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Nepean Business Park, Penrith, NSW Aboriginal Cultural Heritage Assessment

Great River NSW Pty Ltd

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Template 2.8.1

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Abbreviations

Abbreviation	Definition
ACHA	Aboriginal Cultural Heritage Assessment
AHD	Australian Heritage Database
AHIMS	Aboriginal Heritage Information Management System (New South Wales)
AHIP	Aboriginal Heritage Impact Permit
BP	Before Present
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DECCW	Department of Environment, Climate Change, and Water
DPIE	Department of Planning, Industry and Environment
EIS	Environmental Impact Statement
ELA	Eco Logical Australia Pty Ltd.
EP&A	Environmental Planning and Assessment Act 1979 (New South Wales)
EPBC	Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)
EPI	Environmental Planning Instrument
HA	Heritage Act 1977 (New South Wales)
ICOMOS	Australia International Council on Monuments and Sites
IHO	Interim Heritage Orders
LEP	Local Environmental Plan
LGA	Local Government Area
NPW	National Parks and Wildlife Act 1974 (New South Wales)
OEH	Office of Environment and Heritage (New South Wales)
PAD	Potential Archaeological Deposit
RAP	Registered Aboriginal Party
SEPP	State Environmental Planning Policy
SHI	State Heritage Inventory (New South Wales)
SHR	State Heritage Register (New South Wales)
Study area	Lot 1, 2, 3 DP1263486, 14-98 Old Castlereagh Road, Penrith

Executive Summary

Eco Logical Australia (ELA) was engaged by Great River NSW Pty Ltd to prepare an Aboriginal Cultural Heritage Assessment (ACHA) for the proposed development of a business park, associated infrastructure and provision of a walking path/ cycleway to the north of the Nepean River, Penrith. The proposed works are located at 14-98 Old Castlereagh Road (Lot 1, 2, 3 DP1263486), Penrith, NSW. This assessment has been undertaken to identify if the proposed works has the potential to impact upon Aboriginal cultural heritage. A portion of the site is zoned Environment, in accordance with clause 23(b) of the State Environmental Planning Policy (SEPP) an Aboriginal Cultural Heritage Assessment (ACHA) is required for development on land zoned Environmental.

This Aboriginal Cultural Heritage Assessment has been undertaken to identify and describe the cultural heritage values and significance across the study area. This has been undertaken in accordance with the *Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW* (OEH 2011).

To be able to assess the environmental context and identify potential aboriginal objects or places located within the study area, a survey was undertaken in accordance with the *Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW* (DECCW 2010a).

As part of the ACHA, Aboriginal consultation has been conducted in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010b). Consultation is undertaken to engage the local Aboriginal community in order to assess the Aboriginal Cultural significance of the study area. By undertaking this ACHA, the proponent is demonstrating an attempt to avoid or mitigate potential impacts of the proposal on cultural heritage values.

It was found that:

- No Aboriginal objects or places were identified within the study area.
- The study area has been subjected to high levels of ground disturbance in the form of sand extraction.
- The study area was found to have a low archaeological potential.
- The study area through consultation was assessed as having low cultural heritage significance.

Based on the findings of this ACHA and the survey the following is recommended:

Recommendation 1 – No further assessments are required

No further assessment is required for the study area. Although general measures will need to be undertaken. These general measures include:

- This assessment has been undertaken to assess the proposed impacts within the study areas shown in Figure 1. If proposed excavated areas are increased beyond the defined assessment boundary (Figure 1), further investigations will be required and an addendum ACHA undertaken. An addendum ACHA will require further consultation with RAPs.
- Unexpected Finds:

- Aboriginal objects are protected under the NPW Act regardless if they are registered on AHIMS or not. If suspected Aboriginal objects, such as stone artefacts are located during future works, works must cease, and an archaeologist called in to assess the finds.
- If the finds are found to be Aboriginal objects, Heritage NSW must be notified under section 89A of the NPW Act. Appropriate management and avoidance or approval under a section 90 AHIP should then be sought if Aboriginal objects are to be moved or harmed.
- In the extremely unlikely event that human remains are found, works should immediately cease, and the NSW Police should be contacted. If the remains are suspected to be Aboriginal, Heritage NSW may also be contacted at this time to assist in determining appropriate management

Recommendation 2 – Submit ACHA to AHIMS

In accordance with Chapter 3 of the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011) the ACHA should be submitted for registration on the AHIMS register within three months of completion.

1. Introduction

1.1 Project Brief

Eco Logical Australia (ELA) was engaged by Great River NSW Pty Ltd to prepare an Aboriginal Cultural Heritage Assessment (ACHA) for the proposed development of a business park, associated infrastructure and provision of a cycleway to the north of the Nepean River, Penrith. The proposed works are located at 14-~~278-98~~ Old Castlereagh Road (Lot 1, 2, 3 DP1263486), Penrith, NSW. This assessment has been undertaken to identify if the proposed works has the potential to impact upon Aboriginal cultural heritage. A portion of the site is zoned Environment, in accordance with clause 23(b) of the State Environmental Planning Policy (SEPP) an Aboriginal Cultural Heritage Assessment (ACHA) is required for development on land zoned Environmental (~~Figure 4~~Figure 4).

A plan of the proposed business park and Great River Walk extension has been provided Great River NSW Pty Ltd (Figure 2; ~~Figure 3~~Figure 3).

1.2 Location of the proposed works

The study area is located at 14-~~278-98~~ Old Castlereagh Road, west of Lugard Street and north of the Nepean River. It is comprised of Lot 1, 2, 3 DP1263486.

The study area is located within the Penrith Local Government Area (LGA), Parish of Castlereagh, County of Cumberland. The Penrith LGA is located approximately 50km west of the Sydney CBD. The study area is approximately 49 ha in size.

1.3 Purpose and aims

The investigation and assessment of Aboriginal cultural heritage is undertaken to explore the potential harm of a proposed activity on Aboriginal objects and declared Aboriginal places and to clearly set out which impacts are avoidable, and which are not.

Harm to significant Aboriginal objects and declared Aboriginal places should always be avoided wherever possible. Where such harm cannot be avoided, management and mitigation measures will be developed.

This ACHA has been carried out in accordance with the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011). This ACHA presents the results of the assessment and recommendations for actions to be taken before, during and after an activity to manage and protect Aboriginal objects and declared Aboriginal places identified by the investigation and assessment. The field investigations were undertaken in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW, 2010b).

The aims of the ACHA are to:

- Identify any previously unknown Aboriginal objects or places within the study area through desktop assessment, field investigations and Aboriginal community consultation;
- Determine the scientific, historic, aesthetic, and cultural significance of the study area; and

- Identify any Aboriginal cultural heritage constraints and provide management and mitigation measures.

1.4 Authorship

This ACHA has been prepared by ELA Archaeologists Charlotte Bradshaw, Declan Coman and Jennifer Norfolk. It was reviewed by ELA Principal Archaeologist Karyn McLeod.

Charlotte Bradshaw has a BA (Archaeology) from the University of Sydney. Declan Coman has a BA (Archaeology) from the Australian National University. Jennifer Norfolk has an MSc. (Marine Archaeology) from Southampton University. Karyn McLeod has a BA Honours (Archaeology) from the University of Sydney and a MA (Cultural Heritage) from Deakin University.



Figure 1: The study area



Figure 2: Plan of the proposed Great River Walk extension (source: Precinct Capital Pty Ltd 2020)



Figure 3: Plan of proposed business park (source: GCA 2020)

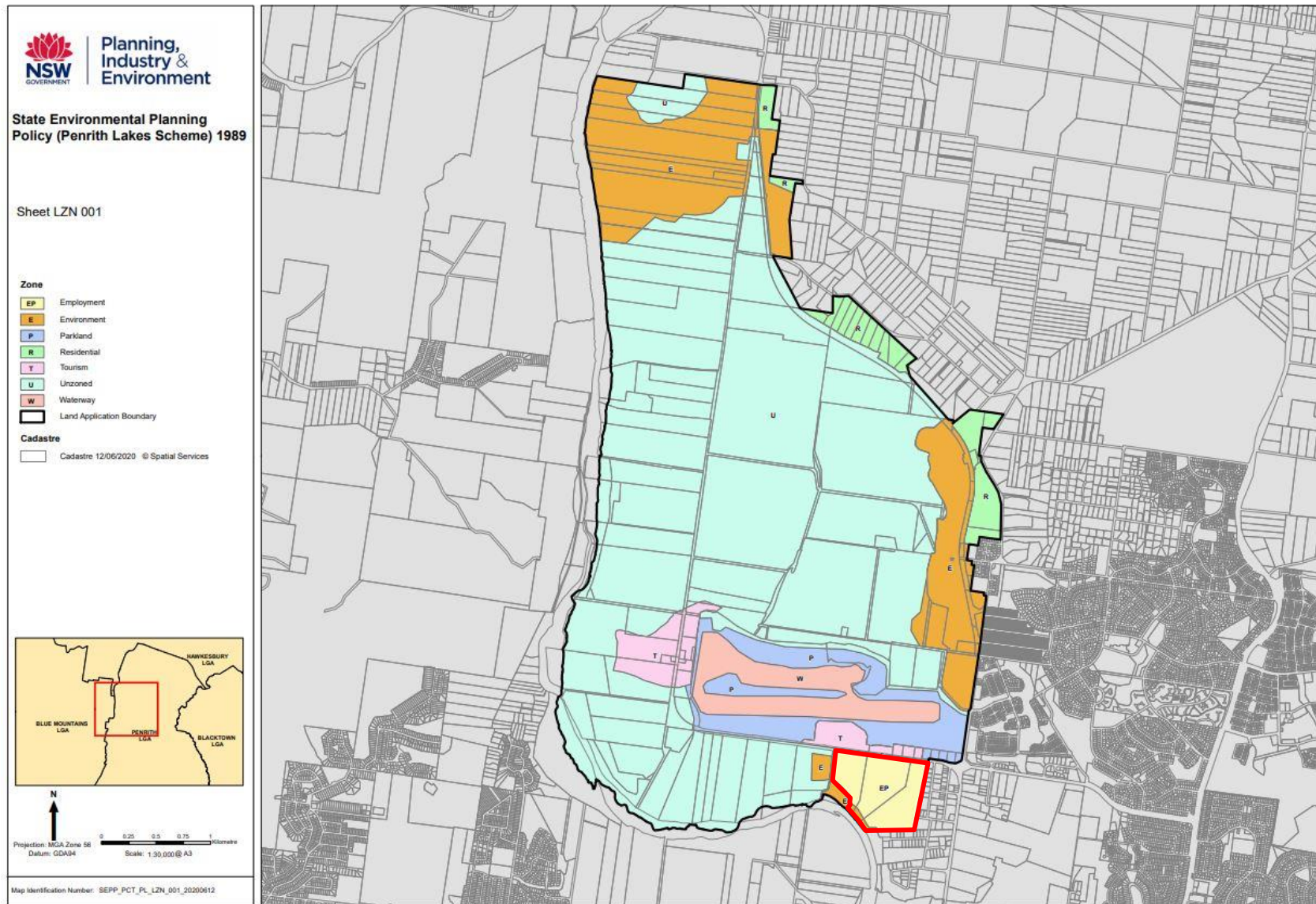


Figure 4: Land zoning within the Penrith Lakes, with study area outlined in red (source: NSW Department of Planning Industry and Environment 2020)

1.5 Statutory controls and development context

1.5.1 National Parks and Wildlife Act 1974 (NSW)

Aboriginal cultural heritage in NSW is afforded protection under the provisions of the *National Parks and Wildlife Act 1974 (NSW)* [NPW Act]. The Act is administered by Heritage NSW, which has responsibilities under the legislation for the proper care, preservation and protection of 'Aboriginal objects' and 'Aboriginal places'.

Under the provisions of the NPW Act, all Aboriginal objects are protected irrespective of their level of significance or issues of land tenure. Aboriginal objects are defined by the Act as *any deposit, object or material evidence (that is not a handicraft made for sale) relating to Aboriginal habitation of NSW, before or during the occupation of that area by persons of non-Aboriginal extraction (and includes Aboriginal remains)*. Aboriginal objects are limited to physical evidence and may be referred to as 'Aboriginal sites', 'relics' or 'cultural material'. Aboriginal objects can include scarred trees, artefact scatters, middens, rock art and engravings, as well as post-contact sites and activities such as fringe camps and stockyards. Heritage NSW must be notified about the discovery of Aboriginal objects under section 89A of the NPW Act.

Part 5 of the NPW Act provides specific protection for Aboriginal objects and places by making it an offence to destroy, deface, damage, or move them from the land. *The Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (CoP)* (DECCW 2010b) as adopted by the and Wildlife Regulation 2019 (NPW Regulation) made under the NPW Act, provides guidance to individuals and organisations to exercise due diligence when carrying out activities that may harm Aboriginal objects. The CoP also determines whether proponents should apply for consent in the form of an AHIP under section 90 of the Act. The CoP can be used for all activities across all environments. The NPW Act provides that a person who exercises due diligence in determining that their actions will not harm Aboriginal objects has a defence against prosecution for the strict liability offence if they later unknowingly harm an object without an AHIP. However, if an Aboriginal object is encountered in the course of an activity work must cease and an application should be made for an AHIP.

The Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (DECCW 2010a) assists in establishing the requirements for undertaking test excavation as a part of archaeological investigation without an AHIP, or establishing the requirements that must be followed when carrying out archaeological investigation in NSW where an application for an AHIP is likely to be made. Heritage NSW recommends that the requirements of this Code also be followed where a proponent may be uncertain about whether or not their proposed activity may have the potential to harm Aboriginal objects or declared Aboriginal places.

AHIMS DATABASE

The Aboriginal Heritage Information Management System (AHIMS) is a statutory register managed by Heritage NSW under section 90Q of the NPW Act. The AHIMS manages information on known Aboriginal sites, including objects as defined under the Act.

1.5.2 Heritage Act 1977 (NSW)

The Heritage Act 1977 (NSW) is a statutory tool designed to conserve the environmental heritage of NSW and is used to regulate development impacts on the state's heritage places, buildings, works, relics, moveable objects or precincts that are important to the people of NSW. These include items of Aboriginal and non-Aboriginal heritage significance. Where these items have particular importance to the state of NSW, they are listed on the State Heritage Register (SHR).

Identified heritage items may be protected by means of either Interim Heritage Orders (IHO) or by listing on the State Heritage Register (SHR). Proposals to alter, damage, move or destroy places, buildings, works, relics; moveable objects or precincts protected by an IHO or listed on the SHR require an approval under Section 60 of the Act.

Archaeological features and deposits are afforded statutory protection by the relics provision section 139 of the Act (as amended in 1999). Under this section it is illegal to disturb or excavate any land knowing or suspecting that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed. In such cases, an excavation permit under Section 140 is required. Note that no formal listing is required for archaeological relics; they are automatically protected if they are of local significance or higher.

HERITAGE REGISTERS

Heritage NSW maintains registers of heritage sites that are of state or local significance to NSW. The NSW State Heritage Register (SHR) is the statutory register under Part 3A of the *Heritage Act 1977* (NSW). The State Heritage Inventory (SHI) is an amalgamated register of items on the SHR, items listed on Local Environmental Plans (LEPs) and/or on a State Government Agency's Section 170 register and may include items that have been identified as having state or local level significance. If a particular site does not appear on either the SHR or SHI this does not mean that the site does not have heritage significance as many sites within NSW have not been assessed to determine their heritage significance. Sites that appear on either the SHR or SHI have a defined level of statutory protection.

Key Aboriginal sites, including post contact sites, can be protected by inclusion on the SHR. The Heritage Council nominates sites for consideration by the Minister for Environment and Heritage.

Searches of the Australian Heritage Database, the State Heritage Register (SHR), the Penrith Local Environment Plan (LEP) 2010 and the State Environment Planning Policy (SEPP) (Penrith Lakes Scheme) 1989 Schedule 3 (Items of the Environmental Heritage) utilising the term "Penrith, NSW" were conducted on 8 December 2020 in order to determine if any places of archaeological significance are located within the study area.

No Aboriginal archaeological sites or Aboriginal heritage places were recorded on these databases within the study area. No historical heritage items were recorded within or in the vicinity to the study area.

1.5.3 Environmental Planning and Assessment Act 1979 (NSW)

The Environmental Planning and Assessment Act 1979 (NSW) [EP&A Act] requires that consideration is given to environmental impacts as part of the land use planning process. In NSW, environmental impacts

are interpreted as including cultural heritage impact. Proposed activities and development are considered under different parts of the EP&A Act, including:

- Major projects (State Significant Development under Part 4.1 and State Significant Infrastructure under Part 5.1), requiring the approval of the Minister for Planning;
- Minor or routine developments, requiring local council consent, are usually undertaken under Part 4. In limited circumstances, projects may require the Minister's consent; and
- Part 5 activities which do not require development consent. These are often infrastructure projects approved by local councils or the State agency undertaking the project.

The EP&A Act also controls the making of environmental planning instruments (EPIs) such as LEPs and SEPPs. The study area is within the Penrith Lakes Scheme and activities undertaken on this land are controlled by the State Environment Planning Policy (SEPP) (Penrith Lakes Scheme) 1989 Penrith Lakes State Environmental Planning Policy. SEPPs commonly identify and have provisions for the protection of local heritage items, heritage conservation areas and archaeological sites. SEPPs are prepared by the state government to guide planning and management decisions in the LGAs and establish the requirements for the use and development of land.

2. Consultation

As part of the Aboriginal cultural heritage assessment (ACHA) for the proposed works, Aboriginal consultation has been undertaken and is ongoing following the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010b) guidelines.

Consultation with registered Aboriginal parties for this Aboriginal cultural heritage assessment has been conducted in line with Heritage NSW *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010b). This has ensured that Aboriginal stakeholders have been able to register and therefore be fully engaged on all aspects relating to cultural heritage for this project.

Heritage NSW consultation requirements follow four clear consultation stages. The following chapter outlines the process ELA used to fully consult with Aboriginal people on this development proposal.

2.1 Stage 1 – Notification of project proposal and registration of interest

2.1.1 Placement of advertisement in local paper

An online advertisement targeting the Penrith LGA was placed in buysearchsell.com.au on 5 October 2020 inviting interested Aboriginal stakeholders to register to be consulted in relation to the proposed development works (Appendix A). Publication of this advertisement in a local paper was not possible, due to the ongoing impact of the COVID-19 pandemic on hardcopy press production and the recent abolishment of many local newspapers across Australia.

2.1.2 Written request for information about Aboriginal organisations

ELA, on behalf of the proponent, undertook a registration process for Aboriginal people with knowledge of the area. ELA wrote to the following organisations (as per 4.1.2 *Aboriginal Cultural Heritage Consultation Requirements for Proponents' guidelines* (DECCW 2010b) on 17 September 2020, in order to identify Aboriginal people who may hold cultural knowledge relevant to determining the significance of Aboriginal objects:

- Heritage NSW (Department of Premier and Cabinet);
- Deerubbin Local Aboriginal Land Council;
- The Registrar, Aboriginal Land Rights Act 1983;
- The National Native Title Tribunal;
- Native Title Services Corporation Limited (NTSCORP Limited);
- Penrith City Council; and
- The Greater Sydney Local Land Services.

Details of the letters and organisational responses are included in Appendix A.

2.1.3 Letters to Aboriginal organisations

As per 4.1.3 of the *Aboriginal Cultural Heritage Consultation Requirements for Proponents' guidelines* (DECCW 2010b), ELA wrote to the Aboriginal organizations identified through the above process on 28 September 2020, inviting them to register an interest in the project. An advertisement was also placed in buysearchsell.com.au on 5 October 2020, inviting any Aboriginal people with knowledge of the area to register an interest in the project. The registration closing date was set for 19 October 2020.

Details of the letters, advertisement, and responses are included in Appendix A.

Registrants became the Registered Aboriginal Parties (RAPs) for the project. [Table 1](#) below details the RAP's for the project.

Table 1: Registered Aboriginal Parties

Registered Aboriginal Party	Contact Name
Deerubbin LALC	Steve Randall
Merrigarn	Shaun Carroll
Kamilaroi Yankuntjatjara Working Group	Phil Khan
Didge Ngunawal Clan	Lilly Carroll and Paul Boyd
Muragadi Heritage Indigenous Corporation	Jesse Johnson
Murra Bidgee Mullangari Aboriginal Corporation	Darleen Johnson
Yulay Cultural Services	Arika Jalomaki
Darug Custodian Aboriginal Corporation	Justine Coplin
Clive Freeman	Clive Freeman
Aragung Aboriginal Cultural Heritage Site Assessments	Jamie Eastwood
Yurrandaali Cultural Services	Bo Field
Barraby Cultural Services	Lee Field
Ginninderra Aboriginal Corporation	Krystle Carroll-Elliot
Dharug Ngurra Aboriginal Corporation (formally Darug Tribal Aboriginal Corporation)	Corina Marino
Ngambaa Cultural Connections	Kaarina Slater
Waawaar Awaa Aboriginal Corporation	Rodney Gunther
Barking Owl Aboriginal Cooperation	Jody Kulakowski
A1 Indigenous Services	Carolyn Hickey
Butucarbin Aboriginal Corporation	Jennifer Beale

Section 4.1.4 of the DECCW's *Aboriginal cultural heritage consultation requirements for proponents 2010* requires a minimum of 14 days for Aboriginal stakeholders to register their interest to be consulted for an ACHA. However, it has always, and will continue to be ELA's policy to register all individuals/groups regardless of the mandatory closing date of registration.

2.2 Stage 2 and Stage 3 – Presentation of information about the proposed project and gathering information about cultural significance

2.2.1 Project information and methodology

Following the registration of Aboriginal parties and site survey ELA presented the proposed project information and archaeological survey results to the RAPs. This information was sent to the RAPs on 17 November 2020, with a close of review period on 16 December 2020.

Responses supporting the methodology were received from six of the registered Aboriginal parties (Table 2 and Appendix A).

Table 2: RAP responses to draft methodology

Aboriginal organisation	Draft Methodology Responses
Didge Ngunawal Clan	<i>We agree with what has been set out for the Great River road bike track project @ Penrith</i>
Muragadi Heritage Indigenous Corporation	<i>I have read the project information for the above project, I agree with the recommendations made.</i>
Darug Custodian Aboriginal Cooperation	<p><i>We have received the Construction of Great River Walk Bike Path, Penrith, NSW.</i></p> <p><i>We would like to add that our sites are a complex and not all separate sites and recommend that the connections are interpreted throughout the project. Information gathered during these projects is of high significance, once our sites are gone there is no other evidence of the sites or connections. This area has shown in recent excavations and surveys that this is a Darug landscape and there are still numerous parts of our histories to be recorded. Darug people stayed in this area to present times, the oral histories of this area support the families staying here for thousands of years.</i></p> <p><i>Within this document the number of groups for consultation is high with many groups not from this area, we do not support personal profit groups and also do not support any input that they have into the recommendations.</i></p> <p><i>Darug Custodians do not support the survey recommendation as there was no traditional owners invited to the survey.</i></p> <p><i>It is Extremely disappointing that Darug Custodians and ecological have worked with each other over many years and what we believed to have built a good rapport. Ecological have only had Land council on country to survey these lands. This decision has resulted in Excluding Darug people.</i></p> <p><i>Within the provided methodology Ecological have stated that no Archaeological potential is present due to extreme ground disturbance. Darug Custodians would like to make mention that there could possibly be cultural potential within the area.</i></p>
Kamiloroi-Yankuntjatjara Working Group	<p><i>Thank you for your methodology, we are concerned this area has not been culturally investigated in the past prior to previous construction in the area. You mention there is no need to investigate due to heavy disturbance in the area, however I believe just because surface artefacts were not found there could still be artefacts under the ground in situ. This is part of the flood plains of the Nepean River which is highly significant to us Aboriginal People as it was a sandy area which made it easier for the women to cook underground.</i></p> <p><i>Also we previously completed test & salvage excavations on Andrews Rd, Penrith which was also disturbed however a number of artefacts were still found in situ.</i></p> <p><i>Therefore I recommend investigations in the way of test excavations should be completed.</i></p>

2.2.2 Archaeological survey

Archaeological survey was undertaken by ELA Archaeologist Declan Coman with Cultural Heritage Officer Steve Randall from the Deerubbin LALC on 11 November 2020. The survey identified significant

disturbance across the study area due to previous works associated with the Penrith Lakes Scheme and no Aboriginal objects were identified. Further details of the archaeological survey can be found in Section 4.5 of this report.

2.3 Stage 4 – Review of draft cultural heritage report

A copy of the draft ACHA was provided to Aboriginal stakeholders for a 28-day review period on 23 December 2020 with the closing date for comments set on 3 February 2021. A summary of comments and cultural information received from stakeholders can be found below ([Table 3](#)), and included in full in Appendix A.

Table 3: Aboriginal stakeholder responses to draft ACHA

Aboriginal Organisation	Draft ACHA responses	ELA Response
Didge Ngunawal Clan	DNC agrees with all protocols towards the Great River Walk/ Nepean business Park.	No response
Darug Custodian Aboriginal Corporation	Darug Custodian Aboriginal Corporation have received and reviewed the report for Construction of Great River Walk Bike Path, Penrith. We support the recommendations set out in this report.	No response
Ngambaa Cultural Connections	On behalf of Ngambaa Cultural connections we have received reviewed and agrees to the ACHA for Nepean Business park riverwalk	No response
Kamiloroi-Yankuntjatjara Working Group	Thank you for your report for Nepean Business Park/Great River Walk, this area is highly significant to us Aboriginal People as it is near by the river. Nepean River is well known as a place Aboriginal People would hunt, camp & practice ceremonies. Also there is the possibility of finding burial sites. You have noted on your report this area is highly disturbed, however it has been proven time and time again that there is always the potential of finding Aboriginal artefacts within the disturbed soil, therefore I would highly recommend you consider investigating this area further in the way of test excavations.	The field survey and background research concluded the area has low archaeological potential and low likelihood to impact Aboriginal heritage. The majority of the study area is an old sand quarry and the original deposits are gone and has been backfilled with demolition fill. The study area was previously assessed in an ACHA conducted by Penrith Lakes Development Corporation which was used to apply for an Aboriginal Heritage Impact Permit (AHIP). In this survey, no Aboriginal objects were identified during works. The targeted survey area (see figure 28; page 37) at the southern end of the study area has undergone low to moderate disturbance and will be impacted by the construction of a footpath. As no Aboriginal objects were identified in the field survey and the impact of the footpath is minimal, we concluded there to be a low likelihood to impact Aboriginal objects or remains. Through our predictive model and previous investigations, we have concluded that any potential archaeological deposits are very

Aboriginal Organisation	Draft ACHA responses	ELA Response
		<p>unlikely to occur in the upper deposits due the alluvial sand deposits.</p> <p>We will, however, note the socio-cultural significance associated with the study area.</p>

3. Description of the area

An understanding of the physical landscape and environment is vital to understand the archaeology of an area. The natural environment influences the distribution of archaeological material in a variety of ways. The availability and distribution of resources influenced past land use. People need access to resources of freshwater and food (edible plants and animals), plants for medicinal use, timber for woodworking and quarry sites for tool manufacture.

Since the time of Aboriginal occupation, the environment and resources in many places is likely to have changed. As such, archaeologists cannot always draw direct inferences from the current environment. Historical land use and environmental degradation have impacted on the survival of material remains. Acidic soils, if present, are less likely to have preserved fragile organic materials such as bone or shell. Areas of heavy erosion, some agricultural practices or other earth disturbances are less likely to contain in situ deposits of archaeological material.

3.1 Landscape assessment

Landforms and topography

The study area is situated within the Cumberland subregion of the Sydney Basin bioregion. The geology, landforms, soils and vegetation typical of the Cumberland subregion is described in Table 4 below:

Table 4: Summary of the Cumberland subregion (Source: Morgan 2001)

Cumberland Subregion	
Geology	Triassic Wianamatta groups shales and sandstones. A downwarped block on the coastal side of the Lapstone monocline. Intruded by a small number of volcanic vents and partly covered by Tertiary river gravels and sands. Quaternary alluvium along the mains streams.
Characteristic Landforms	Low rolling hills and wide valleys in a rain shadow area below the Blue Mountains. At least three terrace levels evident in the gravel splays. Volcanics from low hills in the shale landscapes. Swamps and lagoons on the floodplain of the Nepean River.
Typical Soils	Red and yellow texture contrast soils on slopes, becoming harsher and sometimes affected by salt in tributary valley floors. Pedal uniform red to brown clays on volcanics. Poor uniform stony soils, often with texture contrast profiles on older gravels, high quality loams on modern floodplain alluvium.
Vegetation	Grey box, forest red gum, narrow-leaved ironbark woodland with some spotted gum on the shale hills. Hard-leaved scribbly gum, rough-barked apple and old man banksia on alluvial sands and gravels. Broad-leaved apple, cabbage gum and forest red gum with abundant swamp oak on river flats. Tall spike rush, and juncus with Parramatta red gum in lagoons and swamps.

Vegetation

The study area has extensively cleared from previous land use. Prior to clearing, the landscape was populated by trees species such as *Toona ciliata* (red cedar), *Ceratopetalum apetulum* (coachwood), *Melaleuca* spp. (paperbarks) and aquatic plants such as *Typha orientalis* (cumbungi), *Cyperus* spp. and *Phragmites australis* (common reed).

Soil landscapes

Due to past disturbance and land use, a majority the soil landscape within the study area is classified as 'Disturbed Terrain', which is characterised by disturbance through human activity to a depth of at least 100 cm with native vegetation completely cleared. Within Disturbed Terrain landscapes, the original soils have been removed, significantly disturbed or buried. This landscape is common within the Penrith Lakes Scheme due to past and ongoing industrial quarrying of alluvial sands and gravel material. Parts of the study area are classified as the Richmond Soil Landscape (*ri*), which is found on the higher quaternary terraces of the Nepean, Hawkesbury and Georges Rivers and were once dominated by low open woodland though have now undergone extensive clearing. The soils are characterised by poorly structured orange to red clay loams, clays and sands. Inclusions of ironstone nodules, sandstone and shale gravels may be present. Plastic clay is found within drainage lines, deep acid non-calcic brown soils, red earths and red podzolic soils on terrace surfaces and earthy sands on terraces edges. Richmond Soil Landscape is highly erodible and possesses variable acidity, ranging from moderately to slightly acid (pH 5.5 – pH 6.5) in the A Horizons, and strongly acid to slightly alkaline (pH 4.0 – pH 8.0) in the B Horizons (Figure 5). Within areas of Disturbed Terrain, there is nil potential for archaeological deposits. Within the Richmond Soil Landscape, there is low potential of the survivability of organic material due to soil acidity, and low potential for *in situ* archaeological deposits, due to the highly erodible nature of the soil profile.

Hydrology

The study area is adjacent to the Nepean River which is a major watercourse on the edge of the Cumberland Plain. The Nepean river flows south to north along the boundary of the Blue Mountains. Many of the creek systems across the lower Cumberland Plain feed into the Nepean River which flows north into the Hawkesbury River..

Land Use History

Through historical aerial imagery and background research, past land use and disturbance can be reconstructed and assessed. The earliest European land use of the study area was in the 1832, with the construction of Allen's Mill near the eastern bank of the Nepean, which was out of use by the 1880's and fell into disrepair and later demolished (GML 2014). The earliest aerial imagery of the study area was taken in 1955 (Figure 6) and shows the entirety of the study has been cleared of native vegetation for agricultural use, including orchard farming and the planting of crops. Sand quarrying in the Castlereagh area occurred throughout the 1960s, though only a small scale. By 1979, a joint venture between Boral, CSR and Pioneer formed the Penrith Lakes Development Corporation (PLDC) to develop largescale quarrying over the 2000 hectare site which became 'Penrith Lakes'. A condition of the Deed of Agreement between PLDC and the NSW State Government encompassed the completion and remediation of the site for the development of parklands and urban development (GML 2011; PLDC). Aerial imagery from 1986 (Figure 7) shows the site in use as a sand extraction site. The land has been graded, mined and parts have been dammed to service the sand extraction process. Aerial imagery from 1998 (Figure 8Figure-8) shows the study area after use as a sand extraction site, in which the study area has been flooded. The most recent imagery, from 2020, shows the current land use as an active construction site which involves levelling the ground surface for the purposes of future development and subdivision (Figure 9Figure-9). The aerial images also demonstrate the changes to the course of the Nepean River.



Figure 5: Soils and hydrology of the study area and surroundings (source: eSPADE v2.1)



Figure 6: Aerial imagery from 1955, with the study area outlined in red (NSW Historical Imagery)



Figure 7: Aerial imagery from 1986, with the study area outlined in red (NSW Historical Imagery)



Figure 8: Aerial imagery from 1998, with the study area outlined in red (NSW Historical Imagery)



Figure 9: Aerial imagery from 2020, with the study area outlined in red (source: NearMaps)

3.2 Ethnohistoric context

Landscapes are not simply inert backdrops or containers for the arrangement of human artefacts; [they] are a product of a complex interaction between a symbolically and historically constituted human social world and a material environment (Godwin and Weiner 2006:124)

An accurate reconstruction of past lifeways, technologies and land-use patterns of pre-colonial era First Australians can be flawed as it is often dependant on historical documents written by Europeans who held an ethnocentric bias concerning cultures that they did not fully understand. When possible, Aboriginal oral history is an invaluable resource in understanding the past. Archaeological investigations, in conjunction with both Aboriginal oral history and European documentation, can inform these gaps in our understanding, and in many cases challenge the biased notions proliferated by early colonial accounts.

Dates of the earliest occupation of the continent by Aboriginal people are subject to continued revision as more research is undertaken. The earliest undisputed radiocarbon date from the region comes from a rock shelter site north of Penrith on the Nepean, known as Shaw's Creek K2, which has been dated to 14,700 +/- 250 BP (Attenbrow 2010). However, dates of more than 40,000 years (ANU-4016) have been claimed for artefacts found in gravels of the Cranebrook Terrace on the Nepean River which suggests earlier Aboriginal occupation of the Sydney region (Nanson *et al.* 1987; Stockton & Holland 1974).

The archaeological record is limited to materials and objects that were able to survive post-deposition. As a result, the most common type of Aboriginal objects remaining in the archaeological record are stone artefacts. Archaeological analyses of these artefacts in their contexts have provided the basis for the interpretation of change in material culture over time. Technologies used for making tools changed, along with preference of raw material. Different types of tools appeared at certain times, for example ground stone hatchets are first observed in the archaeological record around 4,000 Before Present years (BP) in the Sydney region (Attenbrow 2010). It is argued that these changes in material culture were an indication of changes in social organisation and behaviour.

The earliest recorded contact between Europeans and Aboriginal people along the Hawkesbury-Nepean Rivers was recorded by Governor Arthur Phillips in 1791. This group identified themselves as 'Buruberongal' and spoke a dialect of the Dharug language. The first expeditions to contact the Buruberongal clan were reportedly friendly, with the exchanging of gifts and food. However, with colonisation came the smallpox epidemic, guerrilla warfare, the over-exploitation and destruction of resources and the theft of Aboriginal land and children, causing a steep decline and displacement in Aboriginal populations. In some cases, smallpox had ravaged Aboriginal communities even prior to direct European contact. It is because of this, that little information has survived concerning the Buruberongal lifeways or languages (Attenbrow 2010). Brief historical records document the subsistence patterns and techniques of the Dharug people. In 1791, Arthur Phillips and his team described the diet of Aboriginal people who lived along the Hawkesbury-Nepean river:

...they depend but little on fish, as the river yields only mullets, and that their principal support is derived from small animals in which they kill, and some roots (a species of yam chiefly) which they dig out of the earth... (Attenbrow 2010)

Small animals included possums, kangaroos, fruit bats and birds. Local freshwater resources were predominately made up of eels and freshwater mussels. Yams that grew in the alluvial floodplains along

the Hawkesbury-Nepean were a staple for the Buruberongal people, though by 1795 a majority of these yam beds had been destroyed and replaced with non-native crops. Reverend Fyshe Palmer recorded these events in 1795:

... The natives of the Hawkesbury lived on the wild yams on the banks. Cultivation has rooted out these, and poverty compelled them to steal Indian corn to support nature. The unfeeling settlers resented this by unparalleled severities. The blacks in return speared two or three whites, but tired out; they came unarmed, and sued for peace. This, government thought proper to deny them, and last week sent sixty soldiers to kill and destroy all they could meet with, and drive them utterly from the Hawkesbury... (PLDC 2011)

While some accounts recall an amicable co-existence between First Australians and settlers, theft of land and resources often culminated in running battles, ambushes and military response. These conflicts further decimated the Aboriginal population. The 1828 census recorded only 156 Aboriginal people living in the Penrith area (GML 2010). A common belief at the time was that Aboriginal people would inevitably die out (Karskens 2019; GML 2011). Nellie Nah Doongh, or 'Black Nellie', was often referred to as the last of the Nepean tribe. She lived amongst the settlers along the Nepean. Her memories of life before the arrival of settlers are preserved in the written accounts by Sara Shand – a Penrith local and friend of Nellie (Karskens 2019).

...all this place bush long ago, this place Penrith, blacks call Mooror Moorack, plenty of wallaby, kangaroo, plenty of blacks, not many whites... (Karskens 2019)

Nah Doongh describes the arrival of Captain Cook and the decimation of essential native resources. 'Debil debil' is an early loan word for 'devil', used to describe both evil spirits and smallpox.

...a great big white man, bigger and [than] I ever saw, come down from Sydney way. Oh for black fellow frightened, tink a debil debil come. Dat man Captain Cook ... come with guns and tings, shoot em too much kangaroo, not plenty for black man to eat, so all of them dies, except me... (Karskens 2019)

4. Summary and analysis of background information

4.1 AHIMS search

The Aboriginal Heritage Information Management System (AHIMS) is a database that retains information and records pertaining to the identified and recorded Aboriginal cultural heritage sites, objects, and declared places throughout New South Wales. It is maintained and regulated by Heritage NSW under Section 90Q of the NPW Act.

An extensive search of the AHIMS database was conducted on 8 December 2020 to identify if any registered Aboriginal sites were present within, or adjacent to, the study area (**Appendix B**).

The AHIMS database search was conducted within the following coordinates:

Table 5: Search parameters for Aboriginal Heritage Information Management System search.

Datum	GDA2020, Zone 56
Eastings	281579 - 289579
Northings	6261265 - 6269265

The AHIMS search result showed:

Table 6: Aboriginal Heritage Information Management System search result.

Search Results
Aboriginal sites recorded 99
Aboriginal places declared 0

No Aboriginal sites are located within the study area.

The distribution of recorded Aboriginal sites adjacent to the study area are shown in [Figure 10](#) and Figure 11. The frequencies of site types and contexts recorded within the AHIMS database search area are listed in [Table 7](#) below:

Table 7: Frequencies of Aboriginal heritage site types and contexts.

Site Context	Site Features	Number	%
Open	Artefact	88	88.9
	Potential Archaeological Deposit (PAD)	2	2.0
	Artefact; PAD	6	6.1
	Aboriginal Ceremony and Dreaming; Artefact	1	1.0
	Art (Pigment or Engraved)	1	1.0
Closed	Art (Pigment or Engraved)	1	1.0
	Total	99	100

Figure 10: Aboriginal sites registered on the AHIMS database within the search area

Figure 11: Aboriginal sites registered on the AHIMS database in the immediate vicinity of the study area

4.2 Previous archaeological assessments

A number of archaeological investigations have been conducted within both academic and commercial realms across the Penrith region, and more specifically to support the development of the Penrith Lakes Scheme. The results of some of the key archaeological assessments and how they provide an idea of the archaeological character of the northwest Sydney region are presented below.

4.2.1 Cranebrook Terrace

First investigated by Stockton and Holland (1974), the Cranebrook Terrace is situated on the eastern bank of the Nepean River where the Penrith Lakes are at present. In conducting regional study of Aboriginal occupation in the Blue Mountains to support quarrying operations, a dozen core and pebble tools were recovered at the base of the terrace gravel bed. They were able to date an embedded wooden log associated with the gravel bed which returned dates of >31 800 years Before Present (BP) (Gak-3445). Further investigation was conducted by Nanson et al (1987) in which the gravel bed was re-dated using radiocarbon and thermo-luminescence samples and dated to 41 700 BP (ANU-4016). The Cranebrook Terrace site possesses the earliest date of human occupation in the Greater Sydney Region and some of the earliest artefacts in Australia (Attenbrow 2010; Williams et al 2017).

4.2.2 Shaw's Creek K2

One of the most significant archaeological sites in the Greater Sydney Region is Shaw's Creek K2, located to the west of the Nepean River. Stockton and Holland (1974) excavated Shaw's Creek K1 in the 1970s which indicated potential for *in situ* archaeological deposits. Kohen (1986) undertook excavation at a less disturbed site; Shaw's Creek K2. A charcoal sample found at the base of a gravel bed was dated to 17 800 BP (Beta 12423). Shaw's Creek K2 is one of the few sites in the Sydney region possessing archaeological evidence for the exploitation of freshwater resources, with an abundance of freshwater mussel fragments. Furthermore, within the Shaw's Creek K2 assemblage, macropods are by far the most abundant of the faunal remains of land mammals. Kohen (1986) states that the "almost total lack of fragments and teeth belonging to small species strongly suggests that macropods were by far the most important component of the faunal assemblage and would have been an important source of protein in the diet" (Kohen 1986; Attenbrow 2010).

The findings from Shaw's Creek K2 is an integral resource in the reconstruction of land use and technological patterns in south-eastern Australia, as well as the development of a regional sequence. Changes in the lithic assemblages also reveal the adoption of new technologies, resources and techniques over time. Lithic artefacts from Shaw's Creek K2 are predominately flaked tuff and chert pebbles, though the appearance of ground edge axes approximately 4000 BP is consistent with the proliferation of this technology across the Sydney region. Continual deposits up to 2 m in depth suggest continuous occupation at this site from the Post-Glacial period onwards (Stockton and Holland 1974; Attenbrow 2010).

4.2.3 Lapstone Creek

In 1935-36, McCarthy (1948) led an excavation of a sandstone rockshelter situated west of the Nepean River, near Emu Plains. The findings from the Lapstone Creek site informed the development of the Eastern Regional Sequence as it comprised of the first stratified stone assemblages in Australia that showed technological change over time (Attenbrow 2010). McCarthy identified two industrial phases within the cave deposits; Eloueran and Bondian. Robertson (2005) conducted use wear and residue

analysis on the 46 Bondi points identified from Lapstone Creek. This analysis indicated that some had been hafted; a technique characteristic of the Bondian industry.

4.2.4 Previous Consultant Investigations

Kohen, J. 1981 *Report of an Archaeological Survey of the Region Proposed for the Penrith Lakes Scheme*. Prepared for the Penrith Lakes Development Corporation.

James Kohen, of the School of Biological Sciences at Macquarie University, was engaged by the Penrith Lakes Development Corporation to conduct an environmental study for the proposed development of the Penrith Lakes Scheme. The study area lies within the Penrith Lakes Scheme and was assessed prior to the widescale quarrying of sand and gravel. This study was the first to be conducted in the Penrith Lakes area. Kohen's regional study covered parts of Penrith, Cranebrook, Upper Castlereagh and Castlereagh. An archaeological survey was conducted over the study area, though due to time constraints, not all areas were assessed. Areas deemed to have a likelihood of Aboriginal use and habitation and/or had been subject to significant ground disturbance were not inspected during the survey.

The archaeological survey covered a total of 28 locations, 24 of which were defined as sites; having at least two artefacts in a 50 m radius. Of these 24 sites, Kohen defined five as major sites and 19 as minor sites. Most relevant to the study area is site 13 and 14. Site 13 is located at the south-east boundary of the study area, near the northern bank of the Nepean. At this site, Kohen identified an isolated chert core exposed in the terrace behind a house. At site 14, located approximately 250m north-west of site 13, an isolated quartz core was found within an erosional scar within a terrace near the northern bank. Neither of these sites were classified as major sites, though it was noted that there was very little surface visibility at the time of surveying. Kohen recommended no further investigation within the study area but noted potential for archaeological deposits around the perimeter of the proposed development.

Penrith Lakes Development Corporation, 2011 *Penrith Lakes Scheme Area of Aboriginal Assessment Report*.

Penrith Lakes Development Corporation (PLDC) conducted an ACHA to support an Aboriginal Heritage Impact Permit (AHIP) application to Heritage NSW for the post-extraction landforming of the Penrith Lakes Scheme and associated infrastructure. This AHIP covered a majority of the Penrith Lakes area, including the current study area. Sites, such as the State Significant 'Hadley Park' and Cranebrook Creek which possess potential for Aboriginal archaeological deposits, were excluded from the AHIP Application Boundary. The purpose of the AHIP was to attain consent to harm Aboriginal objects in areas within the Scheme footprint where unknown Aboriginal objects may exist but have not been previously identified and recorded. No Aboriginal objects identified on the AHIMS database were located within the Scheme footprint. The ACHA was conducted and informed by previous assessments conducted within the Penrith Lakes (Kohen 1981; GML 2010; GML 2011). It was conducted in consultation with RAP groups.

The ACHA did not envisage impact to known Aboriginal objects or sites. The overview of past investigations and consultation with RAPs concluded that due to the past land use, heavy modification and degradation of the land within the Penrith Lakes, there is little cultural heritage value. The significance assessment concluded there to be scientific value in the land protected within the Scheme (Hadley Park and the Cranebrook escarpment) as there are known Aboriginal sites, though low potential for Aboriginal objects of research value or of considerable antiquity within the areas subject to

quarrying. There is socio-cultural and historic value as expressed by RAP groups, tied to the alluvial floodplains in which yams were farmed prior to European settlement.

AHMS, 2014. *Peach Tree Creek Stabilisation Works, Penrith, NSW*. Prepared for Penrith City Council.

Penrith City Council engaged Archaeological and Heritage Management Solutions (AHMS) to conduct an ACHA and Archaeological Technical Report (ATR) to support the stabilisation works along the western bank of Peach Tree Creek, Penrith. In relation to the current study area, these works took place 1.2 km south, to the east of the Nepean River. The proposed development required the removal of a significant portion of deposits along the 80 m stretch of the eroding western creek bank, removing approximately 3000-5000 m² of soil. Preliminary investigations conducted by AHMS and informed by previous studies, namely the findings from Cranebrook Terrace (Nanson et al 1987) further north, suggested high potential for *in situ* archaeological deposits to be found below the post-1788 disturbance. The predictive model indicated lithic artefacts would be found at a depth up to 5 m below ground surface and dating back as far as 15 000 BP.

Test and salvage excavations were undertaken to assess the scientific potential of the study area and ensure accurate methods of harm mitigation for Aboriginal objects within the proposed future works. Preliminary assessment of the methodology concluded that due to the deep, fluvial deposits and significant depth of ground disturbance required for the stabilisation works, hand excavation across the whole study area would not be possible and therefore could not be undertaken in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* and an Aboriginal Heritage Impact Permit (AHIP) was required.

Test excavation, or Phase 1, consisted of three 1m x 1m test pits which were excavated by hand to a depth of 50 cm, and two trenches which were mechanically excavated to 4 m. In Phase 2, or salvage excavation, six 1 m x 1 m test pits were hand excavated. From Phase 1, five artefacts were identified across the study area. Of the five artefacts, only one was found out of context on the surface; a fine silcrete broken flake with a feathered margin, characteristic of the early Bondian industry. The other four artefacts were made from tuff and located at depth of 3.5 m – 3.7 m. During Phase 2, an additional two course silcrete artefacts were recovered from a depth of 60 cm.

Within one pit, three soil samples were taken and sent for Optically-Stimulated Luminescence (OSL) dating. The first sample, OSL1, was taken from a depth of 3.48 m and returned a date of 5 300 BP. The second sample, OSL4, was taken from a depth of 3.6m and returned a date of 13 000 BP. The third sample, OSL2, was taken from a depth of 3.73 m and returned a date of 15 000 BP. It should be noted that the quartz grains from the sample possess 'limited dateable mass' and further dating with finer calibration is recommended to confirm these dates. A majority of the artefacts were found in deposits dated to 13 000 – 15 000 BP, confirming AHMS' hypotheses for terminal Pleistocene era artefacts. However, due to the fine-grained, sandy deposits, there is potential for artefacts to descend into the soil profile and may in fact be younger than the OSL dating suggests. It should be noted that Kohen (1988) disputes the dating of lithic assemblages at this depth, stating it is more likely a result of bioturbation, flood events and European disturbance causing artefacts to descend into lower deposits.

After test and salvage excavations, no further works investigation were recommended within the study area, though recommended future works along the bank to consider the potential of Pleistocene

archaeological material. Furthermore, applications to house the artefacts recovered from the excavations in the Australian Museum were made, as they met the requirements of significance.

ELA, 2020 (report in progress), *Regatta Park and River Road Reserve Test Excavation*. Prepared for Penrith City Council.

ELA was engaged by Penrith City Council to conduct a test excavation program and supporting Archaeological Technical Report (ATR) for the proposed upgrades in Regatta Park and River Road Reserve. Artefact analysis and the ATR are currently in progress, though the preliminary results have indicated low artefact density. Aboriginal test excavation consisted of 26 1 m x 1 m test pits, with a majority of the pits excavated to 1 m in depth. As the depth of impact for the proposed works did not exceed 1 m, pits were not excavated deeper than 1 m. No artefacts were found in the test pits excavated within 50 m from the Nepean River in River Road Reserve. In Regatta Park, there was low artefact density across the entirety of the site, with a majority of the artefacts found between 60 cm and 90 cm depth.

4.3 Predictive models

A commonly utilised tool in the planning and management of Aboriginal cultural heritage are predictive models. These models aim to identify specific landforms and places within the landscape which may contain archaeological material. They usually begin as geographically broad models, constructed through extensive reviews of the available literature to determine basic patterns of site distribution, before being refined according to the specific landform and environmental characteristics of the study area.

Predictive models are almost solely based upon a cultural ecological perspective of the landscape: landforms and environmental characteristics provided a distinct set of subsistence constraints, meaning the landscape could only be occupied in particular ways in order to minimise distance to potable water, maximise biodiversity, and provide shelter from the elements. Accordingly, there is an expectation that land use patterns vary between separate environmental zones due to differing constraints and that this will manifest in alternate spatial distributions of archaeological material. Moreover, while some social factors may have influenced communities to venture through certain landscapes, other social factors may have resulted in the avoidance of landscapes, regardless of environmental conditions. Due to this, understanding the cultural context of a certain landscape through consultation with local Aboriginal knowledge holders and community members is essential.

4.3.1 Site types

There are several common Aboriginal cultural heritage site types that may be found in the study area.

OPEN CAMP SITES / STONE ARTEFACT SCATTERS

represent past Aboriginal subsistence and stone knapping activities and may include archaeological remains such as stone artefacts and hearths. This site type usually appears as surface artefact scatters in areas where vegetation is limited, and ground surface visibility is high. They are also often exposed by erosion, agricultural events (such as ploughing), and the creation of informal, unsealed vehicle access tracks and walking paths. Open campsites are often located on dry, relatively flat land along or adjacent to rivers and creeks. Sites that contain surface or subsurface deposits resulting from repeated or continuous occupation are more likely to occur on elevated ground near permanent, reliable water

sources. Flat, open areas associated with creeks and their resource-rich environments would have offered ideal camping areas to the Aboriginal inhabitants of the local area.

ISOLATED ARTEFACTS

may represent a single item discard event or the result of limited stone knapping activity. The identification of isolated artefacts may indicate the presence of a more extensive, subsurface *in situ* archaeological deposit, or a larger deposit obscured by low ground visibility. Isolated artefacts are likely to be located on landforms associated with a range of activities, such as ridge lines that would have provided ease of movement through the area and level areas with access to a water source. Artefact scatters and isolated artefacts are the most common site types found in association with fresh water and/or food resource gathering areas.

POTENTIAL ARCHAEOLOGICAL DEPOSIT (PAD)

are areas where there is no surface expression of stone artefacts, but, due to a landscape feature or isolated artefact, there is a strong likelihood that the area will contain subsurface *in situ* archaeological deposits. Landscape features that may indicate a PAD include proximity to reliable water sources, particularly terraces and flats, ridge lines and ridge tops, and sand dune systems.

CULTURALLY MODIFIED TREES

exhibit evidence of the deliberate removal of the *periderm* (outer bark), *phloem* (inner bark), and, in some cases, the sapwood. These materials can be used to manufacture a variety of items, including shields, Coolamon (bowls or trays), watercraft, containers, and a range of wooden tools and implements. Trees may also have been scarred in order to gain access to food resources (such as cutting toeholds so as to climb the tree and catch possums or birds) or to mark locations (such as tribal territories). In some instances, Aboriginal people marked important features or locations (such as ceremonial grounds) by carving patterns or motifs into the sapwood of established trees or bending and grafting the branches of saplings to create rings.

GRINDING GROOVES

are the physical evidence of tool making or food processing activities undertaken by Aboriginal people. The manual rubbing of stones against other stones creates grooves in the rock; these are usually found on flat areas of abrasive rock such as sandstone in close proximity to water courses.

BORA GROUNDS / CEREMONIAL

sites are locations that have spiritual or ceremonial values to Aboriginal people. Such sites may comprise natural or altered landforms and, in some cases, will also contain archaeological material. For example, bora grounds are a ceremonial site type usually consisting of a cleared area around one or more raised earth circles connected by a pathway. Bora grounds are often accompanied by ground drawings or mouldings of people, animals or deities, or geometrically carved designs on the surrounding trees.

BURIALS

often took place in proximity to camp sites, as most people tended to die in or close to camp and it is difficult to move a body over a long distance. Soft, sandy soils on or close to rivers and creeks allowed for easier removal of earth for burial. Similarly, rock shelters or middens also provided accessible burial places. Burial sites may be marked by stone cairns, modified trees, or a natural landmark. They may also be identified through historic records or oral histories.

CONTACT / HISTORICAL SITES

can include a wide variety of sites and may be identified through artefactual evidence or oral histories. Artefacts located at such sites may involve the use of introduced materials such as glass or ceramics or may have social significance regarding the interaction between Aboriginal people and European settlers.

4.3.2 Site occurrence

The production of a predictive model can aid in understanding the wider landscape context. Based on the results produced from the landscape assessment, searches of the AHIMS and state heritage registers, and examination of the regional and local Aboriginal archaeological context, the below predictive model (Table 8) has been designed for the study area.

Table 8: Predictive model for the occurrence of archaeological site types in the study area

Site Type	Description	Likelihood of occurrence
Open camp sites / stone artefact scatters / isolated finds	Due to past land use and significant disturbance across the site, there is a low likelihood of finding isolated artefacts, lithic scatters	Low.
Potential Archaeological Deposits	Due to past land use and significant disturbance across the site, there is a low likelihood of this site type.	Low.
Culturally modified trees	The study area has been cleared for past land use.	Nil.
Axe grinding grooves	The study area does not possess the required landscape features for this site type.	Nil.
Bora grounds / ceremonial sites	Whilst the AHIMS search and land formation does not suggest the study area is a bora/ceremonial site, these sites can often be intangible and informed only by oral history and cultural knowledge	Low to moderate.
Burials	While the original soil landscape of soft, alluvial soils and close proximity to water suggest potential for this site type to occur, past land use has removed potential.	Low.
Contact / historical sites	No AHIMS sites in proximity to the study area record contact/historical sites.	Low.

4.4 Field Survey

The study area was divided into non-surveyed area (yellow) and targeted survey area (blue) as shown in Figure 28. The majority of the study area (yellow) has been assessed previously and construction works have been undertaken ([Figure 12](#)~~Figure 12~~, [Figure 13](#)~~Figure 13~~), this area was covered by this assessment as it has been rezoned Environmental. Due to past land disturbances and the active construction site further survey was not required. The following is a summary of targeted survey area (blue).

4.4.1 Summary of field survey

The surveyed area consisted of an open, flat, alluvial landform that is heavily obscured by vegetation ([Figure 19](#)~~Figure 19~~) and runs alongside the banks of the Nepean River.

An informal path, emerges from a public park in the south east ([Figure 18](#)~~Figure 18~~) and proceeds through the middle of survey area (Figure 20, [Figure 24](#)~~Figure 24~~) continuing past its north-western extent ([Figure 27](#)~~Figure 27~~). The pathway represents the only exposures within the survey area with its

ground surfaces showing evidence of introduced or disturbed soil profiles ([Figure 25](#)~~Figure-25~~). Towards the southern end of the study area the path branches and runs southwest to the bank of the Nepean River ([Figure 21](#)~~Figure-21~~). As the path approaches the bank of Nepean River there is evidence of prior disturbances from earthworks and erosion protection ([Figure 22](#)~~Figure-22~~).

In the north-eastern half of the survey area, along the boundary with the active construction site, the original vegetation has historically been completely cleared, the vegetation that is currently occupying those areas is a mix of young growth native trees and introduced grasses ([Figure 23](#)~~Figure-23~~). In the southwest portions of the survey area, along the banks of the Nepean River, the vegetation is denser with more underbrush and obscuring canopy ([Figure 26](#)~~Figure-26~~).

The survey area had less than 1% visibility and no exposures, with the vast majority of ground surfaces being covered in dense vegetation and long grasses. The only visible portions of ground surfaces were on the informal pathways which showed signs of historic disturbance. The field survey identified no Aboriginal objects, or potential archaeological deposits.



Figure 12: View of construction site from eastern extent of study area



Figure 13: View of construction site from southern extent of study area



Figure 14: View of construction site from southern extent of study area



Figure 15: Modified landforms at northern extent of study area



Figure 16: View of southeast of survey area from adjacent construction site



Figure 17: View of northwest of survey area from adjacent construction site



Figure 18: South eastern extent of survey area



Figure 19: South east portion of survey area



Figure 20: Informal pathway through central portion of study area



Figure 21: Informal pathway running southwest to Nepean River



Figure 22: Ground surfaces on informal pathway running southwest to Nepean River



Figure 23: Vegetation cover in centre of survey area



Figure 24: Informal pathway and vegetation cover in northwest of survey area



Figure 25: Ground surfaces in the informal pathway in the northwest of the survey area



Figure 26: Vegetation cover in the southwestern half of the survey area



Figure 27: Informal pathway at the western extent of the survey area

In accordance with the Heritage NSW *Code of Practice* the study area was surveyed according to survey units, landforms, and landscapes.

Table 9: Survey coverage

Survey Unit (SU)	Landform	Survey Unit Area (SUA) (m ²)	Visibility (V) %	Exposure (E) %	Effective coverage area (ECA)	Effective coverage %
Blue	Terrace	22,910	1	0	0	0

Table 10: Landform summary – sampled area

Landform	Landform Area	Area effectively surveyed	% of landform effectively surveyed	Number of sites	Number of artefacts or features
Terrace	22,910 m ²	0	0	0	0



Figure 28: Targeted Survey

5. Cultural heritage values and statement of significance

The *Australia ICOMOS Burra Charter 1999* provides guidance for the assessment, conservation and management of places of cultural significance. Cultural significance is defined in the Burra Charter as ‘a concept which helps in estimating the value of places’. The places that are likely to be of significance are those which help an understanding of the past or enrich the present, and which will be of value to future generations” (ICOMOS Burra Charter 1988:12). The Burra Charter provides a definition of cultural significance as “aesthetic, historic, scientific, social or spiritual value for past, present or future generations”. Aboriginal cultural heritage sites can be assessed through the application of these five principle values.

- Social or cultural value (assessed only by Aboriginal people);
- Historical value;
- Scientific/archaeological value (assessed mostly by archaeologists/heritage consultants);
- Aesthetic value; and
- Spiritual value.

This section presents an assessment of Aboriginal cultural heritage values based on these principles.

5.1 Description of cultural heritage values

The review of background information and information gained through consultation with Aboriginal people should provide insight into past events. These include how the landscape was used and why the identified Aboriginal objects are in this location, along with contemporary uses of the land. The following descriptions of cultural heritage values are drawn from the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (2011).

Social or cultural value refers to the spiritual, traditional, historical or contemporary associations and attachments the place or area has for Aboriginal people. Social or cultural value is how people express their connection with a place and the meaning that place has for them.

Historic value refers to the associations of a place with a historically important person, event, phase or activity in an Aboriginal community. Historic places do not always have physical evidence of their historical importance (such as structures, planted vegetation or landscape modifications). They may have ‘shared’ historic values with other (non-Aboriginal) communities and include places of post-contact Aboriginal history.

Scientific (archaeological) value refers to the importance of a landscape, area, place or object because of its rarity, representativeness and the extent to which it may contribute to further understanding and information (Australian ICOMOS 1988).

Aesthetic value refers to the sensory and perceptual experience of a place – that is, how we respond to visual and non-visual aspects such as sounds, smells, and other factors having a strong impact on human thoughts, feelings and attitudes. Aesthetic qualities may include the concept of beauty and formal aesthetic ideals. Expressions of aesthetics are culturally influenced. In considering aesthetic value, ask:

- Does the place have special compositional or uncommonly attractive qualities involving combinations of colour, textures, spaces, massing, detail, movement, unity, sounds, scents?
- Is the place distinctive within the setting or a prominent visual landmark?
- Does the place have qualities which are inspirational, or which evoke strong feelings or special meanings?
- Is the place symbolic for its aesthetic qualities: for example, does it inspire artistic or cultural response, is it represented in art, photography, literature, folk art, folk lore, mythology or other imagery or cultural arts?
- Does the place display particular aesthetic characteristics of an identified style or fashion?
- Does the place show a high degree of creative or technical achievement?

Spiritual value refers to the intangible values and meanings embodied in or evoked by a place which give it importance in the spiritual identity, or the traditional knowledge, art and practices of a cultural group. Spiritual value may also be reflected in the intensity of aesthetic and emotional responses or community associations and be expressed through cultural practices and related places. The qualities of the place may inspire a strong and/or spontaneous emotional or metaphysical response in people, expanding their understanding of their place, purpose and obligations in the world, particularly in relation to the spiritual realm. The term spiritual value was recognised as a separate value in the Burra Charter (1999). It is still included in the definition of social value in the Commonwealth and most state jurisdictions. Spiritual values may be interdependent on the social values and physical properties of a place. In considering spiritual value, ask:

- Does the place contribute to the spiritual identity or belief system of a cultural group?
- Is the place a repository of knowledge, traditional art or lore related to spiritual practice of a cultural group?
- Is the place important in maintaining the spiritual health and wellbeing of a culture or group?
- Do the physical attributes of the place play a role in recalling or awakening an understanding of an individual or a group's relationship with the spiritual realm?
- Do the spiritual values of the place find expression in cultural practices or human-made structures, or inspire creative works?

5.2 Aboriginal Cultural Values Assessment

5.2.1 Social significance

Aboriginal cultural values can only be determined through consultation with the Aboriginal community. All Aboriginal sites are considered to have cultural significance to the Aboriginal community as they provide physical evidence of past Aboriginal use and occupation of the area. Aboriginal cultural significance may include social, spiritual, historic and archaeological values, and is determined by the Aboriginal community.

During consultation with Aboriginal stakeholders, the study area was identified as highly significant to Aboriginal people due to the proximity to the Nepean River. It was noted that the Nepean River is well known as place Aboriginal people would hunt, camp and engage in ceremonies (Kadibulla Khan, Kamilaroi Yankuntjatjara Working Group).

5.2.2 Aesthetic significance

As noted above aesthetic significance is often closely linked to social and cultural significance. Generally aesthetic significance is considered to mean the visual beauty of a place. Examples of archaeological sites that may have high aesthetic values include rock art sites or sites located in visually pleasing environments (NSW NPWS 1997: 11).

The study area does not meet this criterion. While the study area would have possessed aesthetic significance being on the bank of the Nepean River, it has since been heavily modified and disturbed from past agricultural land use, clearing and sand quarrying. At present, a majority of the site is under active construction.

5.2.3 Historic significance

During consultation with Aboriginal stakeholders, historic use of the site was identified as significant as a place in which Aboriginal people would have hunted, camped and engaged in ceremonies and resource-gathering (Kadibulla Khan, Kamilaroi Yankuntjatjara Working Group).

5.2.4 Scientific significance

As with cultural, historic, and aesthetic significance; scientific significance can be difficult to establish. Certain criteria must therefore be addressed in order to assess the scientific significance of archaeological sites. Scientific significance contains four subsets: research potential, representativeness, rarity and educational potential. These are outlined below.

Research Potential: is the ability of a site to contribute to our understanding of Aboriginal occupation locally and on a regional scale. The potential for the site to build a chronology, the level of disturbance within a site, and the relationship between the site and other sites in the archaeological landscape are factors which are considered when determining the research potential of a site.

While in close proximity to archaeological sites such as Cranebrook Terrace and Shaw's Creek K2, past disturbance within the study area has eradicated any research potential.

The study area does not meet this criterion.

Representativeness: is defined as the level of how well or how accurately something reflects upon a sample. The objective of this criterion is to determine if the class of site being assessed should be conserved in order to ensure that a representative sample of the archaeological record be retained. The conservation objective which underwrites the 'representativeness' criteria is that such a sample should be conserved (NSW NPWS 1997: 7-9).

The study area does not meet this criterion.

Rarity: This criterion is similar to that of representativeness, it is defined as something rare, unusual, or uncommon. If a site is uncommon or rare it will fulfil the criterion of representativeness. The criterion of rarity may be assessed at a range of levels including local, regional, state, national and global (NSW NPWS 1997: 10).

The study area does not meet this criterion.

Educational Potential: This criterion relates to the ability of the cultural heritage item or place to inform and/or educate people about one or other aspects of the past. It incorporates notions of intactness, relevance, interpretative value and accessibility. Where archaeologists or others carrying out cultural heritage assessments are promoting/advocating the educational value of a cultural heritage item or place it is imperative that public input and support for this value is achieved and sought. Without public input and support the educative value of the items/places is likely to not ever be fully realised (NSW NPWS 1997: 10).

The study area does not meet this criterion.

5.2.5 Spiritual significance

During consultation with Aboriginal stakeholders no spiritual significance was identified within the study area. The study area does not meet this criterion.

5.3 Statements of significance

The study area contained zero Aboriginal sites as defined under the *National Parks and Wildlife Act 1974*. Site inspection revealed a high degree of disturbance across the study area associated with past land use as a sand quarry and the current state as an active construction site. Further investigations of the area would not contribute to our understanding of Aboriginal landscape use in the area. Based on the intactness, representativeness, and research potential, the site is determined to have nil to low scientific significance.

6. Basis for cultural heritage management

Places of cultural significance enrich people's lives, often providing a deep and inspirational sense of connection to community and landscape, to the past, and to lived experiences ... they are irreplaceable and precious (Australia ICOMOS Burra Charter 2013:1).

Traditionally, heritage and archaeological assessments have focused on the significance of the tangible elements of cultural heritage (Brown 2008). Items such as structures and archaeological artefacts have been considered predominantly in terms of their scientific/research potential and representativeness (New South Wales Heritage Office 2015:20-24). By focusing on the scientific qualities of heritage, many of the intangible qualities of heritage were not considered. This is especially crucial when participating in the management and protection of Aboriginal cultural heritage. By nature, Aboriginal cultural heritage is multi-faceted: it consists not only of tangible structures and objects of value for scientific investigations, but also of a deeply complex array of intangible expressions, such as stories, memories, and traditions. Many of the rights and interests of Aboriginal communities in their own heritage is formed on the basis of this intangibility. It stems from their spirituality, customary law, original ownership, and continuing custodianship (Australian Heritage Commission 2002:5). These intangible expressions often share a strong link with the landscape. Byrne *et al.* (2003:3) describe this connection in the form of a map, where individuals:

Carry around in [their] heads a map of the landscape which has all these places and their meanings detailed on it. When we walk through our landscapes the sight of a place will often trigger the memories and the feelings [that] go with them ... it is the landscape talking to us.

Crucially, those who are not connected to the landscape in question will not be able to discern these intangible meanings embedded in the landscape; they can only come to recognise the significance by consulting with local knowledge holders (Byrne *et al.* 2003:3). And, even so, they may vary between individuals, reflecting unique experiences.

By recognising the rights and interests of Aboriginal knowledge holders and community members in their cultural heritage, all parties involved in the identification, conservation, and management of this cultural heritage must acknowledge that Aboriginal people (Australian Heritage Commission 2002:6):

- Are the primary source of information on the value of their heritage and how this is best conserved;
- Must have an active role in any heritage planning processes;
- Must have input into primary decision-making in relation to their heritage so that they can continue to fulfil their obligations towards this heritage; and
- Must control the intellectual property and other information relating specifically to their heritage, as this may be an integral aspect of its heritage value.

As such, cultural heritage sites and objects are fundamental elements of Aboriginal peoples' identities, connections, and belonging to their communities. The careful protection and management of this heritage is essential for the preservation of connection between past, present, and future.

7. Development proposal activity

The proposed scope of works - the development of a business park, associated infrastructure and extension of the existing Great River Walk – is anticipated the impact the ground surface. No registered AHIMS sites or potential for Aboriginal objects/archaeological deposits have been identified within the study area.

7.1 Consideration of Ecologically Sustainable Development

7.1.1 Principles of ESD

Ecological Sustainable Development (ESD) is defined by the Australian Government as 'using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased' (Australian Government, Department of the Environment and Energy website).

ESD is contained in both Commonwealth (EPBC Act 1999) and NSW statutes. Section 6 (2) of the *Protection of the Environment Administration Act 1991* (NSW) lists the principals of ESD as:

- a. the precautionary principle—namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

In the application of the precautionary principle, public and private decisions should be guided by:

- i careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and
- ii an assessment of the risk-weighted consequences of various options,
- b. inter-generational equity—namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,
- c. conservation of biological diversity and ecological integrity—namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,
- d. improved valuation, pricing and incentive mechanisms—namely, that environmental factors should be included in the valuation of assets and services, such as:
 - i polluter pays—that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,
 - ii the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,
 - iii environmental goals, having been established, should be pursued in the most cost-effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.

7.2 Cumulative Impact Assessment

Cumulative impact of any development on Aboriginal sites assesses the extent of the proposed impact on the site and how this will affect both the proportion of this type of Aboriginal site in the area and the impact this destruction will have on Aboriginal cultural heritage values generally in the area. For example, if an artefact scatter is destroyed in the course of a proposed development, how many sites or artefact scatters are likely to remain in that area and how will the destruction of that site affect the overall archaeological evidence remaining in that area. If a site type that was once common in an area becomes rare, the loss of that site (and site type) will affect our ability to understand past Aboriginal land uses, will result in an incomplete archaeological record and will negatively affect intergenerational equity.

7.2.1 Effect on the proportion of this type of Aboriginal site in the area

One method of calculating the proportion of a given site type remaining in the area is to use the results of an AHIMS search. A search covering an approximately 8 km squared area resulted in the identification of 99 AHIMS sites ([Table 7](#)~~Table 7~~).

The proposed impacts to the study area will not impact any previously identified Aboriginal site therefore there will not be any cumulative impacts to Aboriginal site types in the wider region around the study area.

8. Avoiding and or mitigating harm

The ACHA has identified that no Aboriginal heritage sites, places, or cultural values will be impacted by the proposed development.

8.1.1 Changes to the proposed works

This ACHA is based upon the most recent information made available to Eco Logical Australia as of the date of preparation of this report. Any changes made to the proposal should be assessed by an archaeologist in consultation with the registered Aboriginal stakeholder groups. Any changes that may impact areas not assessed during the current study may warrant further investigation and result in changes to the recommended management and mitigation measures.

8.1.2 Unexpected finds

Unexpected Aboriginal objects remain protected by the *National Parks and Wildlife Act 1974*. If any such objects, or potential objects, are uncovered during works, all work in the vicinity should cease immediately. A qualified archaeologist should be contacted to assess the find, Heritage NSW and Deerubbin LALC must be notified.

9. Management recommendations

The following recommendations are based on consideration of:

- Statutory requirements under the National Parks and Wildlife Act 1974.
- The results of the background research, site survey and assessment.
- The likely impacts of the proposed development.

It was found that:

- No Aboriginal objects or places were identified within the study area.
- The study area has been subjected to high levels of ground disturbance in the form of sand extraction.
- The study area was found to have a low archaeological potential.
- The study area through consultation was assessed as having low cultural heritage significance.

Based on the findings of this ACHA and the survey the following is recommended:

Recommendation 1 – No further assessments are required

No further assessment is required for the study area. Although general measures will need to be undertaken. These general measures include:

- This assessment has been undertaken to assess the proposed impacts within the study areas shown in Figure 1. If proposed excavated areas are increased beyond the defined assessment boundary (Figure 1), further investigations will be required and an addendum ACHA undertaken. An addendum ACHAR will require further consultation with RAPs.
- Unexpected Finds:
 - Aboriginal objects are protected under the NPW Act regardless if they are registered on AHIMS or not. If suspected Aboriginal objects, such as stone artefacts are located during future works, works must cease, and an archaeologist called in to assess the finds.
 - If the finds are found to be Aboriginal objects, Heritage NSW must be notified under section 89A of the NPW Act. Appropriate management and avoidance or approval under a section 90 AHIP should then be sought if Aboriginal objects are to be moved or harmed.
 - In the extremely unlikely event that human remains are found, works should immediately cease, and the NSW Police should be contacted. If the remains are suspected to be Aboriginal, Heritage NSW may also be contacted at this time to assist in determining appropriate management

Recommendation 2 – Submit ACHA to AHIMS

- In accordance with Chapter 3 of the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011) the ACHA should be submitted for registration on the AHIMS register within three months of completion.

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Williams, A.N. Burrow, A. Toms, P.S. Brown, O. Richards, M. Bryant, T., 2017. 'The Cranebrook Terrace revisited: recent excavations of an early Holocene alluvial deposit on the banks of the Nepean River, NSW, and their implications for future work in the region', *Australian Archaeology*, vol. 83 no. 2

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Appendix A Consultation Log

Contact	Organisation	Contacted by	Organisation	Method	Date	Comment/ response
AGENCY LETTERS 4.1.2 NOTIFICATION						
	National Native Title Tribunal	C Bradshaw	ELA	Email	17/09/2020	Section 4.1.2 Letter requesting list of potentially interested stakeholders, information, requested by 1 October 2020
	NTS Corp	C Bradshaw	ELA	Email	17/09/2020	Section 4.1.2 Letter requesting list of potentially interested stakeholders, information, requested by 1 October 2020
	Heritage NSW	C Bradshaw	ELA	Email	17/09/2020	Section 4.1.2 Letter requesting list of potentially interested stakeholders, information, requested by 1 October 2020
	Office of the Registrar	C Bradshaw	ELA	Email	17/09/2020	Section 4.1.2 Letter requesting list of potentially interested stakeholders, information, requested by 1 October 2020
	Sydney Local Land Services	C Bradshaw	ELA	Email	17/09/2020	Section 4.1.2 Letter requesting list of potentially interested stakeholders, information, requested by 1 October 2020
	Deerubbin Local Aboriginal Land Council	C Bradshaw	ELA	Email	17/09/2020	Section 4.1.2 Letter requesting list of potentially interested stakeholders, information, requested by 1 October 2020
	Penrith Council	C Bradshaw	ELA	Email	17/09/2020	Section 4.1.2 Letter requesting list of potentially interested stakeholders, information, requested by 1 October 2020
4.1.3 AD						
Buy, Search, Sell		C Bradshaw	ELA	Online	29/09/2020	Published Ad 29 September 2020 with a response date of 13 th October 2020
Agency Responses						
C Bradshaw	ELA	Barry Gunther	Heritage NSW	Email	25/09/2020	Received stakeholder list
C Bradshaw	ELA	Geospatial Searches	National Native Title Tribunal	Email	18/09/2020	Thank you for your search request received on 17 September 2020 in relation to the above area. Based on the records held by the National Native Title Tribunal as at 17 September 2020 it would appear that there are no Native Title Determination Applications, Determinations of Native Title, or Indigenous Land Use Agreements over the identified area.
C Bradshaw	ELA	Caroline Gartside	Penrith City Local Council	Email	29/09/20	Please be advised that Penrith City Council contact is with the Deerubbin Local Aboriginal Land Council on all matters pertaining to and associated with Aboriginal Cultural Heritage in our Local Government Area. Derrubbin Local Aboriginal Land Council Officer is Mr Steve Randall, Senior Aboriginal Cultural Heritage Officer who can be contacted on the following numbers 0417219174 or (02) 4724 5600.
C Bradshaw	ELA	Rachel Rewiri	Office of the Registrar	Email	04/11/20	A search of the RAO has shown that there are currently no Registered Aboriginal Owners in the project area.
Invitation to Register 4.1.3						
Arika Jalomaki (Manager)	Yulay Cultural Services	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Jesse Johnson	Muragadi Heritage Indigenous Corporation	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Lee Field (Manager)	Barraby Cultural Services	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Bo Field (Manager)	Yurrandaali Cultural Services	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Kevin Cavanagh	Deerubbin Local Aboriginal Land Council	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
	Darug Tribal Aboriginal Corporation	C Bradshaw	ELA	Mail	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020
Jamie Workman and Anna Workman	Darug Land Observations	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.

Justine Coplin	Darug Custodian Aboriginal Corporation	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Darleen Johnson Ryan Johnson	Murra Bidgee Mullangari Aboriginal Corporation	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
James Carroll	Bidjowong Aboriginal Corporation	C Bradshaw	ELA	Mail	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Phil Khan	Kamilaroi Yankuntjatjara Working Group	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Gordon Morton	Darug Aboriginal Cultural Heritage Assessments	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Aaron Slater (Manager)	Warragil Cultural Services	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Carolyn Hickey	A1 Indigenous Services	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Amanda Hickey	Amanda Hickey Cultural Services	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Steven Hickey and Donna Hickey	Widescope Indigenous Group	C Bradshaw	ELA	Mail	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Stephen Fields	Dhinawan Culture & Heritage Pty Ltd	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Patricia Hampton	HSB Consultants	C Bradshaw	ELA	Mail	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Tony Williams	Rane Consulting	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
	Anthony Williams	C Bradshaw	ELA	Mail	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Kylie Ann Bell	Gunyu	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Hika Te Kowhai	Walbunja	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Karia Lea Bond	Badu	C Bradshaw	ELA	Mail	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Basil Smith	Goobah Developments	C Bradshaw	ELA	Mail	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Lee-Roy James Boota	Wullung	C Bradshaw	ELA	Mail	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Robert Parson	Yerramurra	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Newton Carriage	Nundagurri	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Mark Henry	Murrumbul	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Joanne Anne Stewart	Jerriongong	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Pemulwuy Johnson	Pemulwuy CHTS	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Simalene Carriage	Bilinga	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Kaya Dawn Bell	Munyunga	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Hayley Bell	Wingikara	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Aaron Broad	Minnamunning	C Bradshaw	ELA	Mail	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Ronald Stewart	Walgalu	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Shane Carriage	Thauaira	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.

Andrew Bond	Dharug	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Wendy Smith	Gulaga	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Corey Smith	Callendulla	C Bradshaw	ELA	Mail	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Roxanne Smith	Murramarang	C Bradshaw	ELA	Mail	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Darren Duncan	DJMD Consultancy	C Bradshaw	ELA	Mail	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Jennifer Beale	Butucarbin Aboriginal Corporation	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Lillie and Carroll Paul Boyd	Didge Ngunawal Clan	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Steven Johnson and Krystle Carroll	Ginninderra Aboriginal Corporation	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Philip Boney	Wailwan Aboriginal Group	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Mrs Jody Kulakowski (Director)	Barking Owl Aboriginal Corporation	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Paul Hand (chairperson)	Darug Boorooberongal Elders Aboriginal Corporation	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Ralph Hampton and Nola Hampton	B.H. Heritage Consultants	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Karina Slater	Ngambaa Cultural Connections	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Caine Carroll	Goodradigbee Cultural & Heritage Aboriginal Corporation,	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Phillip Carroll	Mura Indigenous Corporation	C Bradshaw	ELA	Mail	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Jamie Eastwood	Aragung Aboriginal Cultural Heritage Site Assessments	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Rodney Gunther	Waawaar Awa Aboriginal Corporation	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Clive Freeman	Clive Freeman	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Robert Slater	Galamaay Cultural Consultants (GCC)	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Kerrie Slater and Vicky Slater	Wurrumay Pty Ltd	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Scott Franks	Tocomwall	C Bradshaw	ELA	Mail	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Seli Storer	Biamanga	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
John Carriage (Chief Executive Officer)	Thoorga Nura	C Bradshaw	ELA	Email	29/09/2020	Section 4.1.3 Letter regarding invitation to register for project, response requested by 13/10/2020.
Registration of Interest						
C Bradshaw	ELA	Phil Khan	Kamilaroi Yankuntjatjara Working Group	Email	29/09/2020	Registered interest in the project
C Bradshaw	ELA	Paul Boyd and Lilly Carroll	Didge Ngunawal Clan	Email	29/09/2020	Registered interest in the project
C Bradshaw	ELA	Darleen Johnson	Murra Bidgee Mullangari Aboriginal Corporation	Email	29/09/2020	Registered interest in the project
C Bradshaw	ELA	Jesse Johnson	Muragadi Heritage Indigenous Corporation	Email	29/09/2020	Registered interest in the project

C Bradshaw	ELA	Shaun Carroll	Meerigarn	Email	29/09/2020	Registered interest in the project
C Bradshaw	ELA	Justine Coplin	Darug Custodian Aboriginal Corporation	Email	30/09/2020	Registered interest in the project
C Bradshaw	ELA	Arika Jalomaki	Yulay Cultural Services	Email	30/09/2020	Registered interest in the project
C Bradshaw	ELA	Clive Freeman	Clive Freeman	Email	01/10/2020	Registered interest in the project
C Bradshaw	ELA	Jamie Eastwood	Aragung Aboriginal Cultural Heritage Site Assessments	Email	01/10/2020	Registered interest in the project
C Bradshaw	ELA	Bo Field	Yurrandaali Cultural Services	Email	06/10/2020	Registered interest in the project
C Bradshaw	ELA	Lee Field	Barraby Cultural Services	Email	06/10/2020	Registered interest in the project
C Bradshaw	ELA	Krystle Carroll-Elliot	Ginninderra Aboriginal Corporation	Email	06/10/2020	Registered interest in the project
C Bradshaw	ELA	Steven Hickey	Widescope Indigenous Group	Email	07/10/2020	Registered interest in the project.
C Bradshaw	ELA	Dirk Schmitt	Dharug Ngurra Aboriginal Corporation (formally Darug Tribal Aboriginal Corporation)	Email	07/10/2020	Registered interest in the project.
C Bradshaw	ELA	Kaarina Slater	Ngambaa Cultural Connections	Email	07/10/2020	Registered interest in the project.
C Bradshaw	ELA	Rodney Gunther	Waawaar Awaa Aboriginal Corporation	Email	07/10/2020	Registered interest in the project.
C Bradshaw	ELA	Carolyn Hickey	A1 Indigenous Services	Email	12/10/2020	Registered interest in the project.
C Bradshaw	ELA	Jody Kulakowski	Barking Owl Aboriginal Corporation	Email	12/10/2020	Registered interest in the project.
C Bradshaw	ELA	Jennifer Beale	Butucarbin Aboriginal Corporation	Email	14/10/2020	Registered interest in the project.
4.1.6 Letter to LALC and Heritage NSW						
	Heritage NSW	C Bradshaw	ELA	Email	08/12/2020	Notification of RAPs for project
	Deerubbin LALC	C Bradshaw	ELA	Email	08/12/2020	Notification of RAPs for project
ACHAR Methodology						
Phil Khan	Kamilaroi Yankuntjatjara Working Group	J Norfolk	ELA	Email	17/11/2020	Sent ACHAR methodology for RAP review with a response date of 16 December 2020
Paul Boyd and Lilly Carroll	Didge Ngunawal Clan	J Norfolk	ELA	Email	17/11/2020	Sent ACHAR methodology for RAP review with a response date of 16 December 2020
Darleen Johnson	Murra Bidgee Mullangari Aboriginal Corporation	J Norfolk	ELA	Email	17/11/2020	Sent ACHAR methodology for RAP review with a response date of 16 December 2020
Jesse Johnson	Muragadi Heritage Indigenous Corporation	J Norfolk	ELA	Email	17/11/2020	Sent ACHAR methodology for RAP review with a response date of 16 December 2020
Shaun Carroll	Meerigarn	J Norfolk	ELA	Email	17/11/2020	Sent ACHAR methodology for RAP review with a response date of 16 December 2020
Justine Coplin	Darug Custodian Aboriginal Corporation	J Norfolk	ELA	Email	17/11/2020	Sent ACHAR methodology for RAP review with a response date of 16 December 2020
Arika Jalomaki	Yulay Cultural Services	J Norfolk	ELA	Email	17/11/2020	Sent ACHAR methodology for RAP review with a response date of 16 December 2020
Clive Freeman	Clive Freeman	J Norfolk	ELA	Email	17/11/2020	Sent ACHAR methodology for RAP review with a response date of 16 December 2020
Jamie Eastwood	Aragung Aboriginal Cultural Heritage Site Assessments	J Norfolk	ELA	Email	17/11/2020	Sent ACHAR methodology for RAP review with a response date of 16 December 2020

Bo Field	Yurrandaali Cultural Services	J Norfolk	ELA	Email	17/11/2020	Sent ACHAR methodology for RAP review with a response date of 16 December 2020
Lee Field	Barraby Cultural Services	J Norfolk	ELA	Email	17/11/2020	Sent ACHAR methodology for RAP review with a response date of 16 December 2020
Krystle Carroll-Elliot	Ginninderra Aboriginal Corporation	J Norfolk	ELA	Email	17/11/2020	Sent ACHAR methodology for RAP review with a response date of 16 December 2020
Steven Hickey	Widescope Indigenous Group	J Norfolk	ELA	Email	17/11/2020	Sent ACHAR methodology for RAP review with a response date of 16 December 2020
Dirk Schmitt	Dharug Ngurra Aboriginal Corporation (formally Darug Tribal Aboriginal Corporation)	J Norfolk	ELA	Email	17/11/2020	Sent ACHAR methodology for RAP review with a response date of 16 December 2020
Kaarina Slater	Ngambaa Cultural Connections	J Norfolk	ELA	Email	17/11/2020	Sent ACHAR methodology for RAP review with a response date of 16 December 2020
Rodney Gunther	Waawaar Awaab Aboriginal Corporation	J Norfolk	ELA	Email	17/11/2020	Sent ACHAR methodology for RAP review with a response date of 16 December 2020
Carolyn Hickey	A1 Indigenous Services	J Norfolk	ELA	Email	17/11/2020	Sent ACHAR methodology for RAP review with a response date of 16 December 2020
Jody Kulakowski	Barking Owl Aboriginal Corporation	J Norfolk	ELA	Email	17/11/2020	Sent ACHAR methodology for RAP review with a response date of 16 December 2020
Jennifer Beale	Butucarbin Aboriginal Corporation	J Norfolk	ELA	Email	17/11/2020	Sent ACHAR methodology for RAP review with a response date of 16 December 2020
ACHAR Methodology RAP responses						
J Norfolk	ELA	Jesse Johnson	Muragadi	Email	18/11/2020	I have read the project information for the above project, I agree with the recommendations made.
J Norfolk	ELA	Phil Khan	Kamilaroi Yankuntjatjara Working Group	Email	25/11/2020	Thank you for your methodology, we are concerned this area has not been culturally investigated in the past prior to previous construction in the area. You mention there is no need to investigate due to heavy disturbance in the area, however i believe just because surface artefacts were not found there could still be artefacts under the ground insitute. This is part of the flood plains of the Nepean River which is highly signifigant to us Aboriginal People as it was a sandy area which made it easier for the women to cook underground. Also we previously completed test & salvage excavations on Andrews Rd, Penrith which was also disturbed however a number of artefacts were still found instute. Therefore I recommend investigations in the way of test excavations should be completed.
J Norfolk	ELA	Lillie and Paul Boyd	Didge Ngunawal Clan	Email	17/11/2020	We agree with what has been set out for the Great River road bike track project @ Penrith
J Norfolk	ELA	Tylah Blunden	Darug Custodian Aboriginal Corporation	Email	17/11/2020	I have read the project information for the above project, I agree with the recommendations made.
ACHAR RAP review						
Phil Khan	Kamilaroi Yankuntjatjara Working Group	C Bradshaw	ELA	Email	23/12/2020	Sent ACHAR for RAP review with a response date of 3 February 2021
Paul Boyd and Lilly Carroll	Didge Ngunawal Clan	C Bradshaw	ELA	Email	23/12/2020	Sent ACHAR for RAP review with a response date of 3 February 2021
Darleen Johnson	Murra Bidgee Mullangari Aboriginal Corporation	C Bradshaw	ELA	Email	23/12/2020	Sent ACHAR for RAP review with a response date of 3 February 2021
Jesse Johnson	Muragadi Heritage Indigenous Corporation	C Bradshaw	ELA	Email	23/12/2020	Sent ACHAR for RAP review with a response date of 3 February 2021
Shaun Carroll	Meerigarn	C Bradshaw	ELA	Email	23/12/2020	Sent ACHAR for RAP review with a response date of 3 February 2021
Justine Coplin	Darug Custodian Aboriginal Corporation	C Bradshaw	ELA	Email	23/12/2020	Sent ACHAR for RAP review with a response date of 3 February 2021
Arika Jalomaki	Yulay Cultural Services	C Bradshaw	ELA	Email	23/12/2020	Sent ACHAR for RAP review with a response date of 3 February 2021

Clive Freeman	Clive Freeman	C Bradshaw	ELA	Email	23/12/2020	Sent ACHAR for RAP review with a response date of 3 February 2021
Jamie Eastwood	Aragung Aboriginal Cultural Heritage Site Assessments	C Bradshaw	ELA	Email	23/12/2020	Sent ACHAR for RAP review with a response date of 3 February 2021
Bo Field	Yurrandaali Cultural Services	C Bradshaw	ELA	Email	23/12/2020	Sent ACHAR for RAP review with a response date of 3 February 2021
Lee Field	Barraby Cultural Services	C Bradshaw	ELA	Email	23/12/2020	Sent ACHAR for RAP review with a response date of 3 February 2021
Krystle Carroll-Elliot	Ginninderra Aboriginal Corporation	C Bradshaw	ELA	Email	23/12/2020	Sent ACHAR for RAP review with a response date of 3 February 2021
Steven Hickey	Widescope Indigenous Group	C Bradshaw	ELA	Email	23/12/2020	Sent ACHAR for RAP review with a response date of 3 February 2021
Dirk Schmitt	Dharug Ngurra Aboriginal Corporation (formally Darug Tribal Aboriginal Corporation)	C Bradshaw	ELA	Email	23/12/2020	Sent ACHAR for RAP review with a response date of 3 February 2021
Kaarina Slater	Ngambaa Cultural Connections	C Bradshaw	ELA	Email	23/12/2020	Sent ACHAR for RAP review with a response date of 3 February 2021
Rodney Gunther	Waawaar Awa Aboriginal Corporation	C Bradshaw	ELA	Email	23/12/2020	Sent ACHAR for RAP review with a response date of 3 February 2021
Carolyn Hickey	A1 Indigenous Services	C Bradshaw	ELA	Email	23/12/2020	Sent ACHAR for RAP review with a response date of 3 February 2021
Jody Kulakowski	Barking Owl Aboriginal Corporation	C Bradshaw	ELA	Email	23/12/2020	Sent ACHAR for RAP review with a response date of 3 February 2021
Jennifer Beale	Butucarbin Aboriginal Corporation	C Bradshaw	ELA	Email	23/12/2020	Sent ACHAR for RAP review with a response date of 3 February 2021
	Deerubbin LALC	C Bradshaw	ELA	Email	23/12/2020	Sent ACHAR for RAP review with a response date of 3 February 2021
ACHAR RAP response and comments						
C Bradshaw	ELA	Lilly and Paul Boyd	Didge Ngunawal Clan	Email	24/12/2020	DNC agrees with all protocols towards the Great River Walk/ Nepean business Park.
C Bradshaw	ELA	Justine Coplin	Darug Custodian Aboriginal Corporation	Email	07/01/2020	Darug Custodian Aboriginal Corporation have received and reviewed the report for Construction of Great River Walk Bike Path, Penrith. We support the recommendations set out in this report.
C Bradshaw	ELA	Kaarina Slater	Ngambaa Cultural Connections	Email	11/01/2020	On behalf of Ngambaa Cultural connections we have received reviewed and agrees to the ACHA for Nepean Business park riverwalk
C Bradshaw	ELA	Kadibulla Khan	Kamilaroi Yankuntjatjara Working Group	Email	28/01/2021	This area is highly significant to us Aboriginal People as it is near by the river. Nepean River is well known as a place Aboriginal People would hunt, camp & practice ceremonies. Also there is the possibility of finding burial sites. You have noted on your report this area is highly disturbed, however it has been proven time and time again that there is always the potential of finding Aboriginal artefacts within the disturbed soil, therefore I would highly recommend you consider investigating this area further in the way of test excavations.
Kadibulla Khan	Kamilaroi Yankuntjatjara Working Group	C Bradshaw	ELA	Email	2/01/2021	I appreciate that the study area is within a highly significant landscape as it is in close proximity to the Nepean River. However, the field survey and background research concluded the area has low archaeological potential and low likelihood to impact Aboriginal heritage. The majority of the study area is an old sand quarry and the original deposits are gone and has been backfilled with demolition fill. The study area was previously assessed in an ACHA conducted by Penrith Lakes Development Corporation which was used to apply for an Aboriginal Heritage Impact Permit (AHIP). In this survey, no Aboriginal objects were identified during works. The targeted survey area (see figure 28; page 37) at the southern end of the study area has undergone low to moderate disturbance and will be impacted by the construction of a footpath. As no Aboriginal objects were identified in the field survey and the impact of the footpath is minimal, we concluded there to be a low likelihood to impact Aboriginal objects or remains. Through our predictive model and previous investigations, we have concluded that any potential archaeological deposits are very unlikely to occur in the upper deposits due the alluvial sand deposits. We will, however, note the socio-cultural significance associated with the study area.

GOVERNMENT LETTER EXAMPLE AND RESPONSES



Level 3
101 Sussex Street
Sydney NSW 2000
t: (02) 9259 3800

17 September 2020

Our ref: SYD20-16384

Heritage NSW, Department of Premier and Cabinet
Greater Sydney Region
Level 6, 10 Valentine Avenue
Parramatta, NSW 2150
heritagemailbox@environment.nsw.gov.au
Attention: Susan Harrison

Dear Susan,

RE: Aboriginal Cultural Heritage Assessment – Great River Walk, Penrith

Eco Logical Australia (ELA) has been engaged by Precinct Capital Pty Ltd to undertake an Aboriginal Cultural Heritage Assessment (ACHA) for the construction of a 300m long section of bike path adjacent to the Nepean River and associated with rezoning of land at the end of Lugard Street, Penrith identified as lots 1, 2 and 3 DP 1263486 (Figure 1). Please refer to the bottom of this letter for client contact details.

Due to the proximity of the Nepean River and the potential for Aboriginal sites to be located within the area of the proposed works, Penrith council requires an ACHA to be prepared to identify if any Aboriginal sites are situated within the proposed development area and, if so, allow for the appropriate management and mitigation of any impacts that may be inflicted on any Aboriginal sites identified within the area.

As part of the ACHA process, consultation with Aboriginal stakeholders in the local area will be undertaken in line with Heritage NSW, Department of Premier and Cabinet (Heritage NSW) guidelines for *Aboriginal cultural heritage consultation requirements for proponents 2010*. In accordance with Heritage NSW guidelines, proponents must provide the opportunity for Aboriginal people who hold cultural knowledge relevant to the proposed project area to be involved in the assessment process.

As per Section 4.1.2 of the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*, we would appreciate if you would provide us with a contact list of Aboriginal people registered with your organisation who may hold cultural knowledge relevant to the project area identified above. The project area falls within the Deerubbin Local Aboriginal Land Council (LALC) and Penrith Council Local Government Area. ELA will be contacting Deerubbin LALC directly as part of this consultation.

It would be appreciated if you could provide information on any Aboriginal people or organisations who we should invite to register for consultation. If you have any further questions in relation to the upcoming Aboriginal consultation process, I can be contacted on 02 9290 7055. Please forward your response to Charlotte Bradshaw (email charlotteb@ecoaus.com.au). I thank you for your attention in this matter.



Figure 1 The study area; Lots 1, 2 and 3, DP: 1263486

Regards,

Charlotte Bradshaw
ELA Heritage Consultant

Client Contact Details
Dylan Baudinet
Precinct Capital Pty Ltd
Level 1, 2 Barrack Street
Sydney, NSW
2000 Australia
P: +61 2 9994 0202
E: dylan@precinctgroup.com.au

Bradshaw, Charlotte

From: Barry Gunther <Barry.Gunther@environment.nsw.gov.au>
Sent: Friday, 25 September 2020 10:31 AM
To: Bradshaw, Charlotte
Subject: DPC RAP list for the Great River Walk, Penrith
Attachments: GreatRiverWalkDDProp-HeritageNSW.pdf; Great River Walk, Penrith RAP list Requests with subclause 60C (2).docx; DPC RAP list- Penrith Local Government Area.docx

⚠ CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

Hi Charlotte,

Please find attached the DPC RAP list for the Great River Walk, Penrith- Penrith LGA.

regards

Barry Gunther, Aboriginal Heritage Planner Officer
Heritage NSW, Community Engagement, Department of Premier and Cabinet
Level 6, 10 Valentine Ave, Parramatta | Locked Bag 5020 Parramatta 2124
T: 02 9995 6830 | barry.gunther@environment.nsw.gov.au

Please lodge all Applications to Heritagemailbox@environment.nsw.gov.au

I acknowledge and respect the traditional custodians and ancestors of the lands I work across.



**Premier
& Cabinet**

Heritage NSW and coronavirus (COVID-19)

Heritage NSW has taken steps to protect the safety, health and wellbeing of our staff, communities and customers. Whilst our offices remain open, we have put in place flexible working arrangements for our teams across NSW and continue to adapt our working arrangements as necessary. Face-to-face meetings and field work/site visits with our customers are subject to rules on gatherings and social distancing measures. We thank you for your patience and understanding at this time.

This email is intended for the addressee(s) named and may contain confidential and/or privileged information. If you are not the intended recipient, please notify the sender and then delete it immediately. Any views expressed in this email are those of the individual sender except where the sender expressly and with authority states them to be the views of the NSW Office of Environment and Heritage.

PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS EMAIL



04 November 2020

By email: charlotteb@ecoaus.com.au

Charlotte Bradshaw
Eco Logical Australia
Level 3, 101 Sussex Street
Sydney NSW 2000

Dear Charlotte,

Request - Search for Registered Aboriginal Owners – Ref: SYD20-16384

We refer to your email dated 22 September 2020 seeking the identification of Aboriginal organisations and people who may have an interest in the construction of a 300m long section of bike path adjacent to the Nepean River and associated with rezoning of land at the end of Lugard Street, Penrith New South Wales.

Under Section 170 of the Aboriginal Land Rights Act 1983 the Office of the Registrar is required to maintain the Register of Aboriginal Owners (RAO). A search of the RAO has shown that there are currently no Registered Aboriginal Owners in the project area.

We suggest you contact the Deerubbin Local Aboriginal Land Council on (02) 4724 5600 or via email KCavanagh@deerubbin.org.au as they may wish to participate.

Yours sincerely

Rachel Rewiri
Project Officer
Office of the Registrar, Aboriginal Land Rights Act 1983

Bradshaw, Charlotte

From: Carolyn Gartside <Carolyn.Gartside@penrith.city>
Sent: Tuesday, 29 September 2020 11:05 AM
To: Bradshaw, Charlotte
Cc: Steve Randall
Subject: RE: Aboriginal Cultural Heritage Assessment – Great River Walk, Penrith

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Attention: Charlotte

Please be advised that Penrith City Council contact is with the Deerubbin Local Aboriginal Land Council on all matters pertaining to and associated with Aboriginal Cultural Heritage in our Local Government Area. Derrubbin Local Aboriginal Land Council Officer is Mr Steve Randall, Senior Aboriginal Cultural Heritage Officer who can be contacted on the following numbers 0417219174 or (02) 4724 5600.

Regards

Carolyn Gartside
Aboriginal Liaison Officer

E Carolyn.Gartside@penrith.city
T +612 4732 7853 | F +612 4732 7958 | M +61407 48 9296
PO Box 60, PENRITH NSW 2751
www.visitpenrith.com.au
www.penrithcity.nsw.gov.au


PENRITH
CITY COUNCIL



Follow us

Bradshaw, Charlotte

From: Geospatial Search Requests <GeospatialSearch@NNTT.gov.au>
Sent: Friday, 18 September 2020 11:10 AM
To: Bradshaw, Charlotte
Subject: RE: SR20/946 - Great River Walk Bike Path - SR20/946

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UNCLASSIFIED

Native title search – NSW Parcels – Lots 1,2 & 3 on DP1263486
 Your ref: 14015 - Our ref: SR20/946

Dear Charlotte Bradshaw,

Thank you for your search request received on 17 September 2020 in relation to the above area. Based on the records held by the National Native Title Tribunal as at 17 September 2020 it would appear that there are no Native Title Determination Applications, Determinations of Native Title, or Indigenous Land Use Agreements over the identified area.

Search Results

The results provided are based on the information you supplied and are derived from a search of the following Tribunal databases:

- Schedule of Native Title Determination Applications
- Register of Native Title Claims
- Native Title Determinations
- Indigenous Land Use Agreements (Registered and notified)

At the time this search was carried out, there were no relevant entries in the above databases.

Cadastral Data as at: 01/07/2020

Parcel ID	Feature Area SqKm	Tenure	NNTT file number	Name	Category	P
1//DP1263486	0.1229	FREEHOLD	No overlap			
2//DP1263486	0.1844	FREEHOLD	No overlap			
3//DP1263486	0.1842	FREEHOLD	No overlap			

For more information about the Tribunal's registers or to search the registers yourself and obtain copies of relevant register extracts, please visit our [website](#).

Information on native title claims and freehold land can also be found on the Tribunal's website here: [Native title claims and freehold land](#).

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NOTICE OF ABORIGINAL STAKEHOLDER



Eco Logical Australia (ELA) has been engaged by Precinct Capital Pty. Ltd. to conduct an Aboriginal Cultural Heritage Assessment (ACHA) for the construction of a 300m long section of bike path adjacent to the Nepean River, located in Penrith, NSW. This notice is an invitation for Aboriginal organisations or people who hold cultural knowledge relevant to determining the significance of Aboriginal object(s) and/or place(s) in the area of the proposed works to register an interest in a process of community consultation with Council regarding the proposed activity. Aboriginal organisations are invited to register their interest in writing to: Declan Coman, Eco Logical Australia, Level 3, 101 Sussex Street, Sydney NSW 2000 E: declan.coman@ecoaus.com.au P: 02 9290 7785

Expressions of interest should include current contact details. Closing date for registration is 19 October 2020. Please note Aboriginal people who register an interest will have their details forwarded to Heritage NSW, Department of Premier and Cabinet and Local Aboriginal Land Council (LALC) unless they specify that they do not want their details released.

Please note that under Heritage NSW guidelines registration for consultation does not guarantee employment.

Client contact details: Dylan Baudinet, Precinct Capital Pty Ltd, Level 1, 2 Barrack Street, Sydney, NSW, 2000 Australia, P: +61 2 9994 0202, E: dylan@precinctgroup.com.au

📍 Penrith NSW, Australia

Map

