

University of Sydney, NSW

Aboriginal Heritage Impact Assessment

Report

University of Sydney

24 February 2016



AHMS

ARCHAEOLOGICAL & HERITAGE
MANAGEMENT SOLUTIONS



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Glossary

Aboriginal Cultural Heritage Assessment (ACHA)	A document developed to assess the archaeological and cultural values of an area, generally required as part of an Environmental Assessment (EA).
Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010	Guidelines developed by OEH to guide formal Aboriginal community consultation undertaken as part of an Aboriginal Cultural Heritage Assessment (ACHA).
Aboriginal Heritage Impact Permit (AHIP)	The statutory instrument that the Director General of the Office of Environment and Heritage (OEH) issues under Section 90 of the National Parks and Wildlife Act 1974 to allow the investigation (when not in accordance with certain guidelines), impact and/or destruction of Aboriginal objects. AHIPs are not required for a project seeking approval under Part 3A of the Environmental Planning and Assessment Act 1979.
Aboriginal object	A statutory term defined under the National Parks and Wildlife Act 1974 as, 'any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains'.
Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales	Guidelines developed by OEH to inform the structure, practice and content of any archaeological investigations undertaken as part of an Aboriginal Cultural Heritage Assessment (ACHA).
Department of Environment, Climate Change and Water (DECCW)	Now known as the Office of Environment and Heritage (OEH), Department of Premier and Cabinet.
Department of Planning and Environment (DPE)	The Consent Authority for development applications made in accordance with Part 3A of the Environmental Planning and Assessment Act 1979.
Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales	Guidelines developed by OEH, outlining the first stage of a two stage process in determining whether Aboriginal objects and/or areas of archaeological interest are present within a subject area. The findings of a due diligence assessment may lead to the development of an Aboriginal Cultural Heritage Assessment.
Environmental Assessment (EA)	A document summarising the assessment of environmental impacts of a development which supports an application for approval under Part 3A of the Environmental Planning and Assessment Act 1979.
Environmental Planning and Assessment Act 1979	Statutory instrument that provides planning controls and requirements for environmental assessment in the development approval process. The Act is administered by the DPI.
Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community	Guidelines developed by OEH (then Department of Environment and Conservation) for assessment of Aboriginal heritage when being assessed under Part 3A of the <i>Environmental Planning and Assessment Act 1979</i> . These guidelines are now commonly adopted for assessment

Consultation (DEC 2005)	in State Significant Development and State Significant Infrastructure projects under Part 4 (Division 4.1) and 5 (Division 5.1) of the <i>Environmental Planning and Assessment Act 1979</i> .
Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW	Guidelines developed by OEH to inform the structure and content of an Aboriginal Cultural Heritage Assessment (ACHA).
Isolated Find	An isolated find is usually considered a single artefact or stone tool, but can relate to any product of prehistoric Aboriginal societies. The term “object” is used in the ACHA, to reflect the definitions of Aboriginal stone tools or other products in the National Parks and Wildlife Act 1974.
National Parks and Wildlife Act 1974	The primary piece of legislation for the protection of Aboriginal cultural heritage in NSW. Part 6 of this Act outlines the protection afforded to and offences relating to disturbance of Aboriginal objects. The Act is administered by OEH.
Office of Environment and Heritage (OEH)	The OEH is responsible for managing the Aboriginal Heritage (and other) provisions of the National Parks and Wildlife Act 1974.
Potential Archaeological Deposit (PAD)	An area assessed as having the potential to contain Aboriginal objects. PADs are commonly identified on the basis of landform types, surface expressions of Aboriginal objects, surrounding archaeological material, disturbance, and a range of other factors. While not defined in the National Parks and Wildlife Act 1974, PADs are generally considered to retain Aboriginal objects and are therefore protected and managed in accordance with that Act.
Proponent	A corporate entity, Government agency or an individual in the private sector which proposes to undertake a development project.

ABBREVIATIONS

AHIA	Aboriginal Heritage Impact Assessment
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit
AHMS	Archaeological and Heritage Management Solutions
BP	Before present (AD 1950)
CHL	Commonwealth Heritage List
CIP	Campus Improvement Program
DP	Deposited Plan
DPE	Department of Planning and Environment
EP&A Act	Environmental Planning and Assessment Act 1979
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
GML	Godden Mackay Logan
JMcDCHM	Jo McDonald Cultural Heritage Management
ka	Abbreviation for thousands of years ago (e.g. 1 ka equals 1,000 years ago)
MLALC	Metropolitan Local Aboriginal Land Council
LALC	Local Aboriginal Land Council
LEP	Local Environmental Plan
LGA	Local Government Area
NHL	National Heritage List
NPW Act	National Parks and Wildlife Act 1974
OEH	Office of Environment and Heritage (formerly DECCW)
PAD	Potential Archaeological Deposit
RAP	Registered Aboriginal Party
WHL	World Heritage List

Executive Summary

Archaeological & Heritage Management Solutions Pty Ltd (AHMS) has been commissioned by the University of Sydney to prepare an Aboriginal Heritage Impact Assessment (AHIA) for the proposed development of six precincts across the Camperdown and Darlington Campuses, NSW (hereafter referred to as the 'subject area'), as part of the Campus Improvement Program (CIP). The CIP is a seven year program (2014-2020), looking to update teaching facilities, increase floor space and increase student accommodation. The University of Sydney has implemented the initial stages of the approval process under Part 4 (Division 4.1) of the *Environmental Planning and Assessment Act 1979*. It is highlighted that while the AHIA focusses on the six CIP precincts, it also considers the wider Camperdown and Darlington Campuses, especially in relation to identification of cultural values through discussions with the Aboriginal stakeholders.

This AHIA addresses the requirements in the brief to identify any known items and places of Aboriginal cultural heritage value within the subject area, the likelihood of unknown Aboriginal objects being present, and areas of key risk for the proposed development. The report also documents the results of the cultural values identified through liaison with the Registered Aboriginal Parties (RAPs) and the local Aboriginal community.

Key Findings

- Numerous archaeological assessments have been undertaken within the University of Sydney and the surrounding area (**Section 6.2**). These investigations have generally revealed very low artefact densities within heavily disturbed contexts.
- Previous research and ethnographic information suggests that the university grounds were used only ephemerally or transiently in the past. Typically, large creeklines or swamps would have formed the focus of long-term or repeated occupation, and neither types of resource are within the subject area.
- Aboriginal Heritage Information Management System (AHIMS) database search results demonstrate that evidence of Aboriginal occupation in the general vicinity of the university is limited, and usually expressed as low density artefact scatters, isolated objects and/or Potential Archaeological Deposits (PADs). While PADs have previously been registered within the university grounds, these areas have been reassessed as having low archaeological potential following archaeological testing. These findings are, however, constrained by the limited investigations that have occurred in the heavily urbanised Sydney CBD.
- Two registered Aboriginal sites have been identified within the University of Sydney, #45-6-2745 (USYD Law PAD1) and #45-6-2822 (USYD: Central). Both sites comprise isolated stone artefacts recovered from disturbed contexts. The artefacts were assessed as having low scientific significance and low research potential. Both sites have been destroyed.
- Existing information suggests that much of the subject area is heavily disturbed by historical activities. This disturbance has reduced or removed the potential for cultural materials to be present. In the unlikely event that in-situ deposits are identified, they are likely to be of local or State significance.
- Geotechnical investigations undertaken within the university grounds indicate that natural soil horizons may be preserved below 3-5 m of fill in areas in close proximity to the former Orphan School Creek beneath the western portion of the Life Sciences, and Health Precincts. At this stage it is uncertain as to the full extent of disturbance caused by the

placement of fill in these areas. Using precautionary principles, it is assumed these deposits remain intact until proven otherwise. Given their proximity to a water course, these deposits are also considered to have potential for cultural materials to be present.

- With the exception of the western portion of the Life Sciences, and Health Precincts, it is considered that the remaining precincts would have low potential for cultural materials to be present.

Cultural Values

Consultation with the Aboriginal community identified six places retaining cultural values within the subject area. These include the Macleay Museum, Shellshear Museum in the Anderson Stewart Building, Mackie Building, the Quad, the Koori Centre, the Sports Ovals and the University entrances. Discussions also identified the land encompassing the two sports ovals as an area of potential significance. Participants in the cultural values workshop considered that this would have been a former hunting ground for Gadigal/Cadigal Aboriginal people. The ovals were discussed as having potential to contain subsurface archaeological deposits capped by fill. However, the Sports Ovals are located outside any of the Precinct boundaries and will therefore be unaffected by the current development work.

The Aboriginal groups also described general cultural values and issues including better opportunities for Aboriginal students, the desire for better education and interpretative opportunities relating to past and contemporary Aboriginal history in the University grounds.

Potential Aboriginal Heritage Impact

Based on the information available for the subject area, it is considered that cultural materials would be likely to be composed of low density artefact scatters, isolated finds and/or PADs in close proximity to water sources. Disturbance plays a key role in the survival of such deposits, and in the case of the university past impacts have been extensive. Based on this, it is considered that only two precincts, within the current proposal: Life Sciences and Health, have the potential for cultural materials to be both present and to have survived historical activities. Both of these precincts have been identified on precautionary principles, assuming natural soil profile being present beneath a substantial layer of over-burden.

The specific development within the two precincts has yet to be adequately defined, but references to underground car-parking and the likely need for deep foundations of future structures suggest that impact to these deposits is likely. Appropriate measures to manage these deposits have been provided in **Section 8.4**.

The other four precincts are not considered to have potential for Aboriginal objects to be present, and as such proposed works are considered to have of low risk in harming/destroying cultural materials.

No areas identified as having cultural values would be directly or indirectly affected by the proposed development.

Recommendations

The following recommendations are made in regard to future management of the six Precincts outlined in the CIP:

- As a condition of approval, a Heritage Management Plan (HMP) should be developed for the project. The HMP should be developed in consultation with DPE, OEH and the RAPs, and provide protocols, procedures and tasks to manage the cultural resources identified in this AHIA before, during, and after the development. The HMP should make specific reference to:
 - Management of the Life Sciences (west of Ross Street) and Health Precincts, which have the potential for deeply buried cultural materials to be present. Ideally, such works should be undertaken prior to any approval under Section 89J of the *Environmental Planning and Assessment Act 1979* and integrated into the AHIA, and recommendations modified accordingly. Should this prove unfeasible, further sub-surface investigation and salvage (if required) of these deposits should be developed and outlined in the HMP.
 - The remaining precincts are considered to have low potential for Aboriginal objects to be present. These areas should be managed through unexpected finds procedures to be developed and outlined in the HMP.
- Opportunities exist to reflect contemporary Aboriginal values through a range of possible initiatives that have been identified through consultation of the AHIA. It is recommended that an interpretation strategy is developed as a condition of consent to explore and implement expressions of Aboriginal cultural value across the university grounds.
- The site status of #45-6-2745 and #45-6-2833 should be updated in the AHIMS Registrar to reflect their destruction.
- A copy of this assessment should be provided to the RAPs to review and provide comment on the findings and recommendations prior to finalisation.

1 INTRODUCTION

The University of Sydney (the proponent) (**Table 1**) has prepared a Campus Improvement Program (CIP) to redevelop six precincts situated within the Camperdown and Darlington campuses (hereafter, referred to as the 'subject area'). The University of Sydney has implemented the initial stages of the approval process under Part 4 (Division 4.1) of the *Environmental Planning and Assessment Act 1979*. As part of this approval, Department of Planning and Environment (DPE) has identified the need to undertake further consideration of Aboriginal heritage. Specifically, 'Condition 10' of the Secretary's Environmental Assessment Requirements (SEARs) outlined the need to identify Aboriginal heritage values within the subject area, and liaise with the Aboriginal community (see **Section 1.1** below for details).

As a result, Archaeological and Heritage Management Solutions Pty Ltd (AHMS) has been commissioned by the University of Sydney to undertake an Aboriginal Heritage Impact Assessment (AHIA) for the six CIP precincts in advance of proposed development. While the AHIA focusses on the six CIP precincts, it also considers the wider Camperdown and Darlington Campuses, especially in relation to identification of cultural values through discussions with the Aboriginal stakeholders.

This AHIA has been prepared in accordance with relevant Office of Environment and Heritage (OEH) guidelines, most notably *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW, 2010), and *Guide to investigating, assessing and reporting Aboriginal Cultural Heritage in NSW* (DECCW, 2011).

Table 1. Proponent Details

Proponent	Archaeological Consultant
The University of Sydney NSW, 2006 Contact Person: Ian Kelly E: ian.kelly@sydney.edu.au	Archaeological and Heritage Management Solutions Pty Ltd Level 2, 729 Elizabeth St, Waterloo, 2017 Contact person: Alan Williams T. 02 9555 4000 E: awilliams@ahms.com.au

1.1 Purpose of the Assessment

The purpose of this AHIA is to satisfy the requirements outlined in the SEARs. Specifically, 'Condition 10', of the SEARs highlights the following requirements for the project:

- *All Aboriginal cultural heritage values that exist within the development site shall be identified, described and documented. They may include the need for surface survey and test excavation. The identification of cultural heritage values should be guided by the Guide to investigation, assessing and reporting Aboriginal Cultural Heritage in NSW (DECCW, 2011) and in consultation with OEH officers.*
- *Where Aboriginal cultural heritage values are identified, consultation with Aboriginal people must be undertaken and documented in accordance with the Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW). The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented.*
- *Where relevant, impacts on Aboriginal cultural heritage values are to be assessed and documented. The EIS must demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the EIS must outline measures proposed to mitigate impacts. Any*

objects recorded as part of the assessment must be documented and notified to OEH.

In order to meet these requirements, the principle tasks of this AHIA are to:

- Background review of environmental information, including soils, geology and geomorphology.
- Background review of previous archaeological studies in the region, including a search of the OEH AHIMS database
- Identification of landforms of archaeological interest within and near the study area.
- Development of a predictive archaeological model using the above information.
- Development of an impact assessment (over-laying the proposed development with the archaeological findings).

In addition the report aims to achieve the following:

- Identify and assess the significance of known and potential Aboriginal heritage items/places and objects by undertaking background research and investigations.
- Implement an effective strategy to involve Aboriginal community stakeholders in all stages of the Aboriginal Heritage Assessment.
- Establish the Aboriginal cultural heritage sites and values within the CIP precincts, as informed by background research and Aboriginal stakeholders through both written advice and a cultural values workshop with local and traditional owner representatives.
- Report on significant places of high known or potential Aboriginal heritage value, recommending how such places should be conserved, as informed by stakeholders in the Aboriginal community.
- Cultivate suitable and culturally-informed land use and management options for significant Aboriginal cultural heritage items. Such items include cultural landscapes, sites of cultural importance, objects, historical places, places that contain spiritual properties, and places that hold community importance, as informed by Aboriginal stakeholders.

1.2 Subject Area

The primary address of the subject area is the University of Sydney, Camperdown, NSW situated within the City of Sydney LGA (**Figure 1**). The subject area incorporates two adjacent campuses: the Camperdown campus covering an area of ~0.35 km² and situated between Parramatta Road and City Road which turns into King Street; and Darlington campus that covers an area of ~0.18 km² and is situated on the southern side of City Road and bounded by Abercrombie Street.

Based on the CIP plan (**Figure 2**), three precincts are situated within each campus. The Darlington campus incorporates the Merewether Precinct, City Road Precinct and Engineering Precinct. These precincts are bordered to the north by Cleveland Street, to the northwest by City Road, to the east by Shepherd Street and to the south by Darlington Lane and Butlin Avenue. The Camperdown campus contains the Health Precinct, Life Sciences Precinct and Cultural Precinct. These precincts are bordered to the north by Parramatta Road, to the east by parts of the University of Sydney

Camperdown Campus, to the west and south by the Royal Prince Alfred complex and to the south by St Andrew's College.

1.3 Proposed Development

The six CIP precincts proposed to be developed are highlighted in **Figure 2**. While the building footprint and envelopes have been previously approved (SSD #6123), the full design and details of the buildings are still being designed. The CIP is a seven year program 2014 -2020, looking to update teaching facilities, increase floor space and increase student accommodation. Based on information provided the proposed development work within these six precincts includes but is not limited to the following:

A. Merewether Precinct - Darlington Campus

- Faculty of Arts & Social Sciences
- International Studies
- Redevelopment of the Merewether building
- Redevelopment of the Regiment building
- Mixed use precinct which may incorporate, but not limited to, student accommodation and, retails and parking

B. City Road Precinct - Darlington Campus

- Currently accommodates existing Faculty of Architecture (Wilkinson), student accommodation (International House) and administrative functions/libraries in the Jane Foss Russell and Wentworth buildings.
- To accommodate a variety of future uses incorporating faculty, student accommodation and professional service units.

C. Engineering Precinct - Darlington Campus

- Upgrade of teaching, learning and research facilities, open space, gateways and ancillary uses
- New development for food and beverage, loading dock and chemistry building
- Refurb for function space

D. Health Precinct - Camperdown Campus

- Multi-function research and education centre
- A new Health precinct to incorporate redevelopment of the Blackburn-Bosch group of buildings for co-location of the faculties of Nursing and Midwifery, Health Sciences, an components of Medicine, Pharmacy, and Dentistry.

- Accommodate a mixed use development which may include public-facing health clinics, shared learning and teaching spaces, library facilities, some residential accommodation, and basement parking.
- Provide future connections to the adjoining RPA west of the precinct, and the Charles Perkins Centre (under construction) north of the precinct.

E. Life Sciences Precinct - Camperdown Campus

- Co-location of vet sciences, agriculture, biological sciences
- Ross Street development and McMaster extension
- Grandstand
- Development of Grandstand D on oval No.2 for SUSF
- Multi-functional space for events, high performance gym, cricket nets, events/ function space and amenities.
- A new Life Sciences precinct to incorporate redevelopment of Gunn, McMaster and the temporary demountable buildings to facilitate co-location of a number of faculties and schools such as Veterinary Sciences, Agriculture & Environment, and Biological Sciences.
- To accommodate learning and teaching, research and ancillary basement parking

F. Cultural Precinct - Camperdown Campus

- Relocating biosciences to Health Precinct
- Consolidate museums and art
- New Cultural Precinct to convert the heritage significant Science Road area as a principal visitor destination precinct accommodating cultural, museum and heritage components.
- Internal refurbishment of the Macleay and Edgeworth-David buildings in developing a museum and cultural exhibition centre, and incorporating minor building additions.

1.4 Limitations

This report is based on existing and publically available environmental and archaeological information, reports about the subject area, and relevant site visits. It did not include any independent verification of the results or interpretations of externally sourced reports (except where the site inspection and field survey indicated inconsistencies). This report includes some predictions about the probability of sub-surface archaeological materials occurring within certain landforms of the subject area. The predictions are based on surface indications noted during the field investigation, and environmental context. It is acknowledged, however, that sub-surface materials may survive in landscape contexts despite surface and environmental indicators that may suggest that they do not. The converse also applies.

The Aboriginal Heritage Information Management System (AHIMS) data was provided to AHMS by OEH. Information in the archaeological assessment report reflects the scope and the accuracy of the AHIMS site data, which in some instances is limited.

1.5 Investigator and Contributors

This report was written by Alistair Hobbs and Natalie Blake (AHMS Heritage Advisors). Technical and QA reviews were provided by Alan Williams. The cultural values workshop was undertaken by Susan McIntyre-Tamwoy (AHMS Associate Director) and Ben Christensen (AHMS Heritage Advisor). All maps and images were prepared by Tom Sapienza (AHMS Heritage Advisor) unless otherwise specified.

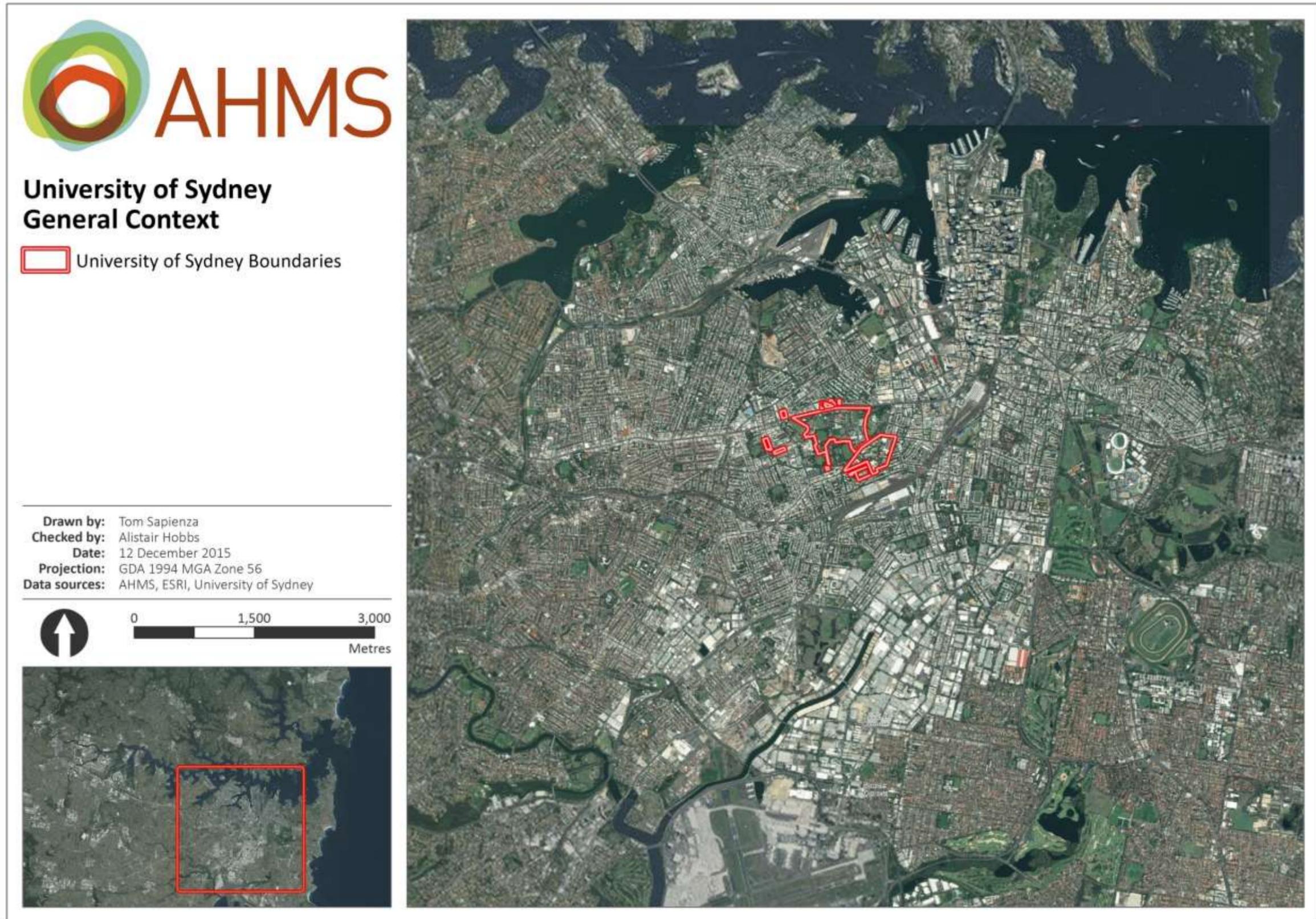


Figure 1. Location of the subject area.

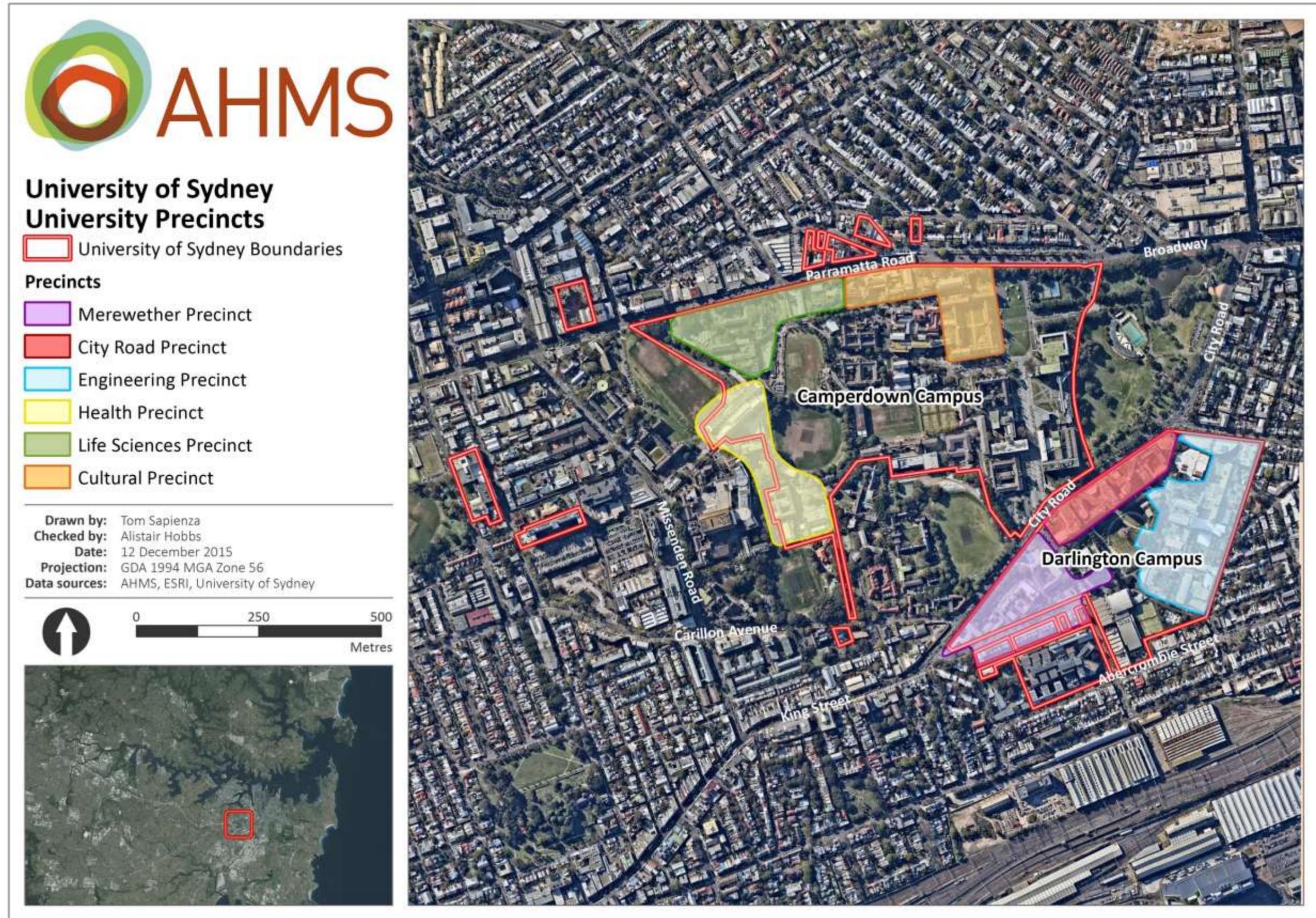


Figure 2. Location of the Camperdown and Darlington campus within the subject area. Those coloured area form the focus of this AHIA.

2 STATUTORY CONTEXT

2.1 Commonwealth Legislation

2.1.1 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides for the protection of natural and cultural heritage places. The Act establishes (amongst other things) a National Heritage List (NHL) and a Commonwealth Heritage List (CHL). Places on the NHL are of outstanding natural or cultural significance at a national level and can be in public or private ownership. The CHL is limited to places owned or controlled by the Commonwealth which have significant heritage value.

Places listed on the NHL are considered to be of State and local heritage value, even if State or local various heritage lists do not specifically include them.

The heritage values of places on the NHL or the CHL are protected under the provisions of the EPBC Act. The Act requires that the Minister administering the EPBC Act assess any action which has, will have, or is likely to have, a significant impact on the heritage values of a listed place. The approval (or rejection) follows the referral of the matter by the relevant agency's Minister.

No Aboriginal sites or places within the subject area are currently listed on the NHL or CHL.

2.1.2 Native Title Act 1993

The *Native Title Act 1993* provides recognition and protection for native title. The Act established the National Native Title Tribunal to administer land claims by Aboriginal people. The Act also provides for Indigenous Land Use Agreements, which allow native title claimants and/or holders control over the use and management of affected land and waters. The

A search of the National Native Title Tribunal Registers was undertaken on 26 August 2015, and returned the following results in the subject area:

Register Type NNTT	Tribunal File Number
National Native Title Register	Nil
Register of Native Title Claims (RNTC)	Nil
Unregistered Claimant Applications	Nil
Register of Indigenous Land Use Agreements	Nil

2.1.3 Aboriginal and Torres Strait Islander Heritage Protection Act 1984

The *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* was enacted to preserve and protect areas (particularly sacred sites) of particular significance to Aboriginal Australians from injury or desecration. Steps necessary for the protection of a threatened area are outlined in a gazetted Ministerial Declaration (Sections 9 and 10). This can include preventing or controlling development.

As well as providing protection to areas, objects can also be protected by Declaration under the provisions of the Act, in particular Aboriginal skeletal remains (Section 12). Although this is a Federal Act, it can be invoked on a State or Territory level if the State or Territory is unwilling or unable to provide protection for such sites or objects.

No Aboriginal sites or places within the subject area are currently subject to a Declaration.

2.2 NSW State Legislation

2.2.1 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EP&A Act) requires that environmental impacts are considered in land use planning, including impacts on Indigenous and non-Indigenous heritage. Various planning instruments prepared under the Act identify permissible land use and development constraints.

Where development approval is to be determined under Part 4 (Division 4.1) of the EP&A Act, further approvals or permits to disturb or destroy Aboriginal objects and places under the *National Parks and Wildlife Act 1974* are not required. In those instances, management of Aboriginal heritage follows the applicable Aboriginal heritage requirements specified in the environmental assessment requirements for the proposed development issued by the Director-General of the Department of Planning and Environment (DGRs), and subsequent Conditions of Consent.

2.2.2 National Parks and Wildlife Act 1974

The *National Parks and Wildlife Act 1974* (NPW Act) provides blanket protection for Aboriginal objects (material evidence of Indigenous occupation) and Aboriginal places (areas of cultural significance to the Aboriginal community) across NSW. An Aboriginal object is defined in Section 5 of the NPW Act as:

“...any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains.”

An Aboriginal place is any place declared to be an Aboriginal place by the Minister for the Environment and Minister for Heritage, under Section 84 of the NPW Act.

One declared Aboriginal Place is located near the subject area. Collingwood Precinct is located approximately 1.5 kilometres to the north of the subject area, and will not be impacted by the proposal.

The provisions of the NPW Act that require various approvals or permits to disturb or destroy Aboriginal objects and places are not applicable to Part 4 (Division 4.1) Projects.

2.2.3 Aboriginal Land Rights Act 1983

The *Aboriginal Land Rights Act 1983* allows for the transfer of ownership of vacant Crown land that is not required for an essential purpose or for residential land to an Aboriginal Land Council. These lands are then managed and maintained by the Local Aboriginal Land Council.

No places within the subject area are currently subject to a claim under the Aboriginal Land Rights Act 1983.

3 ABORIGINAL COMMUNITY CONSULTATION

3.1 General

Consultation with the Aboriginal communities within the region has been undertaken in accordance with procedures set out in the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (the Guidelines), developed by OEH. A complete log of actions and correspondence regarding Aboriginal community consultation is included in Appendix 1.

The 2010 guidelines have six broad phases:

- Pre-notification – identification of the Aboriginal parties by contacting various State government agencies.
- Notification – contacting identified Aboriginal parties and advertising in the local print media for interested Aboriginal parties.
- Presentation of Project – advising the Registered Aboriginal Parties (RAPs) of the project, which phase may involve meetings and/or site visits.
- Methodology – providing the RAPs with the proposed field methodology and information on obtaining cultural knowledge.
- Impacts and Mitigation Options – discussion of potential impacts to heritage and appropriate mitigation options before developing the report.
- Report review – review of the final report.

The consultation process for this project has two aims. Firstly, to comply with the OEH consultation procedures to obtain input on our proposed assessment methodology, our assessment report and management recommendations; and secondly, to identify cultural places and values, that may be affected by the proposed future development of the subject area, through consultation with knowledge holders. To maximise the opportunity to achieve the second aim a cultural values workshop was held with representatives of the local Aboriginal community, including key organisations from the suburbs neighbouring the University campus.

All consultation is provided in detail in **Appendix 1**.

3.2 Pre-Notification Stage

The initial stage of the consultation process consists of the identification of Aboriginal people who may hold cultural knowledge relevant to determining the significance of Aboriginal objects and places. On 2 September 2015, the following organisations were contacted with a request for information:

- The Office of Environment and Heritage;
- Metropolitan Local Aboriginal Land Council;
- Office of the Registrar, Aboriginal Land Rights Act, 1983;
- National Native Title Tribunal;
- NTSCorp;

- City of Sydney Council; and
- Greater Sydney Local Land Services (formerly Sydney Metro Catchment Management Authority).

The responses received are reproduced in **Appendix 1**. In summary, the following groups and individuals were identified as possibly having an interest in the subject area:

- Metropolitan LALC
- Darug Aboriginal Cultural Heritage Assessments (DACHA)
- Tocomwall
- Eric Keidge
- Gunyuu
- Walbunja
- Badu
- Goobah Developments
- Wullung
- Yerramurra
- Nundagurri
- Murrumbul
- Jerringong
- Pemulwuy CHTS
- Aaron Broad
- Munyunga
- Bilinga
- Murrinbul
- Wingikara
- Wongai

3.3 Notification and Registration of Interest

On 23 September 2015, notifications and invitations to register were also sent to the Aboriginal Parties identified in the first stage of consultation, listed above. On 1 October 2015, a notice was placed in the City Hub Newspaper, containing notification of the project, and an invitation to register an interest.

Registrations of interest were received from the following Aboriginal Parties:

- Metropolitan LALC
- Darug Aboriginal Cultural Heritage Assessments
- Darug Land Observations
- Larry Hoskins
- Goobah
- Murramarang
- Biamanga
- Gulaga
- Cullendulla
- Central Murrumbidgee
- Murrumbidgee

In accordance with Section 4.1.6 of the Guidelines, details of the Registered Aboriginal Parties were provided to OEHS and the Metropolitan LALC on 26 October 2015.

3.4 Aboriginal Cultural Values Workshop

To meet the requirements outlined in the SEARs (see **Section 1.1**), this project provided an opportunity for the Aboriginal people to discuss the cultural values of the subject area through the OEHS notification process. In addition a cultural values workshop was held on 8 October 2015 at the University of Sydney to which local community representatives were invited. **Table 2** provides the details of those who attended the Aboriginal cultural values workshop. The full details of the workshop are provided in **Appendix 1**.

Table 2. Cultural Values workshop attendance.

Organisation	Staff Member
University of Sydney	Julie parsons
	Ian Kelly
AHMS	Susan Mcintyre-Tamwoy
	Ben Christensen
Metropolitan LALC	Nathan Moran
Mudgin-gal	Bronwyn Penrith
USYD Indigenous SRC	Georgia Mantle
City of Sydney Advisory Panel	Norma Ingram
DACHA	Gordon Morton
The Settlement	Gloria Donohue
Aboriginal Housing Company	Lani Tuitavake

The Aboriginal cultural values workshop explored cultural values, current issues related to cultural heritage values and places of cultural value within the University of Sydney. The workshop started with a welcome to country by Nathan Moran. A general introduction to cultural values and a background to the project was provided to participants. Aboriginal participants then reflected on the cultural values that they believe are embedded in the University in its landscape and neighbourhood

with places of particular or potential cultural interest or concern to them. The resulting map was a composite of places nominated by participants that had social or cultural values (**Figure 5**). The areas identified as having social and cultural value were as follows:

1. Macleay Museum - Aboriginal remains are stored in the museum.
2. Victoria Park - Originally a natural water source was located here. Archibald Liversidge (Geologist and Mineralogist) collected stone artefacts and sent them to the British Museum, which kept them. One of the artefacts in the collection is labelled 'Victoria Park'. Site #45-6-2767 (Tent Embassy) is also registered within Victoria Park, and remains an area of value to the community. (Note: this land is outside the boundaries of the University of Sydney).
3. Shellshear Museum, Anderson Stewart Building - Aboriginal remains are stored in the museum.
4. Main University Entrances - The entrances of the university are considered culturally valuable as a marker/gateway for entering onto Aboriginal land.
5. The Quad - It was reported that anecdotal evidence from the Aboriginal student body held that this area was culturally valuable, and may have been where ceremonies were held. A subsequent review of historical information revealed no evidence to support this suggestion, however as enduring symbol of the university it is likely that the Quad may have historic symbolism for the Aboriginal community (especially graduates) as it does for the non-Indigenous graduate population.
6. Sports Ovals - Near the former Orphan School Creek. This land was considered to be Gadigal/Cadigal hunting ground for Aboriginal people in the past and may contain subsurface archaeological deposits capped by later landfill.
7. Mackie Building - Originally the location of the Aboriginal Education Centre. The Mackie Building is the place where some of the first talks about modern Aboriginal Australia were undertaken following the 1967 referendum.
8. Koori Centre - A place of social and cultural value for Aboriginal people, because it is a venue designed specifically for Aboriginal community to study. Currently located in the Old Teachers College.

During the cultural values workshop, the historic location of Mr Shepherd's Nursery was mentioned as an area of potential cultural value that the participants would like AHMS to consider further. Accordingly historical documentation was consulted. This revealed that Thomas Shepherd's Darling Nursery estate was located in the area east of City Road/Darlington Road, part of which is now occupied by the Engineering Precinct (i.e. it is outside of the subject area). It did not include Cadigal Green.

The Sports fields and ovals were discussed as having potential to contain subsurface archaeological deposits; these areas are discussed in further detail in **Section 6.3.7**. These areas were originally highlighted in the University of Sydney Ground Conservation Plan (2002), as areas that exhibited limited disturbance. Subsequently, JMcDCHM (2007 - 2009) undertook surface investigation of these areas, and considered them to only have low archaeological potential. Based on the discussions undertaken with the RAPs, these areas remain highlighted in this AHIA for their cultural values.



Figure 4 Ben Christensen and Bronwyn Penrith discuss the maps of the univeristy campus

3.5 Report Review

To ensure that RAPs who did not attend the cultural values workshop (**Section 3.4**) were consulted in relation to the project, and to obtain feedback on the AHIA, a draft version of this report was provided to all RAPs for review. The review period was undertaken between 18 January 2016 and 15 February 2016. Responses provided by the RAPs following the report review period are included in the consultation log (**Appendix 1-1**) and response section (**Appendix 1-5**)

Comments provided by the RAPs were generally positive and included the following:

Darug Land Observations (DLO) commented that any recovered artefacts should be re-buried on Country (the study area). DLO also wished to be involved in the monitoring of topsoil removal from archaeologically sensitive areas within the study area.

Darug Aboriginal Cultural Heritage Assessments (DACHA) confirmed they were satisfied with the report and recommendations.

Feedback was also provided by Aboriginal Archaeology Service (AAS), who raised concerns about the Aboriginal community consultation process. Dissatisfaction was expressed by the group even though consultation guidelines were followed for the project (please refer to **Section 3.1**). AAS provided no specific information on cultural values for the study area and did not raise any issues with the proposed management strategy and recommendations.

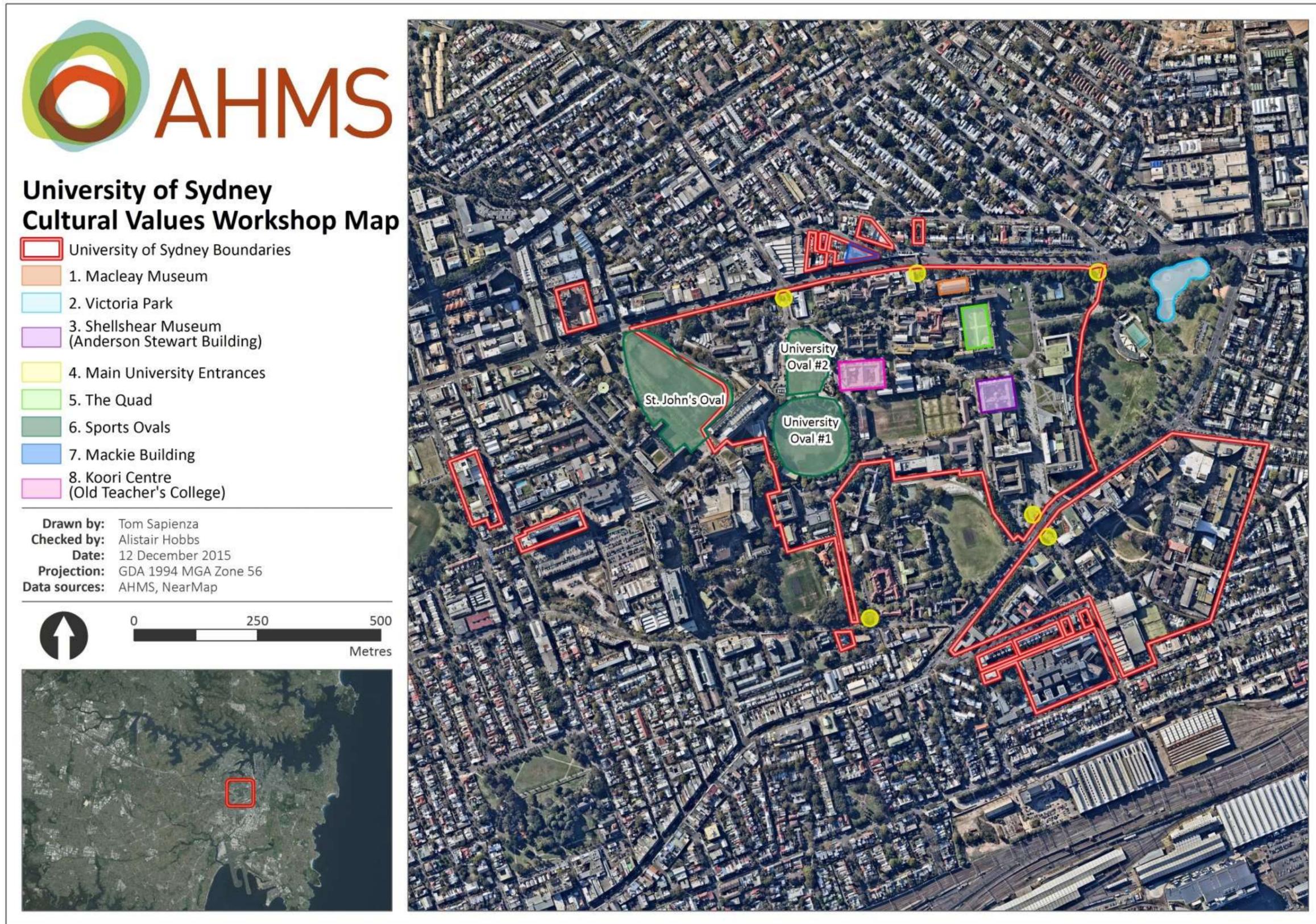


Figure 5 Results of the Aboriginal cultural values workshop.

4 LANDSCAPE AND LANDUSE CONTEXT

Describing environmental characteristics is an essential initial step in identifying how people used land in the past, and establishes a context for identifying the archaeological potential of any given area. It also assists to explain why certain historical events may have occurred and why certain historical themes may apply or dominate in a particular area. The environmental context of the subject area is discussed below.

4.1 Bioregion

The subject area is located within the Sydney Basin Bioregion, on the central east coast of NSW. Bioregions are large, geographically distinct areas that are distinguished from one another based on differences in geology, landform patterns, climate, ecological features and plant and animal communities. Bioregions are often further classified into finer-scale subregions, with localised differences in geomorphology and vegetation (Thackaway and Crasswell 1995).

The subject area is part of the Cumberland subregion, which is characterised by the gently undulating shale-based landscape of western Sydney that naturally supports grey box, forest red gum, narrow-leaved ironbark woodland with some spotted gum on the shale hills and swamp oak in low-lying flood-prone areas (Morgan 2001).

From a historical perspective, the Cumberland subregion was suitable for settlement and pastoralism in the 19th century. The large river systems running through the Cumberland subregion would also form key resources along which Aboriginal activity would likely have occurred.

4.2 Soils and Geology

The subject area is located within the residual Blacktown soil landscape (**Figure 6**). The Blacktown soil landscape occurs extensively across the Cumberland subregion, and is characterised by gently undulating rises with broad rounded crests and ridges on Wianamatta Group Shale. It comprises shallow to moderately deep soils (<150cm) on crests, upper slopes and well-drained areas. Deep soils (150-300cm) occur on lower slopes, drainage depressions and in localised, poorly drained areas. Topsoils reach a depth of up to 30cm, and contain significant sand and silt content overlying hard-setting clay subsoils (OEH 2015).

In most areas, soil deflation and erosion tends to expose, rather than bury, former land surfaces on which stone artefacts may have been deposited (this is a contributing factor to the large number of Aboriginal artefacts recorded as surface finds on this soil type across western Sydney). These types of soils are often shallow, and can be significantly disturbed by historical and modern activities. This has significant implications for the survivability of historical and Aboriginal deposits. Further, it is rare for these types of soil to contain significantly deep, stratified or old archaeological deposits.

4.3 Hydrology

Historic plans have shown the upper reaches of several creeks running into Port Jackson have their headwaters within the university grounds. Blackwattle Creek, which runs to Blackwattle Bay began where the Darlington School now stands. Another tributary began in Victoria Park and both of these ran northeast through Glebe, Chippendale and Ultimo. On the western side Orphan School Creek was present and located immediately west of the extant ovals (**Figure 7**).

Of these watercourses, the only remaining visible element is the modified and landscaped Victoria Park Lake, Lake Northam, located at the junction of Parramatta and City Road. This was first landscaped as part of the University of Sydney grounds in 1870.

These watercourses would have provided natural resources for both Aboriginal and historic settlement and movement through the region. However, it is considered unlikely that the former Blackwattle swamp would have been used as a camping ground. The ridgeline running across Petersham Hill, elevated above the swampy ground and with views across the surrounding landscape, would have been a more favourable location.

4.4 Flora and Fauna

The natural vegetation of a landscape is an important consideration, because it provided Aboriginal people with resources which they could exploit. Bark from trees could be stripped to make canoes, shields and other utilitarian items. The vegetation itself provided food resources, as well as habitat for animals, such as possums and birds, which could in turn be hunted for their meat, fur and feathers.

Remnant vegetation communities within the Sydney Basin Bioregion include Shale Plains Woodland, Alluvial Woodland, and Shale/Gravel Transition Forest. These communities would have covered much of the study area at the time of European contact, and were the most common type of native vegetation in the Cumberland subregion. However, they have been extensively disturbed by land clearance and weed invasion, and now occur mostly as small and fragmented patches (Department of the Environment, Water, Heritage and the Arts 2010:4-5).

From an Aboriginal heritage perspective, remnant and old growth vegetation is important for two reasons: 1) it is in these locations that culturally modified trees (if present) may be found; and 2) these areas have been subject to fewer disturbances in the last 200 years. Native vegetation typical of the Cumberland subregion is outlined below (**Table 3**).

Today, the subject area comprises land that has been extensively developed and little resembles the original landscape. The subject area has been cleared of vegetation, with the six precincts showing a range of built and re-landscaped environments.

Table 3. Native vegetation in the Cumberland subregion (after Morgan (2001); The Royal Botanic Gardens and Domain Trust (2015))

Location	Vegetation
Shale hills	Grey box (<i>Eucalyptus moluccana</i>), forest red gum (<i>E. tereticornis</i>), narrow-leaved ironbark woodland with some spotted gum (<i>E. crebra</i> , <i>Corymbia maculata</i>)
Alluvial sands and gravels	Hard-leaved scribbly gum (<i>Eucalyptus sclerophylla</i>), rough-barked apple (<i>Angophora floribunda</i>), and old man banksia (<i>Banksia serrata</i>)
River flats	Broad-leaved apple (<i>A. subvelutina</i>), cabbage gum (<i>E. amplifolia</i>) and forest red gum with abundant swamp oak (<i>E. tereticornis</i> , <i>Casuarina glauca</i>)
Lagoon and swamps	Tall spike-rush (<i>Eleocharis sphacelata</i>), and juncus (rushes) with Parramatta red gum (<i>E. parramattensis</i>)

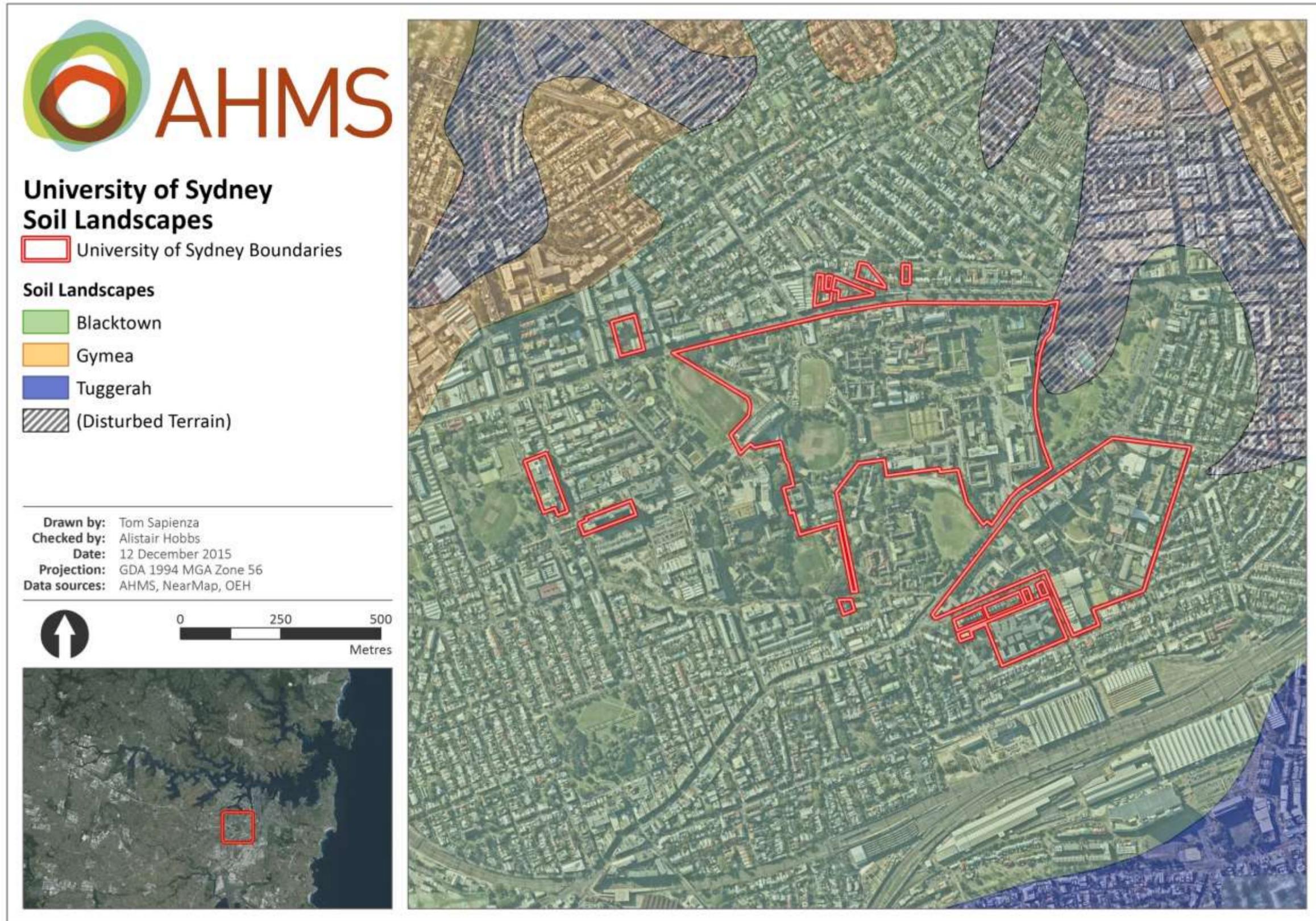


Figure 6. Soil Landscape of the subject area.

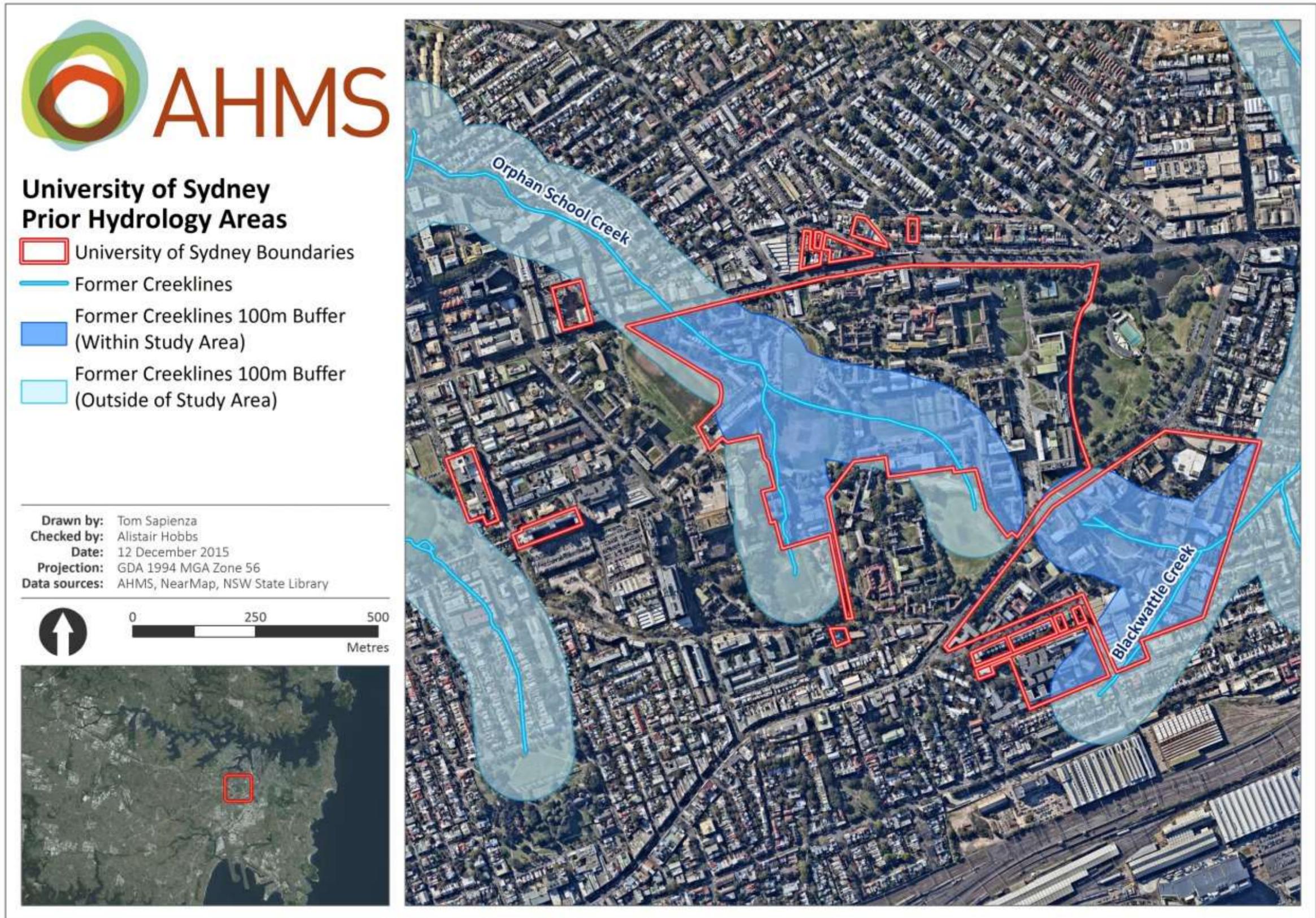


Figure 7. Previous watercourses known within the subject area prior to land disturbance and modification.

4.5 Land Use History

The history of the University of Sydney has been well documented by previous assessments over the years. It is clear from these previous assessments that the majority of the natural ground surface has been subject to extensive disturbance as a result of ongoing development and expansion associated with the university. These impacts include but are not limited to major land clearance and modification, cutting and filling activities, installation of utilities and services and the construction and demolition of buildings.

The following summary provides a timeline of the land use history regarding the development and expansion of the university grounds (**Table 4**).

Table 4. Land use summary of the university grounds (after GML 2013: 11-12.)

Dates	Land Use Summary
Pre 1788	Prior to European settlement, the Camperdown and Darlington campuses were occupied by Aboriginal people of the Cadigal and/or Wanngal clans.
1788-1790s	In 1788, part of the 'Kangaroo Ground' was set aside as reserves for Crown, church and school purposes and used for pasturage of stock.
1790s-1800	In 1792, 30 acres of the 400 acre Crown Reserve was granted lease to Lieutenant-Governor Francis Grose of the NSW Corp). Grose had originally planned to build a house on the land but changed the purpose of the lease to farming. Grose sold his lease when he left the colony in 1794 but the area became known as Grose Farm (Figure 8).
1800s-1850	In 1801, further portions of land within the School and Crown reserves were granted to the Female Orphan Institution, who set up a farm on what became known as Orphan School Creek. A number of structures were constructed on Grose Farm including convict stockades, farm buildings, gardens and dams. The areas continued to be used for cultivation and grazing. Over the following years the land was further subdivided and in 1850 the University of Sydney was founded (Figure 9, Figure 13).
1850s-1900	In 1878 the Darlington Public School was constructed at Maze Crescent (formerly Darlington Road) in the swampy areas of the headwaters of Blackwattle Creek. Several university and school buildings, gardens and recreation ovals were constructed later across the site. Further disturbance associated with the development of the university included landscaping, demolitions of existing structures and insertion of footings and foundations of new buildings. Extensive fill was also introduced to raise the level of the areas previously covered by the Blackwattle swamp (Figure 10, Figure 14, Figure 15).
1900s - 1950s	The areas in the northwest corner of the university including Orphan School Creek flats were covered with 3 - 5m of spoil fill obtained from the construction of the city railway during the

Dates	Land Use Summary
	1920s. A number of air raid shelters were also constructed across the university grounds and Victoria Park during WWII (Figure 11, Figure 16).
1960 - present	The university has continued to expand with much of the once open space now been subject to development (Figure 12).

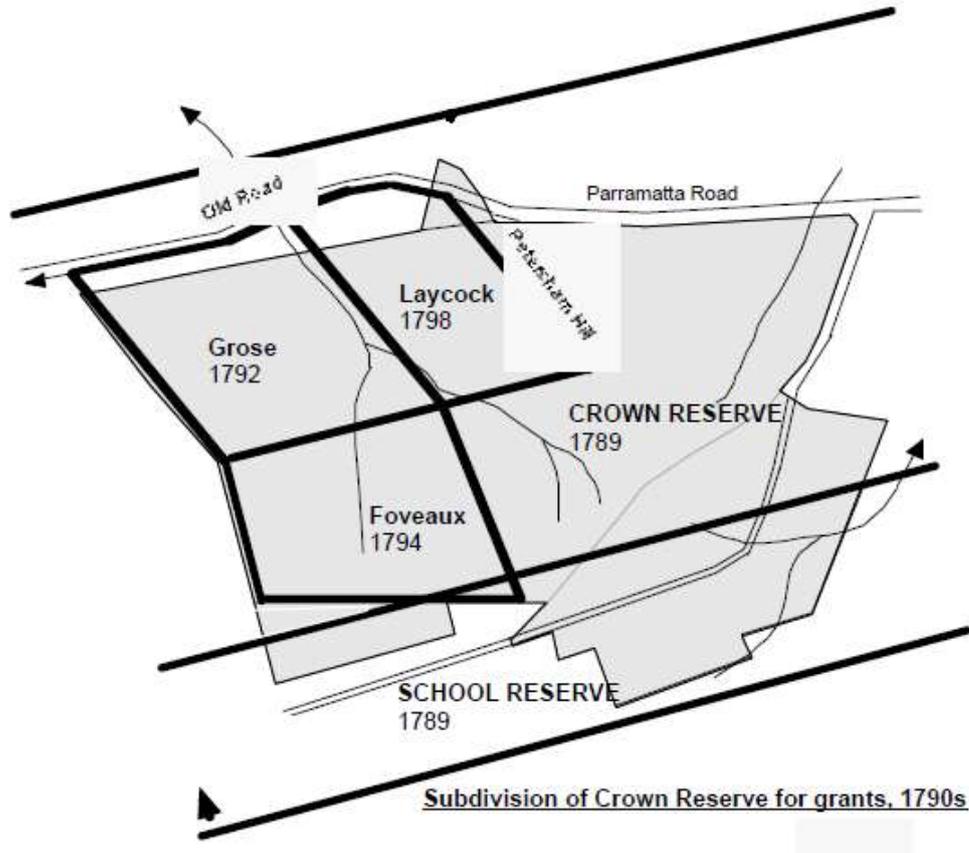


Figure 8. Original subdivision of the 'Kangaroo Ground'. (Source: University of Sydney Grounds Conservation Plan Section 2.2)

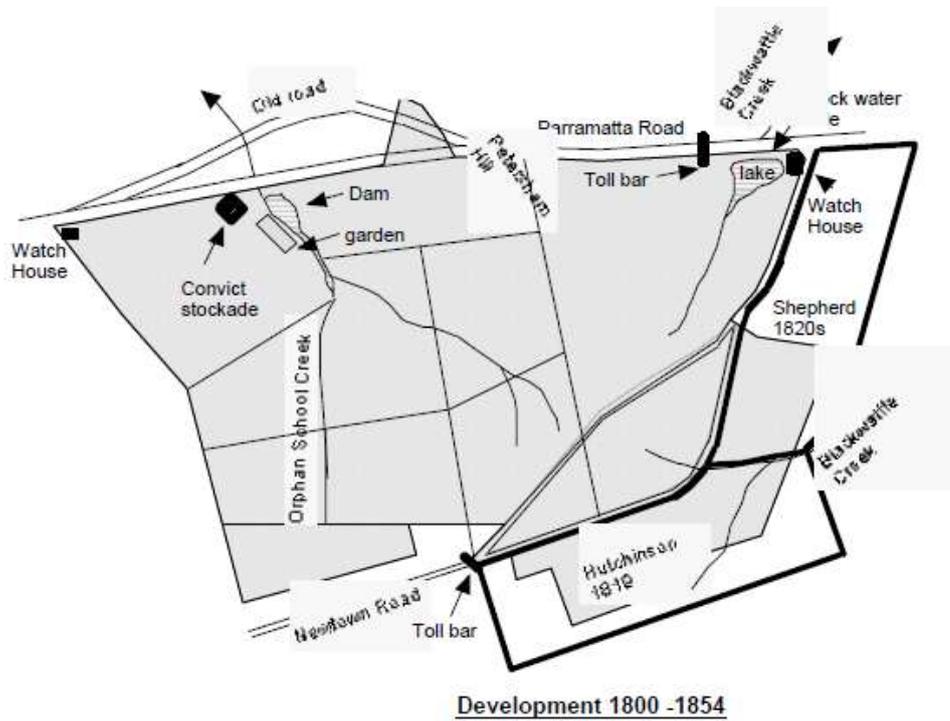


Figure 9. *Development of the subject area prior to the land being granted to the university, 1800-1854 (Source: University of Sydney Grounds Conservation Plan Section 2.2).*

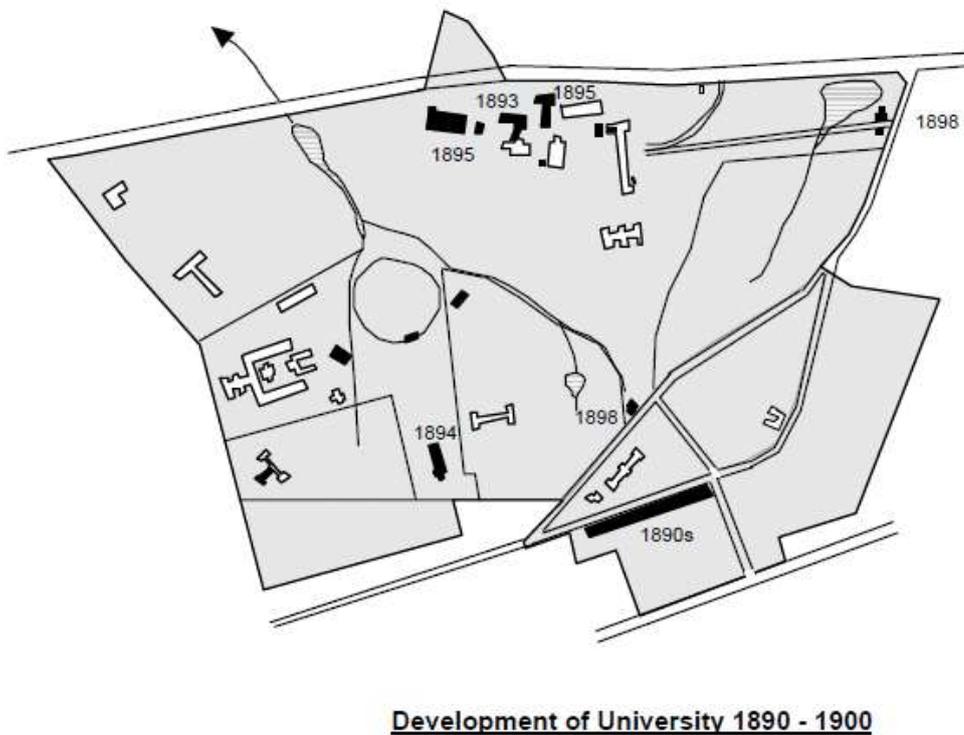
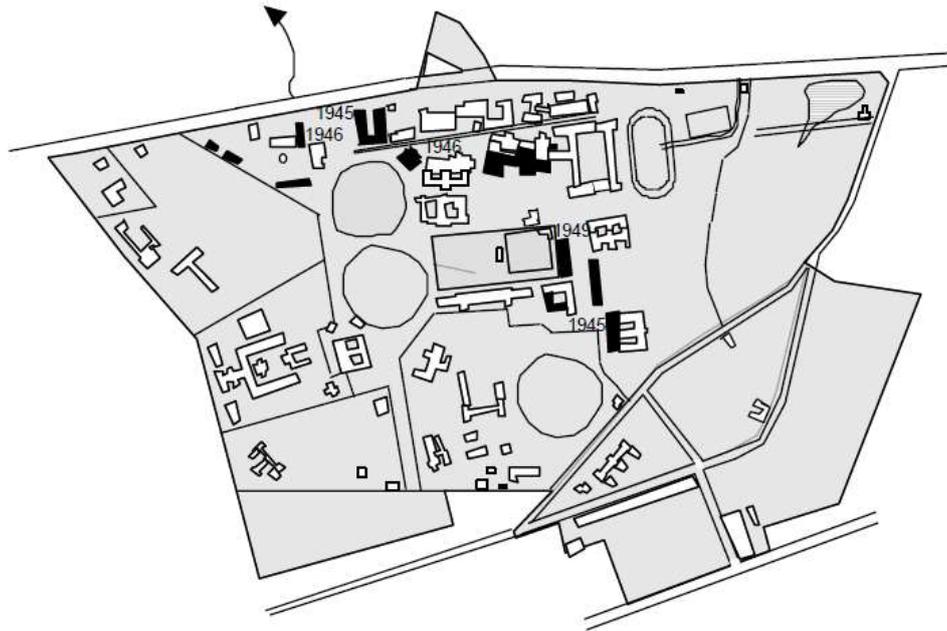
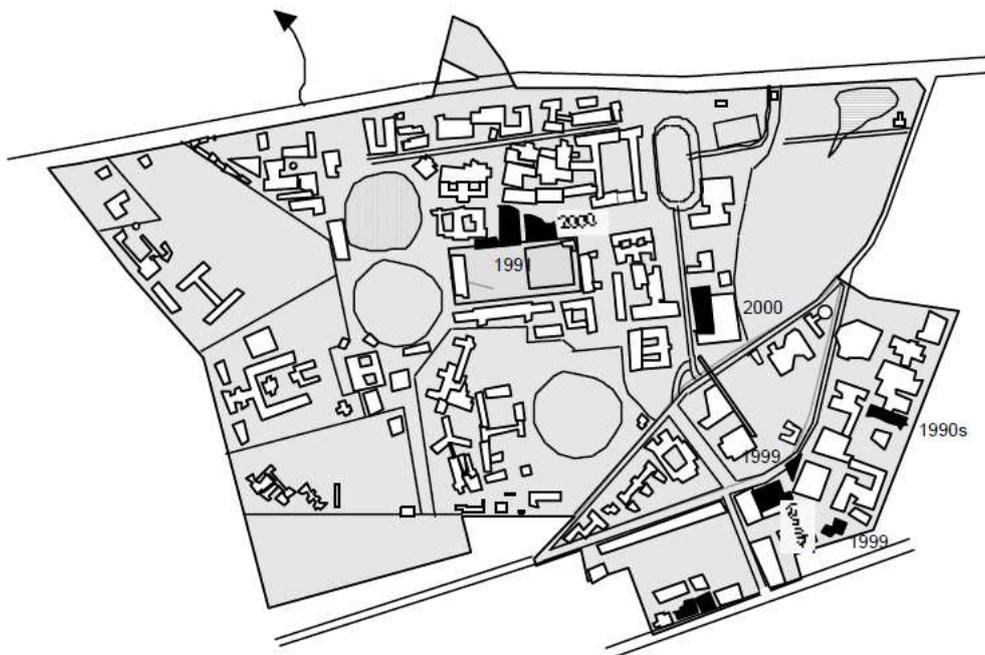


Figure 10. *Development of the university 1890-1900 showing construction of university buildings (Source: University of Sydney Grounds Conservation Plan Section 2.2).*



Development of University 1941-1950

Figure 11. *Development of the university 1941-1950 showing further construction of university buildings and modification of Orphan School Creek (Source: University of Sydney Grounds Conservation Plan Section 2.2).*



Development of University 1990-2000

Figure 12. *Development of the the university 1990-2000 (Source: University of Sydney Grounds Conservation Plan Section 2.2).*



Figure 13. 'Sydney from Parramatta Road' 1829 (Source: nla.pic-an6065583-v).



Figure 14. Site of the new University by James Glen Wilson, 1854 (Source: State Library of New South Wales a1528379/V/177).



Figure 15. *Horsedrawn omnibuses, cnr Parramatta Rd and Bay St with Sydney University on the skyline 1870-1875 (Source: State Library of NSW Digital Order No a2825373).*



Figure 16. *Fishing in Victoria Park, with the Quad building located in the background 1930-1939. (Source: Mitchell Library/Hood/03139).*

5 ETHNOGRAPHIC BACKGROUND

5.1 A Further Approach to Ethnographic Research

To assist in the development of Aboriginal Cultural Heritage Assessments, AHMS has initiated a mapping project to explore early historical texts and diaries to identify spatial locations where Aboriginal activities were observed. The AHMS project 'Mapping Sydney's Aboriginal Past' provides a spatial understanding of Aboriginal activity around the point of contact. It consists of an interactive map, a searchable database of site-specific ethnographic evidence, and a range of other tools which bring a spatial perspective to the primary sources (**Figures 17** and **18**).

The database was created by systematically reviewing the early primary sources for the Sydney region and plotting any site-specific ethnographic evidence on an interactive map. The area of study extended from the Hunter River in the north to Jervis Bay in the south, and as far west as the Lachlan River. The sources consulted ranged from James Cook's visit to Botany Bay in 1770 through to Missionary James Backhouse's visit to the colony in 1835-1837. In total, this project reviewed over fifty primary sources, including all major First Fleet journals and all relevant volumes of the Historical Records of Australia.

The criteria for adding information to the database was threefold. It needed to:

- be from a primary source;
- contain evidence of Aboriginal activity; and
- be able to be pinned down to a specific point or a small area on a map.

Each entry was recorded using the same structure, including a quick summary remark, key words, location information, quotes and references, and additional details and interpretation.

The survey produced over two hundred and seventy plotted markers, with an average length of five hundred words per entry. These included seven Aboriginal tracks, covering a combined distance of over one hundred kilometres, and thirty-five historical paintings and engravings. The database also includes sixteen historical maps overlaid onto the Sydney area, archaeological site data, and the locations and 'boundaries' of particular 'tribes' and 'clans' as interpreted by Val Attenbrow (2010), Arthur Capell (1970), Joan Goodrum (in Mulvaney & Ross 1987), James Kohen (1993) and Anne Ross (1988).

database of site-specific ethnographic data as well as a range of other tools that can be used to bring a spatial perspective to the primary sources.

The findings from this project indicate that:

- In 1788 there were over 30 individual Aboriginal groups in the Sydney area. Each group had their own practices, dress, diets, dialects and country; these groups are known as clans. In addition to this, these clans identified with tribes based on broader cultural-linguistic groups.
- Clans consisted of between 30-50 people and lived within their own territory. They occasionally met with other clans to fight, hunt, trade, resolve disputes, arrange marriages, conduct ceremonies and share information.
- Clans located along the coast made extensive use of the sea as their major resource harvesting shellfish from the shore and fishing. Botany Bay was a focal point for this type of activity with the highest density of plotted ethnographic sources in the Sydney Basin coming from this location.
- Clans located inland also fished in lagoons for mullet and eels; however their main resource came from yams and worms which were taken from the river banks and river driftwood.
- Fire was another resource used extensively by Aboriginal people in a range of contexts including to treat wood, melt resin and crack stone for tools; to drive animals into the paths of hunters and then to cook the kill; to keep warm at night and as a torch for the next day; and to open paths and clean country.
- The landscape of the Sydney Basin is criss-crossed with Aboriginal paths connecting the various communities; many of these paths were to become roads.
- It was on these paths that the smallpox virus was transported throughout the Sydney Basin area in 1789. This outbreak decimated the Aboriginal population causing major reorganisation of the traditional clans.

5.3 Local Aboriginal History

The subject area lies within the traditional country of the Darug language group of Aboriginal people. The Cumberland subregion of the Sydney Basin Bioregion is thought to be largely consistent with the territory of the Darug people (Brown 2010; Attenbrow 2010).

The Cumberland Plain provided a range of resources through its woodland, freshwater creeks (e.g. South Creek and Eastern Creek), wetlands and rivers. David Collins commented on the different foraging strategies adopted by people identifying as separate cultural groups to coastal groups during the early years of European settlement (Collins 1798, Vol 1, Appendix IV):

The natives who live in the woods and on the margins of rivers are compelled to seek a different subsistence [to those on the coast], and are driven to a harder exercise of their abilities to procure it. This is evinced in the hazard and toll with which they ascend the tallest trees after the opossum and flying squirrel [gliders]. At the foot of Richmond Hill, I once found several places constructed expressly for the purpose of ensnaring animals or birds.

...By the sides of lagoons I have met with holes which, on examining, were found excavated for some space, and their mouths so covered over with grass, that a bird or beast stepping on it would inevitably fall in, and from its depth be unable to escape.

In an excursion to the Hawkesbury, we fell in with a native and his child on the banks of one of the creeks of that noble river. We had Cole-be with us [a Cadigal clansman from the coastal sandstone country of Sydney's east], who endeavoured, but in vain, to bring him to a conference; he launched his canoe, and got away as expeditiously as he could, leaving behind him a specimen of his food and the delicacy of his stomach; a piece of water-soaked wood (part of the branch of a tree) full of holes, the lodgement of a large worm, named by them cah-bro [cobra or Teredo spp.; a type of burrowing mollusc known as shipworm]

...They resort at a certain season of the year (the month of April) to the lagoons, where they subsist on eels which they procure by laying hollow pieces of timber into the water, into which the eels creep, and are easily taken.

These wood natives also make a paste formed of the fern-root and the large and small ant bruised together; in the season they also add the eggs of this insect.

The Darug language group or tribe covers a large area and as such local knowledge was held and transmitted by separate clan groups. A review of historical documents presented by Attenbrow (2010), Kohen (1993) and Goodrum (1987), indicates that the *Warrawarry* were active within the study area.

A search of AHMS' ethnographic database reveals no specific observations within the University of Sydney grounds. However, the relationship between the creeks that ran through the university and their terminations at Blackwattle Bay (1.2km away) and Port Jackson (approximately 3km away) demonstrates the dynamic landscape in which the university forms a part. The database showed three ceremonial areas and one incidence of violence directed at European settlers/convicts from Aboriginal people (**Figure 17**). These are described below.

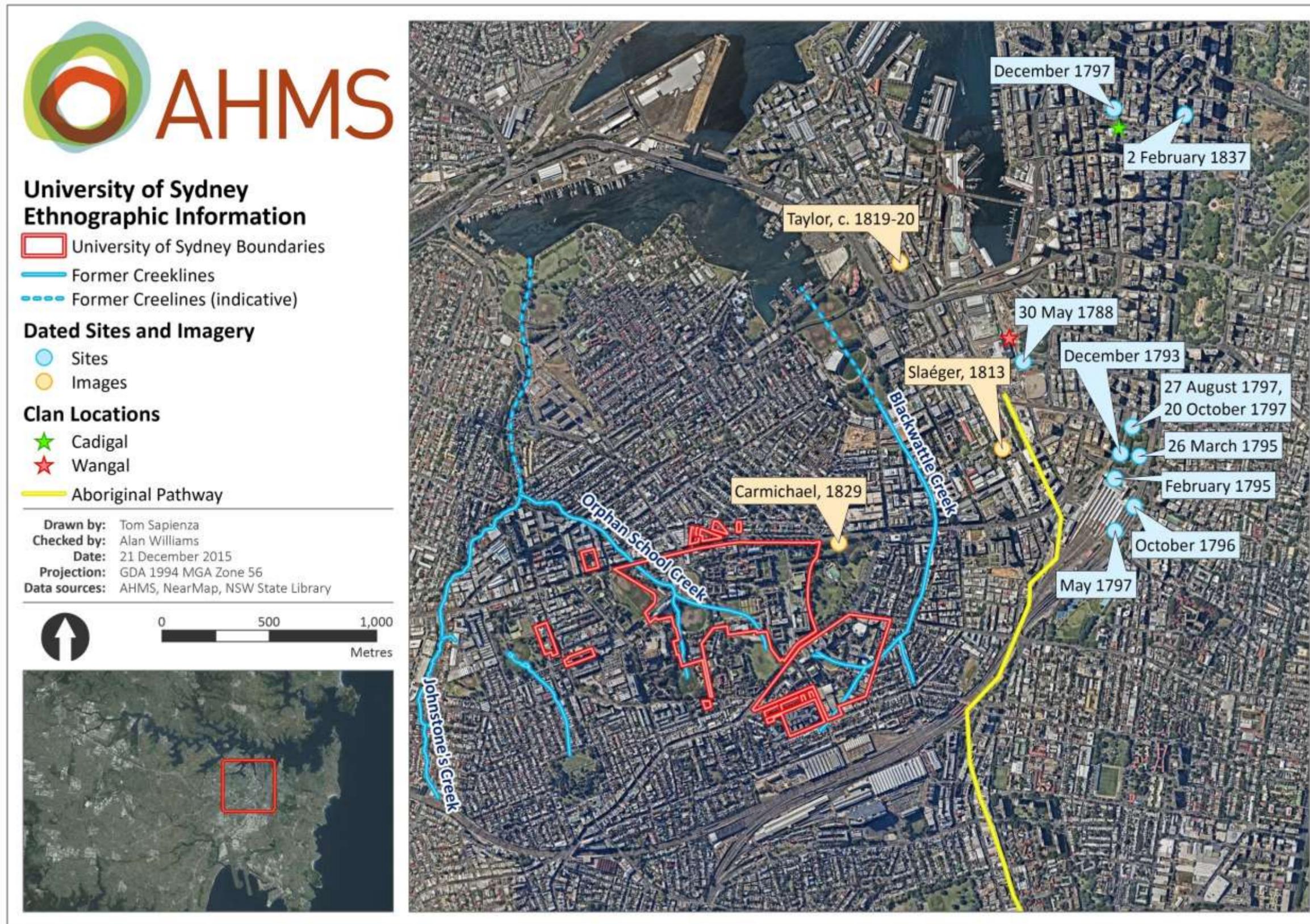


Figure 19. Search of the AHMS ethnographic database for the subject area.

Date: **30 May 1788**

Summary: Killing of convicts Samuel Davis and William Okey

Keywords: spearing; canoe property; axe

Location: 33°52'38.70"S, 151°12'7.38"E

Accuracy: Within 500 metres

Source: Arthur Phillip to Lord Sydney, 9 July 1788, Historical Records of Australia, Series 1, Volume 1 (Sydney: William Applegate Guillick, Government Printer, 1914); David Collins, An Account of the English Colony in New South Wales, Volume 1 (London: T. Cadell Jun. and W. Davies, 1798), Chapter III; William Bradley, A Voyage to New South Wales, December 1786 - May 1792: The Journal of Lieutenant William Bradley of HMS Sirius (Sydney: Ure Smith Pty Limited, 1969), 30 May 1788; John White, Journal of a Voyage to New South Wales (London: J. Debrett, 1790), 30 May 1788; Newton Fowell, The Sirius letters: the complete letters of Newton Fowell, midshipman & lieutenant aboard the Sirius flagship of the first fleet on its voyage to New South Wales, edited & with commentary by Nance Irvine (Sydney: Fairfax Library, 1988), 30 May 1788, Letter 10. Sydney Cove in Port Jackson July 12. 1788; John Campbell, Letter to Lord Ducie, 12 July 1788, Sydney, Mitchell Library, Manuscript, MLMSS 5366 (Safe 1 / 123).

Quotes: Phillip to Sydney, 9 July 1788: The 30th of May two men [Samuel Davis and William Okey] employed collecting thatch at some distance from the camp were found dead; one of them had four spears in him, one of which had passed through his body; the other was found at some distance dead, but without any apparent injury. This was a very unfortunate circumstance, and the more, as it will be impossible to discover the people who committed the murder, and I am still persuaded the natives were not the aggressors. These men had been seen with one of their canoes, but I was not informed of that circumstance for some days.

Collins: On the 30th an officer, who had been collecting rushes in a cove up the harbour, found and brought to the hospital the bodies of two convicts who had been employed for some time in cutting rushes there, pierced through in many places with spears, and the head of one beaten to a jelly. As it was improbable that these murders should be committed without provocation, inquiry was made, and it appeared that these unfortunate men had, a few days previous to their being found, taken away and detained a canoe belonging to the natives, for which act of violence and injustice they paid with their lives. Notwithstanding these circumstances, a party of natives in their canoes went alongside the Sirius, and some submitted to the operation of shaving: after which they landed on the western point of the cove, where they examined everything they saw with the greatest attention, and went away peaceably, and apparently were not under any apprehension of resentment on our parts for the murders abovementioned.

Bradley: Capn Campbell going to the SW arm with Boats to bring down rushes for thatching his House, on landing at the place where two Convicts had been left with a tent for the purpose of cutting those rushes, he found the Tent but not the Men, finding some blood near the Tent the followed it to the Mangrove bushes where they found both Men dead & laying at some distance from each other; One of them had 3 Spears in him & one side of his head beat in: The other Man had no apparent wound but a blow on the fore head.

White: 30th May. Captain Campbell of the marines, who had been up the harbour to procure some rushes for thatch, brought to the hospital the bodies of William Okey and Samuel Davis, two rush-cutters, whom he had found murdered by the natives in a shocking manner. Okey was transfixed through the breast with one of their spears, which with great difficulty and force was pulled out. He had two other spears sticking in him to a depth which must have proved mortal. His skull was divided and comminuted so much that his brains easily found a passage through. His eyes were out, but

these might have been picked away by birds. Davis was a youth, and had only some trifling marks of violence about him. This lad could not have been many hours dead, for when Captain Campbell found him, which was among some mangrove-trees, and at a considerable distance from the place where the other man lay, he was not stiff nor very cold; nor was he perfectly so when brought to the hospital. From these circumstances we have been led to think that while they were dispatching Okey he had crept to the trees among which he was found, and that fear, united with the cold and wet, in a great degree contributed to his death. What was the motive or cause of this melancholy catastrophe we have not been able to discover, but from the civility shewn on all occasions to the officers by the natives, whenever any of them were met, I am strongly inclined to think that they must have been provoked and injured by the convicts

Fowell: 30th. Three Natives came alongside in their Canoes & Stayed near two hours they were very much Surprized at the Ships head which is an Image. In the Afternoon two Convicts who were sent to cut rushes were found murdered by the Natives who had thrown Several Spears in them one of them had a large piece of Scull cut out of his forehead Supposed to have been done with an Axe which they carried with them to build a Hutt.

Campbell: I stumbled upon the bodies of two of our Convicts who had been sent out by the Govr to cut Rushes. I never saw a more shocking sight - the skulls of both were fractured, one quite open with no less than seven Spears through the body.

Details: This retribution followed the killing of a Aboriginal man in a canoe near the farm of marine commander Major Robert Ross.

Interpretation: The scene of attack was probably near the head of Cockle Bay, not, as traditionally supposed, at Rushcutters Bay. This is suggested by the phrase 'up the harbour' used by Worgan and supported by the route of the punitive expedition.

Date: 31 May 1788

Summary: Aboriginal track

Location: Leading away from Cockle Bay and the site where convicts Samuel Davis and William Okey were killed.

Sources: William Bradley, *A Voyage to New South Wales, December 1786 - May 1792: The Journal of Lieutenant William Bradley of HMS Sirius* (Sydney: Ure Smith Pty Limited, 1969), 31 May 1788; Watkin Tench, *A Narrative of the Expedition to Botany Bay* (London: Prepared J. Debrett, 1789), Chapter IX, January-February 1788; David Collins, *An Account of the English Colony in New South Wales, Volume 1* (London: T. Cadell Jun. and W. Davies, 1798), Chapter VI; John Hunter, *An Historical Journal of the Transactions at Port Jackson and Norfolk Island* (London: Printed for John Stockdale, 1793), September 1789.

Quotes: Bradley: Saturday. 31 May 1788: The Governor with a party went to the place where the two Men had been killed by the Natives, the boat returned leaving them in a Natives path which they meant to follow until they met with the Natives.

Sunday. 1st June. The Governor & party return'd by land to Sydney Cove: He had followed the path to the NW arm of Botany Bay, met with a party of Armed Natives of 210; The Governor & one of their principal people, met unarmed, one of the Natives advanced to shew a wound which he had received in the shoulder apparently with an Axe; they were all friendly, the Women shew'd every disposition to be very familiar; a quantity of dried fish was found among these people & bones which from the size were supposed to belong to the Kangaroo. Orders were this day given, that no party under 6 armed Men were to go into the woods on account of the Natives being so numerous.

Tench, February 1788: In spite, however, of all our precautions, they soon found the road to Botany Bay, in visits to the French, who would gladly have dispensed with their company.

Collins, March 1789: Immediately on this being known in the settlement, an armed party was sent out with an officer, who found the body of the man that had been killed, stripped, and lying in the path to Botany Bay.

Hunter, September 1789: this route being now well known, and the path well trodden, it was not an unpleasant walk.

Other: This route is marked in as a path on Charles Grimes' map 'A topographical plan of the settlements of New South Wales, including Port Jackson, Botany Bay and Broken Bay', 1799. MAP RM 711. See also Paul Carter, *The Road to Botany Bay* (London: Faber and Faber Ltd, 1987).

Date: **December 1793**

Summary: Description of ceremonial site

Key words: ceremonial site; rites; performance; Cammerray; Carradah; Midjer Bool;

Location: 33°52'52.87"S, 151°12'24.73"E

Accuracy: Within 1km - a clear spot between the town and the brickfield

Source: David Collins, *An Account of the English Colony in New South Wales, Volume 1* (London- T. Cadell Jun. and W. Davies, 1798), December 1793.

Quotes: The natives who lived about Sydney appeared to place the utmost confidence in us, choosing a clear spot between the town and the brickfield for the performance of any of their rites and ceremonies; and for three evenings the town had been amused with one of their spectacles, which might properly have been denominated a tragedy, for it was attended with a great effusion of blood. It appeared from the best account we could procure, that one or more murders having been committed in the night, the assassins, who were immediately known, were compelled, according to the custom of the country, to meet the relations of the deceased, who were to avenge their deaths by throwing spears, and drawing blood for blood. One native of the tribe of Cammerray, a very fine fellow named Carradah*, who had stabbed another in the night, but not mortally, was obliged to stand for two evenings exposed to the spears not only of the man whom he had wounded, but of several other natives. He was suffered indeed to cover himself with a bark shield, and behaved with the greatest courage and resolution. Whether his principal adversary (the wounded man) found that he possessed too much defensive skill to admit of his wounding him, or whether it was a necessary part of his punishment, was not known with any certainty; but on the second day that Carradah had been opposed to him and his party, after having received several of their spears on his shield, without sustaining any injury, he suffered the other to pin his left arm (below the elbow) to his side, without making any resistance; prevented, perhaps, by the uplifted spears of the other natives, who could easily have destroyed him, by throwing at him in different directions. Carradah stood, for some time after this, defending himself, although wounded in the arm which held the shield, until his adversaries had not a whole spear left, and had retired to collect the fragments and piece them together. On his sitting down his left hand appeared to be very much convulsed, and Mr. White was of opinion that the spear had pierced one of the nerves. The business was resumed when they had repaired their weapons, and the fray appeared to be general, men, women, and children mingling in it, giving and receiving many severe wounds, before night put an end to their warfare.

What rendered this sort of contest as unaccountable as it was extraordinary was, that friendship and alliance were known to subsist between several that were opposed to each other, who fought with all

the ardour of the bitterest enemies, and who, though wounded, pronounced the party by whom they had been hurt to be good and brave, and their friends. Possessing by nature a good habit of body, the combatants very soon recovered of their wounds; and it was understood, that Carradah, or rather Midjer Bool, had not entirely expiated his offence, having yet another trial to undergo from some natives who had been prevented by absence from joining in the ceremonies of that evening.

[* So he was called among his own people before he knew us; but having exchanged names with Mr. Ball (who commanded the Supply) he went afterwards by that name, which they had corrupted into Midjer Bool.]

Details:

Interpretation: Collins records in December 1793 that some Aboriginal people had chosen 'a clear spot between the town and the brickfield for the performance of any of their rites and ceremonies'. This ground continued to be used as a ceremonial site and as 'a place whence they [Aboriginal people] derived so many comforts, and so much shelter in bad weather'. (Collins, October 1796)

Other: In April 1794, Midjer Bool (Carradah) is killed and his body cremated. Collins, Vol 1, April 1794: At Sydney a large party of natives assembled for the purpose of burning the body of Carradah, the native mentioned in the transactions of the month of December last, by the name of Midjer Bool. He had been put to death while asleep in the night by some people who were inimical to his tribe; and the natives who witnessed the performance of the last rite assured us, that when the murderers should be discovered several severe contests would ensue.

Date: **February 1795**

Summary: Contest/trial

Key words: Gòme-boak; contest; ceremonial site; fight

Location: 33°52'56.65"S, 151°12'23.63"E

Accuracy: Within 1km - near the brick-fields

Source: David Collins, *An Account of the English Colony in New South Wales, Volume 1* (London- T. Cadell Jun. and W. Davies, 1798), February 1795.

Quotes: About the latter end of the month the natives adjusted some affairs of honour in a convenient spot near the brick-fields. The people who live about the south shore of Botany Bay brought with them a stranger of an extraordinary appearance and character; even his name had something extraordinary in the sound — Gòme-boak. He had been several days on his journey from the place where he lived, which was far to the southward. In height he was not more than five feet two or three inches; but he was by far the most muscular, square, and well-formed native we had ever seen. He fought well; his spears were remarkably long, and he defended himself with a shield that covered his whole body. We had the satisfaction of seeing him engaged with some of our Sydney friends, and of observing that neither their persons nor reputations suffered any thing in the contest. When the fight was over, on our praising to them the martial talents of this stranger, the strength and muscle of his arm, and the excellence of his sight, they admitted the praise to be just (because when opposed to them he had not gained the slightest advantage); but, unwilling that we should think too highly of him, they assured us, with horror in their countenances, that Gòme-boak was a cannibal.

Details:

Interpretation: Collins records in December 1793 that some Aboriginal people had chosen 'a clear spot between the town and the brickfield for the performance of any of their rites and ceremonies'. This ground continued to be used as a ceremonial site and as 'a place whence they [Aboriginal people] derived so many comforts, and so much shelter in bad weather'. (Collins, October 1796)

Date: **October 1796**

Summary: Description of well-used Aboriginal site

Key words: Bennelong; killing; gathering; shelter in bad weather; comforts; significant site

Location: 33°53'0.91"S, 151°12'27.03"E

Accuracy: within 1 km - 'the brickfields'

Source: David Collins, *An Account of the English Colony in New South Wales From Its First Settlement, in January 1788, to August 1801, Volume 2* (London: T. Cadell Jun. and W. Davies, 1802), Chapter I, October 1796.

Quotes: In the course of this month, Bennillong, who had returned to all the habits of savage life, claimed the protection of the governor from the menaces of several of his countrymen, who, he with much agitation informed him, had assembled in a considerable body near the Brickfields [adjacent to the town of Sydney.], to lie in wait for him; and where, if possible, they intended to kill him; he having, as they suspected, killed a man near Botany Bay. This he positively denied having done, and the governor dispatched him to the place, guarded by some of the military, where he explained to his countrymen that he had not killed the man in question, or any man; and that the soldiers were sent with him, to convince them that the governor would not suffer him, his old friend and fellow voyager (it must be remembered that Bennillong returned from England with the governor in His Majesty's ship *Reliance*), to be ill treated by them on any false pretence; and that he was determined to drive every native away from Sydney who should attempt it. This threat had a good effect. Many of them were much alarmed when they saw in what manner and by whom Bennillong was attended; and to be driven from a place whence they derived so many comforts, and so much shelter in bad weather, would have been severely felt by most of them.

Details:

Interpretation: Collins records in December 1793 that some Aboriginal people had chosen 'a clear spot between the town and the brickfield for the performance of any of their rites and ceremonies'. This ground continued to be used as a ceremonial site and as 'a place whence they [Aboriginal people] derived so many comforts, and so much shelter in bad weather'. (Collins, October 1796)
Other:

Date: **27 August 1797, 20 October 1797**

Summary: Aboriginal trial/contest.

Key words: trial; contest; spear; shield; Bennelong; ceremonial site

Location: 33°52'48.85"S, 151°12'26.95"E

Accuracy: Presumed to have taken place at the ceremonial site near the brickfields

Source: David Collins, *An Account of the English Colony in New South Wales From Its First Settlement, in January 1788, to August 1801, Volume 2* (London: T. Cadell Jun. and W. Davies, 1802), August, October 1797.

Quote: August) No circumstance deserving of attention had occurred for some time among the natives. On the 27th of this month, however, one of their young men stood the trial practised by his countrymen, for having, as it was said, killed some person in a quarrel. He stood manfully up against all their spears, and defended himself with great skill and address. Having had two shields split in his hand, by the spear passing quite through them, his friends, who were numerous, attacked his opponents, whom they disarmed, and broke their shields, with many of their spears.

It had been intended to have thrown some spears at Bennillong at this time, from its having been reported that a woman, when she was dying, had declared she dreamed that Bennillong had killed her. Her friends, therefore, resolved to call him to an account, taking the business up on the supposition that the woman must have had some cause of complaint against him, or she would not have dreamed of his doing her an injury. To this accusation Bennillong pleaded not guilty, declaring that he was an entire stranger to the woman, and had never in his life offended her; but there were some who said that he actually wounded this very woman, and had been the cause of her death.

On the 20th of October, the settlement were spectators of a severe contest which took place between two parties of natives; one of which was desirous of revenging the death of a friend, who had been killed by some native of a part of the country from which a young man had just then accidentally come amongst them. He was therefore immediately devoted to their vengeance. Finding their determination, he most gallantly stood up, and, being attacked by numbers, defended himself with the greatest bravery and address, until, being wounded in several places, he fell. As he lay upon the ground, several of his opponents treacherously rushed in upon him, and stabbed him repeatedly with a pointed stick, which they call a Doo-ul. In this situation he endeavoured to cover himself with his shield, on which, having risen from the ground, and being again attacked, he received their spears for some time with great dexterity, until someone, less brave and more treacherous than the rest, took a station unobserved on one side, and launched a spear, which went into his back and there remained. Seeing this, they were proceeding a second time to rush in upon him, when he had just strength enough left to make his escape into an adjoining house, where he received shelter, and from the severity of his wounds immediately fainted. The spear was withdrawn, and his wounds dressed, by one of the surgeons who happened to be present; and in a few days he was able to walk about again. His brother, who had accompanied him to the field of battle, stood up in his defence, and was wounded in the leg and thigh. The principal sufferer in this affair was known in the settlement by the name of William and Ann (corrupted by their pronunciation to Wil-lam-an-nan) which he had adopted from a ship of the same name that arrived here in the year 1791. Several of their women attended upon this occasion, and, as is common with them, howled and cried alternately during the most of the time; but when they were enraged, which often happened, they danced, and beat their sides with their arms; a certain proof of their passions being wrought up to the highest pitch.

5.4 Recent Aboriginal History

In recent times the University of Sydney has continued to play a role in the unfolding Aboriginal history of NSW, including the Sydney University's Women's Society and Freedom Ride.

5.4.1 The Settlement

Originally formed as the Sydney University Women's Society, it was established in 1891 with the object of assisting "anyone requiring and deserving help". It was later re-named Sydney University Settlement Neighbourhood Centre, and it now works primarily with the Aboriginal community and other disadvantaged groups in Chippendale, Redfern, Darlington and Waterloo.

The University Settlement purchased a property at Chippendale with the financial assistance of Dorette (Dorothea) Margarethe Maccallum. This property has played an important historical role in the local community including the Aboriginal community of Chippendale/Redfern.

5.4.2 Student Action for Aborigines

In 1965, thirty Sydney University students, led by Aboriginal activist Charles Perkins, began a 3,200 km 'Freedom Ride' to expose discrimination in rural New South Wales.

The original Freedom Riders included: Charles Perkins, Gary Williams, Aidan Foy, Alan Outhred, Alex Mills, Ann Curthoys, Barry Corr, Beth Hansen, Bob Gallagher, Brian Aarons, Chris Page, Colin Bradford, Darce Cassidy, David Pepper, Derek Molloy, Hall Greenland, Helen Gray, Jim Spigelman, John Butterworth, John Gowdie, John Powles, Judith Rich, Louise Higham, Machteld Hali, Norm Mackay, Paddy Dawson, Pat Healy, Ray Leppik, Rick Collins, Robyn Iredale, Sue Johnston, Sue Reeves, Warwick Richards and Wendy Golding. Most of these were students at the University of Sydney. They were joined by numerous Aboriginal communities and also both national and international sympathizers who helped further their cause, eventually cumulating in the 1967 referendum.

The Freedom Ride was organised by a group of students at the university i.e Student Action for Aborigines (SAFA). The aims of the SAFA were:

- *To arouse to public attention the fundamental Aboriginal problems in health, education and housing, etc.*
- *To break down social discriminatory barriers to the extent possible by student action.*
- *To stimulate the interest of the Aborigines themselves in resisting discrimination.*¹

This event became an iconic moment in recent Aboriginal history. While not particularly associated with particular places within the university the event remains a lasting memory in the history of the university.

¹ Federal Council for Advancement of Aborigines and Torres Strait Islanders: report and resolutions of the 8th Annual Conference on Aboriginal Affairs, Canberra 16th -18th April 1965

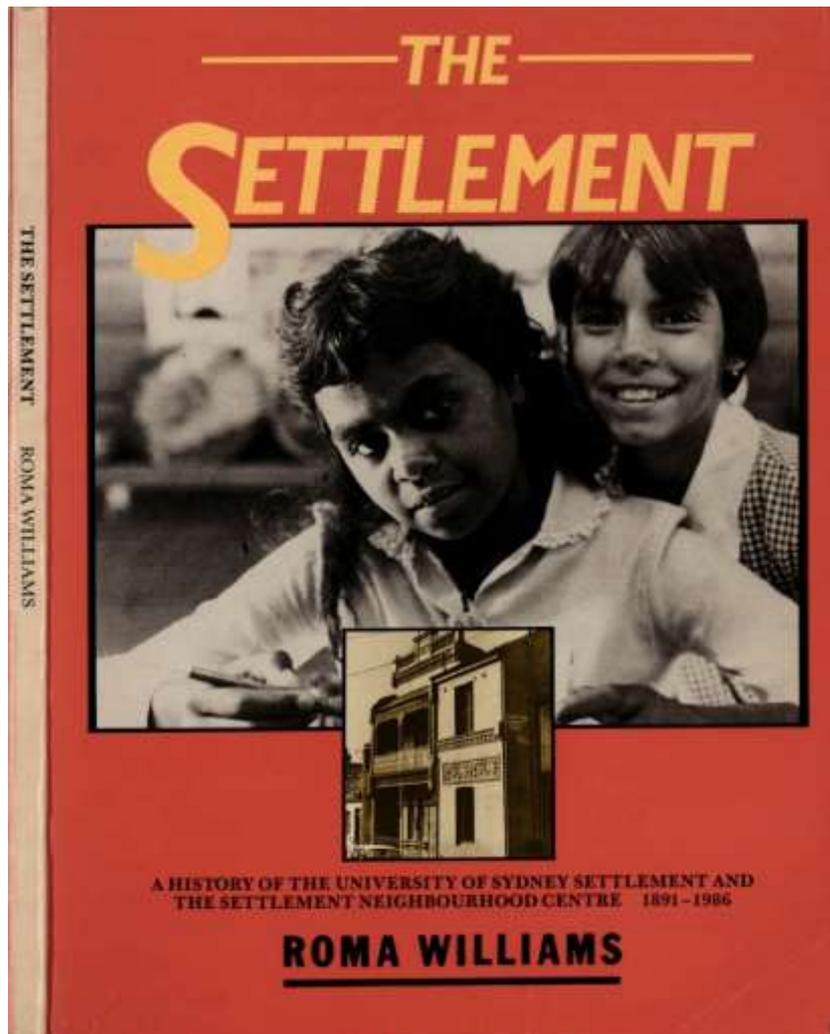


Figure 20. Cover of Roma Williams' *A History of the Sydney University Settlement, 1891 - 1986*.

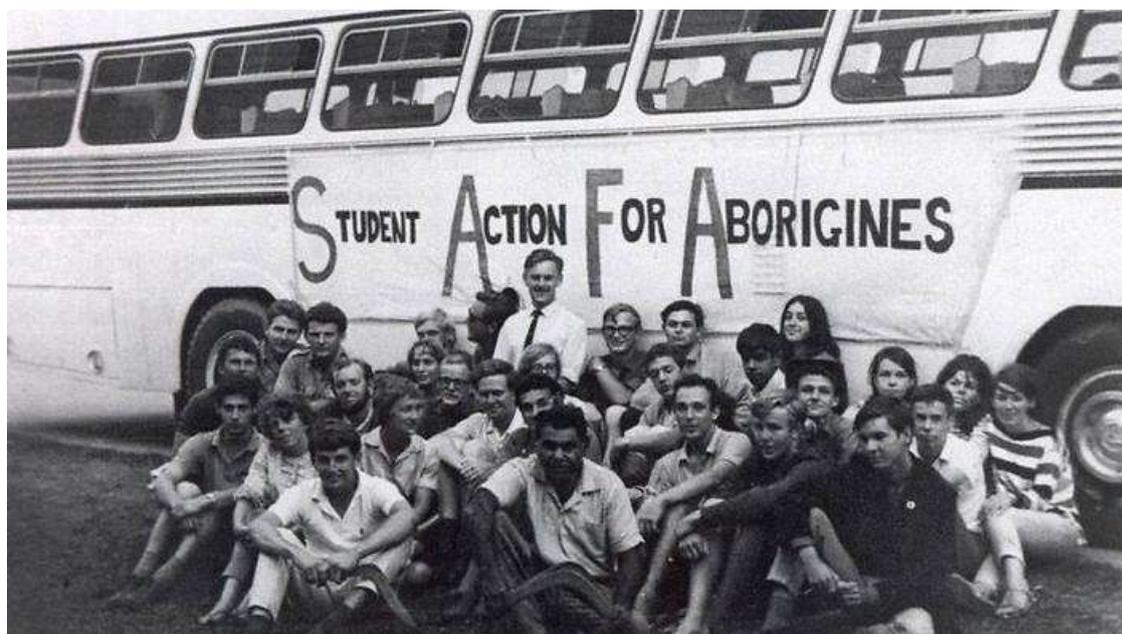


Figure 21. *The Freedom Ride* (this photo is an oft reproduced copy of an original image by Wendy Watson -Ekstein (nee Golding)).

6 ARCHAEOLOGICAL CONTEXT

Archaeological context is established by examining local and regional trends in the distribution and character of known sites in relation to environment and topography. This, in turn, can indicate the occupational history of the area, trends in the nature and survivability of the archaeological record, and patterns of site distribution across the region.

6.1 Regional Context

The University of Sydney is located within the Cumberland subregion of the Sydney Basin bioregion, as discussed in **Section 4.1**. More than 7000 sites have been recorded on the OEH Aboriginal Heritage Information Management System (AHIMS) database for the Cumberland subregion. The majority of these sites are artefacts (open camp sites or isolated finds) (n=3,756 or 54%) followed by Potential Archaeological Deposits (PADs) (n=1,212 or 17%), grinding grooves (n=936 or 13%) and other undefined site types, including quarries, non-human bone or organic material, shell, and waterholes (n=1,056 or 15%). These findings are similar to the frequency of site types recorded for the broader Sydney region (Attenbrow 2010:48-49). An absence of rockshelters in this region can be accounted for by the underlying geology of the area, which lacks sandstone escarpments and outcrops.

A study of the regional archaeology of the Cumberland Plain by Kohen (1986a) made a number of findings about site location patterns in the Sydney area. The study demonstrated that proximity to water was an important factor in site patterning. Kohen found that 65% of open artefact scatter sites were located within 100 metres of permanent fresh water. Only 8 per cent of sites were found more than 500 metres away from permanent fresh water. It was argued that open artefact scatters are likely to be larger, more complex and more densely clustered along permanent watercourses. Kohen's study also found that silcrete (51%) and chert (34%) are the most common raw materials used to manufacture stone artefacts. Other raw materials include quartz, basalt and quartzite.

Although the patterns described above have been generally supported by subsequent investigations, Kohen's study was limited by a reliance on surface evidence. Extensive excavation across the Cumberland Plain has since shown that areas with no surface evidence often contain sub-surface archaeological deposits buried beneath the current ground surfaces. This is a critical consideration in aggrading soil landscapes, such as those commonly found across the Cumberland Plain and within the subject area. In a 1997 study of the Cumberland Plain, McDonald found that 17 out of 61 excavated sites had no surface artefacts identified before excavation, and that the ratio of recorded surface to excavated material was 1:25. The character and composition of the excavated sites in McDonald's study could not be predicted on the basis of the surface evidence (JMcDCHM 1997). In short, surface evidence (or the absence of surface evidence) does not necessarily indicate the potential, nature or density of sub-surface material.

The results of the JMcDCHM study clearly highlight the limitations of surface survey in identifying archaeological deposits in this landscape. The study also shows the importance of test excavation in establishing the nature and density of archaeological material on the Cumberland Plain.

McDonald has undertaken over 20 years of consulting archaeology in the Cumberland Plain, and, like Kohen, has developed a predictive model for the distribution of Aboriginal objects. In a recent publication, White and McDonald (2010) summarised this model as follows:

Topographic and stream order variables correlate with artefact density and distribution. High artefact density concentrations may have resulted from large number of artefact discard activities and/or from intensive stone flaking. Highest artefact densities occur on terraces and lower slopes associated with 4th and 2nd order streams, especially 50–100 metres from 4th

order streams. Upper slopes have sparse discontinuous artefact distributions but artefacts are still found in these landscape settings.

6.2 Archaeological Studies in Urban Contexts

A limited number of Aboriginal sites have been identified and recorded in urban Sydney contexts. Recorded site types include open campsites, middens, rock engravings, rock shelters and historic burials.

Known Aboriginal sites within the Sydney CBD include:

- Dawes Point Park - Rock Engraving;
- Moores Wharf - Open Camp Site;
- Goat Island - Midden/Open Camp Site;
- Bennelong Point – Middens;
- Lilyvale – Middens;
- MSB Tower - Rock Engraving;
- Goat Island Cave - Shelter with Midden;
- First Government House - Burials/Historic Place;
- Goat Island - Midden/Shelter with Deposit;
- Angel Place - Open Camp Site;
- Broadway 1 - Open Camp Site;
- KENS (Kent, Erskine, Napoleon and Sussex Streets) Site Sydney – Open Camp Site;
- William Street – Open Camp Site.

A source of silcrete, a type of stone commonly used by Aboriginal people to manufacture stone implements, is known to occur in Newtown. This indicates that good quality workable stone was locally available to Aboriginal people in the past.

The limited number of recorded sites within the Sydney CBD area is directly related to the long and intensive history of development. More than 200 years of European development has destroyed the majority of Aboriginal sites that would have originally existed along the shores of Sydney Harbour and its associated streams and bays. Of particular note was the early colonial practice of excavating Aboriginal shell middens to extract shells for lime burning for use in the production of mortar.

The majority of Aboriginal sites identified within the Sydney CBD were recorded during the course of historical archaeological excavations associated with development projects. Aboriginal sites and objects were identified in pockets of remnant topsoil either beneath or between historical archaeological contexts.

The 1997 excavations at Angel Place, along the margins of the former Tank Stream, are an excellent case in point. During an historical archaeological investigation, 54 Aboriginal artefacts were recovered

from remnant topsoils immediately below the earliest historical levels on site (Steele & Barton, 1998). The results from Angel Place demonstrated that even in areas of earliest European settlement, Aboriginal objects and sites may still survive, buried at depth within remnant soils. Although the evidence from Angel Place was recovered from isolated pockets of surviving remnant soils, the range of artefact types (core reduction, small flakes and heat affected debitage) and raw materials (silcrete, indurated mudstone and chert) suggests the site was originally a continuous complex occupation site along the margins of the Tank Stream.

Other excavations within the Sydney CBD, such as those at William Street (Baker 2003), the KENS site (Steele & Czastka, 2005) and the Quadrant development on Broadway (Steele & Czastka, 2003) provide context for the current archaeological assessment. Of these, the Quadrant site is in the closest proximity to the subject area. Excavation of a discrete pocket of remnant A-horizon topsoil was undertaken as part of the investigation prior to development of the site. This excavation revealed 20 un-diagnostic Aboriginal flaked stone artefacts (Steele & Czastka, 2003). The presence of such artefacts is physical evidence of Aboriginal occupation in the local area.

Excavation at Shea's Creek, now Alexandra Canal, in the 1890s, revealed the presence of two shell horizons. Archaeological evidence in these horizons included stone axes and butchered bone. The finds were made in two locations, 232 and 824m to the north of Ricketty Street, Alexandria (Attenbrow 1984). A sample of the bone was later dated to $5,520 \pm 70$ BP (conventional age) (McDonald, 2005).

Previous archaeological investigations clearly indicate the potential for Aboriginal cultural material to survive within deposits underlying buildings and below filled ground in the Sydney CBD. Evidence of Aboriginal occupation prior to the arrival of European people clearly exists on some urban sites, where remnant portions of the original soil profile still exist.

6.3 Local Archaeological Studies

A number of archaeological investigations have been previously undertaken in the vicinity of the University of Sydney, including Attenbrow's (1990) report on the archaeology of Port Jackson, test excavation at Broadway by Dominic Steele (1997) and test excavations undertaken by Jo McDonald on the University's Camperdown and Darlington Campuses; (JMcDCHM 2005, 2006). The findings of key local archaeological studies registered with AHIMS are summarised below (see **Figure 22** for details).

6.3.1 Port Jackson Archaeological Project (Attenbrow 1990)

The aim of the Port Jackson Archaeological Project was to supplement early historic records of Aboriginal life in Sydney in the pre-contact (pre-1788), contact (1788) and post-contact (1788-1820) periods, through a series of detailed site recordings and archaeological excavations within the Port Jackson catchment (Attenbrow 2010:1-2). Surface evidence from middens indicated that the range and predominance of shellfish species varied, with rock platform and ocean species dominating midden assemblages near the mouth of Sydney Harbour. Middens further up the estuary contained fewer species and no ocean species (Attenbrow 1990:49). Evidence from some excavated sites suggested Aboriginal have been occupying the harbour foreshores and collecting shellfish for at least 4,500 years, and indicated a change in the predominance of particular shellfish species over time (Attenbrow 1990:61).

A total of 369 sites were identified; comprising 126 open middens, 203 middens in rockshelters, 6 open middens associated with small rockshelters, 27 deposits in rockshelters, and 7 open deposits (Attenbrow 1990:42). Attenbrow noted a range of factors which may affect site distribution patterns, including greater visibility of shell in estuarine zones (compared to stone artefacts), greater visibility of rockshelters and rock platforms on Hawkesbury sandstone compared to artefact bearing sediment on Wianamatta shales, and recording bias in estuarine and sandstone areas compared to the western

half of the Port Jackson catchment where development has been concentrated, including the southern side of Sydney Harbour and the Parramatta River (Attenbrow 1990:43-45).

6.3.2 Archaeological Investigation of the Grace Brothers Archaeological PAD, Broadway, Sydney. Test Excavation Report (Dominic Steele 1997)

Test excavation was carried out as part of the development of the Grace Brothers site, Broadway. No Aboriginal artefacts were recovered during works. The intensive use of the site since the 1840s had resulted in potential archaeological deposits being removed, extensively truncated and/or disturbed (Steele 1997: 14-15).

6.3.3 University of Sydney Grounds Conservation Plan (Pearson et al 2002)

In 2002, a heritage conservation plan was drawn up for the University of Sydney to document various aspects of heritage significance for the university grounds to allow for management policies to be established. In relation to this AHIA, the conservation plan documented archaeological evidence of the university grounds (Section 3.2 of the Conservation Plan) including Aboriginal archaeological potential. Inspection for the presence of Aboriginal stone artefacts was undertaken as part of the conservation plan which included assessing the following areas:

- St John's College Sports Ground in association with the former Orphan School Creek;
- Areas around University Ovals No 1 and 2;
- Areas adjacent to the boundary fence between the University grounds and Victoria Park; and
- Open areas around Old Darlington School.

These areas were chosen due to being open land located within close proximity to original water sources (Pearson et al 2002: 28). The conservation plan noted that no evidence remains of the original creeklines and swamps due to extensive disturbance. As a result the probability of finding Aboriginal artefacts/ sites was considered low. However, some undisturbed buried archaeological deposits were considered to exist within the university grounds. Areas noted as having potential for Aboriginal sites to be present included St John's College sports fields, the grounds of the former Darlington School and surrounding former residential area, areas between the footing of demolished and extant building of the Darlington campus, areas around the University ovals No.1 and 2. These areas that were identified as having archaeologically sensitivity were considered to have low archaeological significance due to being located in such a disturbed context (Pearson et al 2002:54).

Subsequent archaeological investigations undertaken by JMcDCHM (2004-2009) at Maze Green and the former Geology Lawns have demonstrated that no potential archaeological deposits have been preserved in these locations or, where remnant soil horizons are preserved, they are highly disturbed and of low archaeological potential (See **Section 6.2.4 - 6.2.5** below for details).

The University of Sydney Grounds Management Plan also describes a stone axe head, found in Victoria Park in the 1890s:

[a]n elongated pebble of the spotted altered claystone; worn and blunted at both ends, it is very much heavier and larger than usual; it was turned up in trenching the ground of Victoria Park, near the University, the soil of which is derived from a patch of the Wianamatta shale. Weight 4 lbs 7 ozs. Dimensions 9 1/8'x2 1/16' x 2 1/4' (Liversidge 1894:6 quoted in Pearson 2002: 30).

6.3.4 Archaeological Survey for an Aboriginal Heritage Assessment, University of Sydney, NSW (JMcDCHM 2004)

In 2004, JMcDCHM undertook an Aboriginal heritage assessment as part of a Campus 2010 and Building for the Future Program. Proposed works included the upgrading of the Eastern Ave and Barff

Rd integrated domain, Shepherd St entrance and pedestrian route to USYD central, City Rd improvements, Faculty of Law Building and USYD Central. The objectives of the study involved determining the extent, nature and integrity of archaeological relics and potential archaeological deposits in the development area, assess the significance of any such relics and PADs, assess potential development impacts to the relics and PADs and recommended management options to mitigate any potential impacts.

The assessment concluded that due to the extent of previous land disturbance, no areas were assessed as having high potential for intact archaeological deposits. No Aboriginal objects and/or landscapes were identified within the study area. The proposed development had the potential to impact a number of PAD areas. However, these PADs were assessed as having low-moderate potential to contain intact archaeological deposit. If in-situ material were found in the area this would be of high archaeological significance. Test excavation was proposed within the locations of the Law Building, USYD Central and Maze Green.

6.3.5 Test Excavations at the Law Building Site, Camperdown Campus, and at Maze Green, The Old Darlington School, Darlington Campus (JMcDCHM 2005)

Test excavation was carried out on the University of Sydney Darlington and Camperdown Campus in 2005. The Geology Lawn was excavated in a series of 1m² test pits and showed a disturbed site with extensive quantities of demolition fill. These pits returned one flaked silcrete artefact on the surface of the B horizon. The second location within the site was on the Maze Green, previously the Old Darlington School playground area. This area also showed extensive disturbance, including redundant and unrecorded services with excavation recovering one flaked stone artefact from 15 pits, this artefact was located in the disturbed overburden (JMcDCHM 2005: 9).

6.3.6 Test Excavations at the University of Sydney Central Site, Darlington Campus (JMcDCHM 2006)

Test excavation was conducted on the Darlington site in 2006 with results comprising a single silicified tuff artefact from eleven 1m² pits. The site showed signs of extensive disturbance, with the overburden consisting of extensive demolition fill (JMcDCHM 2006: 4).

6.3.7 Centre for Obesity, Diabetics and Cardiovascular Research (CODCD) Project (JMcDCHM 2007-2009)

JMcDCHM undertook an Aboriginal archaeological assessment of the proposed ARC Medical Building development to determine the nature, extent and integrity of any Aboriginal sites that might be located within the area. No Aboriginal sites or artefacts were identified and due to extensive disturbance, no areas were assessed as having high potential for intact archaeological deposits. Geotechnical investigation indicated that the original swampy tributary of Orphans School Creek may be represented in organic deposits buried beneath 3 - 5m of fill. Areas identified in the Conservation Plan (2002), the northeast margin of St John's Oval and Oval 2 were reassessed as having low archaeological potential. Further investigation was recommended in the event that the RMC Gunn Building, Veterinary Science Building and the HK Ward Gymnasium building be demolished as they may reveal intact archaeological deposits

6.3.8 Sydney Metro Network Stage 2 (Central to Westmead) (Comber Consultants Pty Ltd 2009)

An Aboriginal Cultural Heritage Assessment was carried out for the proposed 25 km line from Central to Westmead including 11 new stations. Background research and a site survey were undertaken for the study area. No sites or Aboriginal objects were located during the survey. The assessment

recommended that subsurface testing and potential salvage at Parramatta and Rosehill prior to the construction of worksites and stations at these locations (Comber 2009:27, 33).

6.3.9 The Quay Project, Haymarket: Final Archaeological Report (Biosis 2012)

Text excavation was carried out in 2011 in the form of five test pits which focussed on the remaining areas of potentially intact topsoil. No Aboriginal objects were recovered, however, during the historical phase of archaeological works, a lithic artefact was found in spoil from the fill of a European post hole (Biosis 2012: ii-iv).

6.3.10 University City Campus Improvement Program (Godden Mackay Logan 2013)

In 2013, Godden Mackay Logan was engaged to undertake an Aboriginal heritage due diligence assessment for the University of Sydney as part of the Campus Improvement Program. The purpose of the report was to identify whether the study area possessed or had the potential to possess any Aboriginal heritage sites or cultural values. The due diligence assessment confirmed two registered sites (#45-6-2745 and #45-6-2822) were situated within the university grounds, one of which was located within the City Road Precinct (#45-6-2822). Site #45-6-2745 has since been destroyed by the construction of the Law Building, and Site #45-6-2822 was destroyed under a Section 90 AHIP (GML 2013: 34). It was also noted that geotechnical investigations had indicated that historic fill was significantly deeper around Orphan School Creek, and it was considered that archaeological deposits may have been preserved by the capping of the fill over the natural ground surface (GML 2013: 25).

The assessment concluded that the University of Sydney has been heavily disturbed by previous historic land use associated with the development of the University. It was considered that there is low potential for the preservation of in situ archaeological deposits, however, if found the deposits would be of high archaeological significance due to their rarity.

With regard to the six precincts, the recommendations of the report outlined that work may proceed with caution in all the precincts with the exception of the Life Sciences Precinct and the Cultural Precinct. The Life Sciences Precinct was classed as moderately disturbed with low - moderate potential to preserve intact subsurface archaeological deposits. As a result, archaeological monitoring was recommended and if excavation work was to exceed depths of 3 m, archaeological test excavation would be warranted prior to any works. The cultural Precinct was classed as heavily disturbed with low potential to contain intact subsurface deposits. However, it was recommended that if impacts were to occur to Botany Lawn, archaeological monitoring would be required as a precautionary measure.

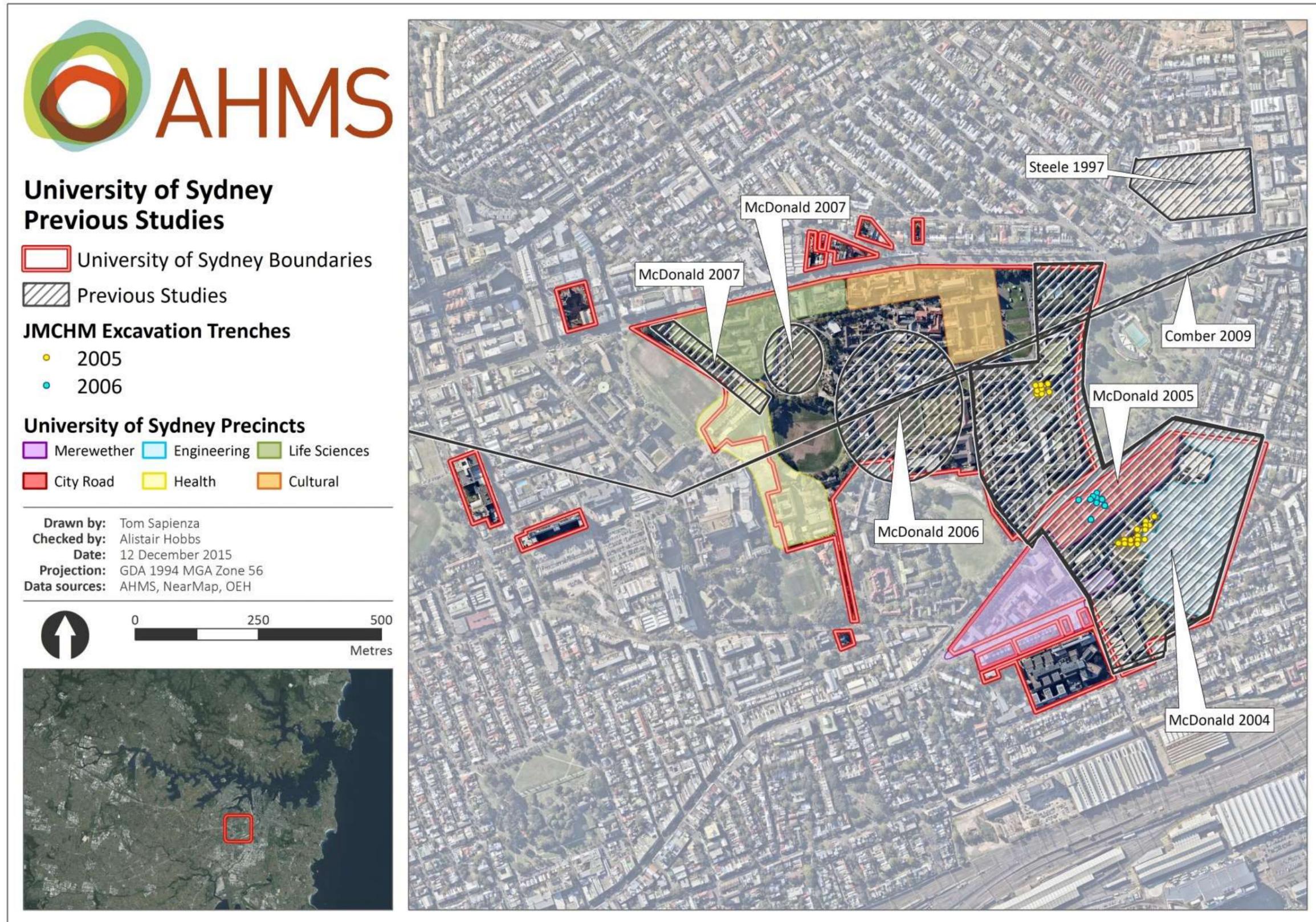


Figure 22. Previous archaeological studies undertaken within the subject area.

6.4 AHIMS Data

The Office of Environment and Heritage maintains the Aboriginal Heritage Information Management System (AHIMS), which is a database of registered Aboriginal sites in New South Wales. An extensive search of the AHIMS database was undertaken on 25 August 2015 (Client Service ID: 187139), centred on a latitude/ longitude of 33.9215, 151.1445 - 33.8645, 151.2349 with a buffer of 50 m (**Figure 23 - Figure 24**). The search identified 34 registered Aboriginal sites; two of which have been destroyed and one which was originally identified as a site though further investigation showed it was not valid (see **Appendix 2**).

The most common Aboriginal site types highlighted in the search include potential archaeological deposits (PADs), artefact scatters and shell/artefact (**Table 5**). The AHIMS search revealed two registered Aboriginal sites within the subject area, #45-6-2822 was situated within the City Road Precinct and #45-6-2745, located within the university boundary but outside any of the six proposed development precincts (**Table 6** and **Figure 24**). Both of these sites were isolated finds (though #45-6-2745 is erroneously registered as a PAD), specifically, stone artefacts that were recovered during test excavation programs undertaken by JMcDCHM (2005, 2006). Information provided in the site card for Site #45-6-2745 states the site has since been destroyed by the construction of the USYD Law building. Site #45-6-2822 has since been destroyed under an AHIP after further archaeological investigation downgraded the original site assessment (JMcDCHM 2006: 18).

In addition to the two archaeological sites listed above, a contemporary site is also in the vicinity of the subject area, #45-6-2767. This site is identified as a 'tent embassy' and is situated within Victoria Park. It was established in 2001 following the Sydney Olympics to highlight the issue of Aboriginal sovereignty. It has been listed due to its social and cultural values to Aboriginal people.

Table 5. Aboriginal sites in the vicinity of the subject area summarised by site feature.

Site Feature	Site Count	% of Total
Potential Archaeological Deposit (PAD)	17	50.00
Artefact	8	23.53
Shell, artefact	5	14.71
Art. Pigment or engraved, artefact	1	2.94
Art, pigment or engraved	1	2.94
Aboriginal Resource and Gathering	1	2.94
Not a site	1	2.94
Total	34	100.00

Table 6. Summary of the Aboriginal sites located within the University grounds.

AHIMS Site ID	AHIMS Site Name	Site Feature	Description of contents	Assigned Archaeological Significance
45-6-2745	University of Sydney Law Building PAD	Potential Archaeological Deposit (PAD)	Originally recorded as a PAD this site was investigated by test excavation (7 1x1m ² test pits). One grey-pink silcrete flake fragment with chipped (edge-damage) margins, maximum length 16.55 and weight 0.8g was recovered during the test excavation. Site Condition: very disturbed. Site has since been destroyed by the construction of USYD	Low

AHIMS Site ID	AHIMS Site Name	Site Feature	Description of contents	Assigned Archaeological Significance
			Law Building	
45-6-2822 (Within City Road precinct)	USYD: Central	Artefact	Isolated Find Site condition: very disturbed. Artefact recovered as part of testing programme within a heavily disturbed A-horizon, under c.50cm of fill comprising building rubble and imported deposit. One yellow weathered silicified tuff distal flake fragment with a hinge termination was recovered (12mm x 20mm x 7 oriented dimensions).	Low
45-6-2767	Tent Embassy, Victoria Park	Aboriginal ceremonial and resource gathering	A tent embassy within Victoria Park (outside of the subject area) established in 2001 to highlight Aboriginal sovereignty.	N/A - high cultural and social value

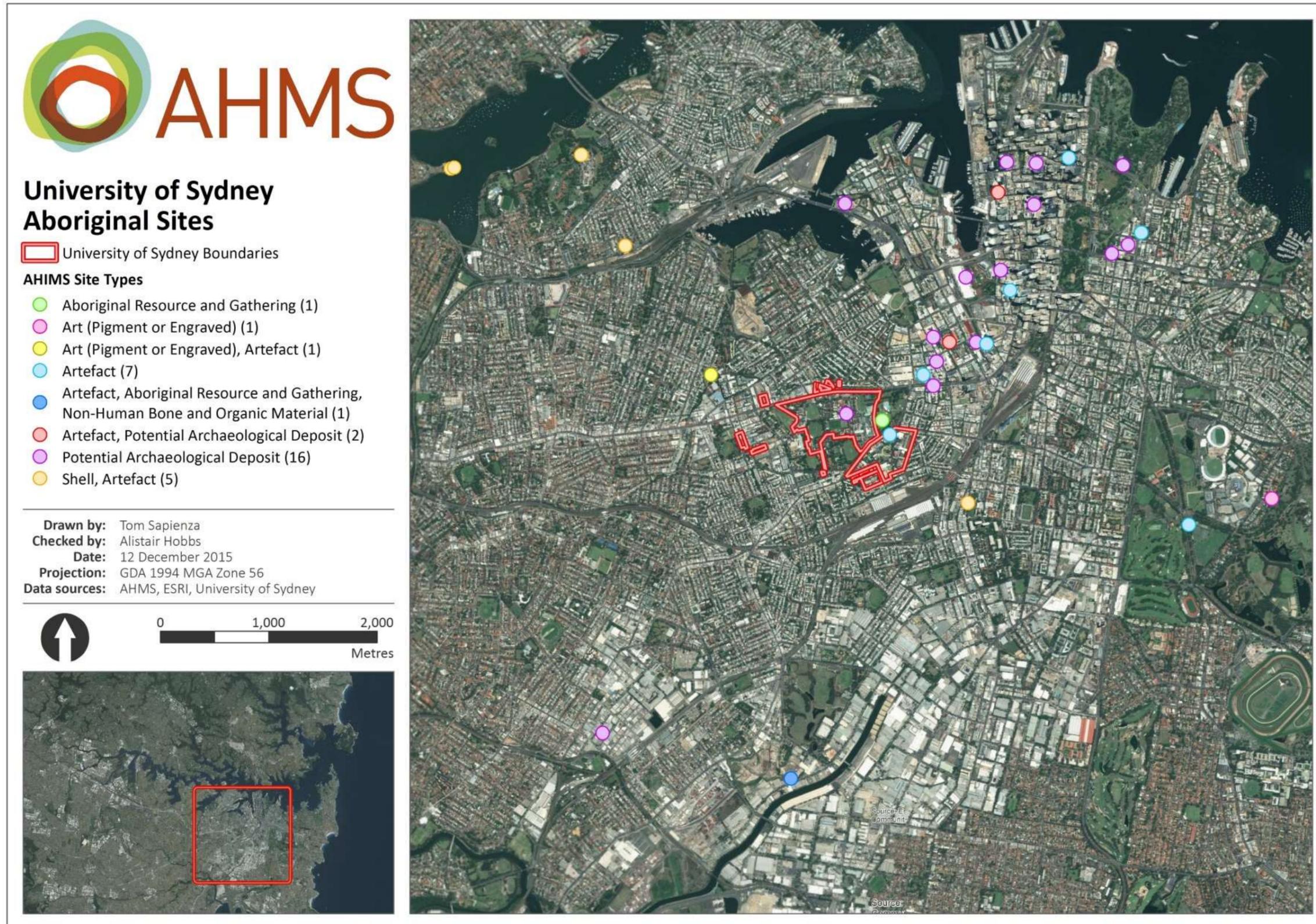


Figure 23. AHIMS search of the subject area.



University of Sydney Aboriginal Sites

University of Sydney Boundaries

AHIMS Site Types

- Aboriginal Resource and Gathering (1)
- Artefact (2)
- Potential Archaeological Deposit (1)

University Precincts

- | | |
|-------------|---------------|
| Merwether | Health |
| City Road | Life Sciences |
| Engineering | Cultural |

Drawn by: Tom Sapienza
 Checked by: Alistair Hobbs
 Date: 12 December 2015
 Projection: GDA 1994 MGA Zone 56
 Data sources: AHMS, ESRI, OEH

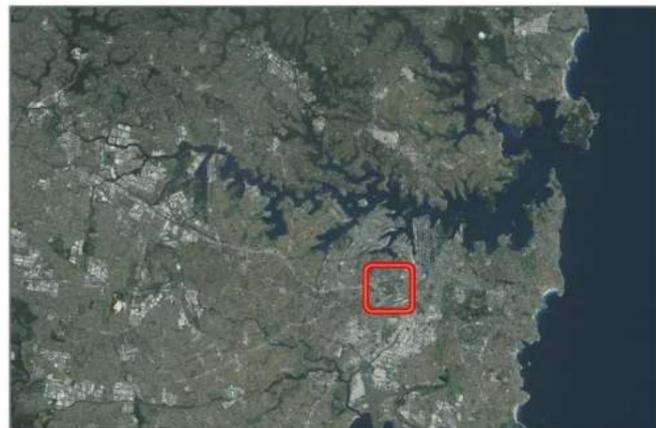


Figure 24. Registered Aboriginal sites located within the subject area.

7 THE ARCHAEOLOGICAL RESOURCE

7.1 General

This section summarises the background assessment and field investigations of the subject area to develop an archaeological model. The model will be used in subsequent sections to determine archaeological and cultural significance, identify potential impacts, and propose strategies to manage and mitigate cultural deposits prior to and during development.

7.2 An Archaeological Model for the Subject Area

From a regional perspective, Aboriginal people have occupied and utilised the Sydney Basin for a considerable period of time, certainly throughout the Holocene (10,000 years ago to present) and evidence suggests probably also in the late Pleistocene (10,000-50,000 years ago). Archaeological studies pertaining to the region suggest that site distribution is characterised by proximity to permanent water sources, and landform types such as lower slopes, spurs, river terraces and alluvial flats. While there is generally accepted to be a low density, almost ubiquitous 'background scatter' of artefacts across the Sydney Basin, the well-developed artefact distribution modelling for the area clearly demonstrates that major activity areas, where stone tools were either manufactured or maintained, did essentially have nearby freshwater as a precondition for use. On ephemeral first order streams, occupation was often immediately adjacent to the water (0-50 m), while on larger permanent fourth order streams the majority of activity leading to the accumulation of stone artefacts was set back from the creek within the area between 50 and 100 m from water. Activities at sites with evidence of intense or repeated occupation were also focused on areas with particular amenity to use that are generally explicable and predictable - especially on raised, flat, well drained terraces, with a slight tendency for higher density on locations with northerly and north-easterly aspect. Low-lying creek flats and slopes on the other hand have been shown to have significantly lower densities of material evidencing Aboriginal use, regardless of their proximity to water.

A review of the subject area indicates that two creeklines ran through the university grounds, Orphan Creek and Blackwattle Creek. These creeklines are both initially first-order creeks, joining to become a second-order in the northwest of the university grounds. Areas in close proximity to these creeklines include the Life Sciences and Health Precincts (**Figures 23 and 24**), and are considered to have potential for cultural materials to have been present in the past. It must be highlighted, however, European development has fundamentally changed the local landscape and hydrology, and these areas may not encompass all of the water sources present in the pre-European period.

Previous excavations in the Sydney CBD and surrounds have been characterised by very low-density stone artefact deposits. This likely reflects a combination of ephemeral use of large parts of the inner city (that retained few known resources away from the coast), and the loss of cultural materials through development. Works within the university ground mirror these wider findings, with only a handful of Aboriginal objects recovered from heavily disturbed contexts. Ethnographic information also fails to identify any significant documented activity within the subject area, despite known travel routes and gathering places immediately east of the university grounds. All such data suggests the cultural materials (if present) are likely to be situated in close proximity to the two documented creeklines, and likely be ephemeral or transient in nature.

In contrast to this model of archaeological potential is the extensive disturbance within the university grounds, which would likely have removed or destroyed cultural materials (if present). (In this report, we consider the level of disturbance against established definitions outlined in JMcDCHM (2004) for the university (**Table 7**)). This has been demonstrated through two excavations in the university grounds in which low numbers of Aboriginal objects were recovered from construction or over-burden deposits. Based on geo-technical information and previous studies, it can be shown that much of the

subject area has been heavily modified and/or disturbed by past development, and has low potential for cultural materials to be present. In situations where cultural material was present, it is considered unlikely to retain any context or stratigraphy, which severely reduces the significance of any finds recovered. In the case of the Life Sciences Precinct, information suggests that a natural soil profile exists some 3m beneath the current land surface, and the potential for cultural material to remain is vastly improved compared to other areas. Should cultural material be in present in these buried natural soil profiles, it would likely be of local or State significance, given the paucity of Aboriginal activity found to date in the CBD. It is considered parts of the Health Precinct would also have buried natural soil profiles beneath a thick layer of over-burden, and similarly has moderate potential for cultural materials to be present. While this area has previously been downgraded due to its location adjacent a first order creekline, it is however also situated near the confluence of Orphan and Blackwattle Creeks. Confluences of creeks have been shown to be a focus for Aboriginal activity and occupation, and hence the identification of the precinct as an area worthy of future investigation.

Based on the information above, it is considered that in general the subject areas have low potential for Aboriginal objects to be present. Where present, they are likely to be low density artefact scatters or isolated finds in disturbed contexts, and as such unlikely to be of high significance. Two areas are considered exceptions to this, the Life Sciences Precinct (west of Ross Street) and portions of the Health Precinct. These precincts are found in close proximity to original creeklines, which ran through the university grounds, and have evidence of buried natural soil profiles at depth. As such, they are considered of moderate potential to contain cultural materials, which if found could be of local or State significance.

Table 7. Land use disturbance definitions (after JMcDCHM 2004).

Level of Disturbance	Definition	Archaeological Potential
High	Areas with constructed landforms, buildings and constructed surfaces. In particular areas which include late twentieth century buildings and roads which generally involve significant earthmoving during construction; as well as grading, levelling, introduction of road base and installation of services such as water, power and sewage.	Archaeological evidence such as artefacts may be present here but it would not be possible to determine their origin or context. Many artefacts occurring in this zone may have been destroyed in the processes.
Moderate	Areas with natural landforms but with disturbed soils.	Archaeological evidence such as artefacts may be present but may have been moved from their original locations
Low	Areas with natural landforms, which appear from current aerial photographs to be original land surfaces.	Archaeological deposits may be present in fairly undisturbed physical condition.



Figure 25. Summary of disturbance and archaeological potential of the subject area.



Figure 26. Summary of archaeological potential of the subject area.

8 CONCLUSIONS AND RECOMMENDATIONS

8.1 Summary of Findings

Based on the findings of the AHIA, the following conclusions can be made about Aboriginal archaeology within the subject area:

- Numerous archaeological assessments have been undertaken within the University of Sydney and the surrounding area (**Section 6.2**). These investigations have generally revealed very low artefact densities within heavily disturbed contexts.
- Previous research and ethnographic information suggests that the university grounds were used only ephemerally or transiently in the past. Typically, large creeklines or swamps would have formed the focus of long-term or repeated occupation, and neither types of resource are within the subject area.
- Aboriginal Heritage Information Management System (AHIMS) database search results demonstrate that evidence of Aboriginal occupation in the general vicinity of the university is limited, and usually expressed as low density artefact scatters, isolated objects and/or Potential Archaeological Deposits (PADs). While PADs have previously been registered within the university grounds, these areas have been reassessed as having low archaeological potential following archaeological testing. These findings are, however, constrained by the limited investigations that have occurred in the heavily urbanised Sydney CBD.
- Two registered Aboriginal sites have been identified within the University of Sydney, #45-6-2745 (USYD Law PAD1) and #45-6-2822 (USYD: Central). Both sites comprise isolated stone artefacts recovered from disturbed contexts. The artefacts were assessed as having low scientific significance and low research potential. Both sites have been destroyed.
- Existing information suggests that much of the subject area is heavily disturbed by historical activities. This disturbance has reduced or removed the potential for cultural materials to be present. In the unlikely event that in-situ deposits are identified, they are likely to be of local or State significance.
- Geotechnical investigations undertaken within the university grounds indicate that natural soil horizons may be preserved below 3-5 m of fill in areas in close proximity to the former Orphan School Creek beneath the western portion of the Life Sciences, and Health Precincts. At this stage it is uncertain as to the full extent of disturbance caused by the placement of fill in these areas. Using precautionary principles, it is assumed these deposits remain intact until proven otherwise. Given their proximity to a water course, these deposits are also considered to have potential for cultural materials to be present.
- With the exception of the western portion of the Life Sciences, and Health Precincts, it is considered that the remaining precincts would have low potential for cultural materials to be present.

8.1.1 Cultural Values

Consultation with RAPs identified six places retaining cultural values within the subject area. (It is highlighted that while the discussions focussed on the six CIP precincts, it also considered the wider Camperdown and Darlington Campuses). These include the Macleay Museum, Shellshear Museum in the Anderson Stewart Building, Mackie Building, the Quad, the Koori Centre, the Sports Ovals and the University entrances. Discussions with the RAPs also identified the land encompassing the two sports ovals, which was considered to have been a former hunting ground for Gadigal/Cadigal Aboriginal people. The ovals were discussed as having potential to contain subsurface archaeological deposits capped by fill. However, the Sports Ovals are located outside any of the Precinct boundaries and will therefore be unaffected by the development work.

The Aboriginal groups also described general cultural values and issues including better opportunities for Aboriginal students, the desire for better education and interpretative opportunities relating to past and contemporary Aboriginal history in the University grounds.

8.2 Potential Aboriginal Heritage Impact

Based on the information available for the subject area, it is considered that cultural materials would likely be composed of low density artefact scatters, isolated finds and/or PADs in close proximity to water sources. Disturbance plays a key role in the survival of such deposits, and in the case of the university past impacts have been extensive. Based on this, it is considered that only two precincts, Life Sciences and Health, have the potential for cultural materials to be both present and have survived historical activities. Both of these precincts have been identified on precautionary principles, with natural soil profile being present beneath a substantial layer of over-burden.

The specific development within the two precincts has yet to be adequately defined, but references to underground car-parking and the likely need for deep foundations of future structures suggest that impact to these deposits is likely. Appropriate measures to manage these deposits have been provided in **Section 8.4**.

None of the remaining precincts are considered to have potential for Aboriginal objects to be present, and as such impacts are considered to be of low risk in harming/destroying cultural materials.

No areas identified as having cultural values would be directly or indirectly affected by the proposed development.

8.3 Archaeological and Cultural Significance

Currently, the specific content of archaeological or cultural deposits within the subject area is not known. This report outlines the potential deposits based on a review of available information typically used to produce predictive models of the extent and likelihood of Aboriginal sites and objects. Specifically, it appears likely that several parts of the subject area have potential to contain Aboriginal objects and/or deposits.

While the scientific and cultural significance of these findings cannot be determined until it is physically investigated; to adequately determine and characterise the soil deposits, an indication of the significance based on other nearby projects can be made.

Based on the cultural values workshop and former tent embassy, the area still maintains a contemporary Aboriginal community presence and they have a strong interest in their local and regional cultural. Therefore, the presence of Aboriginal objects/material within this area is likely to have strong social value to this community.

Scientifically, cultural deposits are likely to be constrained to disturbed artefactual materials indicative of an ephemeral or transient use of the region. Such sites are likely to be of low significance. The possible exception are the deeply buried soil profiles within the Life Sciences and Health Precincts, that has the potential for in situ or stratified cultural material. If present, such deposits would certainly be of local, and potentially State, significance, given their rarity in the heavily urbanised Sydney CBD.

8.4 Management Strategy

Based on the findings of this report, there is moderate risk that development works may impact Aboriginal objects/deposits within the western parts of the Life Science Precinct and Health Precinct (**Figure 24**). The remaining precincts may contain cultural materials, but they are considered likely to be heavily disturbed and of low significance. As a general principle disturbance or harm to known or potential Aboriginal sites and/or places should be avoided. Where impact on known or potential Aboriginal sites or places cannot be avoided, additional archaeological investigations should be undertaken to determine the extent, nature and significance of the Aboriginal cultural heritage. Further investigation provides the information required to determine appropriate management options in consultation with DPE, OEH and RAPs so that appropriate impact minimisation or mitigation measures can be implemented prior to and during development.

For planning purposes, this report is adequate in identifying the likely areas of archaeological resource within the subject area. Given the level of disturbance throughout the region, the modelling may in fact be over-representing the potential resource. It is considered likely that the western parts of the Life Sciences and Health Precincts have the greatest potential for intact - or minimally disturbed - cultural deposits, and should form the focus of any future investigation. Sub-surface investigation of these deposits is required to allow further characterisation. Typically, such works could be undertaken as part of the AHIA under Section 89J of the *Environmental Planning and Assessment Act 1979*. However, given the buildings within these precincts are currently in use, and the deposits are relatively inaccessible (3m below current surface) without significant earthworks, it is considered that further investigation would need to occur following the approval. Specifically, it is recommended as part of the approval that a Heritage Management Plan (HMP) is developed in consultation with DPE, OEH and the RAPs, which outlines the investigation, salvage (if required) and management of any cultural deposits within the two precincts. The HMP should also outline unexpected finds procedures for the remaining CIP precincts, along with any other heritage requirements for implementation prior to, during and after the development. It is highlighted that the development of a HMP, and implementation of the activities it endorses would likely require several months to complete, and appropriate timing in the construction program should be included.

8.5 Recommendations

The following recommendations are made in regard to future management of the six Precincts outlined in the CIP:

- As a condition of approval, a Heritage Management Plan (HMP) should be developed for the project. The HMP should be developed in consultation with DPE, OEH and the RAPs, and provide protocols, procedures and tasks to manage the cultural resources identified in this AHIA before, during, and after the development. The HMP should make specific reference to:

- Management of the Life Sciences (west of Ross Street) and Health Precincts, which have the potential for deeply buried cultural materials to be present. Ideally, such works should be undertaken prior to any approval under Section 89J of the *Environmental Planning and Assessment Act 1979* and integrated into the AHIA, and recommendations modified accordingly. Should this prove unfeasible, further sub-surface investigation and salvage (if required) of these deposits should be developed and outlined in the HMP.
- The remaining precincts are considered to have low potential for Aboriginal objects to be present. These areas should be managed through unexpected finds procedures to be developed and outlined in the HMP.
- Opportunities exist to reflect contemporary Aboriginal values through a range of possible initiatives that have been identified through consultation of the AHIA. It is recommended that an interpretation strategy is developed as a condition of consent to explore and implement expressions of Aboriginal cultural value across the university grounds.
- The site status of #45-6-2745 and #45-6-2833 should be updated with the AHIMS Registrar to reflect their destruction.
- A copy of this assessment should be provided to the RAPs to review and provide comment on the findings and recommendations for integration prior to finalisation.

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