit has been excavated and an understanding of the stratigraphy has been obtained, following test pits for that transect may be excavated stratigraphically;
- Test pit excavation will cease on reaching basal clay, bedrock or a culturally sterile layer, or at the discretion of the archaeologist;
- Test pits may be combined to form 1m² squares by digging four contiguous 50 x 50 cm test pits to determine if artefact concentrations continue;
- If artefact concentrations warrant further expansion (5 or more artefacts) continuation of 1m² test pits into a 3m² open area may also be necessary. This is the maximum open area allowed for under the Code of Practice. If artefact concentrations are still high once a 3m² area has been excavated then this area would be prioritised for salvage under an AHIP;
- If cultural features (e.g. hearths, heat treatment pits, knapping floors) are identified during excavation, excavation with hand tools (e.g. mattock and shovel) will cease and continue with trowel only;
- Locations of identified features will be planned onto 1mm graph paper. X, Y and Z coordinates of individual artefacts from in-situ knapping floors will be recorded prior to removal (where possible) and continuation of excavation;
- The soil from each spit will be placed in 10L plastic buckets and transported to the sieving station;
- To ensure sufficient control of each spit excavated, a bag and tag will be written to accompany the buckets from each spit. The following information will be recorded on each bag and tag: site name, date, pit location (easting & northing) and name of excavator;
- All material from each test pit will be wet sieved through table sieves (1 x 1m) with a wire mesh aperture gauge of 3mm and 5mm depending on the soil matrix;



- All material recovered from the sieving process will be checked by a qualified archaeologist with experience in artefact identification prior to being placed into the spit bag; and
- Artefact counts will be recorded for each spit.

3.5 RECORDING

- Each spit will be recorded on a spit sheet with the following information:
 - site name;
 - date;
 - excavator name;
 - spit number;
 - spit depth;
 - pit location (easting & northing);
 - start levels & end levels;
 - bucket count and end total bucket count;
 - soil description;
 - description of disturbance;
 - description of artefacts (material type & artefact type if in situ);
 - in situ recording of artefacts where possible (xyz coordinates); and
 - photograph details (from surface and of each spit to base).
- Each test pit will have a section planned on 1mm grid paper.

3.6 ARTEFACTS

Any artefacts that are recovered from the test excavation will be analysed by an archaeologist experienced in artefact analysis and interpretation. At the conclusion of the project all artefacts will be reburied on site in accordance with Requirement 26 of the Code of Practice. Artefacts will be temporarily held at Apex Archaeology's office during the analysis and stored in a lockable safe. Once the artefacts are reburied the location will be recorded and provided to AHIMS. It is likely that reburial cannot occur until the development has been completed and a suitable location identified.

3.7 CESSATION OF EXCAVATION

Excavations will cease upon reaching basal clay, bedrock or a culturally sterile layer, or at the discretion of the archaeologist (for example, if it becomes unsafe to continue excavation due to depth).

3.8 BACKFILL AND SALVAGE EXCAVATION

At the conclusion of the testing program, all test pits will either be backfilled (by collapsing the sides of the test pit in with a shovel or mattock, and/or filling with spoil or clean fill to return the pit to original ground level). If a test pit has yielded a significant artefact deposit requiring further salvage under an AHIP, then the pit will be securely bunded off with wooden stakes and bunding so that expansion (open area excavation) can be undertaken more easily once an AHIP has been issued.



4.0 INFORMATION SOUGHT

As required by Section 4.3 of the ACHCRs, Apex Archaeology sought the following information from all RAPs:

- feedback on the proposed methodology outlined above;
- any protocols that you would like adopted during this project to obtain and/or use cultural information;
- any Aboriginal objects of cultural significance and/or importance that you are aware of within the study area;
- any places of cultural significance and/or importance that you are aware of within the study area;
- your preference for the management of any archaeological material recovered during works (ie community repatriation, reburial on site, deposition with appropriate museum);
- guidance on the protocols, sensitivity, use and/or distribution of any cultural information that you provide Apex Archaeology; and
- whether you require any further information on the project.

Responses were accepted until CoB Monday 21 November, 2022.

Three responses were received from the RAPs. All were supportive. No amendments to the methodology were requested or suggested. Responses are attached to this document.



5.0 REFERENCES

DECCW 2010. *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales*. DECCW, Sydney South.

DECCW 2010. *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales*. DECCW, Sydney South.

DECCW 2010. *Aboriginal cultural heritage consultation requirements for proponents 2010*. DECCW, Sydney South.

Kelleher Nightingale Consulting Pty Ltd, 2015. *Sydney Metro Northwest Archaeological Salvage Program*. Report to Transport NSW

OEH 2011. *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW*. OEH, Sydney South.

Orton, C, 2000. *Cambridge Manuals in Archaeology: Sampling in Archaeology*. Cambridge University Press, Cambridge.



APPENDIX A: RAP CORRESPONDENCE

From: rebecca@apexarchaeology.com.au
To: ["undisclosed recipients"](#)
Bcc: Amandahickey@live.com.au; bariyan.culturalconnections@gmail.com; cazadirect@live.com; corroboreecorp@bigpond.com; didgengunawalclan@yahoo.com.au; Gunjeewongculturalheritage21@hotmail.com; gunya.ach@gmail.com; hamptonralph46@gmail.com; james.eastwood@y7mail.com; justinecoplin@optusnet.com.au; murrabidgeemullangari@yahoo.com.au; ngambaa.culturalconnections@gmail.com; philipkhan.acn@live.com.au; scott@tocomwall.com.au; Waarlan12@outlook.com; waawaar.awaa@gmail.com; wokacorp@yahoo.com; woriwoolywa@gmail.com; yurrandaali_cs@hotmail.com
Subject: RE: Memorial Avenue, Bella Vista NSW - Method and Project Information
Date: Tuesday, 25 October 2022 8:40:30 AM
Attachments: [image001.png](#)
[22086 40 Memorial Ave Bella Vista Draft ACHA Info & Method.pdf](#)

Good afternoon,

Thank you for your registration of interest in the above project. Please find attached further information about the project, as well as the proposed methodology for the assessment.

Please provide any comments you may have by CoB Monday 21 November 2022.

Please get in touch if you'd like to discuss the project further.

Kind regards,



From: rebecca@apexarchaeology.com.au
To: "Arika J"
Subject: RE: 40 Memorial Avenue, Bella Vista, NSW - invitation to register
Date: Thursday, 27 October 2022 1:30:13 PM
Attachments: [image001.png](#)
[22086 40 Memorial Ave Bella Vista Draft ACHA Info & Method.pdf](#)

Hi Arika,

The registration for this project actually closed on the Monday. However, I have registered you for the project and have attached the information and method document, but unfortunately cannot change the response-date deadline of **Monday 21 November**.

Warm regards,

Rebecca

From: Arika J <yulayculturalservices@gmail.com>
Sent: Wednesday, 26 October 2022 3:49 PM
To: rebecca@apexarchaeology.com.au
Subject: Re: 40 Memorial Avenue, Bella Vista, NSW - invitation to register

Dear Rebecca,

Yulay cultural service's would like to register our interest in the above project.

Kind regards
Arika Jalomaki
0481 251 385

On Mon, 10 Oct 2022 at 11:29 am, <rebecca@apexarchaeology.com.au> wrote:

Good morning,
Your details have been provided by Heritage NSW as an Aboriginal person or organisation who might like to take part in consultation for a project at [40 Memorial Avenue, Bella Vista, NSW](#).
Please find attached a letter with more information and inviting you to register your interest by the close of business, Monday 24th October 2022. Please get in touch if you have any questions. I look forward to hearing from you.
Kind regards



Rebecca Bryant
ARCHAEOLOGIST

0405 236 821

REBECCA@APEXARCHAEOLOGY.COM.AU

WWW.APEXARCHAEOLOGY.COM.AU

--
Arika Jalomaki

rebecca@apexarchaeology.com.au

From: rebecca@apexarchaeology.com.au
Sent: Monday, 7 November 2022 8:30 AM
To: 'Carolyn .H'
Subject: RE: Memorial Avenue, Bella Vista NSW - Method and Project Information

Hi Carolyn,

Thank you for your email, comment on the Information and method document, and additional information about your services. You represent great organisations.

As per your request, we will not publish your email.

Warm regards,

Rebecca

From: Carolyn .H <cazadirect@live.com>
Sent: Sunday, 6 November 2022 10:58 PM
To: rebecca@apexarchaeology.com.au
Subject: Re: Memorial Avenue, Bella Vista NSW - Method and Project Information



Contact: Carolyn Hickey

Mobile: 0411650057

Email: [Cazadirect@live.com](mailto:cazadirect@live.com)

Address: 10 Marie Pitt Place, Glenmore Park, NSW 2745

ACN: 639 868 876

ABN: 31 639 868 876

Hi,

I have reviewed the document and support the Information and Methodology.

About the founder Carolyn Hickey

I am a Traditional Owner with over 25 years experience in helping preserve Aboriginal cultural heritage on projects.

I hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and values that exist in the project area.

I have attached A1 Indigenous Services Insurances.

When Selecting Groups for Engagement:

Please consider that **A1 INDIGENOUS SERVICES PTY LTD** is a member of the **NSW INDIGENOUS CHAMBER OF COMMERCE.**

We carry the NSWICC Assured logo showing that **A1 Indigenous Services** has met National Policy requirements as upheld by the First Australians Chamber of Commerce and Industry (FACCI) for being identified as a **100% First Nations Owned Indigenous Business** That has demonstrate compliance with Government and Industry Regulators.

A1 INDIGENOUS SERVICES PTY LTD Represents over 100 Indigenous Locals

We would like **you** to consider including **A1's employee's, the Kawalkan workforce and the Women's Circle Employees** for all future field work.

The Kawalkan workforce Program is a designed program created to employ young indigenous youths between the ages of (18-29) years of age.

The Women's Circle was created with the need to always have Experienced Indigenous Women present in all field work.

To aim for not only gender equality in the workplace but, to help identify and protect any women's sacred places.

Please feel free to publish my name, and response but not the email

Please feel free to contact me on details supplied

Kind Regards,

Carolyn Hickey

Managing Director

A1 INDIGENOUS SERVICES PTY LTD is now a member of the NSW INDIGENOUS CHAMBER OF COMMERCE

A business or enterprise carrying the NSWICC Assured logo has met National Policy requirements as upheld by the First Australians Chamber of Commerce and Industry (FACCI) for being identified as a First Nations Business Owner or Entrepreneur and the business must demonstrate compliance with Government and Industry Regulators.

(Certificate attached) A certificate confirms that the Enterprise listed above has met all requirements of the NSWICC's Assured Program, operating as a 100% Aboriginal Owned, Operated and Controlled Business. The NSW Indigenous Chamber of Commerce (NSWICC) is the Peak body for Aboriginal Business in New South Wales and a member of the First Australians Chamber of Commerce and Industry (FACCI)

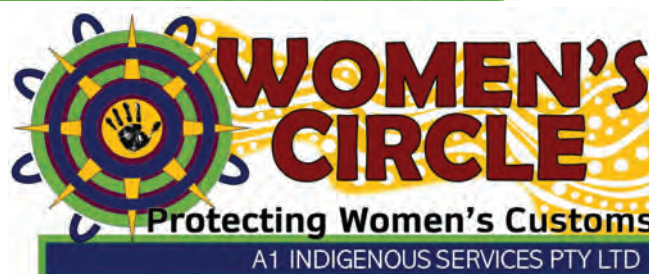
A1 Indigenous Services is 100%, Indigenous Owned Australian Company

which offers a range of services to the construction industry.

It is our mission to commit to an innovative approach to a better future for Indigenous employment and community.

While improving ways to close the gap in Aboriginal participation in the construction Industry.

Building strength in aboriginal communities and our Indigenous labour force.





From: rebecca@apexarchaeology.com.au <rebecca@apexarchaeology.com.au>
Sent: Tuesday, 25 October 2022 8:39 AM
To: 'undisclosed recipients' <jenni@apexarchaeology.com.au>
Subject: RE: Memorial Avenue, Bella Vista NSW - Method and Project Information

Good afternoon,

Thank you for your registration of interest in the above project. Please find attached further information about the project, as well as the proposed methodology for the assessment.

Please provide any comments you may have by CoB Monday 21 November 2022.
Please get in touch if you'd like to discuss the project further.

Kind regards,



Rebecca Bryant
ARCHAEOLOGIST

0405 236 821
REBECCA@APEXARCHAEOLOGY.COM.AU
WWW.APEXARCHAEOLOGY.COM.AU

rebecca@apexarchaeology.com.au

From: rebecca@apexarchaeology.com.au
Sent: Wednesday, 26 October 2022 2:27 PM
To: 'Kayelene Terry'
Subject: RE: Memorial Avenue, Bella Vista NSW - Method and Project Information

Hi Kayelene,

Thank you for your reply.

Warm regards,

Rebecca

From: Kayelene Terry <bariyan.culturalconnections@gmail.com>
Sent: Wednesday, 26 October 2022 1:40 PM
To: rebecca@apexarchaeology.com.au
Subject: Re: Memorial Avenue, Bella Vista NSW - Method and Project Information

Hi Rebecca

On behalf of Bariyan Cultural Connections I have read and agree with the methodology.

Kind regards
Kayelene Terry
Bariyan Cultural Connections

On Tue, Oct 25, 2022 at 8:40 AM <rebecca@apexarchaeology.com.au> wrote:

Good afternoon,

Thank you for your registration of interest in the above project. Please find attached further information about the project, as well as the proposed methodology for the assessment.

Please provide any comments you may have by CoB Monday 21 November 2022.

Please get in touch if you'd like to discuss the project further.

Kind regards,



Rebecca Bryant
ARCHAEOLOGIST

0405 236 821

REBECCA@APEXARCHAEOLOGY.COM.AU

WWW.APEXARCHAEOLOGY.COM.AU

--

Kind Regards
Kayelene Terry
Bariyan Cultural Connections
P: 0412 061 893
E: bariyan.culturalconnections@gmail.com
Aboriginal Owned and Operated Cultural and Heritage Business

We would like to acknowledge the Traditional Custodians of the land (Darug Tribe) where we live, work and meet. We would like to pay our respects to our Elders past and present and extend those to all Aboriginal people and our future generation who we meet on our journey connecting to country.

From: rebecca@apexarchaeology.com.au
Sent: Tuesday, 25 October 2022 6:01 PM
To: 'Adam Gunya'
Subject: RE: Memorial Avenue, Bella Vista NSW - Method and Project Information

Hi Adam,

Thank you for your thoughtful and detailed reply.

Warm regards,

Rebecca

From: Adam Gunya <gunya.ach@gmail.com>
Sent: Tuesday, 25 October 2022 4:01 PM
To: rebecca@apexarchaeology.com.au
Subject: Re: Memorial Avenue, Bella Vista NSW - Method and Project Information

Hi Rebecca,

Please find the response to the Draft Methodology for **40 Memorial Avenue, Bella Vista, NSW.**

Requested additional information is as follows:

- feedback on the proposed methodology outlined above – **attached.**
- any protocols that you would like adopted during this project to obtain and/or use cultural information – **Not at this time.**
- any Aboriginal objects of cultural significance and/or importance that you are aware of within the study area;
 - **AHIMS information proves Aboriginal occupation of the study area that requires further investigation.**
 - **Shaped Quartz/crystal material is very highly significant.**
- any places of cultural significance and/or importance that you are aware of within the study area – **As above.**
- your preference for the management of any archaeological material recovered during works (ie community repatriation, reburial on site, deposition with appropriate museum) – **Depends on what is found.**
- guidance on the protocols, sensitivity, use and/or distribution of any cultural information that you provide Apex Archaeology – **Not at this time.**
- whether you require any further information on the project – **Not at this stage.**

Regards

Adam Gunther

0492 232 606

On Tue, Oct 25, 2022 at 8:40 AM <rebecca@apexarchaeology.com.au> wrote:

Good afternoon,

Thank you for your registration of interest in the above project. Please find attached further information about the project, as well as the proposed methodology for the assessment.

Please provide any comments you may have by CoB Monday 21 November 2022.

Please get in touch if you'd like to discuss the project further.

Kind regards,





APPENDIX F: DRAFT REPORT EMAILS AND RESPONSES

From: [Jenni Bate](#)
To: [Undisclosed Recipients](#)
Bcc: [Carolyn .H;](#) [amandahickey@live.com.au;](#) [James Eastwood;](#) [bariyan.culturalconnections@gmail.com;](#) [hamptonralph46@gmail.com;](#) [Corroboree Aboriginal Corporation;](#) [justinecoplin@optusnet.com.au;](#) [lilly carroll;](#) [Shayne Dickson;](#) [Adam Gunya;](#) [Phil Khan;](#) [Darleen Johnson;](#) [ngambaa.culturalconnections@gmail.com;](#) [Scott Franks;](#) [Phillip Boney;](#) [Rodney Gunther;](#) [Steven Johnson;](#) [Daniel Chalker;](#) [Arika J;](#) [Bo Field](#)
Subject: 40 Memorial Ave, Bella Vista - Draft ACHA
Date: Friday, 17 February 2023 4:31:08 PM
Attachments: [22086 Memorial Ave Hodges St Bridge Draft AR.pdf](#)
[22086 Memorial Ave Hodges St Bridge Draft ACHA.pdf](#)

Good afternoon,

I hope you're well. In accordance with Section 4.4 of the Aboriginal cultural heritage consultation requirements for proponents 2010, whereby a draft Aboriginal Cultural Heritage Assessment Report must be provided to registered Aboriginal parties for their review and comment, please find attached a copy of the draft report for the above project.

Your comments on the draft report are appreciated and will be incorporated into the final report.

We would appreciate receiving your comments by CoB Friday 17 March 2023.

Have a great weekend.

Kind regards,



Apex Archaeology is proud to support the [Immunisation Foundation of Australia](#) through our workplace giving program.

From: [Amanda De Zwart](#)
To: jenni@apexarchaeology.com.au
Subject: 40 Memorial Ave, Bella Vista - Draft ACHA
Date: Monday, 6 March 2023 10:06:34 AM

Hi Jenni

Thank you for your email

AHCS is happy with the ACHA

Thank you
Have a great day

Amanda AHCS

DARUG CUSTODIAN

ABORIGINAL CORPORATION



DARUG CUSTODIAN
ABORIGINAL
CORPORATION

PO BOX 81 WINDSOR 2756
PHONE: 0245775181 FAX: 0245775098
MOBILE: 0414962766 Justine Coplin
EMAIL: justinecoplin@optusnet.com.au

Attention: Apex

Date: 13/03/23

Subject: 40 Memorial Ave, Bella Vista

Dear Jenni

Our group is a non-profit organisation that has been active for over forty years in Western Sydney, we are a Dharug community group with over three hundred members. The main aim in our constitution is the care of Dharug sites, places, wildlife and to promote our culture and provide education on the Dharug history.

Our group promotes Dharug Culture and works on numerous projects that are culturally based as a proud and diverse group. It has been discussed by our group and with many consultants and researches that our history is generic and is usually from an early colonists perspective or solely based on archaeology and sites. These histories are adequate but they lack the people's stories and parts of important events and connections of the Dharug people and also other Aboriginal people that now call this area home and have done so for numerous generations.

This area is significant to the Dharug people due to the evidence of continued occupation, within close proximity to this project site there is a complex of significant sites.

Landscapes and landforms are significant to us for the information that they hold and the connection to Dharug people. Aboriginal people (Dharug) had a complex lifestyle that was based on respect and belonging to the land, all aspects of life and survival did not impact on the land but helped to care for and conserve land and the sustenance that the land

provided. As Dharug people moved through the land there were no impacts left, although there was evidence of movement and lifestyle, the people moved through areas with knowledge of their areas.

and followed signs that were left in the landscape. Dharug people knew which areas were not to be entered and respected the areas that were sacred.

Knowledge of culture, lifestyle and lore have been part of Dharug people's lives for thousands of years, this was passed down to the next generations and this started with birth and continued for a lifetime. Dharug people spent a lifetime learning and as people grew older they passed through stages of knowledge, elders became elders with the learning of stages of knowledge not by their age, being an elder is part of the kinship system this was a very complicated system based on respect.

Dharug sites are all connected, our country has a complex of sites that hold our heritage and past history, evidence of the Dharug lifestyle and occupation are all across our country, due to the rapid development of Sydney many of our sites have been destroyed, our sites are thousands of years old and within the short period of time that Australia has been developed pre contact our sites have disappeared.

The *Aboriginal cultural heritage consultation requirements for proponents* Section 4.1.8 refers to "Aboriginal organisations representing Aboriginal people who hold cultural knowledge". Recent consultation meetings have revealed that many of these Aboriginal organisations and individuals do not hold cultural knowledge of the Western Sydney area. The increasing involvement of such parties in cultural heritage management means that genuine local Aboriginal organisations are unable to properly care for our cultural heritage.

Many Aboriginal organisations listed in the Heritage response letter do not contribute to the Aboriginal community of Western Sydney. Individuals listed in the Heritage response letter do not represent the community and while they may be consulted with, should not be employed for their own personal financial benefit.

Our organisation is committed to providing benefits back to our local Aboriginal community through such measures as funding the local Aboriginal juniors' touch football team, painting classes for the local children and donating money to various charities. Employment in cultural heritage activities is source of income that organisations such as ours can use to contribute to beneficial activities and support within the community.

Dharug custodian Aboriginal Corporation's site officers have knowledge of Dharug land, Dharug Culture, Oral histories, landforms, sites, Dharug history, wildlife, flora, and legislative requirements. We have worked with consultants and developers for many years in Western

Sydney (Dharug Land) for conservation, site works, developments and interpretation/education strategie.

Dharug Custodian Aboriginal Corporation have received and reviewed the report 40 Memorial Ave, Bella Vista.

We support the recommendations set out in this report.

Our Country is the traditional land of the Dharug people, who speak the Dharug language. Our Country isn't defined or identified by government bodies and their agencies.

These agencies and bodies do not support the people of our Country and are not the traditional custodians and therefore should not be in a position to speak for the Dharug people, Dharug land or Dharug knowledge.

Maintaining cultural protocols is fundamental in obtaining knowledge and invoking discussion for Country. To speak directly to and consult with the people of traditional lands, in this case the Dharug people, is necessary to maintain correct protocol and acquire accurate knowledge.

It is culturally inappropriate for any Non-Dharug person or group/s to speak on Dharug cultural heritage.

Dharug people are the only people that have the authority to speak for Dharug Country, and hence should be the only peoples that can and must speak for Dharug Country.

Please contact us with all further enquiries on the above contacts.

Regards



Justine Coplin

From: [Phil Khan](#)
To: [Jenni Bate](#)
Subject: RE: 40 Memorial Ave, Bella Vista - Draft ACHA
Date: Friday, 24 March 2023 1:00:09 PM

Hi Jenni,

Thank you for your report, we would like yo agree and support your draft report regarding 40 Memorial Ave, Bella Vista.

Kind Regards
Phil Khan



From: [Jenni Bate](#)
Sent: Friday, 17 February 2023 4:33 PM
To: [Undisclosed Recipients](#)
Subject: 40 Memorial Ave, Bella Vista - Draft ACHA

Good afternoon,

I hope you're well. In accordance with Section 4.4 of the Aboriginal cultural heritage consultation requirements for proponents 2010, whereby a draft Aboriginal Cultural Heritage Assessment Report must be provided to registered Aboriginal parties for their review and comment, please find attached a copy of the draft report for the above project.

Your comments on the draft report are appreciated and will be incorporated into the final report.

We would appreciate receiving your comments by CoB Friday 17 March 2023.

Have a great weekend.

Kind regards,



Jenni Bate
DIRECTOR - ARCHAEOLOGIST

0422 229 179

JENNI@APEXARCHAEOLOGY.COM.AU

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APPENDIX G: AHIMS SEARCH RESULTS

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
45-5-2027	PK/GD1 near Parklea	GDA	56	308700	6267640	Open site	Partially Destroyed	Artefact : -	Open Camp Site	3768
	Contact	Recorders	Helen Brayshaw, Doctor.Jo McDonald, Artefact - Cultural Heritage Management - Py				Permits	4928		
45-5-0981	OWR IF 2;	AGD	56	308900	6266560	Open site	Valid	Artefact : -	Open Camp Site	102579
	Contact	Recorders	Ms.Tessa Corkill				Permits	684		
45-5-0989	OWR IF2;	AGD	56	308900	6266560	Open site	Deleted	Artefact : -	Open Camp Site	102579
	Contact	Recorders	Ms.Tessa Corkill				Permits			
45-5-0910	PK/CD 1 Rouse Hill	AGD	56	308190	6267200	Open site	Valid	Artefact : -	Open Camp Site	2499,98281
	Contact	Recorders	Doctor.Jo McDonald				Permits	589,644		
45-5-0913	PK/CD4 Rouse Hill	AGD	56	308720	6265800	Open site	Valid	Artefact : -	Open Camp Site	2499,2674,987 40
	Contact	Recorders	Doctor.Jo McDonald				Permits	599,605,644		
45-5-0914	PK/CD 5 Rouse Hill	AGD	56	308820	6265700	Open site	Valid	Artefact : -	Open Camp Site	2499,2674,987 40
	Contact	Recorders	Doctor.Jo McDonald				Permits	599,605		
45-5-0940	PK/CD7;Rouse Hill;	AGD	56	308410	6266920	Open site	Valid	Artefact : -	Open Camp Site	2656,98281
	Contact	Recorders	Doctor.Jo McDonald				Permits			
45-5-2365	KV/CD1 and NWRL PAD 8	GDA	56	309036	6267292	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -	Open Camp Site	3034,98740
	Contact	Recorders	Helen Brayshaw, Tony Kondek, Mr.Paul Irish, Kelleher Nightingale Consulting Pty Ltd				Permits	4928		
45-5-3063	Burns Road Compound PAD	AGD	56	309176	6266819	Open site	Valid	Potential Archaeological Deposit (PAD) : -		102579
	Contact	Recorders	Megan Mebberson				Permits	2241,2319		
45-5-3064	Burns Road North IF1	AGD	56	308744	6267445	Open site	Valid	Artefact : -		
	Contact	Recorders	Megan Mebberson				Permits	2242		
45-5-3158	WR-IF-1	GDA	56	309165	6266483	Open site	Destroyed	Artefact : 1		102579
	Contact	Recorders	Mrs.Robynne Mills, Kelleher Nightingale Consulting Pty Ltd, Kelleher Nightingale Co				Permits			
45-5-3354	BRO1	GDA	56	309362	6266634	Open site	Destroyed	Artefact : 13		102579
	Contact	Recorders	Jo McDonald Cultural Heritage Management see GML, Kelleher Nightingale Consulti				Permits			
45-5-3844	MA1 (Riverstone)	GDA	56	309450	6267094	Open site	Destroyed	Artefact : 1		102467,10257 9
	Contact	Recorders	Jo McDonald Cultural Heritage Management see GML				Permits			
45-5-3845	MA2 (Riverstone)	GDA	56	309459	6266965	Open site	Valid	Artefact : 3		102467,10257 9
	Contact	Recorders	Jo McDonald Cultural Heritage Management see GML				Permits			
45-5-3846	MA3 (Rivertone)	GDA	56	309513	6266971	Open site	Valid	Artefact : 3		102467,10257 9
	Contact	Recorders	Jo McDonald Cultural Heritage Management see GML				Permits			

Report generated by AHIMS Web Service on 24/10/2022 for Rebecca Bryant for the following area at Lot : 1, DP:DP1237055, Section : null with a Buffer of 1000 meters.. Number of Aboriginal sites and Aboriginal objects found is 27

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

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
45-5-3847	MA4 (Riverstone)	GDA	56	309410	6266908	Open site	Destroyed	Artefact : 4		102467,102579
	Contact	Recorders	Jo McDonald Cultural Heritage Management see GML					Permits		
45-5-3955	Arnold Avenue IF1	GDA	56	309011	6267579	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mary Dallas Consulting Archaeologists (MDCA),Mr.Paul Irish					Permits	3401,3402	
45-5-4261	NWRL PAD 9 - Duplicate of 45-5-4846	GDA	56	308717	6267603	Open site	Destroyed	Potential Archaeological Deposit (PAD) : 1, Artefact : -		
	Contact	Recorders	GML Heritage Pty Ltd - Surry Hills,Kelleher Nightingale Consulting Pty Ltd,Kelleher					Permits		
45-5-4262	NWRL PAD7 - Potential duplicate of 45-5-4841	GDA	56	309294	6266739	Open site	Partially Destroyed	Potential Archaeological Deposit (PAD) : 1, Artefact : -		
	Contact	Recorders	GML Heritage Pty Ltd - Surry Hills,Kelleher Nightingale Consulting Pty Ltd,Mr.Benj					Permits		
45-5-4263	NWRL PAD5 - Duplicate of 45-5-4843	GDA	56	309246	6266360	Open site	Not a Site	Potential Archaeological Deposit (PAD) : 1		
	Contact	Recorders	GML Heritage Pty Ltd - Surry Hills,Kelleher Nightingale Consulting Pty Ltd,Mr.Benj					Permits		
45-5-4264	NWRL PAD 4 - Potential Duplicate of 45-5-4839	GDA	56	309346	6266488	Open site	Destroyed	Potential Archaeological Deposit (PAD) : 1, Artefact : -		
	Contact	Recorders	GML Heritage Pty Ltd - Surry Hills,Kelleher Nightingale Consulting Pty Ltd,Kelleher					Permits		
45-5-4195	Corner of Taggart Way and Balmoral Road	GDA	56	309223	6266481	Open site	Destroyed	Artefact : 1		
	Contact	Recorders	GML Heritage Pty Ltd - Surry Hills,Kelleher Nightingale Consulting Pty Ltd,Kelleher					Permits		
45-5-4838	14 Cumbelege Lane1 and NWRL PAD 6	GDA	56	309409	6266037	Open site	Destroyed	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Kelleher Nightingale Consulting Pty Ltd,Kelleher Nightingale Consulting Pty Ltd,Mr					Permits		
45-5-4839	NWRL PAD 4 - Potential Duplicate of 45-5-4264	GDA	56	309316	6266521	Open site	Destroyed	Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Kelleher Nightingale Consulting Pty Ltd,Ms.Kristen Taylor					Permits		
45-5-4841	NWRL PAD7	GDA	56	309307	6266750	Open site	Valid	Potential Archaeological Deposit (PAD) : -, Artefact : -		
	Contact	Recorders	MCH - McCardle Cultural Heritage Pty Ltd,Ms.Penny Mccardle,Kelleher Nightingale					Permits		
45-5-4843	NWRL PAD 5 - Duplicate of 45-5-4263	GDA	56	309246	6266360	Open site	Not a Site	Potential Archaeological Deposit (PAD) : -		



AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : 40 Memorial Av 1 Km

Client Service ID : 725680

<u>SiteID</u>	<u>SiteName</u>	<u>Datum</u>	<u>Zone</u>	<u>Easting</u>	<u>Northing</u>	<u>Context</u>	<u>Site Status **</u>	<u>SiteFeatures</u>	<u>SiteTypes</u>	<u>Reports</u>	
	<u>Contact</u>	<u>Recorders</u>	Kelleher Nightingale Consulting Pty Ltd,Kelleher Nightingale Consulting Pty Ltd,Mr								<u>Permits</u>
45-5-4846	NWRL PAD 9 - Duplicate of 45-5-4261	GDA	56	308717	6267603	Open site	Destroyed	Potential Archaeological Deposit (PAD) :-			
	<u>Contact</u>	<u>Recorders</u>	Kelleher Nightingale Consulting Pty Ltd, Miss.Kristen Taylor								<u>Permits</u>

**** Site Status**

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

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

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

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

Report generated by AHIMS Web Service on 24/10/2022 for Rebecca Bryant for the following area at Lot : 1, DP:DP1237055, Section : null with a Buffer of 1000 meters.. Number of Aboriginal sites and Aboriginal objects found is 27

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



AHIMS Web Services (AWS)

Note: This Excel report shows the sites found in AHIMS on the 15/05/2025. If this date is not the same as the original date of the Search Results letter obtained during the Basic Search, then the search results might be different. The PDF version of this report will always coincide with the Basic Search Results letter.

Site ID	Site name	Datum	Zone	Easting	Northing	Context	Site status	Primary contact	Site features	Site types	Recorders	Reports	Permits	Longitude GDA94	Latitude GDA94
45-5-0981	OWR IF 2;	AGD	56	308900	6266560	Open site	Valid		Artefact : -	Open Camp Site	Ms.Tessa Corkill	102579	684	150.94	-33.72
45-5-2365	KV/CD1 and NWRL PA	GDA	56	309036	6267292	Open site	Valid		Artefact : -, Potential An	Open Camp Site	Helen Brayshaw, Tony	3034,98740	4928	150.94	-33.72
45-5-4195	Corner of Taggart Way	GDA	56	309223	6266481	Open site	Destroyed		Artefact : 1		GML Heritage Pty Ltd - Surry Hills,Kelleher Nightingale Consulting Pty L			150.94	-33.72
45-5-3845	MA2 (Riverstone)	GDA	56	309459	6266965	Open site	Valid		Artefact : 3		Jo McDonald Cultural H	102467,102579		150.94	-33.72
45-5-4846	NWRL PAD 9 - Duplica	GDA	56	308717	6267603	Open site	Destroyed		Potential Archaeological Deposit (PAD) : -		Kelleher Nightingale Consulting Pty Ltd, Miss.Kristen Taylor			150.94	-33.71
45-5-3847	MA4 (Riverstone)	GDA	56	309410	6266908	Open site	Destroyed		Artefact : 4		Jo McDonald Cultural H	102467,102579		150.94	-33.72
45-5-4839	NWRL PAD 4 - Potenti	GDA	56	309316	6266521	Open site	Destroyed		Potential Archaeological Deposit (PAD) : -		Kelleher Nightingale Consulting Pty Ltd, Miss.Kristen Taylor			150.94	-33.72
45-5-4843	NWRL PAD 5 - Duplica	GDA	56	309246	6266360	Open site	Not a Site		Potential Archaeological Deposit (PAD) : -		Kelleher Nightingale Consulting Pty Ltd, Kelleher Nightingale Consulting			150.94	-33.73
45-5-3846	MA3 (Rivertone)	GDA	56	309513	6266971	Open site	Valid		Artefact : 3		Jo McDonald Cultural H	102467,102579		150.94	-33.72
45-5-4261	NWRL PAD 9 - Duplica	GDA	56	308717	6267603	Open site	Destroyed		Potential Archaeological Deposit (PAD) : 1, Arte	GML Heritage Pty Ltd - Surry Hills,Kelleher Nightingale Consulting Pty L				150.94	-33.71
45-5-0989	OWR IF2;	AGD	56	308900	6266560	Open site	Deleted		Artefact : -	Open Camp Site	Ms.Tessa Corkill	102579		150.94	-33.72
45-5-3955	Arnold Avenue IF1	GDA	56	309011	6267579	Open site	Valid		Artefact : 1		Mary Dallas Consulting Archaeologists (MDCA)	3401,3402		150.94	-33.71
45-5-4264	NWRL PAD 4 - Potenti	GDA	56	309346	6266488	Open site	Destroyed		Potential Archaeological Deposit (PAD) : 1, Arte	GML Heritage Pty Ltd - Surry Hills,Kelleher Nightingale Consulting Pty L				150.94	-33.72
45-5-4262	NWRL PAD7 - Potentia	GDA	56	309294	6266739	Open site	Partially Destroyed		Potential Archaeological Deposit (PAD) : 1, Arte	GML Heritage Pty Ltd - Surry Hills,Kelleher Nightingale Consulting Pty L				150.94	-33.72
45-5-4263	NWRL PAD5 - Duplica	GDA	56	309246	6266360	Open site	Not a Site		Potential Archaeological Deposit (PAD) : 1		GML Heritage Pty Ltd - Surry Hills,Kelleher Nightingale Consulting Pty L			150.94	-33.73
45-5-3063	Burns Road Compounc	AGD	56	309176	6266819	Open site	Valid		Potential Archaeological Deposit (PAD) : -		Megan Mebberson	102579	2241,2319	150.94	-33.72
45-5-4838	14 Cumbelege Lane1 a	GDA	56	309409	6266037	Open site	Destroyed		Artefact : -, Potential Archaeological Deposit (P/	Kelleher Nightingale Consulting Pty Ltd, Kelleher Nightingale Consulting				150.94	-33.73
45-5-4841	NWRL PAD7	GDA	56	309307	6266750	Open site	Valid		Potential Archaeological Deposit (PAD) : -,	Artefact MCH - McCardie Cultural Heritage Pty Ltd, Doctor.Penny Mccardie, Kelle				150.94	-33.72
45-5-0910	PK/CD 1 Rouse Hill	AGD	56	308190	6267200	Open site	Valid		Artefact : -	Open Camp Site	Doctor.Jo McDonald	2499,98281	589,644	150.93	-33.72
45-5-0913	PK/CD4 Rouse Hill	AGD	56	308720	6265800	Open site	Valid		Artefact : -	Open Camp Site	Doctor.Jo McDonald	2499,2674,98740	599,605,644	150.94	-33.73
45-5-0940	PK/CD7;Rouse Hill;	AGD	56	308410	6266920	Open site	Valid		Artefact : -	Open Camp Site	Doctor.Jo McDonald	2656,98281		150.93	-33.72
45-5-3844	MA1 (Riverstone)	GDA	56	309450	6267094	Open site	Destroyed		Artefact : 1		Jo McDonald Cultural H	102467,102579		150.94	-33.72
45-5-3064	Burns Road North IF1	AGD	56	308744	6267445	Open site	Valid		Artefact : -		Megan Mebberson		2242	150.94	-33.71
45-5-3354	BRO1	AGD	56	309362	6266634	Open site	Destroyed	T Russell	Artefact : 13		Jo McDonald Cultural H	102579		150.94	-33.72
45-5-0914	PK/CD 5 Rouse Hill	AGD	56	308820	6265700	Open site	Valid		Artefact : -	Open Camp Site	Doctor.Jo McDonald	2499,2674,98740	599,605	150.94	-33.73
45-5-2027	PK/GD1 near Parklea	GDA	56	308700	6267640	Open site	Partially Destroyed		Artefact : -	Open Camp Site	Helen Brayshaw, Doctor	3768	4928	150.94	-33.71
45-5-3158	WR-IF-1	GDA	56	309165	6266483	Open site	Destroyed	T Russell	Artefact : 1		Mrs.Robynne Mills, Kellie	102579		150.94	-33.72



APPENDIX H: PROJECT UPDATES

From: rebecca@apexarchaeology.com.au
To: "undisclosed recipients"
Bcc: Amandahickey@live.com.au; bariyan.culturalconnections@gmail.com; cazadirect@live.com; corroboreecorp@outlook.com; didgengunawalclan@yahoo.com.au; Gunjeewongculturalheritage21@hotmail.com; gunya.ach@gmail.com; hamptonralph46@gmail.com; james.eastwood@y7mail.com; justinecoplin@optusnet.com.au; murrabidgeemullangari@yahoo.com.au; ngambaa.culturalconnections@gmail.com; philipkhan.acn@live.com.au; scott@tocomwall.com.au; Waarlan12@outlook.com; waawaar.awaa@gmail.com; wokacorp@yahoo.com.au; woriwoolywa@gmail.com; yulayculturalservices@gmail.com; yurrandaali_cs@hotmail.com
Subject: Re. Memorial Ave and Hodges Bridge - project update
Date: Monday, 7 August 2023 3:32:01 PM
Attachments: [image001.png](#)

Good afternoon,

I hope you are well. This is a courtesy email to advise that the Memorial Avenue and Hodges Bridge (Bella Vista) project is still ongoing. The proponent is working through the Council's requirements, and we will be in touch when we can provide further information.

Warm regards,

Rebecca



From: [Justine Coplin](#)
To: rebecca@apexarchaeology.com.au
Subject: Re: Re. Memorial Ave and Hodges Bridge - project update
Date: Monday, 7 August 2023 5:02:48 PM

Cheers

Sent from my iPhone

On 7 Aug 2023, at 3:32 pm, rebecca@apexarchaeology.com.au wrote:

Good afternoon,

I hope you are well. This is a courtesy email to advise that the Memorial Avenue and Hodges Bridge (Bella Vista) project is still ongoing. The proponent is working through the Council's requirements, and we will be in touch when we can provide further information.

Warm regards,

Rebecca

<image001.png>

From: [Kayelene Terry](#)
To: rebecca@apexarchaeology.com.au
Cc: [undisclosed recipients](#)
Subject: Re: Re. Memorial Ave and Hodges Bridge - project update
Date: Monday, 7 August 2023 4:02:03 PM
Attachments: [image001.png](#)
[image001.png](#)

Thank you for the update.

On Mon, 7 Aug 2023, 3:32 pm , <rebecca@apexarchaeology.com.au> wrote:

Good afternoon,

I hope you are well. This is a courtesy email to advise that the Memorial Avenue and Hodges Bridge (Bella Vista) project is still ongoing. The proponent is working through the Council's requirements, and we will be in touch when we can provide further information.

Warm regards,

Rebecca



From: [Phillip Boney](#)
To: rebecca@apexarchaeology.com.au
Subject: Re: Re. Memorial Ave and Hodges Bridge - project update
Date: Tuesday, 8 August 2023 1:09:10 PM
Attachments: [image001.png](#)

Thank you Rebecca I look forward to hearing from you with more info on this project Phil Boney

Sent from my iPhone

On 7 Aug 2023, at 3:32 pm, rebecca@apexarchaeology.com.au wrote:

Good afternoon,

I hope you are well. This is a courtesy email to advise that the Memorial Avenue and Hodges Bridge (Bella Vista) project is still ongoing. The proponent is working through the Council's requirements, and we will be in touch when we can provide further information.

Warm regards,

Rebecca

<image001.png>

From: [Phil Khan](#)
To: rebecca@apexarchaeology.com.au
Subject: RE: Re. Memorial Ave and Hodges Bridge - project update
Date: Tuesday, 8 August 2023 11:45:40 AM
Attachments: [image001.png](#)

Hi Rebecca,

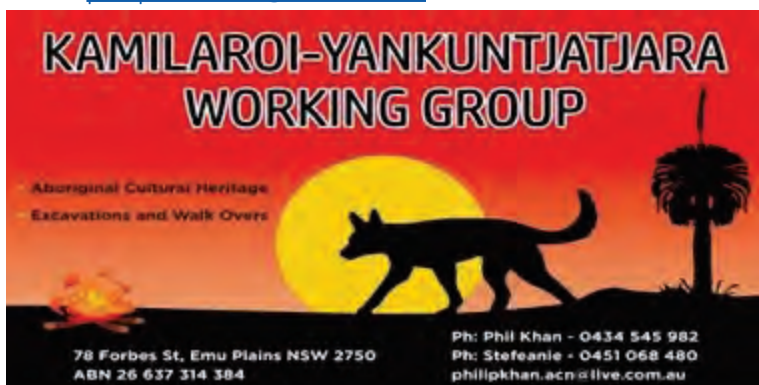
Thanks for the update. We look forward to working with you on this project.

Kind Regards

Phil Khan – Director

P 0434545982

Email: philipkhan.acn@live.com.au



From: rebecca@apexarchaeology.com.au

Sent: Monday, 7 August 2023 3:32 PM

To: '[undisclosed recipients](#)'

Subject: Re. Memorial Ave and Hodges Bridge - project update

Good afternoon,

I hope you are well. This is a courtesy email to advise that the Memorial Avenue and Hodges Bridge (Bella Vista) project is still ongoing. The proponent is working through the Council's requirements, and we will be in touch when we can provide further information.

Warm regards,

Rebecca



Rebecca Bryant
ARCHAEOLOGIST

0405 236 821

REBECCA@APEXARCHAEOLOGY.COM.AU

WWW.APEXARCHAEOLOGY.COM.AU

From: rebecca@apexarchaeology.com.au
To: "undisclosed recipients"
Bcc: amandahickey@live.com.au; baryan.culturalconnections@gmail.com; cazadirect@live.com; corroboreecorp@bigpond.com; corroboreecorp@outlook.com; didgengunawalclan@yahoo.com.au; Gunjeewongculturalheritage21@hotmail.com; gunya.ach@gmail.com; hamptonralph46@gmail.com; james.eastwood@y7mail.com; justinecoplin@optusnet.com.au; murrabidgeemullangari@yahoo.com; murrabidgeemullangari@yahoo.com.au; ngambaa.culturalconnections@gmail.com; ngambaaculturalconnections@hotmail.com; philipkhan.acn@live.com.au; scott@tocomwall.com.au; scott@yarrawalk.com.au; Waarlan12@outlook.com; waawaar.awaa@gmail.com; wokacorp@yahoo.com; wokacorp@yahoo.com.au; worivoilywa@gmail.com; yulayculturalservices@gmail.com; yurraandaali_cs@hotmail.com; yurraandaali_cs@outlook.com
Subject: Re. Memorial Ave and Hodges Bridge - project update
Date: Friday, 8 March 2024 4:37:42 PM
Attachments: [image001.png](#)

Good afternoon,

I hope you are well. This is a courtesy email to advise that the Memorial Avenue and Hodges Bridge (Bella Vista) project is still ongoing.

The proponent is working through the Council's requirements, and we will be in touch when we can provide further information.

Warm regards,

Rebecca



From: [Kayelene Terry](#)
To: rebecca@apexarchaeology.com.au
Subject: Re: Memorial Ave and Hodges Bridge - project update
Date: Friday, 8 March 2024 4:43:39 PM
Attachments: [image001.png](#)
[image001.png](#)

Thank you for the update.

On Fri, 8 Mar 2024, 4:37 pm , <rebecca@apexarchaeology.com.au> wrote:

Good afternoon,

I hope you are well. This is a courtesy email to advise that the Memorial Avenue and Hodges Bridge (Bella Vista) project is still ongoing.

The proponent is working through the Council's requirements, and we will be in touch when we

can provide further information.

Warm regards,

Rebecca



From: [Phil Khan](#)
To: rebecca@apexarchaeology.com.au
Subject: RE: Re. Memorial Ave and Hodges Bridge - project update
Date: Monday, 11 March 2024 2:02:44 PM
Attachments: [image001.png](#)

Hi Rebecca,

Thanks for the update.

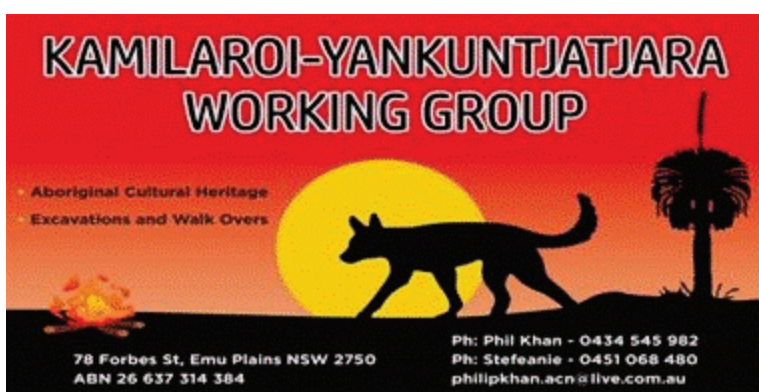
Kind Regards

Phil Khan – Director

P 0434545982

E philipkhan.acn@live.com.au

ABN 26 637 314 384



Sent from [Mail](#) for Windows

From: rebecca@apexarchaeology.com.au <rebecca@apexarchaeology.com.au>

Sent: Friday, March 8, 2024 4:37:33 PM

To: 'undisclosed recipients' <rebecca@apexarchaeology.com.au>

Subject: Re. Memorial Ave and Hodges Bridge - project update

Good afternoon,

I hope you are well. This is a courtesy email to advise that the Memorial Avenue and Hodges Bridge (Bella Vista) project is still ongoing.

The proponent is working through the Council's requirements, and we will be in touch when we can provide further information.

Warm regards,

Rebecca



Rebecca Bryant
ARCHAEOLOGIST

0405 236 821

REBECCA@APEXARCHAEOLOGY.COM.AU

WWW.APEXARCHAEOLOGY.COM.AU

From: jenni@apexarchaeology.com.au
To: "undisclosed recipients"
Bcc: amandahickey@live.com.au; bariyan.culturalconnections@gmail.com; cazadirect@live.com; corroboreecorp@bigpond.com; corroboreecorp@outlook.com; didgengunawalclan@yahoo.com.au; Gunjeewongculturalheritage21@hotmail.com; gunya.ach@gmail.com; hamptonralph46@gmail.com; james.eastwood@y7mail.com; justinecoplin@optusnet.com.au; murrabidgeemullangari@yahoo.com; murrabidgeemullangari@yahoo.com.au; ngambaa.culturalconnections@gmail.com; ngambaaculturalconnections@hotmail.com; philipkhan.acn@live.com.au; scott@tocomwall.com.au; scott@yarrowalk.com.au; Waarlan12@outlook.com; waawaar.awaa@gmail.com; wokacorp@yahoo.com; wokacorp@yahoo.com.au; worivoilywa@gmail.com; yulayculturalservices@gmail.com; yurraandaali_cs@hotmail.com; yurraandaali_cs@outlook.com
Subject: Re. Memorial Ave and Hodges Bridge - project update
Date: Friday, 6 September 2024 1:14:24 PM
Attachments: [image001.png](#)

Good afternoon,

I hope you are well. This is a courtesy email to advise that the Memorial Avenue and Hodges Bridge (Bella Vista) project is still ongoing.

The proponent is working through the Council's requirements, and we will be in touch when we can provide further information.

Kind regards,



Jenni Bate
DIRECTOR - ARCHAEOLOGIST

0422 229 179

[JENNI@APEXARCHAEOLOGY.COM.AU](mailto:jenni@apexarchaeology.com.au)

[WWW.APEXARCHAEOLOGY.COM.AU](http://www.apexarchaeology.com.au)

Monday, March 3, 2025 at 13:44:50 Australian Eastern Daylight Time

Subject: Project update for ACHA at Memorial Ave and Hodges Bridge, Bella Vista

Date: Monday 3 March 2025 at 1:44:43 PM Australian Eastern Daylight Time

From: Peta Rice

To: Undisclosed Recipients

BCC: amandahickey@live.com.au, bariyan.culturalconnections@gmail.com, cazadirect@live.com, corroboreecorp@bigpond.com, corroboreecorp@outlook.com, didgengunawalclan@yahoo.com.au, Gunjeewongculturalheritage21@hotmail.com, gunya.ach@gmail.com, hamptonralph46@gmail.com, james.eastwood@y7mail.com, justinecoplin@optusnet.com.au, murrabidgeemullangari@yahoo.com, murrabidgeemullangari@yahoo.com.au, ngambaa.culturalconnections@gmail.com, ngambaaculturalconnections@hotmail.com, philipkhan.acn@live.com.au, scott@tocomwall.com.au, scott@yarrowalk.com.au, Waarlan12@outlook.com, waawaar.awaa@gmail.com, wokacorp@yahoo.com, wokacorp@yahoo.com.au, woriwoolywa@gmail.com, yulayculturalservices@gmail.com, yurrandaali_cs@hotmail.com, yurrandaali_cs@outlook.com

Good afternoon,

I hope you are well. This is a courtesy email to advise that the Memorial Avenue and Hodges Bridge (Bella Vista) project is still ongoing.

We will be in touch with further information in due course.

Kind regards,



Monday, March 3, 2025 at 13:48:52 Australian Eastern Daylight Time

Subject: Re: Project update for ACHA at Memorial Ave and Hodges Bridge, Bella Vista

Date: Monday 3 March 2025 at 1:48:01 PM Australian Eastern Daylight Time

From: Kayelene Slater

To: Peta Rice

Thank you for the update.

On Mon, 3 Mar 2025, 1:45pm Peta Rice, <peta@apexarchaeology.com.au> wrote:

Good afternoon,

I hope you are well. This is a courtesy email to advise that the Memorial Avenue and Hodges Bridge (Bella Vista) project is still ongoing.

We will be in touch with further information in due course.

Kind regards,



APPENDIX I: ACHMP

40 MEMORIAL AVENUE, BELLA VISTA, NSW

ABORIGINAL CULTURAL HERITAGE MANAGEMENT PLAN

Prepared for Landen Property Group

LGA: The Hills Shire

May 2025





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.

DOCUMENT CONTROL

The following register documents the development and issue of the document entitled '40 Memorial Ave, Bella Vista, NSW: Aboriginal Cultural Heritage Management Plan', prepared by Apex Archaeology in accordance with its quality management system.

Revision	Prepared by	Reviewed by	Comment	Issue Date
1 – Draft	Peta Rice	Leigh Bate	Draft issued to Client	28 March 2025
2 – Draft	Jenni Bate	Landen	Draft issued to RAPs	4 April 2025
3 – Final	Jenni Bate	RAPs	Issue of final	16 May 2025



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
ACHMP	Aboriginal Cultural Heritage Management Plan
AHIMS	Aboriginal Heritage Information Management System maintained by Heritage NSW, detailing known and registered Aboriginal archaeological sites within NSW
AHIP	Aboriginal Heritage Impact Permit
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> . Consultation is not a required step in a due diligence assessment; however, it is strongly encouraged to consult with the relevant Local Aboriginal Land Council and to determine if there are any Aboriginal owners, registered native title claimants or holders, or any registered Indigenous Land Use Agreements in place for the subject land
DA	Development Application
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DCP	Development Control Plan
GSV	Ground Surface Visibility
GTAs	General Terms of Approval
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 in the Department of Climate Change, Energy, the Environment and Water – responsible for heritage matters in NSW
LALC	Local Aboriginal Land Council
LGA	Local Government Area
LEP	Local Environmental Plan
NPW Act	NSW <i>National Parks and Wildlife Act 1974</i>
OEH	The Office of Environment and Heritage – now Heritage NSW
RAPs	Registered Aboriginal Parties



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1.0 INTRODUCTION

Subsequent to the preparation of an Aboriginal Cultural Heritage Assessment (ACHA) for a proposed residential development at 40 Memorial Avenue, Bella Vista and construction of a bridge over Elizabeth Macarthur Creek at the end of Hodges Street, Bella Vista (the study area), an Aboriginal Cultural Heritage Management Plan (ACHMP) was required to provide guidance for the management of AHIMS site NWRL 7 (AHIMS #45-5-4262/45-5-4841) located within the study area. Apex Archaeology was engaged by Landen Property Group to prepare the required ACHMP, which is outlined in this report.

This document outlines the site within the study area and the management principles which apply.

1.1 STUDY AREA

The project is located within The Hills Shire Local Government Area (LGA). The study area is legally defined as Lot 1 DP 1180837 and part of Lot 403 DP 1125136. The area is approximately 2 ha in size and is bound by Memorial Avenue to the north, vacant blocks to the east and south, and an unnamed access road runs parallel to the western boundary. The investigation area comprises the entirety of the study area.

1.2 PURPOSE




This ACHMP has been prepared to address the requirement of cultural heritage management to be considered in the construction and development of the study area, and ensure sites are managed appropriately during the construction period.




The document has been designed to minimise impacts from development activities within the study area on Aboriginal cultural heritage by describing strategies for the management of Aboriginal sites during the undertaking of these activities.

Specifically, the ACHMP has been developed in order to:

- Fulfil the Secretary's Environmental Assessment Requirements (SEARs);
- Establish appropriate measures to avoid, minimise, or mitigate identified impacts;
- Outline the protection that will be established for sites which should be avoided;
- Document the roles and responsibilities of the proponent, their contractors, the community, and RAPs, during each stage of the development and into the future;
- Detail the results of the Aboriginal community consultation undertaken for the project, and to provide guidelines for future consultation with RAPs for the project; and
- Document the tasks that must be completed to ensure long term protection of the Aboriginal cultural heritage values of the area designated for protection.



	Study Area
	Lot Boundaries
	Hydrology

 <p>PO Box 236 NOWRA NEW SOUTH WALES 2541</p>	<p>0 100 200</p>  <p>Meters</p>	<p>Projection: MGA Zone 56 (GDA 94) Base Map: NearMaps 2023 Image Date: 18/01/2023 Final - Version 1</p>	<p>Figure 1: General location of the study area in its local context.</p>	
---	--	--	---	---



1.3 PROJECT BRIEF

It is proposed to construct two multi-dwelling buildings within the study area with basement car parking, along with construction of a bridge and approach road at the corner of Free Settlers Drive and Hodges Road. This will also include the installation of services, including sewerage, electricity and town water. There are three registered sites within 50 m of the study area, comprising AHIMS #45-5-3063 (Burns Road Compound), AHIMS #45-5-4262 (NWRL PAD7) and AHIMS #45-5-4841 (NWRL PAD7) that are all listed as Potential Archaeological Deposits (PAD). However, AHIMS #45-5-4262 and AHIMS #45-5-4841 are the same site that has been recorded twice under different numbers. As these are mapped as being on and near the southwest corner of the study area and includes an area of PAD that extends across the southern section of the study area, test excavation within this area was undertaken as part of the ACHA process. This ACHMP builds on the results of the testing program and outlines further management necessary prior to the commencement of construction works.

Prior to preparation of the ACHAR for the current project, a previous archaeological salvage excavation was undertaken by Kelleher Nightingale Consultants (KNC). This was undertaken in 2013, with a salvage report issued in 2015 in relation to AHIMS #45-5-4262 (NWRL PAD7) PAD. The portion of the PAD excavated was in close proximity to the southern boundary of the current study area and a total of 2,893 artefacts were recovered, including a number of stone-tool types. The site was dated to approximately 4,000 years ago. The remainder of PAD that extends into Lot 1 DP1237055 and Lot 1 DP1180837 of the current area was *not* included in the KNC salvage report and it was stated in the updated AHIMS site card for #45-5-4262 submitted by KNC that the 'remaining portion of the site is likely to have a similar archaeological deposit and would require an Aboriginal Heritage Impact Permit prior to any impact'. This remaining site *is* within the current study area.

A due diligence report was undertaken by McCardle Heritage for 40 Memorial Avenue in 2022 for the proposed residential development. The investigation assessed the site as having no potential. However, this assessment did not take into consideration the abundance of archaeological material found in the surrounding areas during comprehensive excavations in relatively undisturbed contexts.

Apex Archaeology was engaged in 2022 to undertake an Aboriginal due diligence assessment for the portion of the current project area between Hodges Road and Free Settlers Drive for the proposed construction of a new bridge in relation to 40 Memorial Avenue. During the background investigation it became apparent that AHIMS #45-5-4262 (NWRL 7) PAD extended into this area of investigation, as well as across the entire southern boundary of 40 Memorial Avenue. As such, it was recommended that 40 Memorial Avenue also be reassessed and that the remaining area of AHIMS #45-5-4262 (NWRL 7) be subject to an ACHA and archaeological test excavations to determine the condition of the site and to identify the nature and



extent of any sub surface cultural material that may be present. This was also the recommendation provided by the consultants that initially identified the site and KNC who undertook archaeological salvage excavations.

1.4 STATUTORY CONTEXT

The proposed works will be assessed as a State Significant Development Application (SSDA) under Part 4 Division 4.7 of the *Environmental Planning and Assessment Act 1979*. This report will be included as part of the Environmental Impact Statement (EIS) for the SSDA and has been prepared in anticipation of the SEARs for the project.

Under Part 4, division 4.7 State Significant Development of the EP&A Act, there is no requirement to obtain consent from Heritage NSW under the provisions of s.90 of the NPW Act. Instead, an ACHMP guides the management of Aboriginal cultural values within the study area. This document has been prepared to fulfil this requirement.

1.5 PREVIOUS ARCHAEOLOGICAL ASSESSMENT

1.5.1 GML & JMCD CHM 2012

GML & JMCD CHM undertook an Aboriginal heritage study for the major civil construction works component of the North West Rail Link (NWRL) that incorporated eight new stations including Bella Vista and Kellyville. A total of 27 Aboriginal sites and areas of PADs were identified during the investigation, including two PADs in close proximity to the current study area, comprising AHIMS #45-5-4262 (NWRL PAD 7) and AHIMS #45-5-4261 (NWRL PAD 9). It was recommended that both of these be subject to subsurface archaeological testing, and they are discussed below.

AHIMS #45-5-4262 (NWRL PAD 7) was identified during a pedestrian survey between Balmoral Road to Memorial Avenue. Although there was little ground surface visibility due to dense grass cover, the area, except for building constructions, was considered to have been subject to a low level of disturbance. The ridge top, hill slope and flat landforms (overlooking Macarthur Creek) were considered to have the potential for relatively undisturbed archaeological deposits and an area of PAD was identified and registered as NWRL PAD 7 AHIMS #45-5-4262. A portion of this site is within the current study area.

AHIMS #45-5-4261 (NWRL PAD 9) was another area that was identified on the pedestrian survey that was conducted from Memorial Avenue to Samantha Riley Drive. A raised landform overlooking Elizabeth Macarthur Creek was considered to have moderate archaeological potential for undisturbed archaeological deposits, and was also in close proximity to a previously registered site that contained an isolated stone artefact.



1.5.2 KELLEHER NIGHTINGALE CONSULTING 2015

KNC was engaged to undertake an archaeological salvage for the Sydney Metro Northwest infrastructure project for Transport NSW. The project involved a 23 kilometre rail link to Sydney's North West region and included the construction of eight new railway stations at Cherrybrook, Castle Hill, Showground, Norwest, Bella Vista, Kellyville, Rouse Hill and Cudgegong Road, twin 15 kilometre tunnels from Bella Vista and Rouse Hill, and 4,000 commuter car parking spaces.

Archaeological salvage was undertaken to mitigate the impact of project construction on the 27 Aboriginal archaeological sites identified in the Aboriginal heritage technical report. The archaeological salvage program commenced early in the overall Sydney Metro Northwest construction program. KNC salvaged 24 of the identified Aboriginal archaeological sites between Bella Vista and the stabling area at Tallawong Road at the western extent of the project. The archaeological salvage of the remaining three sites in the eastern portion between Epping and Showgrounds Station was undertaken by RPS Australia East Pty Ltd (RPS).

The salvage program for the 24 identified sites between Bella Vista Station and Tallawong Road involved the hand excavation of 1,168m² of soil resulting in the recovery of 13,019 artefacts, including 250 backed artefacts and a ground-edged axe. Around 90% of all artefacts were made from red silcrete. It was proposed that the salvage areas described a domestic picture, an industry of tool production, and a series of selective activity areas ranging from exploration camps to strategic landscapes. Many of the excavated archaeological sites displayed a continuity of places through time.

A total of seven radiocarbon samples were analysed and it was found that the occupation dates ranged from 4,385 years ago to 570 years ago.

At three of the identified Aboriginal archaeological sites, project impacts were limited through design changes, resulting in large portions of these sites to be outside the study area. It was recommended that relevant approvals and associated salvage activities would be required prior to any impact to these remaining sites/portions of sites in accordance with project approvals. Two of the salvages were to the south of the current study area and are discussed separately below.

Details of the salvage of AHIMS #45-5-4262 (PAD NWRL 7)

The KNC investigation included a study area that was bordered by Old Windsor Road to the west, Memorial Avenue to the north, the current study area to the east, and the AHIMS #45-5-3354 (BRO1) archaeological salvage site to the south. Two Aboriginal sites were identified within this area and both were listed as Potential Archaeological Deposits (PADs) that were originally identified in 2012 by Godden Mackay Logan and Jo McDonald Heritage Consultancies as AHIMS #45-5-4262 and AHIMS #45-5-4841 discussed above.



However, these sites are registered under the same site name (NWRL 7) but with different site ID numbers, AHIMS #45-5-4262 and AHIMS #45-5-4841. They are duplicates of the same site and are mapped as being on, and within 20 m (respectively), of the southwest boundary of the current study area. For the purpose of the KNC salvage excavation summary, this duplicate site will be referred to as AHIMS #45-5-4262. Although KNC identified that the whole PAD also extends into the current study area, as seen in Figure 6 below, only the portion of the PAD within KNC's study area was subject to salvage.

The PAD site AHIMS #45-5-4262 was positioned on the lower and mid slopes of Elizabeth Macarthur Creek. The excavation involved two phases and was focused on these lower creek slopes, as the western portion of the PAD (upslope) had suffered erosion and most of the A soil horizon, which is typically the artefact-bearing horizon, was missing. Phase one included the excavation of 13 m² and a total of 34 stone artefacts were retrieved. One of the squares that was positioned 40 m above the creek on a remnant terrace yielded 20 artefacts. Based this high artefact count, phase two was centred around this square and an area of 99 m² was excavated, resulting in 2,859 stone artefacts being recovered.

The artefacts were mainly made from silcrete, which comprised 90% of the assemblage, but other stone including grey silicified tuff, chert, medium-grained silicious material and petrified wood was also used. The artefact types comprised 83 cores, along with tools/implements including recognised tool types and flakes that had evidence of being used, either through further modification or signs of use wear. These included 72 backed artefacts, 7 geometric artefacts, 6 Elouera scrapers, 1 hammerstone fragment, 65 flakes with retouch and 5 with signs of usewear.

The remaining 2,688 artefacts comprised of various flakes that are by-products of the tool-making process. However, these flakes did establish there were two types of manufacturing taking place. One is the percussion method, whereby stone is held in one hand and hit with another stone (hammerstone) to remove flakes. The other is referred to as bi-polar knapping and involves positioning stone on an anvil and hitting it with another rock to remove flakes. This was generally used on small pieces of stone that are difficult to hold by hand such as quartz.

There were three peak density zones recorded over the Phase 2 excavation. These were from three adjoining squares and contained over 200 hundred artefacts each. Charcoal samples were also taken from this area to determine dates for these knapping events. One sample resulted in a date of 3,657 +/- 22 BP.

KNC concluded that the AHIMS #45-5-4262 (NWRL PAD7) site was a focused silcrete reduction site that was part of a larger silcrete production process. It most probably functioned as the middle stage of the process where rocks that had already been procured were taken here for further modification. This was seen in the amount of moderate sized silcrete flakes and the proportion of modified flakes and cores. It



would probably not have been involved in the late stage of backed-artefact production.

Additionally, KNC observed that the geomorphic processes of the area underscored the survivability of the deposit within this salvage area. The gradient on the upper slope discouraged the deposition and prevented the accumulation of archaeological deposit. However, the terrace containing the artefact-bearing open area was situated just high enough to be above the flood channel. It was in 'the cultural sweet spot: close enough to resources to encourage occupation, but isolated enough to facilitate the survival of cultural material through time' (KNC 2015: 122).



Figure 2: KNC study boundary in yellow, PAD (NWRL PAD 7) shaded in blue and current study area outlined in red.



Details of the salvage of AHIMS #45-5-3354 (BRO1) area

The KNC investigation also included a study area that was bordered to the north by AHIMS #45-5-4262 (NWRL PAD7), Lot 2 DP 1107809 to the east, Balmoral Road to the south, and Old Windsor Road to the West. The BRO salvage area was AHIMS #45-5-3354, but also incorporated AHIMS #45-5-4839 (NWLR PAD4); a potential archaeological deposit; corner of Taggart Way and Balmoral Road AHIMS #45-5-4195, an isolated stone artefact; and AHIMS # 45-5-3158 (WR-IF-1), an isolated stone artefact. All these sites are between 130 m to 300 m south of the current study area.

The excavation involved two phases and was focused on the lower and mid slopes of a spur with an easterly aspect overlooking Elizabeth Macarthur Creek. Phase one of the excavation included AHIMS #45-5-3354 and AHIMS #45-5-4195 over a 16 m² area. It resulted in the retrieval of 47 stone artefacts. Only two artefacts were recovered from AHIMS #45-5-4195 on the mid slope, and 45 artefacts were recovered from AHIMS #45-5-3354 on the lower slopes - with one square containing 40 artefacts. On the basis of these results, Phase 2 of the salvage excavation was centred around the square containing 40 artefacts, and an area of 80 m² was excavated resulting in 1,286 stone artefacts been recovered.

The artefacts were mainly made from silcrete, which comprised 94% of the assemblage, but other stone including grey silicified tuff (5%), chert, quartz, petrified wood and igneous material was also used. The red-yellow silcrete was of a normal colour range for the Caddies Creek catchment; however, the deeper red-purple colours characteristic of heat effected chemical changes were noted within objects near the burning events. The artefact types comprised 27 cores, along with tools/implements including recognised tool types and flakes that had evidence of being used, either through further modification or signs of use wear. These included 18 backed artefacts, 1 geometric artefact, 24 flakes or flake fragments that had been retouched, and two that had signs of usewear.

The remaining 1,293 artefacts comprised of angular fragments (47%) and flake fragment (35%), with only 15% being whole flakes. It was proposed that the high number of angular fragments with no identifiable diagnostics was a result of heat shatter.

It was also noted that there was a high percentage of artefacts with cortex and it was proposed that this was because it was a primary reduction site that utilised locally acquired silcrete cobbles. Furthermore, the identification of two possible heat-treatment pits and a high percentage of heat shatter supports the interpretation that this was a primary production site.

Charcoal samples were taken from approximately 13 to 16 cm below the surface and resulted in a date of 4,385 +/- 38 BP.



In summary it was suggested that this site had a strong relationship with the other salvage site at AHIMS #45-5-3354 (PAD NWRL 7). It was proposed that BRO1 was the first stage of the tool production, and PAD NWRL 7 was the second stage. However, the available radiocarbon dates for both sites place the occupation of both BRO1 and PAD 7 around 1000 years apart. It was proposed that if the two salvage areas are connected, they would represent a very long term production partnership for silcrete manufacture.

1.5.3 AECOM 2021

AECOM prepared an ACHA for trunk drainage development along Elizabeth Macarthur Creek, on behalf of Sydney Water. The assessment noted that two previously registered sites extended into the study area boundary, and several others, including NWRL PAD 7, were located immediately adjacent to the study area.

Test excavations were undertaken at several locations along the trunk main route, with a total of 34 50 cm x 50 cm test pits excavated across the study area. These were all located on the project area's creek bank. A total of seven lithic items were recovered, with five identified as artefactual based on technical criteria. Five were of silcrete with the remaining two formed of silicified tuff. The overall density of artefacts across the study area was considered to be an average of 0.82 artefacts per m². All artefacts recovered were located within AHIMS sites 45-5-2027 and 45-5-2365, in the northern portion of the study area, while the area of PAD in the southern portion of the study area was noted to be disturbed with no subsurface archaeological deposits present.

Overall, the test excavations were considered to suggest small-scale or limited episodes of lithic discard, although it was noted that the artefact densities observed may be linked to post-depositional processes such as historical flooding activities.

As the project was considered to have at least partial impact to registered sites, it was recommended that a whole of area AHIP be obtained prior to the commencement of works. This AHIP included the eastern boundary of the current study area at 40 Memorial Drive. No further archaeological works beyond application for the AHIP were recommended for the site.

1.5.4 McCARDLE 2022

McCardle was engaged in September 2022 to undertake an Archaeological Desk Top Assessment, which included a pedestrian survey, for the proposed residential development at 40 Memorial Avenue, which is the current study area. McCardle considered the geology and hydrology of the area and proposed that the area would be low in natural resources with no reliable fresh water. The land disturbance was assessed as being highly impacted by previous historical land uses and natural processes such as bioturbation which would have affected the archaeological record.



McCardle also conducted a search of the Aboriginal Heritage Management Information Services register (AHIMS) that identified 27 known Aboriginal sites within the search area. McCardle noted that a duplicate site AHIMS #45-5-4841/ AHIMS #45-5-4262 (NWLR PAD7) ran “along the southern end of the project area” but was partially destroyed. The boundary extent of this PAD is included in an image in her report (see Figure 3 below) and is shaded as a pink area extending across the southern portion of 40 Memorial Avenue.

McCardle summarises what she considers to be the most relevant archaeological investigations in the surrounding areas and highlights that the highest numbers of sites are within 50m of a water course and the dominant site types are stone artefact scatters and isolated stone artefacts. The report also focuses heavily on the stream order model and she states that as her study area is close to a second order stream it will have relatively sparse artefact distribution and density, and may represent evidence of localised one-off behaviour.

A separate section of the McCardle report focuses on summarising the KNC 2015 excavation report for AHIMS #45-5-4262 (NWLR PAD 7), which extends into the current study area. McCardle’s overview includes an image of the KNC study area boundary and the extent of the NWLR PAD 7 boundaries. The image is also annotated and includes the KNC excavation area, which also borders the southwest corner of the 40 Memorial Avenue lot boundary. McCardle’s summary of this site does not discuss the relevance of the findings of nearly 3,000 stone artefacts, along with dates that show the site was used nearly 4,000 years ago with her archaeological assessment of 40 Memorial Avenue.

McCardle (2022:21) provides a prediction model for her study area that states the following:

Based on the AHIMS search and the background environmental research as well as both the regional and local archaeological contexts, it is predicted that whilst a 2nd order creek is approximately 45 metres from the project area, it would not have provided reliable fresh water and associated resources to allow for more than transitory activities such as hunting and gathering with camping by very small numbers of people only. Evidence of such past Aboriginal land uses are manifest in the archaeological record as a background scatter of disused artefacts.

This statement is not consistent with the findings of KNC who proposed, based on the stone artefacts and manufacturing techniques used, that the area was a tool-production site. Furthermore, KNC highlighted that the geomorphology of the area close to the creek contributed to its remarkable preservation that could be reliably dated.

McCardle only discusses her assessment of the study area in connection with the KNC salvage excavation towards the end of the report, as follows:



The project area, being located on an upper slope and at least 45 metres from a 2nd order creek, no archaeological sites were identified during the survey and 45-5-4841/45-5-4262 (NWRL PAD 7) does not extend into the project area. This is likely due to a number of factors including:

- *Distance from reliable water and subsistence resources indicates the project area was unlikely to have been utilised for camping;*
- *Landform of an upper slope is not suitable for camping;*
- *The project area may have been used for travel and/or hunting and gathering which manifest in the archaeological record as very low-density artefact scatters and/or isolated finds; and*
- *Past and present land uses would have displaced and/or destroyed any evidence of past Aboriginal land use.*

Again, this is not consistent with the KNC 2015 report that clearly shows the NWRL PAD 7 extends into 40 Memorial Avenue and there was a tool production site here.

McCardle concludes her report by stating the following:

It is well established that proximity to water was an important factor in past occupation of the area, with sites reducing in number significantly away from water with most sites located within 50 metres of a water source. The project area is located approximately 45 metres from semi reliable fresh water supply (2nd order) and on an upper slope and as such may be considered unsuitable for camping but may have been utilised for transitory movement or hunting/gathering activities and as this area appears to remain relatively undisturbed, such evidence may be present in that area (between the creek bank and the development footprint).

Reiterating what was stated above, the KNC salvage site is within 50 m of a water source and contained thousands of stone artefacts including tools and implements, along with the by-products of stone tool manufacture. It was assessed by KNC, based on compelling evidence, as a toolmaking centre that first started being used approximately 4,000 years ago. The site does extend into 40 Memorial Drive and was not included in the KNC salvage excavation as it was not within KNC's area of investigation. Furthermore, KNC states on the AHIMS # 45-5-4262 site card that "the remaining portion of the site (outside NWRL impact area) is likely to have a similar archaeological deposit and would require an AHIP prior to any impact".

Even though Elizabeth Macarthur Creek is considered a second order water course there is no evidence that this would not have provided an adequate supply of fresh water to fulfill the needs of the people who once occupied the area for short and/or long-term stays. The stream order informs the predictive model that is incorporated in assessments as a useful base. However, it is imperative that all the evidence, especially the results of previous archaeological investigations of the neighbouring area, be taken onto account when undertaking an archaeological assessment.

The only recommendation McCardle includes is that before works can proceed the persons responsible for the management of onsite works will ensure that all staff, contractors and others involved in construction and maintenance related activities are made aware of the statutory legislation protecting sites and places of significance and, should any Aboriginal objects be uncovered during works, all work will cease in that location.



Figure 3: Extracted from McCardle Cultural Heritage's archaeological report for 40 Memorial Ave. The shaded pink area is NWRL PAD 7 (AHIMS site #45-5-4262/45-5-4841).

1.5.5 APEX ARCHAEOLOGY 2022

Apex Archaeology were initially engaged to undertake an Aboriginal Due Diligence Assessment for an area near the corner of Hodges Road and Free Settlers Drive for a proposed bridge. The project was part of the 40 Memorial Avenue, Bella Vista proposed development but had not been included in the McCardle 2022 Aboriginal due diligence assessment discussed above. During the background research it was apparent that the registered site AHIMS #45-5-4262 (NWRL PAD 7) that is located near the southern lot boundary of 40 Memorial Avenue extends into the current study area. This site had been partially excavated in 2015 by KNC, and as discussed above, had identified thousands of artefacts. Furthermore, the AHIMS site card # 45-5-4262 stated that the 'remaining portion of the site is likely to have a similar archaeological deposit and would require an Aboriginal Heritage Impact Permit prior to any impact'.

As such it was recommend that the area near the junction of Hodges Road and Free Settlers Drive be investigated further. Given that the PAD also covers a portion of the



southern section of 40 Memorial Avenue that is surrounded by significant Aboriginal sites, it was further recommended that this lot also be reassessed. The following recommendations were made:

- Further Aboriginal archaeological assessment in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (OEH 2010), including full consultation with the Aboriginal community in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (OEH 2010), should be undertaken. This may include archaeological test excavations in accordance with the Code of Practice to determine the nature and extent of any archaeological deposits present, and an Aboriginal Heritage Impact Permit (AHIP) application may be necessary following DA approval and prior to works commencing.
- The results of the assessment and potential archaeological test excavations will inform the requirement for an AHIP application to be made to Heritage NSW prior to the commencement of works. Should the results of the assessment identify that no further archaeological investigations or AHIP applications are necessary, works may proceed with caution.
- The proposed works must be contained to the area assessed during this archaeological assessment. If the proposed location is amended, further archaeological assessment may be necessary to determine if the proposed works will impact any Aboriginal objects or archaeological deposits.
- No invasive works should be undertaken within the areas of sensitivity within the study area until further Aboriginal archaeological assessment and investigations are completed.

A subsequent ACHA was prepared, including test excavations within the bridge footprint area and within the northern extent of AHIMS site #45-5-4262 (NWRL PAD 7). The test excavation undertaken by Apex Archeology in December 2022 recovered 64 stone artefacts within a 5.25 m² area. The artefacts included a recognised tool type and remnants of the tool/implements manufacturing process. The variety of stone material used to make the artefacts was consistent with those found in the portion of the site excavated by KNC in 2015 and were also in an undisturbed context. However, the artefact density in the Apex test excavation of 7.6 stone artefacts per 1m², is substantially higher than the 2.6 stone artefacts per 1m² recovered in the KNC 2015 test excavation that led to the recovery of 2,879 artefacts. This suggests that there is likely to be a considerable amount of subsurface archaeological deposit that warrants further investigation and mitigation. Archaeological salvage of this site was recommended following project approval. This document provides the methodology for undertaking the necessary salvage excavations within the site subsequent to the determination of the project and prior to impact occurring within the site.

1.5.6 SUMMARY

In summary there have been five comprehensive archaeological investigations undertaken to the east, south and west of the study area. These included two



archaeological salvage excavations undertaken by KNC in 2015 that uncovered thousands of artefacts comprising complete tools and remnant flakes from the tool-making process. Furthermore, the carbon dates undertaken during the excavations showed the area surrounding the southern portion of the current study area began to be used approximately 4,000 years ago.

Additionally, the Gracewood retirement village that is just east of the current study area includes several registered sites and has a portion of the development conserved as a 'Core Aboriginal Conservation Zone'. The management plan for this conservation zone was produced by archaeologist Dr Jo McDonald who assessed the area. McDonald has an enormous amount of expertise on site prediction within the Cumberland Plain and produced the management plan based on the stone artefacts that were identified within her study area, and the intactness of the landform that is expected to retain a significant amount of subsurface artefactual material.

These past archaeological investigations conducted by KNC and Jo McDonald, along with consideration of the natural environment that would have been present at the time of occupation, provide evidence that this area would have been rich in natural resources including plants and animals, and an important place for the Aboriginal people. The people who once resided here for short and/or long stays brought additional 'natural resources' in the form of stone material to the area to process them into tools and implements. These stone raw materials would have most probably have come from one of a number of known silcrete quarries within the Cumberland Plain, or from the cornucopia of stone material types found in cobble form along the banks of the Nepean River.



- Study Area
- Lot Boundaries
- Hydrology
- Test Pits with Artefacts
- High Density test pits
- NWRL PAD 7

	<p>0 100 200</p> <p>Meters</p>	<p>Projection: MGA Zone 56 (GDA 94) Base Map: NearMaps 2023 Image Date: 18/01/2023 Final - Version 1</p>	<p>Figure 4: Extent of identified archaeological sites within the study area.</p>	
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2.0 MANAGEMENT STRATEGIES

This ACHMP has been prepared to provide strategies for the management of Aboriginal cultural heritage within the study area. In this case, this comprises a salvage excavation program for all identified archaeological sites within the study area. The salvage strategy for these sites is outlined in the following section.

2.1 STAGED SALVAGE STRATEGY

Apex Archaeology will undertake a staged salvage excavation in two parts whereby three test pits would be expanded to 9m² (Stage One), with a subsequent salvage or open area expansion (Stage Two) targeting high artefact concentration areas as identified during Stage One. It is proposed to expand three areas up to an additional maximum area of 75m² as part of Stage Two. The total area to be excavated in both stages would be a maximum of 102m², comprising three initial pits each of 9m² (total 18m²) in Stage One, and a further additional 75m² in Stage Two. This would be a maximum amount, and would be dependent on the results of both stages. Excavation of both stages would be undertaken as outlined in Section 2.1.3.

The salvage excavation would focus on test pits excavated by Apex Archaeology, namely test pits 12, 13 and 19.

2.1.1 RE-LOCATION/EXPANSION OF APEX ARCHAEOLOGY TEST PITS – STAGE ONE

- Three of the test pits originally excavated by Apex Archaeology within 40 Memorial Avenue, Bella Vista will be reidentified and re-excavated;
- The selected test pits comprise Apex Archaeology test pits 12, 13 and 19;
- Salvage pits will be oriented north – south using a handheld compass for accuracy;
- Eight 1m² salvage pits would be excavated around the central re-excavated test pits forming a 9m² open area;
- Artefact concentrations will be recorded on graph paper to keep track of directionality and to determine which areas to continue expanding in Stage 2.

2.1.2 OPEN AREA SALVAGE – STAGE TWO

- Open area salvage will continue to a maximum of 100m² at any one or a combination of the three stage one areas, as determined by artefact concentrations from Stage One and based on the triggers outlined in Section 2.1.3 below.

2.1.3 EXCAVATION METHODOLOGY

- All pits will be 1m² and excavated in 5cm spits by hand using a shovel, hand shovel and trowel as appropriate. Spit depths will be consistently checked with a hand tape measure to ensure accuracy of excavation depth;
- If cultural features (e.g. hearths, heat treatment pits, knapping floors) are identified during excavation, excavation with hand tools (e.g. hand shovel and shovel) will cease and continue with trowel only;



- Locations of identified features will be planned onto 1mm graph paper. X, Y and Z coordinates of individual artefacts from in-situ knapping floors will be recorded and photographed prior to removal (where possible) and continuation of excavation;
- The presence of any one or combination of the following triggers will determine if further excavation will continue in any of the initial open area expansion sites (Stage One) and will be utilised during further expansion in Stage Two:
 - The relative density of artefact frequencies. If higher numbers of artefacts are identified in one or more parts of the initial excavation, they will be further explored;
 - Based on the results of the current test excavation, pits with more than eight items in any 1m² area would be expanded, up to the maximum areas outlined in Section 2.1.1 and 2.1.2;
 - Variations of raw materials that warrant further investigation;
 - Unusual artefact types are found, e.g. complete flakes, tools, cores, other types such as ground edged implements etc;
 - Evidence of artefact manufacture is found, e.g. conjoining artefacts, flaking debitage, micro-debitage, complete flakes, broken flakes; tool manufacture or maintenance;
 - Evidence of different activities, indicated by different artefact types e.g. backed artefacts, partly made backed artefacts and backing debitage, tool retouching debitage, debitage with dorsal grinding and retouched and/or used tools, different raw materials and raw materials with distinctive banding or inclusions;
 - Chronological material (any materials that can be used to date artefactual materials);
 - Taphonomic/site formation indicators; and
 - Any other relevant features appropriate for further investigations, e.g. archaeological features such as evidence of burning in a hearth, stone features; clay features etc.
- Charcoal samples for dating (C₁₄) will only be taken during in-situ excavation of accurately identified cultural features (e.g. hearths and heat treatment pits);
- Any charcoal samples will be recovered and placed into aluminium foil, securely sealed, and placed into zip lock bags, clearly labelled and provenanced;
- The soil from each spit will be placed in 10L plastic buckets and transported to the sieving station;
- To ensure sufficient control of each spit excavated, a bag will be written to accompany the buckets from each spit. The following information will be recorded on each bag: site name, date, pit location (easting & northing) and name of excavator;



- All material from each salvage pit will be dry sieved through table sieves (1 x 1m) with a wire mesh aperture gauge of 5mm, with the option to include 3mm mesh depending on the soil matrix and micro debitage recovery.
- Wet sieving may be necessary depending on the soil matrix/weather conditions, and will be implemented if necessary;
- All material recovered from the sieving process will be checked by a qualified archaeologist with experience in artefact identification prior to being placed into the spit bag;
- Artefact counts will be recorded for each spit; and
- Lithic analysis on completion of the salvage excavation will be undertaken by Dr Beth White who is a specialist with suitable experience (30+ years); or an alternative lithic analyst with appropriate skills and experience.

2.2 RESEARCH QUESTIONS

The following research questions should guide the archaeological salvage excavations of the site.

- What do the salvage results indicate about the past Aboriginal occupation of the area and within the wider Cumberland Plain region?
- Can site formation processes be identified, and how do these formation processes impact the integrity of the archaeological deposits present?
- How do the salvage excavation results compare to other local and regional archaeological results and predictive models?
- Are the raw material sources consistent with those identified within the wider area? Are they different? Is there change over time? Can this be related to Aboriginal use of the area and does topography influence the results?
- Is it possible to determine the activities undertaken within the site based on the characteristics of the artefact assemblage?
- Can conjoining artefacts be identified within the deposit? What is the vertical and/or horizontal displacement of these artefacts?

2.3 RECORDING

- Each spit will be recorded on a standard spit sheet with the following information:
 - site name;
 - date;
 - excavator name;
 - spit number;
 - spit depth;
 - pit location (easting & northing);
 - start levels & end levels;
 - bucket count and end total bucket count;
 - soil description;
 - description of disturbance;



- description of artefacts (material type & artefact type if *in situ*);
- in situ recording of artefacts where possible (xyz coordinates); and
- photograph details (from surface and of each spit to base).

2.4 ARTEFACTS AND CHAIN OF CUSTODY

Any artefacts that are recovered from the salvage excavation will initially be stored at Apex Archaeology's office in a lockable cupboard. The artefacts will then be transferred to be analysed by Dr Beth White, who is an archaeologist experienced in artefact analysis and interpretation; or an alternate lithic analyst with appropriate skills and experience. During the analysis the artefacts will be temporarily stored at her office. On completion of the analysis the artefact assemblage will be transferred back to Apex Archaeology's office until reburial on site can occur. Once the artefacts are reburied the location will be recorded and provided to AHIMS.

The proposed location for reburial of the collected assemblage is shown on Figure 6 within green space and would not be subject to additional impact in future.

2.5 CESSATION OF EXCAVATION

Excavations will cease upon reaching basal clay, bedrock or a culturally sterile layer, or at the discretion of the archaeologist. Additionally, excavations would cease upon excavation of an assemblage sufficient to answer the questions. The decision to cease based on sufficiency would be made in consultation with the lithic analyst for the project.

Excavation would also cease in the event evidence of contact archaeology is identified, and Heritage NSW would be contacted to determine the appropriate approach. The site is not considered likely to have potential for contact archaeology to be present.

2.6 BACKFILL AND SALVAGE EXCAVATION

It is considered likely that civil works would start on completion of salvage excavations and as such, the civil contractor will deal with the open area pits as part of the site works.

2.7 POST-EXCAVATION ANALYSIS

On completion of salvage works within the study area, any surface and subsurface, artefacts recovered would be analysed by Dr Beth White as outlined in Section 2.4. Further, a salvage report detailing the results of any surface collection and salvage excavations would be prepared and provided to all RAPs for the project, as well as to AHIMS for inclusion on the report database.

Aboriginal Site Impact Recording Forms (ASIRFs) would be prepared for the impacted sites, detailing the results of the surface and subsurface salvage works undertaken within the area.



On reburial of artefacts recovered during all archaeological activities within the site, a new site card would be submitted to AHIMS detailing the location of the reburied items.



- Study Area
- Lot Boundaries
- Hydrology
- Test Pits with Artifacts
- High Density test pits
- NWRL PAD 7

	<p>0 100 200</p> <p>Meters</p>	<p>Projection: MGA Zone 56 (GDA 94) Base Map: NearMaps 2023 Image Date: 18/01/2023 Final - Version 1</p>	<p>Figure 5: Test pits to be targeted for expansion (circled yellow).</p>	
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Figure 6: Artefact reburial location within the study area (red star).



3.0 ROLES & RESPONSIBILITIES

3.1 UNEXPECTED FINDS PROTOCOLS

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 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.

3.1.1 CONTACT DETAILS FOR UNEXPECTED FINDS

Department of Planning and Environment: 1300 361 967

Deerubbin Local Aboriginal Land Council: 02 4724 5600

Justin Coplin - Dharug Custodian Aboriginal Corporation – 0414 962 766

Castle Hill Police Station: 02 9680 5399

3.2 CONTRACTOR INDUCTION

All personnel working on site should be aware of their legal obligations under the *National Parks and Wildlife Act 1974* with regard to Aboriginal cultural heritage. It is an offence to harm an Aboriginal object without an approval in place. The site has been assessed as having no Aboriginal archaeological potential, but within the Cumberland Plain, isolated finds can be located in almost any context, including heavily disturbed landscapes; and their locations can be very difficult to predict. As such, people working on site should be aware of the types of items that constitute Aboriginal objects, and what to look for. The following are examples of Aboriginal objects that have been recovered from excavations on the Cumberland Plain, with some images of items recovered from the current study area itself.

All photographs by Dr Beth White, lithic expert, from various excavations undertaken by Apex Archaeology.



Plate 1: Silcrete core

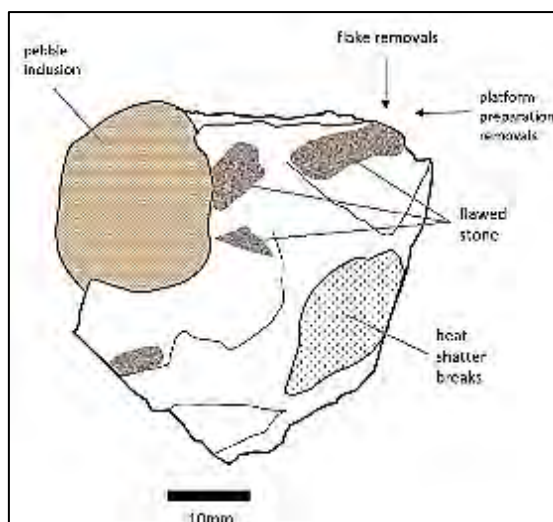


Figure 7: Silcrete core



Plate 2: Silcrete backed artefact

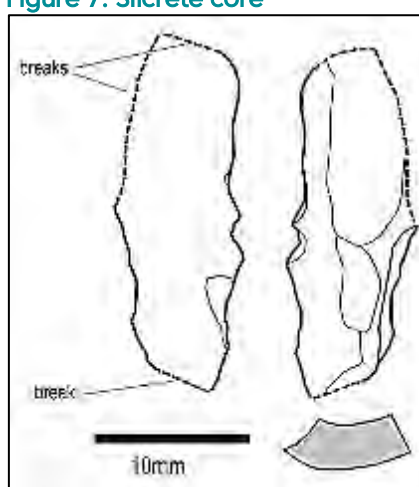


Figure 8: Silcrete backed artefact



Plate 3: Silcrete backed artefact

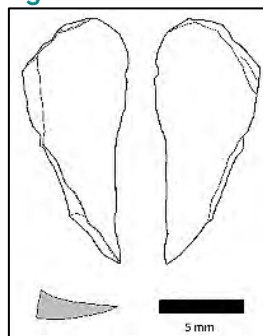


Figure 9: Silcrete backed artefact



Plate 4: Silcrete core



Plate 5: Elongate IMST flake (recovered from current study area)

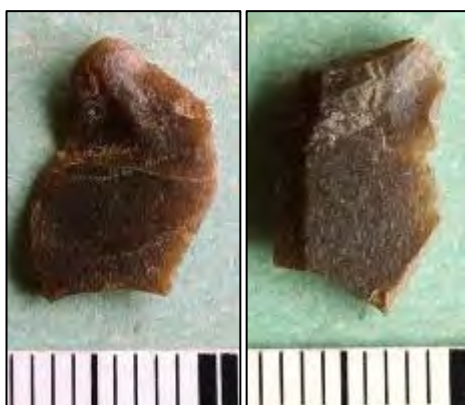


Plate 6: Fine Grained Siliceous broken flake

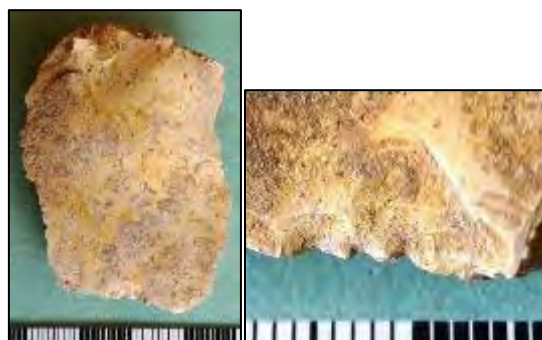


Plate 7: Indurated Mudstone Silicified Tuff serrate retouched flake



Plate 8: Broken Indurated Mudstone Silicified Tuff artefact with steep retouch along a straight edge



The above are just a few examples of the types of items that may be found within the Cumberland Plain. Plate 5 shows an artefact recovered from the current site. If there is any uncertainty over whether an item is culturally modified and of Aboriginal origin, an archaeologist experienced in lithic identification should be contacted to assess the find.

Penalties apply for impacting Aboriginal objects. Following the above in the event of an unexpected find mitigates the likelihood of prosecution.



3.3 ABORIGINAL CONSULTATION

A copy of the ACHMP was provided to all RAPs for their review and comment on 4 April 2025. Copies of the consultation documentation are attached to the ACHMP.

Two responses were received, with one from A1 Indigenous Services stating “I have reviewed the document and fully support the ACHMP.” A second response from Ngambaa Cultural Connections was received, registering their interest in the project. Apex Archaeology advised they were already registered and noted any comments on the ACHMP would be gratefully received. No further correspondence was received from any of the other RAPs for the project.

Any further consultation with the Aboriginal community would relate to any unexpected finds within the site during works, as well as consultation regarding the salvage works and their results.



4.0 REFERENCES

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Orton, C, 2000. *Cambridge Manuals in Archaeology: Sampling in Archaeology*. Cambridge University Press, Cambridge.



ABORIGINAL COMMUNITY CONSULTATION FOR ACHMP

From: jenni@apexarchaeology.com.au
To: "[Undisclosed Recipients](#)"
Cc: "[Leigh Bate](#)"
Bcc: Amandahickey@live.com.au; baryan.culturalconnections@gmail.com; cazadirect@live.com; corroboreecorp@bigpond.com; didqenqunawalclan@yahoo.com.au; Gunjeewongculturalheritage21@hotmail.com; gunya.ach@gmail.com; Hamptonralph46@gmail.com; james.eastwood@y7mail.com; justinecoplin@optusnet.com.au; murrabidgeemullangari@yahoo.com.au; ngambaa.culturalconnections@gmail.com; philipkhan.acn@live.com.au; scott@tocomwall.com.au; Waarlan12@outlook.com; waawaar.awaa@gmail.com; wokacorp@yahoo.com; woriwoolywa@gmail.com; yulayculturalservices@gmail.com; yurraandaali_cs@hotmail.com
Subject: 40 Memorial Drive - Hodges St Bridge: Draft ACHMP
Date: Friday, 4 April 2025 5:56:16 PM
Attachments: [22086 40 Memorial Ave - Hodges St Bridge Draft ACHMP.pdf](#)

Good afternoon,

Thank you again for your registration of interest in the above project. This project has moved to a State Significant Development (SSD) and as such, no AHIP application is required to permit the salvage excavations which were previously identified as being necessary within the site. However, an Aboriginal Cultural Heritage Management Plan (ACHMP) is required to guide the recommended salvage excavations within the site and management of identified Aboriginal cultural heritage during the life of the project.

Please find attached the draft ACHMP for your review and comment. Much of this information has been taken from the original ACHAR prepared for the project and is presented in this consolidated document for ease of use.

I look forward to receiving any comments you may have on the ACHMP by CoB Friday 2 May 2025.

Please don't hesitate to get in touch if you have any questions.

Kind regards,



From: Carolyn_H
To: jenni@apexarchaeology.com.au
Subject: Re: 40 Memorial Drive - Hodges St Bridge: Draft ACHMP
Date: Wednesday, 23 April 2025 3:34:17 PM
Attachments: [Outlook-86372ac.png](#)



Contact: Carolyn Hickey
Mobile: 0411650057
Email: Cazadirect@live.com
Address: 73 Russell St, Emu Plains, NSW 2750
ABN: 20 616 970 327

Hi,

I have reviewed the document and fully support the ACHMP.

I would like to be included in all meetings, reports, sharing of cultural information, and fieldwork

About Carolyn Hickey

I am a Traditional Owner and Custodian with over 25 years of experience in preserving Aboriginal cultural heritage on various projects. My extensive cultural knowledge is crucial in determining the significance of Aboriginal objects and values in the project area.

[I have attached A1 Indigenous Services Insurances.](#)

[A1 INDIGENOUS SERVICES. Represents over 100 Indigenous Locals](#)

I agree to my details being shared with OEH and the LALC. Please feel free to contact me using the details provided above.

Kind regards,
Carolyn Hickey

A1 Indigenous Services is a 100% Indigenous-owned Australian company offering a range of services to the construction industry. Our mission is to commit to an innovative approach for a better future for Indigenous employment and community, while improving ways to close the gap in Aboriginal participation in the construction industry. We are dedicated to building strength in Aboriginal communities and our Indigenous labour force.



A1 Indigenous Services is a member of the NSW Indigenous Chamber of Commerce (NSWICC). A business or enterprise carrying the NSWICC Assured logo has met national policy requirements as upheld by FACCI, ensuring that it is identified as a First Nations business owner or entrepreneur and that it demonstrates compliance with government and industry regulators.



From: jenni@apexarchaeology.com.au <jenni@apexarchaeology.com.au>
Sent: Friday, 4 April 2025 5:55 PM
To: 'Undisclosed Recipients' <jenni@apexarchaeology.com.au>
Cc: 'Leigh Bate' <leigh@apexarchaeology.com.au>
Subject: 40 Memorial Drive - Hodges St Bridge: Draft ACHMP

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Please don't hesitate to get in touch if you have any questions.

Kind regards,



From: jenni@apexarchaeology.com.au
To: "[Kaarina Slater](#)"
Subject: RE: 40 Memorial Drive - Hodges St Bridge: Draft ACHMP
Date: Friday, 11 April 2025 8:34:32 AM

Thanks Kaarina, you are already registered for this project which is why you received the email.

I look forward to receiving any comments you may have on the ACHMP.

Kind regards,



From: Kaarina Slater <ngambaa.culturalconnections@gmail.com>
Sent: Thursday, 10 April 2025 10:13 PM
To: Jenni Bate <jenni@apexarchaeology.com.au>
Subject: Re: 40 Memorial Drive - Hodges St Bridge: Draft ACHMP

On behalf of ngambaa cultural connections I would like to register my expression of interest for the 40 Memorial Drive Project

Kind regards

Kaarina Slater
0448 917 593

On Fri, Apr 4, 2025, 5:56 PM <jenni@apexarchaeology.com.au> wrote:

Good afternoon,

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for ease of use.

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Please don't hesitate to get in touch if you have any questions.

Kind regards,



Jenni Bate
DIRECTOR - ARCHAEOLOGIST

0422 229 179

JENNI@APEXARCHAEOLOGY.COM.AU

WWW.APEXARCHAEOLOGY.COM.AU