



Aboriginal Heritage Impact Assessment

Multi Storey Car Park - Westmead Hospital

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Summary

RPS has been engaged by Health Infrastructure to prepare an Aboriginal Heritage Impact Assessment (AHIA) ahead of the proposed construction of a multi storey car park (MSCP) and associated at-grade car parks on the corner of Darcy Road and Institute Road within the grounds of Westmead Hospital at Westmead in the Parramatta Local Government Area (LGA). This assessment supports an Environment Impact Statement for a State Significant Development application (SSD).

This assessment follows a risks and opportunities assessment prepared for the Westmead Precinct identified within the Master Planning – Project Area (also known as the Feasibility Area) for the Westmead Hospital Redevelopment (RPS 2014). Aboriginal consultation consistent with the *Aboriginal Cultural Heritage Consultation Requirements* (DECCW 2010) was initiated for the Westmead Precinct at this stage. In June 2015 RPS prepared an ACHAR for inclusion in the Review of Environmental Factors prepared to assess the impact of the early and enabling works associated with the Westmead Hospital Redevelopment in the Westmead Precinct.

This assessment has been undertaken in accordance with the *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (OEH 2011), the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010) and the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW 2010).

This AHIA has been prepared specifically for the construction of a multi storey car park and temporary at-grade car parks as part of the larger redevelopment of Westmead Hospital. The Project Area is located at Westmead in the Parramatta Local Government Area (LGA) and within the Deerubbin Local Aboriginal Land Council (DLALC) boundaries. The archaeological survey and the associated assessment, risks and constraints are for the MSCP only.

Much of the Project Area has already been built upon by the current Westmead Hospital/Cumberland Hospital campus. The MSCP area is and has long been used as an at-grade car park for hospital staff. There is no natural land surface located within the MSCP Project Area, with several garden beds covered with cane mulch being the only surface apart from concrete and asphalt. It is located on a lower slope and is likely to be within the former Parramatta Showground area, which was also formerly used by James Hardie for asbestos disposal.

An AHIMS search revealed one recorded site located directly north and outside of the Westmead Hospital complex. This erroneously recorded site is known as AHIMS 45-5-1110 Redbank and was first recorded in June 1997 by M. Guider as a grinding groove. Further assessment of the site undertaken by Mary Dallas and Paul Irish in July 2001, with the assessment concluding the grooves were non-cultural. A further assessment of this site was undertaken as part of the Review of Environmental Factors prepared for the Master Planning and Feasibility area for the Westmead Hospital Redevelopment by RPS (RPS 2014). RPS concurred with the opinion of Dallas and Irish, and this was confirmed by registered Aboriginal parties for that project: Gordon Morton Darug Aboriginal Cultural Heritage Assessments (DACHA), Tony Williams, Gordon Workman (Darug Land Observations) and E. Coplin (Darug Custodians Aboriginal Corporation).

This AHIA provides detail of all Aboriginal community consultation undertaken in relation to the Westmead Hospital redevelopment (Section 3). The MSCP Project Area is located within the larger Westmead Precinct and was inspected as part of the Master Planning REF 2014 (RPS 2015). No additional field inspections were undertaken by Aboriginal community for this investigation. However, as it is still part of the larger Westmead Precinct, registered Aboriginal parties were provided an opportunity to make comment on the draft report.

Earlier Aboriginal investigations as part of the Westmead Hospital redevelopment have found that with the exception of an area of high sensitivity bordering the Toongabbie Creek, there is little potential for Aboriginal objects or places to be harmed by the proposed works due to the extensive disturbance already undertaken within the Project Area (RPS 2015).

Recommendation 1

An Aboriginal cultural heritage induction should be carried out by a suitably qualified heritage professional prior to the commencement of ground disturbance works. The aim of the heritage induction would be to ensure all staff, contractors and subcontractors are aware of their statutory obligations for Aboriginal heritage under the *National Parks and Wildlife Act 1974*. The cultural heritage induction would only be required once construction works begin. The induction would not be required for pre-construction works.

Recommendation 2

If unrecorded Aboriginal objects are identified during the course of works, then all works in the immediate area must cease and the area should be cordoned off. OEH must be notified by ringing the Enviroline 131 555 so that the site can be adequately assessed and managed.

Recommendation 3

In the unlikely event that skeletal remains are identified, work must cease immediately in the vicinity of the remains and the area must be cordoned off. The proponent must contact the local NSW Police who will make an initial assessment as to whether the remains are part of a crime scene or possible Aboriginal remains. If the remains are thought to be Aboriginal, OEH must be contacted by ringing the Enviroline 131 555. An OEH officer will determine if the remains are Aboriginal or not; and a management plan must be developed in consultation with the RAPs before works recommence.

Terms, Definitions, and Abbreviations

Abbreviation/ Term	Meaning
Aboriginal Object	"any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises NSW, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains" (DECCW 2010:18).
Aboriginal Place	"a place declared under s.84 of the NPW Act that, in the opinion of the Minister, is or was of special significance to Aboriginal culture" (DECCW 2010:18). Aboriginal places have been gazetted by the minister.
Aboriginal Culturally Modified Tree	"means a tree that, before or concurrent with (or both) the occupation of the area in which the tree is located by persons of non-Aboriginal extraction, has been scarred, carved or modified by an Aboriginal person by: (a) the deliberate removal, by traditional methods, of bark or wood from the tree, or (b) the deliberate modification, by traditional methods, of the wood of the tree" NPW Regulation 80B (3). Culturally Modified trees are sometimes referred to as scarred trees
Activity	A project, development, or work (this term is used in its ordinary meaning and is not restricted to an activity as defined by Part 5 EP&A Act 1979).
Feasibility Area	Feasibility Area is the area subject to the proposed activity
ACHAR	Aboriginal Cultural Heritage Assessment
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit
DECCW	Department of Environment, Climate Change and Water (is now the Office of Environment and Heritage – OEH)
Disturbed Land	"Land is disturbed if it has been the subject of a human activity that has changed the land's surface, being changes that remain clear and observable." (DECCW 2010:18).
Due Diligence	"taking reasonable and practical steps to determine whether a person's actions will harm an Aboriginal object and, if so, what measures can be taken to avoid that harm" (DECCW 2010:18)
EP&A Act	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>
GDA	Geodetic Datum Australia
Harm	"destroy, deface, damage an object, move an object from the land on which it is situated, cause or permit an object to be harmed." (DECCW 2010:18)
LGA	Local Government Area
NPWS	National Parks and Wildlife Service
NPW Act	<i>National Parks and Wildlife Act 1974 (NSW)</i>
NPW Regulation	<i>National Parks and Wildlife Regulation 2009 (NSW)</i>
OEH	Office of Environment and Heritage (formerly DECCW)
PAD	Potential Archaeological Deposit
Project Area	Project Area is the area subject to the desktop study in this report
cal. years BP	Calibrated years before present, indicates a radiocarbon date has been calibrated using the dendrochronology curves, making the date more accurate than an uncalibrated date.
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
GIS	Geographic Information System
LALC	Local Aboriginal Land Council
LEP	Local Environment Plan
REP	Regional Environment Plan
REF	Review of Environmental Factors

SSD	State Significant Development
WSLHO	Western Sydney Local Health Operations

I.0 Introduction

RPS has been engaged by Health Infrastructure (the Proponent) to prepare an Aboriginal Heritage Impact Assessment (AHIA). The AHIA has been prepared to inform an Environmental Impact Statement (EIS) of the Aboriginal heritage risks and constraints pertaining to the proposed construction of a multi storey car park (MSCP) and associated at-grade car parks as part of the Westmead Hospital Redevelopment (**Figure 1**).

In 2014 RPS was engaged to prepare a risks and opportunities assessment of the Westmead Precinct as part of the overall Master Planning and Feasibility Area studies for the Westmead Hospital Redevelopment. Aboriginal consultation consistent with the *Aboriginal Cultural Heritage Consultation Requirements* (DECCW 2010) was initiated for the Westmead Precinct at this stage. In June 2015 RPS prepared an ACHAR for inclusion in a Review of Environmental Factors which assessed the impact of the proposed early and enabling works associated with the Westmead Hospital Redevelopment in the Westmead Precinct.

This report provides an outline of the proposed works, the relevant statutory context and the relevant environmental, historic and archaeological context, a description of Aboriginal objects and places and the Aboriginal cultural heritage values of the Project Area. It provides a description of consultation undertaken with all Registered Aboriginal Parties (RAPs) as part of the Westmead Hospital Redevelopment project and the views presented regarding the likely impacts of the proposed activity on Aboriginal cultural heritage.

The Project Area comprises the area along the south eastern intersection of Darcy Road and Institute Road within the Westmead Hospital campus (see **Figure 1**). The Project Area measures approximately 1.2 hectares and is currently an at-grade car park located adjacent to the north west of the Oral Health building.

This report has been prepared in accordance with the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011), the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (the Code) (DECCW 2010) and the *Aboriginal cultural heritage consultation requirements for proponents* (ACHCR) (DECCW 2010).

I.1 Overview of Westmead Hospital Redevelopment

The Western Sydney Local Health District (WSLHD) has the second largest population in NSW and is projected to grow to more than 1 million by 2031. It employs almost 9,500 people across more than 100 sites including five hospitals and an extensive network of community health centres.

The Westmead Hospital is a key part of that health network. It is also part of one the largest health, research, and education precincts in the world. No other hospital precinct in NSW includes the co-location of adult, children's, oral and mental health hospitals alongside research and education facilities.

In February 2015, the NSW Government announced \$750 million for stage 1 of the redevelopment and an additional \$72 million for car parking. This follows on from the commitment of \$1 million made in November 2013 and \$5 million included as part of the 2014/15 Budget to begin planning.

The redevelopment proposed for Westmead Hospital will transform the iconic, but ageing, facility into a world class centre for knowledge, skills and care. It will be the largest capital health project for the NSW Government in 10 years.

The redevelopment of the Westmead Hospital also provides a once in a generation opportunity for a strategic review of how services are planned, coordinated and delivered to meet the future needs of the community. This strategic review includes moving beyond a hospital-centric focus, the introduction of innovative care models, improving operational performance and transparency, and providing high quality

services. The review will be a key part of the planning and design of Stage 1 of the Westmead Redevelopment Project.

Westmead Hospital will undergo a staged redevelopment over the next five to ten years. Westmead Hospital Redevelopment (WHR) project is expected to include:

- Construction of a new Acute Services Building;
- Construction of a new Pathology Building; and
- Refurbishment of existing hospital buildings.

The largest area of remaining natural land surface occurs along the southern banks of Toongabbie Creek where no development is planned.

1.2 Proposed MSCP works

The proposal seeks development consent for the construction of an eight storey, 1,254 space, car park. This will involve:

- Demolition of the following existing items and/or structures:
 - On-grade car park number 7;
 - Existing column lighting;
 - Fire services building;
 - Former Coroner's Court building slab;
 - Eastern part of Institute Road; and
 - Trees.
- Construction of a 1,254 space multi-storey car park (MSCP) (8 levels) at the corner of Institute and Darcy Road, associated access and egress, and pedestrian bridge link to Dental Building;
- New at-grade car parking area (50 car spaces) east of the MSCP;
- Extension of Institute Road to the east to connect to new road approved under Part 5;
- Widening of Institute Road on approach to Darcy Road to provide two traffic lanes (55m long second lane) for intersection improvements; and
- Landscaping works including creation of park and new pathway connections.

1.3 Investigators and Authors

This AHIA was prepared by RPS Heritage Manager Sydney, Deborah Farina, and reviewed by RPS Senior Manager – Cultural Heritage, Erin Williams. RPS GIS Specialist, Natalie Wood, provided GIS and mapping services.

The table below outlines the project field team, each individual's role in the project and company affiliation.

Table 1 Project Investigators and Authors

Person and Qualification	Contribution	Affiliation
Deborah Farina	Project management, co-author, field archaeologist	RPS

Person and Qualification	Contribution	Affiliation
Natalie Wood	Mapping	RPS
Gordon Morton	Field survey 1 and cultural knowledge	Darug Aboriginal Cultural Heritage Assessments
Tony Williams	Field survey 1 and cultural knowledge	Tony Williams
Shaun Lynch	Field survey 1 and cultural knowledge	Darug Aboriginal Land Care
Elizabeth Coplin	Field survey 1 and cultural knowledge	Darug Custodian Aboriginal Corporation
Gordon Workman	Field survey 1 and cultural knowledge	Darug Land Observations
Benjamin	Field survey 1 and cultural knowledge	Darug Land Observations
Danny Franks	Field survey 2 and cultural knowledge	Tocomwall Pty Ltd
Phillip Khan	Field survey 2 and cultural knowledge	Kamilaroi-Yankuntjatjara Working Group
Steve Randall	Field survey 2 and cultural knowledge	Deerubbin Local Aboriginal Land Council
Patricia Thompson	Field survey 2 and cultural knowledge	HSB Heritage Consultants

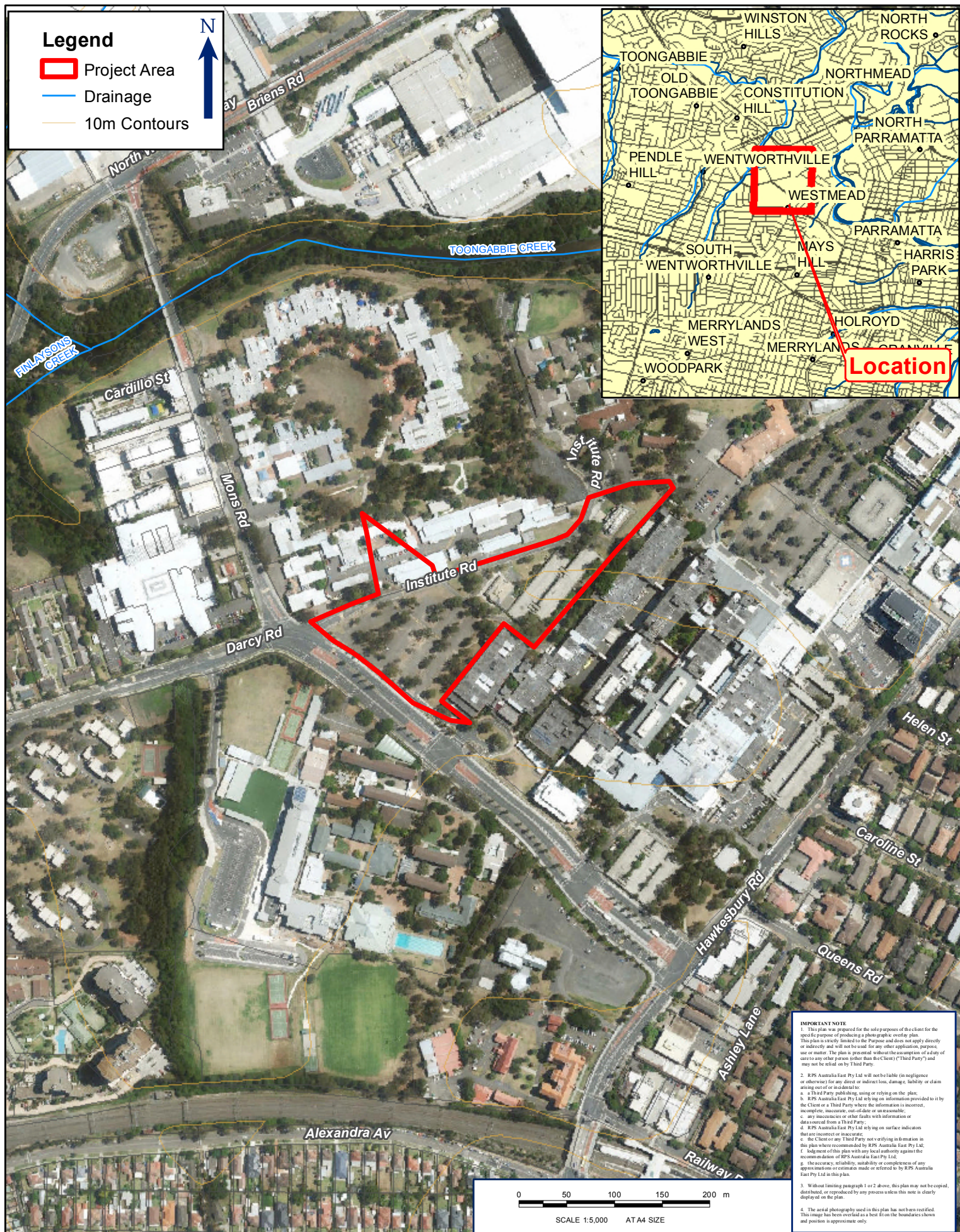


Figure 1: Project Area

LOCATION: Westmead

DATUM: GDA94

PROJECTION: MGA Zone 56

JOB NO.: PR127746

Data Sources:

PURPOSE: HERITAGE

Client Supplied

Technician: Natalie Wood

Date: 12/11/2015

CLIENT: NSW HEALTH INFRASTRUCTURE

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RPS

2.0 Statutory Context

The following overview of the statutory framework is provided solely for information purposes for the client, it should not be interpreted as legal advice. RPS will not be liable for any actions taken by any person, body or group as a result of this general overview, and recommend that specific legal advice be obtained from a qualified legal practitioner prior to any action being taken as a result of the summary below.

Aboriginal cultural heritage in NSW is primarily protected under two Acts:

- *National Parks and Wildlife Act 1974.*
- *Environmental Planning and Assessment Act 1979.*

2.1.1 *National Parks and Wildlife Act 1974*

The *National Parks and Wildlife Act 1974* (NPW Act) is overseen by the Office of Environment and Heritage (OEH), now a part of the Department of Premier and Cabinet. The NPW Act provides statutory protection of Aboriginal heritage (places, sites and objects) within NSW.

Part 6 of the NPW Act defines an Aboriginal object 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.

Protection of Aboriginal heritage is outlined in section 86 of the Act, as follows:

- “A person must not harm or desecrate an object that the person knows is an Aboriginal object” s86(1).
- “A person must not harm an Aboriginal object” s86(2).
- “A person must not harm or desecrate an Aboriginal place” s86(4).

The *NPW Amendment (Aboriginal Objects and Places) Regulation 2010* came into effect on 1 October 2010. This provided a series of mechanisms for the management and protection of Aboriginal heritage places and objects. As part of these amendments, new offences relating to harm to, or desecration of an Aboriginal object or declared Aboriginal Place were introduced.

The penalty for knowingly harming an Aboriginal object (s86[1]) and/or an Aboriginal place (s86[4]) is up to \$550,000 for an individual and/or imprisonment for two years; and in the case of a corporation the penalty is up to \$1.1 million. The penalty for a strict liability offence (s86[2]) is up to \$110,000 for an individual and \$220,000 for a corporation.

Harm under the NPW Act is defined as any act that; destroys defaces or damages the object, moves the object from the land on which it has been situated, causes or permits the object to be harmed. However, the strict liability offence for harming an Aboriginal object or Aboriginal Place has a number of defences. Two defences are relevant to the proposed development which includes:

- The statutory Due Diligence defence. If the proponent exercised due diligence in respect to Aboriginal heritage.
- That harm was authorised under the statutory Aboriginal Heritage Impact Permit (AHIP) and the permit was properly followed.

The ‘due diligence’ defence (s87(2)), states that if a person or company has exercised due diligence to

ascertain that no Aboriginal object was likely to be harmed as a result of the activities proposed for the Feasibility Area (subject area of the proposed activity); then liability from prosecution under the NPW Act 1974 will be removed or mitigated if it later transpires that an Aboriginal object was harmed. If any Aboriginal objects are identified during the activity, then works should cease in that area and OEH notified (DECCW 2010:13). The due diligence defence does not authorise continuing harm.

Notification of Aboriginal Objects

Under section 89A of the NPW Act Aboriginal objects and sites must be reported to the Director-General of OEH within a reasonable time, unless it has previously been recorded and submitted to AHIMS. Penalties of \$11,000 for an individual and \$22,000 for a corporation may apply for each object not reported.

The investigation and assessment of Aboriginal cultural heritage is undertaken to explore the harm of a proposed activity on Aboriginal objects and places. There are a number of guidelines and procedural publications governing archaeological practice relating to Aboriginal cultural heritage. The publications relevant to this investigation and assessment include:

- *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011).
- *The Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (the Code) (DECCW 2010).
- *The Aboriginal cultural heritage consultation requirements for proponents* (ACHCR) (DECCW 2010).

Under the Code, a number of requirements are set out by OEH to ensure a standardisation of archaeological investigation of Aboriginal objects is undertaken in NSW. Section 90 of the NPW Act states that only the Director General may issue an AHIP and that an AHIP may be issued either with or without specific conditions. An AHIP may relate specifically to an Aboriginal object or place or a specific area, activity or person. Therefore where there is a possibility that Aboriginal objects and/or places may be harmed; the requirements set out in the Code must be followed in order to comply with the requirements of the NPW Act.

The ACHCR codifies a staged process of consultation with Aboriginal people. These requirements flow from the fulfilment of the objects of the NPW Act, which seek, *inter alia*, to conserve objects places or features of significance to Aboriginal people. To this end, Aboriginal people are included in the consultation process to provide feedback on the cultural significance of Aboriginal objects and places in an Feasibility Area.

2.1.2 Environmental Planning and Assessment Act 1979

This Act regulates a system of environmental planning and assessment for New South Wales. Land use planning requires that environmental impacts are considered, including the impact on cultural heritage and specifically Aboriginal heritage. Assessment documents prepared to meet the requirements of the *Environmental Planning and Assessment Act 1979* including Reviews of Environmental Factors, Environmental Impact Statements and Environmental Impact Assessments should address Aboriginal heritage, and planning documents such as Local Environment Plans and Regional Environmental Plans typically contain provisions for Aboriginal heritage where relevant.

2.1.3 Aboriginal Land Rights Act 1983

The purpose of this legislation is to provide land rights for Aboriginal people within NSW and to establish Local Aboriginal Land Councils (LALC). The land able to be claimed by Aboriginal Land Councils on behalf of Aboriginal people is certain Crown land that (s36):

- (a) Is able to be lawfully sold, leased, reserved or dedicated.
- (b) Is not lawfully used or occupied.

- (c) Will not, or not likely, in the opinion of the Crown Lands minister, be needed for residential purposes.
- (d) Will not, or not likely, be needed for public purposes.
- (e) Does not comprise land under determination by a claim for native title.
- (f) Is not the subject of an approved determination under native title.

Claims for land are by application to the Office of the Registrar, *Aboriginal Land Rights Act 1983*.

2.1.4 Native Title Act 1993

The Commonwealth Government enacted the *Native Title Act 1993* to formally recognise and protect native title rights in Australia following the decision of the High Court of Australia in *Mabo and Ors v Queensland [No 2] (1992) 175 CLR 1 (Mabo)*.

Although there is a presumption of native title in any area where an Aboriginal community or group can establish a traditional or customary connection with that area, there are a number of ways that native title is taken to have been extinguished. For example, land that was designated as having freehold title prior to 1 January 1994 extinguishes native title, as does any commercial, agricultural, pastoral or residential lease. Land that has been utilised for the construction or establishment of public works also extinguishes any native title rights and interests for as long as they are used for that purpose. Other land tenure, such as mining leases, may be subject to native title, depending on when the lease was granted. There are no Native Title claims within the Feasibility Area.

3.0 Aboriginal Consultation

This Section provides specific details to the Aboriginal Community Consultation with regard to the Aboriginal cultural heritage assessment of the Westmead Hospital Redevelopment project.

The OEH acknowledges that Aboriginal people are the primary determinants of the significance of their heritage and that Aboriginal people should be involved in the Aboriginal heritage planning process. Aboriginal community consultation is regarded as an integral part of the process of investigating and assessing Aboriginal cultural heritage (OEH 2011:2).

Aboriginal community consultation is required for any assessment of Aboriginal cultural heritage. This ACHAR provides detail of all Aboriginal community consultation and has followed the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW 2010).

3.1 Aboriginal Cultural Heritage Consultation Requirements

The ACHCRs comprise a four stage Aboriginal consultation process with legislative timeframes to allow for community response for each stage. Stage 1 of the ACHCR process requires that Aboriginal people who hold cultural information are identified, notified and invited to register an expression of interest in the assessment. This identification process should draw on reasonable sources of information. Aboriginal organisations and/or individuals identified should be notified of the activity and invited to register an expression of interest for Aboriginal consultation. Once a list of registered Aboriginal parties has been compiled from the expression of interest process they need to be consulted in accordance with Stage 2, 3 and 4 of the ACHCR.

3.1.1 ACHCR Stage 1

The ACHCR process for Westmead Hospital Redevelopment was initiated in 2014 at the time of the risks and opportunities assessment of the Westmead Precinct as part of the overall Master Planning and Feasibility Area studies.

Letters were sent on 28 May 2014 to the following government organisations, as stipulated within the ACHCR guide for proponents:

- The Office of Environment and Heritage (OEH) (Parramatta).
- Deerubbin Local Aboriginal Land Council (DLALC).
- National Native Title Tribunal (NNTT).
- Native Title Services Corporation Limited (NTSCORP).
- Parramatta City Council.
- Local Land Services South East.
- Office of the Registrar.

Letters were sent requesting the details of any Aboriginal people or organisations that may hold cultural knowledge relevant to the Master Planning – Project Area. 15 Aboriginal people or organisations were identified as a result of this process, and were subsequently invited to register an interest.

An advertisement requesting Aboriginal people with cultural knowledge of the area to register as knowledge holders was placed in the Parramatta Sun newspaper on 19 June 2014 which circulates the within the Parramatta area.

Following Stage 1 of the ACHCRs (DECCW 2010): Appendix B (DECCW 2010b), **Table 2** identifies the Registered Aboriginal Parties (RAPs) for the Westmead Precinct.

Table 2 Letters inviting expressions of interest sent as a result of letters to government organisations

Organisation	Name of Representative	Date Contacted
Deerubbin Local Aboriginal Land Council	Steve Randall	28 May 2014
Darug Custodial Aboriginal Corporation	Leanne Watson	18 June 2014
Darug Tribal Aboriginal Corporation	Sandra Lee	18 June 2014
Darug Aboriginal Cultural Heritage Assessments	Gordon Morton	18 June 2014
Darug Land Observations	Gordon Workman	18 June 2014
Gunjeewong Cultural Heritage Aboriginal Corporation	Cherie Carroll Turrisse	18 June 2014
Scott Franks	-	18 June 2014
Amanda Hickey Cultural Services	Amanda Hickey	18 June 2014
Parramatta City Council Aboriginal Advisory Committee	-	18 June 2014
Holroyd City Council Advisory Committee	-	18 June 2014
Warragil Cultural Services	Aaron Slater	18 June 2014
Wurrumay Consultancy	Kerrie Slater	18 June 2014
HSB Heritage Consultants	Patricia Hampton	18 June 2014
Tony Williams	-	18 June 2014
Bidjowong Aboriginal Corporation	James Carroll	18 June 2014

3.1.2 ACHCR Stage 2

Information regarding the heritage assessment methodology and strategy for collecting information on cultural heritage significance was provided in writing to the RAPs on 8 July 2014. Five RAPs returned comments on the above methodology and strategy by the closing date for comments (**Table 3**).

Table 3 RAP response to methodology

Organisation	Name of Representative	Date Received
Wurrumay Consultancy	Kerrie Slater	08 July 2014
Darug Aboriginal Land Care	Des Dyer	09 July 2014
Gunjeewong Cultural Heritage Aboriginal Corporation	Cherie Carroll Turrisse	14 July 2014
Mr Williams	Mr Williams	16 July 2014
Kamilaroi-Yankuntjatjara Working Group	Phillip Khan	22 July 2014
Tocomwall Pty Ltd	Jennifer Norfolk	5 August 2014
Tocomwall Pty Ltd	Scott Franks	13 October 2014

3.1.2.2 Summary of Submissions Received

All RAPs to respond endorsed the methodology.

Archaeologist Jennifer Norfolk of Tocomwall requested further information about the project. Georgia Wright informed Jennifer that the project was at the pre-concept design stage and provided further information. Tocomwall made no further comment on the methodology.

On 5 August 2014 Jennifer Norfolk of Tocomwall confirmed that Tocomwall indorsed the Draft Aboriginal Cultural Heritage Assessment Methodology.

On 13 October 2014, after the Draft Aboriginal Cultural Heritage assessment had been sent to all RAPs, Scott Franks of Tocomwall sent an email to Tessa Boer-Mah. The email stated that Tocomwall now believed that the Aboriginal Cultural Heritage Assessment Methodology, previously endorsed, was missing information and that the appropriate consultation steps had not been undertaken.

Mrs Cherie Carroll Turrise of Gunjeewong Cultural Heritage Aboriginal Corporation noted that she would like all artefacts identified and recovered to be located within a proposed Aboriginal Heritage Museum.

Mrs Kerrie Slater of Wurrumay Consultancy and Mr Tony Williams identified that the Westmead area is significant to Aboriginal people. The area was also identified as having historical and modern significance for Aboriginal people.

3.1.3 ACHCR Stage 3

To provide registered Aboriginal stakeholders with information about the scope of the proposed activity and the cultural heritage assessment process, RAPs were invited to participate in an archaeological survey of the Feasibility Area. **Table 4** identifies stakeholders that attended the archaeological survey which was undertaken on two separate days.

Table 4 Archaeological survey participants

Organisation	Name of Field Representative(s)	Date Attended Survey
Darug Aboriginal Cultural Heritage Assessments	Gordon Morton	12 August 2014
Tony Williams	Tony Williams	12 August 2014
Darug Aboriginal Land Care	Shaun Lynch	12 August 2014
Darug Custodian Aboriginal Corporation	Elizabeth Coplin	12 August 2014
Darug Land Observations	Gordon Workman	12 August 2014
Darug Land Observations	Benjamin	12 August 2014
Tocomwall Pty Ltd	Danny Franks	25 September 2014
Kamilaroi-Yankuntjatjara Working Group	Phillip Khan	25 September 2014
Deerubbin Local Aboriginal Land Council	Steve Randall	25 September 2014
HSB Heritage Consultants	Patricia Thompson	25 September 2014

3.1.4 ACHCR Stage 4

The draft report (RPS 2014) was sent to RAPs for review and comment. RAPs were provided 28 days to make comments or requests for alterations or additions. RAPs are invited to comment on the cultural significance of the Westmead Precinct. Comments received are outlined in Table 5 below.

Table 5 RAP comment on Draft ACHAR

Organisation	Name of Representative(s)	Date of Comments	Comments
Tony Williams	Tony Williams	12 October 2014	I have read ACHA document and I congratulate you on a good report I am very happy with the outcome.
Darug Aboriginal Land Care	Des Dyer	15 October 2014	Agreed with the recommendations and methodology
Darug Custodian Aboriginal Corporation	Justine Coplin		Support the findings and recommendations of this report.
Tocomwall Pty Ltd	Danny Franks	10–14 October 2014	Believed that the initial information of the methodology was misleading. Believed that the consultation

			legislation had not been followed appropriately. Believed the involvement of Tocomwall had been misrepresented. The Draft ACHAR was not supported by Tocomwall.
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Following finalisation of the report, amendments were made to the early works program necessitating a review of recommendations. As the amended early works program included work within the previously identified area of high sensitivity along Toongabbie Creek, the amended final report (RPS 2015) was also forwarded to the Registered Aboriginal Parties for their comments. The following comments were received regarding the amended final report:

Table 6 RAP comment on amended Final ACHAR

Organisation	Name of Representative(s)	Date of Comments	Comments
Tocomwall Pty Ltd	Scott Franks	16.06.2015	Stated that RPS had not sufficiently consulted with RAPs; did not agree with the recommendations.
	Tony Williams	20.06.2015	Agreed with RPS' recommendations
Darug Aboriginal Cultural Heritage Assessments	Celestine Everingham	26.06.2015	Agreed with RPS' recommendations
Kamilaroi-Yankuntjatjara Working Group	Phil Khan	02.07.2015	Agreed with RPS' recommendations
Tocomwall Pty Ltd	Jakub Czastka	10.07.2015	Disagreed with archaeological conclusions.
Darug Aboriginal Land Care	Desmond Dyer	16.07.2015	No objections to the changes.

3.2 Consultation for the MSCP

On 16 October 2015 the following Registered Aboriginal Parties were provided with a copy of this draft report:

Table 7 Details of submission of draft report to Registered Aboriginal Parties requesting comment

Organisation	Name of Representative(s)	Mode of delivery
Deerubbin Local Aboriginal Land Council	Steve Randall	Email
Darug Custodial Aboriginal Corporation	Leanne Watson	Email
Darug Tribal Aboriginal Corporation	Gordon Workman	Email
Darug Aboriginal Cultural Heritage Assessments	Gordon Morton	Email
Darug Land Observations	Gordon Workman	Email
Gunjeewong Cultural Heritage Aboriginal Corporation	Cherie Carroll Turrise	Email
Darug Aboriginal Land Care	Des Dyer	Email
Kamilaroi-Yankuntjatjara Working Group	Phil Khan	Mail
Amanda Hickey Cultural Services	Amanda Hickey	Mail

Parramatta City Council Aboriginal Advisory Committee	-	Mail
Holroyd City Council Advisory Committee	-	Mail
Warragil Cultural Services	Aaron Slater	Mail
Wurrumay Consultancy	Kerrie Slater	Mail
HSB Heritage Consultants	Patricia Hampton	Mail
Tony Williams	-	Mail
Bidjawang Aboriginal Corporation	James Carroll	Mail

All registered parties were requested to provide any comments regarding the report to RPS by close of business **12 November 2015**. This is in accordance with the Secretary's Environmental Assessment Requirements (SEARs) for the MSCP project dated 1 October 2015 and addressed to Health Infrastructure (see Appendix 3).

The following registered Aboriginal parties provided comments on this report (written copies provided at Appendix 4).

Organisation	Mode of delivery	Comment
Aboriginal Archaeological Services (Tony Williams/Andrew Williams)	Email	Agreed with conclusions.
Darug Aboriginal Land Care	Email	Agreed with conclusions.
Phil Kahn	Phone	Agreed with conclusions.
Gunjeewong Cultural Heritage Aboriginal Corporation	Mail	Agreed with conclusions.

4.0 Environmental Context

An understanding of the environmental context is important for the predictive modelling and interpretation of Aboriginal objects and places. The local environment provided resources for Aboriginal people, such as stone (for manufacturing stone tools), food and medicines, wood and bark (for implements such as shields, spears, canoes, bowls, shelters, amongst others), as well as areas for camping and other activities. The nature of Aboriginal occupation and resource procurement is related to the local environment and it therefore needs to be considered as part of the cultural heritage assessment process. The reporting of environmental context is a requirement under the *Code of Practice* (DECCW 2010).

4.1 Geology and Soils

Aboriginal people made stone tools using siliceous, metamorphic or igneous rocks and therefore understanding the local geology can provide important information regarding resources in the Feasibility Area. The nature of stone exploitation by Aboriginal people was dependent on the characteristics of the source, for example whether it outcropped on the surface (a primary source), or whether it occurred as gravels as a secondary source (Doelman, Torrence et al. 2008).

The project area is situated within the Sydney Basin. The Sydney Basin is a structural basin containing a Permian-Triassic (290-200 million years old) sedimentary sequence that is part of the larger Sydney-Gunnedah-Bowen Basin. The Sydney Basin resulted from a marine transgression at the end of the Late Palaeozoic glaciation, followed by a marine regression in the Late Permian and Triassic. The lowest division is the Narrabeen group, which is overlain by Hawkesbury sandstone. The Wianamatta group is uppermost (Branagan, Herbert et al. 1976:28).

Most of the project area is underlain by Wianamatta group shale (Ashfield shale). Ashfield shale consists of dark-grey to black claystone-siltstone and fine sandstone-siltstone laminate (Clark and Jones 1991).

The northern part of the project area is underlain by Hawkesbury sandstone. Hawkesbury sandstone consists of medium to very coarse-grained quartz sandstone, minor laminated mudstone and siltstone lenses (Clark and Jones 1991). Hawkesbury sandstone is a fairly friable medium, and when weathered, forms cavernous overhangs suitable for Aboriginal occupation. It also occurs as outcrops (of various dimensions) and boulders. Outcropping sandstone provided a surface for engravings and pigment images, and on which ground-edged implements could be shaped and sharpened. Small quartz pebbles, commonly used for flaked artefacts, also occur in Hawkesbury sandstone. These pebbles (10-50 millimetres) erode to the ground surface, or may have been collected from stream beds, or chipped out of the sandstone (Attenbrow 2010:43).

The soil landscape represented within the project area is the Blacktown soil landscape. The Blacktown soil landscape includes shallow to moderately deep (less than 100 centimetres) hardsetting, mottled texture contrast red and brown podzolic soils on crests grading to yellow podzolic soils on lower slopes and drainage lines (Bannerman and Hazelton 1990:28-31). The implication of the Blacktown soil landscape is that the nature and extent of archaeological features and materials may have changed, or been removed through erosion.

4.2 Topography and Hydrology

The Project Area is situated on relatively low-lying land between the Westmead Hospital (Adults) and Institute Road. The land comprising the Project Area is sloping to the north and west from Hawkesbury Road, with Toongabbie Creek located approximately 370 metres to the north.

The availability of water has implications for the range of resources available and the suitability of an area for Aboriginal occupation. The nearby Parramatta River (900 metres to the east) would have provided Aboriginal people with a combination of freshwater and saltwater resources, as the river is tidal in its lower reaches. The freshwater streams entering the Parramatta River supported mullet, crayfish, shellfish and turtles, while the river proper supported saltwater sources of food including fish, shellfish, molluscs and eels (Kass, Liston et al. 1996:6). Investigations of shell middens in the upper estuarine reaches of the Parramatta River indicates that shell fish procured by Aboriginal people included rock oysters and cockles, and to a lesser extent, Hercules whelks, mud oysters, spiny oysters, winks and horn shells (Attenbrow 1991:49).

The topography and hydrology of the Project Area demonstrates that the landscape may have been habitable for past populations; the area would have provided sufficient water resources and been fertile enough to sustain human occupation.

4.3 Flora and Fauna

The purpose of this section is to provide an indication of the types of flora and fauna resources which were likely to have been available to Aboriginal people in the past. It is based on broad-scale vegetation mapping for NSW (Keith 2006) and does not replace more detailed studies undertaken for the Feasibility Area.

The project area is situated within the mapped extent of Northern Hinterland Wet Sclerophyll Forests and Coastal Valley Grassy Woodlands. Northern Hinterland Wet Sclerophyll Forests have a prominent grassy ground cover under an open layer of both mesophyllous and sclerophyllous shrubs. The tree layer is open and tall, and includes a variety of eucalypts that may exceed 40 metres (Keith 2006:70-71). The Northern Hinterland Wet Sclerophyll Forests contain an extensive, variable and diverse range of flora. Indicative species include tallowwood, blackbutt, grey gum and grey ironbark, and narrow-leaved orange bark, dogwood, prickly shaggy pea and tree heath, as well as spiny haired mat rush, wiry panic and blade grass (Keith 2006:71).

Coastal Valley Grassy Woodlands include a diverse range of plant assemblages. Forest red gum is dominant, standing 20-30 metres tall, and occurring in abundance with a number of other species. The understory has dispersed and clumped shrubs, most of which are sclerophyllous. Indicative species include blackthorn, which may occur as thickets, hickory wattle, gorse bitter pea and prickly beard-heath (Keith 2006:87). There is a dense ground cover with a diverse range of perennial tussock grasses, scrambling twiners, and perennial herbs, periodically supplemented by flushes of geophytic orchids and lilies in good seasons or after fire (Keith 2006:86-87).

These vegetation communities provide habitat for a variety of fauna, and would have provided potential food and raw material sources for Aboriginal people. Fauna inhabiting these vegetation communities include kangaroos, wallabies, possums, and echidnas, a variety of lizards and snakes and birds. The bones of these fauna have been recovered from archaeological investigations, indicating that they were sources of food, although the hides, bones and teeth of some of the larger mammals may have been used for clothing, ornamentation, and other implements.

4.4 Land use History

This Section provides a concise European development in the vicinity of the Project Area. A full historical development of the Project Area and its environs can be found in the Statement of Heritage Impact Report (RPS 2014).

In 1810, Governor Macquarie resumed a large parcel of land, including the current Project Area, and declared it as the Government Domain. The land making up the Project Area was initially part of what was known as the Domain's 'West Meadow'. The 'West Meadow' remained part of the Government Domain until

approximately 1859, when the northern and western meadows were subdivided off, from which time they became known as 'Northmead' and 'Westmead' respectively. Small private holdings took up much of the subdivided land, and Westmead became known for its orchards.

The original alignment of the Old Windsor Road was originally constructed to enable the new settlement of Windsor access to Parramatta and Sydney. The road originally commenced at the Great Western Highway near Parramatta and cutting through the Old Government Domain, followed the current alignments of Hawkesbury Road and Darcy Road, before turning to Fulton Road (Office of Environment & Heritage 2009). The original road alignment now borders the current Project Area as Darcy Road.

In 1902 a branch line was constructed between Westmead and Baulkham Hills, known as the "Rogan's Hill Line". A station at Mons Road (the north western boundary of the current Project Area), was added to the route in 1923, amongst others. This part of the line traversed from south west to north east through the Feasibility Area to Northmead. The line was not successful, having to compete with road transport and was closed in 1932. An aerial photograph from 1943 clearly shows the remnants of the tramline running to the north of the Project Area before crossing Toongabbie Creek (Plate 1). The only remaining above-ground evidence of the line in the vicinity of the Project Area is a sandstone pier for the bridge crossing the Toongabbie Creek (NSW Rail NSW Rail Net ud.). The 1943 aerial also shows the former Westmead Showground and a vehicle access track within the Westmead Precinct.

After local petitioning, the land for the showground was granted in 1931. The 'Show and Sports Ground at Parramatta' hosted shows by the Parramatta Agricultural Horticultural and Industrial Society as well as events such as racing.

Owing to a dramatic rise in the population in Western Sydney in the 1960s, the old Parramatta Hospital which had operated at its location since 1789 was by then operating well beyond its capacity. The NSW Government announced the need to construct a new hospital complex to augment services provided by Parramatta Hospital. Following a grant from the Federal Government in 1974, construction began on the hospital. The Westmead Hospital was opened in 1978, and became the first tertiary referral health centre in the outer suburbs of Sydney. It was also the first teaching hospital to be built in Sydney since the Royal Prince Alfred Hospital at Camperdown in 1882.

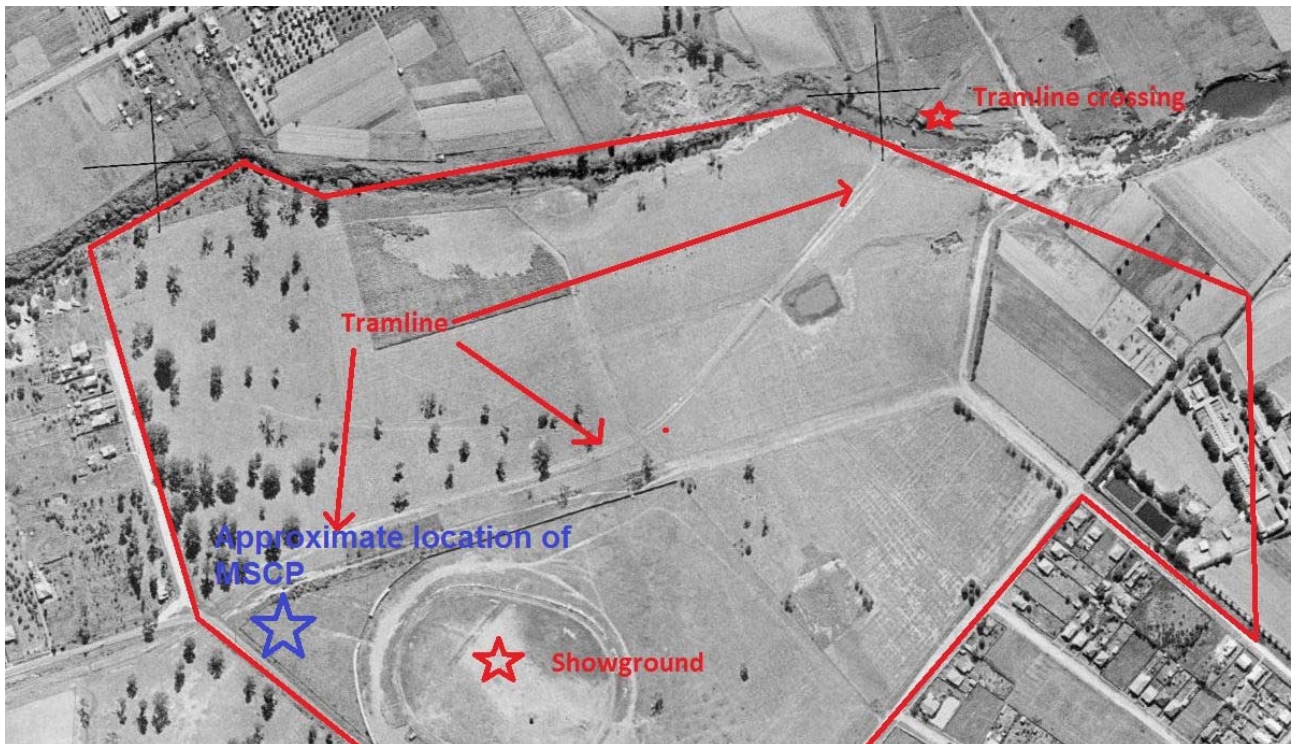


Plate 1 1943 Aerial showing Westmead Hospital campus outline, former tramline, showground and MSCP .

4.5 Summary

The environmental context above relates to how the land would have appeared in its natural state. However, since 1788 the project area has undergone extensive modification through vegetative clearance, agriculture, landscaping and construction of the various institutions, hospitals and infrastructure. There is very little native vegetation remaining, with the exception of areas along the banks of Toongabbie Creek.

The various land uses across the Westmead Precinct since 1788 and primarily during the mid to late twentieth century, have resulted in the modification of natural land form units and surfaces. In some cases, it would appear that the land has been excavated to create level surfaces, whilst fill deposits appear to have been laid to raise the level of other surfaces.

5.0 Ethno-historical Context

In line with the OEH reporting requirements (DECCW 2010c), this section synthesises information pertaining to the history and ethnography of the regional and local area. This information has been drawn upon from historical, Ethno-historical and previous archaeological assessments.

Aboriginal tribal boundaries within Australia have been reconstructed, primarily, based on surviving linguistic evidence and are therefore only approximations. Social interaction, tribal boundaries and linguistic evidence may not always correlate and it is likely boundaries and interaction levels varied and fluctuated over time.

The property now encompassing the Project Area formed part of the traditional lands of the Burramattugal clan of the Darug people. The Darug language group extended from the coast between Port Jackson and Botany Bay, over the Cumberland Plain to the Blue Mountains. The Darug language comprised two dialects: a coastal dialect spoken within Sydney (north of Botany Bay, south of Port Jackson and west to Parramatta), as well as to the north of Port Jackson; and a hinterland dialect, spoken on the Cumberland Plain from Appin in the south to the Hawkesbury River in the north and west of the Georges River, Parramatta and on the Lane Cover Rive and Berowra Creek (Attenbrow 2010:34).

5.1 Aboriginal Land Use and Social Organisation

The social organisation of Aboriginal people in Sydney was observed as named groups associated with designated tracts of land. Land custodianship and ownership therefore, centred on clan groups. It was normal practice to disallow intermarriage within immediate lineage groups, and as such a number of groups would have travelled together making up larger units, often referred to as bands (Attenbrow 2010).

Groups were delineated by physical boundaries within the landscape, such as watercourses and landform features. Individuals were usually united by a common dialect, descent, history, and a shared 'Dreaming' ancestor, with each group led by influential individuals. In the Sydney area, spiritual attachment and allegiance to land was centred on the clan. Bands formed part of a larger language group, whose estate would have represented the extent of the land occupied by that larger group of people with economic and ritual rights (Attenbrow 2010).

The complexity of the relationship within and between clan groups and bands was not recorded, nor was the relationship between these groups and the wider Aboriginal population. Numerous assumptions have been made regarding Aboriginal occupation of the Sydney area based on ethnographic observations elsewhere. The degree of interaction between groups depended on general environmental conditions, seasonal produce and abundance, population density, and a tendency towards the conservation of effort (Peterson 1976:58). Localised seasonal abundances, as evidenced in annual bird migrations, would have encouraged interaction, as would have the less predictable resources such as beached whales reported in the Sydney region (Attenbrow 2010).

Documentation of Aboriginal land use indicate that Aboriginal people moved from place to place for variety of reasons, including hunting and gathering of food and other resources, and participating in rituals and ceremonies. Colonists' accounts however, indicate that there was limited interaction between coastal and inland groups. This was based on differences in economic practices, and on the finding that the Aboriginal people of Port Jackson had no knowledge of the area north or west of Parramatta, or south of the Georges River (Tench 1789 ; Barrallier 1802).

Colonists' accounts described the use of bark huts as dwellings in the Sydney area. The coastal versions of these were described as being larger than the inland ones, being "formed of pieces of bark from several trees put together ... large enough to hold six to eight people" (Collins 1798:460). On a short trip west of

Rose Hill (later Parramatta), Governor Arthur Phillip reported sighting bark huts, fire places, and the results of plant collecting and hunting (fern roots, shells, animal bones, and the fur of a 'flying squirrel' or possum, and scarred and burning trees). He noted that "the hut may, perhaps, only be intended to hide them from the animals they lay in wait for" (Phillip 15 May 1788, cited in Attenbrow 2010:48).

Observers also noted the use of sandstone overhangs or shelters:

"They appear to live chiefly in the caves and hollows of the rocks, which nature had supplied them with, the rocks about the shore being mostly shelving and overhanging so as to afford a tolerable retreat" (Barrington 1802:20).

Aboriginal people actively managed the natural environment so as to provide themselves with a diverse and consistent supply of food and other resources. On an exploration of the Rhodes area in 1788 Phillip noted:

"We proceeded to the beginning of the flats, where we landed and went 2 or 3 miles into the country. Found the trees a considerable distance apart and the soil in general good... [the] grass [was] very good and [there was] no underwood. After dinner went in the smallest boat over the mudflats past a mangrove island and followed a creek some distance westward" (Bradley 1788:76).

This landscape reflected Aboriginal burning. Systematic and low intensity burning was used as a way to maximise environmental diversity and productivity. Other productivity initiatives included the deliberate discard of seeds of fruits and other plants close to regular campsites and the construction of fish traps to a design which allowed fish to survive and be harvested when needed.

Edible and useful plants were distributed through the different vegetation communities of the Sydney area, which were principally eucalypt woodlands but also heaths, freshwater swamps, and estuarine saltmarsh and mangrove communities. These included the roots of ferns and orchids, yams, figs, mistletoe, geebung, apple berries, native currants, native cherries and native raspberries, banksia flowers. These vegetation communities were also inhabited by a large number of different fauna. These included kangaroos, wallabies, possums, gliders, bandicoots, wombats, fruit bats and numerous bird species (Attenbrow 2003:62-84).

The main sources of stone materials in the Sydney area were gravel beds of watercourses and conglomerate pebbles in Hawkesbury sandstone. The Cumberland Plain appears to have had a greater number and wider distribution of resource locations and a greater range of stone types suitable for the manufacture of tools, than the coastal area. Silcrete and basalt were available in the coastal zone, in addition to the sandstone quartz conglomerate described above (Attenbrow 2003:43-44).

5.2 Post Contact Ethno-historical Context

On establishing a settlement at the Crescent at Rose Hill, later Parramatta, a garrison detachment was sent to erect temporary quarters, store buildings and minor fortifications (a redoubt) to guard the settlement against a possible incursion by Aboriginal people. Despite these initial fears, there appears to have been little conflict between Aboriginal people and settlers at Rose Hill up to the early 1790s (Kass, Liston et al. 1996:26). Aboriginal people and settlers were often engaged in trade with David Collins recording the nature of these transactions:

Since the establishment of that familiar intercourse which now subsisted between us and the natives, several of them have found it in their interest to sell or exchange fish among the people of Parramatta; they being contented to receive a small quantity of either bread or salt meat in barter for mullet, bream and other fish. To the officers who resided there this proved a great convenience, and they encouraged the natives to visit them as often as they could bring them fish (Collins 1798:137).

Tensions however, soon mounted as disputes over traditional lands and resources increasingly arose. The opening up of the Toongabbie Ponds (north-east of Parramatta) and Prospect areas to settlement in the early 1790s (Collins 1975:144), led to increased land exploitation in the form of clearing, grazing and cultivation, and as a consequence the resource area available to Aboriginal people reduced.

Phillip reinstated the detachment at Rose Hill on 15 September 1790 (Tench 1789) with Collins describing the events which led to a decline in relations at Rose Hill in June 1791:

There were, however, among the convicts some who were so unthinking, or so depraved as wantonly to destroy a canoe belonging to a fine young man, a native, who had left it at some distance from the settlement and as he hoped out of the way of observation, while he went with some fish to the huts. His rage at finding his canoe destroyed was inconceivable; and he threatened to take his own revenge... Three of the six people who had done him injury, however, were so well described by someone who had seen them, that, being closely followed, they were taken and punished, as were the remainder a few days after.

The instant effect of all this was, that the natives discontinued to bring up fish; and Bal-loo-der-ry (Bolloderree), whose canoe had been destroyed, although he had been taught to believe that one of the six convicts had been hanged for the offence, meeting a few days afterwards with a poor wretch who had strayed from Parramatta as far as the flats, he wounded him in two places with a spear. This act of Bolloderree's was followed by the Governor's strictly forbidding him to appear again in any of the settlements; the other natives, his friends, being alarmed, Parramatta was seldom visited by any of them and all commerce with them was destroyed. How much greater claim to the appellation of savages had the wretches who were the cause of this, than the native who was the sufferer? (Collins 1798:138-139).

By the late 1790s, Aboriginal and settler relations had declined to such an extent that active guerrilla campaigns were waged against settlers in Parramatta and Sydney by organised groups of Aboriginal people.

Hostilities between Aboriginal people and settlers began to decline by the 1810s. Devastated by dislocation and depopulation Aboriginal people became more dependent on settlers to provide them with food, clothing and shelter. While traditional lifestyle continued in some more remote areas, many remnant bands of Aboriginal people began to congregate on the fringes of settlements. In the early 1810s, government and religious attempts to Anglicise Aboriginal people commenced. Governor Lachlan Macquarie, from 1810 to 1821, pursued a policy of assimilation which aimed at encouraging Aboriginal people to abandon traditional culture and adopt a colonial life.

In January 1815 Macquarie established the Native Institution at Parramatta. The Native Institution aimed to prepare Aboriginal children for colonial life. The children learnt religion, reading, writing and arithmetic. The boys were taught agricultural principles and practices, and the girls were taught needlework. The children demonstrated their skills at the annual Native Feast (Attenbrow 2010:84).

On 10 December 1814 Macquarie had called for a meeting in Parramatta, to be held on the 28 December, requesting the attendance of all Aboriginal people living between Port Jackson and the Blue Mountains. Macquarie hoped to instigate and promote a government sanctioned 'Native Feast', designed to attract Aboriginal people to the Native Institution. The feast took place behind Saint John's Church and was attended by around 60 Aboriginal people of different affiliations. Aboriginal attendance at the feast grew in the following years, with some 300 people in attendance in 1818 (Dallas 2003:51-52) (Plate 2). Though the last time the children presented their accomplishment at the Native Institution was in 1822, the feast was retained as a demonstration of the Governments goodwill towards Aboriginal people. Diminishing attendance in the late 1820s led Governor Richard Bourke to abolish the event in 1835 (Dallas 2003:54).



Plate 2 Augustus Earle *The annual meeting of the native tribes at Parramatta* (Courtesy, National Library of Australia, Rex Nan Kivell Collection NK 12/57)

6.0 Archaeological Context

In line with the OEH reporting requirements (DECCW 2010c), this section synthesises information pertaining to the regional and local Aboriginal archaeological context. This information has been drawn upon in the archaeological assessment of the Project Area and has been utilised for the development of a predictive model and in formulating the recommendations presented in this report.

6.1 Aboriginal Heritage Information Management System (AHIMS)

A search of the AHIMS on 15 May 2015 revealed that 37 Aboriginal objects have been recorded within the searched area which is much broader in size than just the Project Area itself (**Table 5**). The details of the search are as follows: GDA Zone 56, Eastings 313288-315031, and Northings 6257478-6258284, with a fifty metre buffer (**Appendix 2**).

Table 8 Aboriginal objects within the searched coordinates

Site type	Frequency	Percent
Open Camp Site (Isolated Find/ Artefact Scatters)	16	43.2
PAD	12	32.4
Grinding groove	2	5.4
Shelter with art	1	2.7
Scarred tree	1	2.7
Scarred tree, artefact	1	2.7
PAD, artefact	4	10.9
Total	37	100

The AHIMS search (**Figure 3**) revealed that one Aboriginal object (AHIMS 45-5-1110 Redbank) has been erroneously recorded near the Westmead Hospital Precinct Area (but note it is outside the area of any proposed redevelopment).

AHIMS 45-5-1110 (Redbank) was first recorded in June 1997 by M. Guider as a grinding groove. Further assessment of the site undertaken by Mary Dallas and Paul Irish was undertaken in July 2001, the survey identified the grooves as non-cultural. An update to the site card was made and is included in the Aboriginal cultural heritage study (Dallas 2003) (see also **Appendix 1**). AHIMS 45-5-1110 (Redbank) is described as four weathered axe grinding grooves on flat sandstone platforms in the centre of Toongabbie Creek. The Aboriginal cultural heritage study noted that it was possible that the grinding grooves had been misidentified, and that the grooves recorded in 1997 were weathered and worn.

A further assessment of this site was undertaken as part of the Review of Environmental Factors prepared for the Master Planning and Feasibility area for the Westmead Hospital Redevelopment by RPS (RPS 2014). RPS concurred with the opinion of Dallas and Irish, and this was confirmed by registered Aboriginal parties for that project: Gordon Morton (DACHA), Tony Williams, Gordon Workman (DLO) and E. Coplin (DCAC).

6.2 Regional Archaeological Literature Review

A review of previous archaeological and heritage reports within the wider Parramatta region has been undertaken to inform this ACHAR.

Dallas, M. (2003) Aboriginal cultural heritage study, Parramatta

In 2003 Parramatta City Council commissioned an Aboriginal cultural heritage study to inform future land planning and development control processes, and to ensure ongoing protection and management of Aboriginal heritage places.

The study determined that stone artefacts were the most commonly recorded Aboriginal object within the Parramatta Local Government Area (LGA) (64 per cent). The study noted that the low number of shelters recorded within Parramatta LGA (19 per cent) is a result of the underlying shale, which does not form stone overhangs suitable for habitation. Where such stone formations do occur, on the northern side of the Parramatta River, the relief is, in general, less than that further north and east. The study noted that the low number of grinding grooves remaining within the Parramatta LGA is likely the result of hydraulic action and flooding. Grinding grooves are often located within or adjacent to flowing water, which may result in weathering through hydraulic action. In addition slight increases in water level (resulting from damming of creeks and changed drainage patterns) may have drowned some grinding grooves. In addition, suitable sandstone platforms are uncommon within the LGA. The study also noted that the low number of scarred trees present within the Parramatta LGA (five per cent) is a result of clearing in the historic period.

Trends and predictions for Aboriginal heritage were considered as part of the study. These include:

- A large number of stone artefacts (scatters and isolated finds) have been recorded within the Parramatta LGA. Most of these have been recorded west of Parramatta, on the Cumberland Plain. Surface scatters tend to be heavily disturbed and contain a small number of artefacts. When excavated however, areas with little or no surface expression, contained substantial archaeological deposits with artefacts. Those artefacts that have been recorded on or near permanent water sources tend to be more complex than those recorded on ephemeral streams. In addition, while artefacts have been found on a range of landforms, most have been recorded on or near water sources.
- Middens are largely absent from the Parramatta LGA. The lack of middens is attributed to riverside reclamation of land and industrial development, and to the association of middens with rocky shore environment, which is not found within the LGA.
- Given the number of previous archaeological investigations within the Parramatta LGA, the potential for finding further shelters or engravings is low.
- Grinding grooves are vulnerable to water erosion. Given the modification of water flow within the Parramatta LGA, it is possible that further grooves are present underwater.
- Due to level of clearing and development within the Parramatta LGA, the potential for the identification of further scarred trees is low. There are however, several areas of potential remnant forest (near Lake Parramatta Reserve) that have not been extensively surveyed and may contain previously unidentified scarred trees.

The study identified a number of places of Aboriginal heritage significance within Parramatta. These were places where Aboriginal people had early contact with settlers and government officials and which underwent significant change as a result of official and unofficial government policy and dominant socio-political doctrine. Such places may or may not retain archaeological evidence that reflects the true Aboriginal cultural significance of that location. Identified places included Parramatta Park, the Parramatta Native Institution, the Female Orphan Institution, A'Becketts Creek, Clay Cliff Creek, the Camellia Peninsula, the Parramatta Market Place, burial grounds, gaols and Saint John's Church.

The study included Aboriginal heritage sensitivity mapping for the Parramatta LGA. The following levels of sensitivity were identified:

- High: Known Aboriginal heritage, high archaeological potential, undisturbed natural landscape.

- Moderate: Some archaeological potential, partially disturbed landscape.
- Low: Largely disturbed landscape.
- None: Completely disturbed landscape or reclaimed land.

The current Project Area was identified as being of low sensitivity. The 2003 mapping has since been revised and an updated map is included in the Parramatta DCP 2011. The only portion of the Westmead Hospital campus identified as having high sensitivity is along Toongabbie Creek while the remainder of the campus was identified as having low sensitivity. The current Project Area is located well outside of that area of high sensitivity.

AHMS (2011) Aboriginal and historical preliminary archaeological impact assessment, 330 Church Street, Parramatta

This report details the results of a preliminary Aboriginal cultural heritage and historical heritage assessment prepared as part of the proposed development of 330 Church Street, Parramatta. The AHMS Study Area is located within the centre of Parramatta City and along the edges of the Parramatta River and is approximately 1.6 kilometres south east of the current Area.

The assessment included the review of background data, the AHIMS database and a site survey. The assessment identified that the location of 330 Church Street was within 200 metres of freshwater resources, is located within a Pleistocene sand sheet known as the Parramatta Sand Body and along a Holocene alluvial floodplain. Concurrently, the assessment identified that the Study Area had been subject to varying levels of modern disturbances. The assessment identified that the sand body, if identified below areas of disturbance, may have archaeological deposits up to 2 metres deep. More intact areas with lower disturbance are also likely to have potential for Aboriginal archaeological deposits.

The assessment identified two areas of high Aboriginal archaeological sensitivity. A large portion of the Study Area was identified as having low to nil Aboriginal archaeological sensitivity, with the central portion of the site identified as having moderate Aboriginal archaeological sensitivity. The assessment identified that the proposed four level sub-surface car park would impact upon areas of the Pleistocene sand sheet and Holocene alluvial floodplain. These areas had been identified as having high and moderate Aboriginal archaeological sensitivity.

Artefact Heritage (2014) Aboriginal archaeological assessment, 'Riverside' Parramatta Development Project: 12–14 Phillip Street and 333-339 Church Street Parramatta

This report details the results of a preliminary Aboriginal cultural heritage and historical heritage assessment prepared as part of the proposed residential and commercial re-development of the site. The 12–14 Phillip Street and 333-339 Church Street, Parramatta Study Area is located approximately 1.4 kilometres south east of the current Project Area.

The assessment undertook a search of the AHIMS database which did not identify previously recorded Aboriginal objects within the Study Area, however, 38 were identified within a kilometre radius of the site. The assessment identified that part of the Study Area located along the Parramatta Sand Body as having high Aboriginal archaeological sensitivity within the Parramatta DCP. Geo-technical investigations across the site confirmed the presence of the Parramatta Sand Body.

The assessment identified that the Study Area had been subject to moderate levels of disturbance. The assessment concluded that the areas adjacent to the Parramatta River had low archaeological potential while the remainder of the site had high levels of potential for sub-surface Aboriginal archaeological material. Further archaeological assessment was recommended in order to fully understand the nature and extent of potential Aboriginal archaeological resource.

6.3 Archaeological Literature Review of the Westmead Hospital precinct

A review of previous archaeological and heritage reports within the Westmead Hospital Precinct has been undertaken to inform this ACHAR, the results of which are summarised below.

RPS (2014/2015) Aboriginal Cultural Heritage Assessment Report, Westmead Hospital Redevelopment

This assessment was initiated in 2014 ahead of the proposed redevelopment of Westmead Hospital. The purpose of the 2014 investigation was to identify as many risks to Aboriginal heritage within the boundaries of the Westmead Hospital campus as possible so as to inform the planning of the redevelopment. The report was updated in 2015 to include early works in the northern part of the site near the existing helipad. Each stage of the investigation was undertaken in consultation with Registered Aboriginal Parties in compliance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (2010).

No Aboriginal objects or places were identified within the Westmead Hospital campus. One recorded site was noted on a rock shelf beneath the Redbank Road bridge, however as noted above, Dallas and Irish concluded that this was not a cultural mark. RPS agreed with this conclusion.

Although no sites were identified during the 2014 investigation, the presence of an area of high sensitivity was noted along the southern banks of Toongabbie Creek, outside of the Westmead Hospital fence. This area was designated as being of high sensitivity because of the known presence of Aboriginal people in the Westmead and Parramatta areas from historical sources and the relatively undisturbed nature of the creek banks. It was recommended that no earthworks take place in this area during the redevelopment of Westmead Hospital and that a Cultural Heritage Management Plan be developed to manage this area of sensitivity during the life of the redevelopment.

Comber Consultants (2011) Aboriginal cultural heritage assessment, Cumberland Hospital, Westmead

This report details the results of an Aboriginal cultural heritage assessment prepared ahead of an upgrade of electrical infrastructure within the Cumberland Hospital, Hainsworth Street and Park Avenue, Westmead and Dunlop Street, New Street, Factory Street and Fleet Street, North Parramatta. The assessment was undertaken in accordance with the *Code of Practice* (DECCW 2010).

The assessment included a search of the AHIMS database. No Aboriginal objects were identified within the Cumberland Hospital or adjoining areas. The assessment also considered the Aboriginal heritage sensitivity (as identified in the Aboriginal cultural heritage study) of the Cumberland Hospital and adjoining areas. The eastern campus of Cumberland Hospital was identified to be of high sensitivity and the western campus (including the current Project Area) of low sensitivity.

The assessment concluded that much of the area under investigation was located within a long established hospital campus, containing numerous built structures, underground services much of which had been landscaped. The remainder of the area was located within road reserves. The assessment concluded that, due to the level of disturbance within the Cumberland Hospital and adjoining areas, this area possessed low to nil Aboriginal archaeological potential (Comber Consultants 2011).

Higginbotham 2009

Previous historical archaeological investigations (Higginbotham 2009) indicate that a sand body may be present within Westmead. Deep sand deposits have been identified in photographs of an historic archaeological feature within the eastern campus of the Cumberland Hospital (Higginbotham 2009:100). The sand deposit in the photograph has been sealed beneath a layer of fill.



Plate 3 Plate from Higginbotham, 2009 (page 100), showing section of trench from excavations within the Cumberland east precinct. Note sand body beneath dark soil cut feature (Higginbotham, 2009:100)



Figure 2: Project Area with AHIMS

LOCATION: Westmead

DATUM: GDA94

PROJECTION: MGA Zone 56

JOB NO.: PR127746

Data Sources:

PURPOSE: HERITAGE

Client Supplied

Technician: Natalie Wood Date: 12/11/2015

CLIENT: NSW HEALTH INFRASTRUCTURE

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RPS

6.4 Synthesis of Heritage Context

A review of the AHIMS and previous archaeological investigations suggests that the Parramatta and Westmead areas were populated by a significant Aboriginal population until European settlement in 1788. This is confirmed by the AHIMS data and by historical and ethnographic data collected shortly after European settlement. The mix of site types in the vicinity of the Project Area suggests it was utilised for various purposes.

6.5 Predictive Model

A predictive model is created to provide an indication of Aboriginal objects likely to occur in the Project Area. It draws on the review the regional and local archaeological context, as well as, the environmental context. The predictive model is necessary to formulate appropriate field methodologies, as well as, providing information for the assessment of archaeological significance.

There are a number of factors which influence Aboriginal occupation of an area. These include essential subsistence resources such as food (flora and fauna), as well, as freshwater. However, other resources such as stone raw materials, wood and bark, animal skins, reeds for uses such as basket weaving, string, clothing and similar were also used. Landscape features such as ridges, flat elevated areas, shelters and similar, may have also influenced Aboriginal occupation of an area. In addition, cultural activities may have also taken place at certain locations in the landscape for example corroborees, mythological places, initiation places and similar.

6.5.1 Cumberland Plain Predictive Model

The OEH AHIMS database has over 4000 previously recorded Aboriginal archaeological sites identified across the Cumberland Plain. Of the sites previously recorded across the Cumberland Plain, the vast majority are stone artefact sites. Previous archaeological evidence suggests that Aboriginal archaeological sites are likely to occur in various manifestations across the entire Cumberland Plain, with areas of archaeological potential identified wherever there has been limited prior surface disturbance.

Beth White and Jo McDonald have recently contributed to the debate over site prediction in their discussion on the nature of Aboriginal site distribution across the Cumberland Plain (White and McDonald 2010). The paper provides a spatial and distributive analysis of Aboriginal objects in relation to freshwater resources and along varying landform units. The study highlighted the relationship between the proximity to freshwater and Aboriginal land use. The following predictive statements can therefore be made:

- In the headwaters of upper tributaries (i.e. first order creeks) archaeological evidence will be sparse and represent little more than a background scatter.
- In the middle reaches of minor tributaries (second order creeks) will be archaeological evidence for sparse but focussed activity (e.g. one-off camp locations, single episode knapping floors);
- In the lower reaches of tributary creeks (third order creeks) will be archaeological evidence for more frequent occupation. This will include repeated occupation by small groups, knapping floors (perhaps used and re-used), and evidence of more concentrated activities;
- On major creek lines such as the lower reaches of Second Ponds and Caddies Creeks (fourth order) will be archaeological evidence for more permanent or repeated occupation. Sites will be complex and may even be stratified.
- Creek junctions may provide foci for site activity; the size of the confluence (in terms of stream ranking nodes) could be expected to influence the size of the site;
- Although occupation in the area is likely to have commenced c.14,000 years ago (Kohen *et. al.*, 1981)

most sites on the Cumberland Plain have been dated to the late Holocene.

Following excavations at the Rouse Hill project area which adopted the above model it was found that the above predictive model was limited, thus it was augmented to reflect better accuracy (McDonald, 2009) with the following:

- Most areas – even those with sparse or no surface manifestations of cultural material – contain sub-surface archaeological deposits;
- Where open sites are found in aggrading and stable landscapes, some are intact and have the potential for structural integrity. Sites in alluvium possess potential for stratification.
- While ploughing occurs in many areas of the plan, this only affects the deposit up to 30 cm deep, and even then ploughed knapping floors have been located which are still relatively intact.
- Contrary to earlier models for open sites, many sites contain extremely high artefact densities with variability appearing to depend on the range of site types present.
- The complexity of the archaeological record is also far greater than was previously identified on the basis of surface recording and more limited test excavation. Intact knapping floors, backed blade manufacturing sites, heat treatment locations, a number of apparently specialised tool types and general camp sites were all found.
- Two Early Bondian dates (between 5,000 – 3,000 BP) provide a context for some backed blade manufacture;
- Generally, sites on permanent water are more complex (i.e. they represent foci for larger groups or are used repeatedly by smaller groups over a longer period of time) than sites on ephemeral or temporary water lines (McDonald, 1996:115).

6.5.2 Predictive Model for MSCP Project Area

The Westmead Precinct is largely occupied by the existing Westmead Hospital and Westmead Children's Hospital, with very little remaining natural land surfaces. The areas of least disturbance border Toongabbie Creek, which is located outside the Project Area. As noted above, the current Project Area comprises an at-grade car park used for staff parking. It is bordered by concrete kerbed garden beds which are aggraded and covered in mulch.

6.5.2.1 Potential Impact of Former Land Uses

The Project Area, like the wider Westmead Precinct, has been subject to substantial levels of disturbance. Disturbances across the Westmead Precinct relate to the construction of the Westmead Hospital and associated buildings, services and infrastructure. Bulk excavations including benching and mass filling have occurred across the Project Area.

In addition, it is known that the former Parramatta Showground, on which Westmead Hospital was built, was also used by James Hardie for the disposal of asbestos. The method of disposal was often carried out by excavation of large, deep pits, burying the asbestos then capping the pit with fill. A report from the Environmental Protection Agency notes that Parramatta Showground was used for asbestos disposal, however does not state exactly the location within Parramatta Showground where the asbestos was dumped (EPA 2010).

6.5.2.2 Predictions

Because of the extensive disturbances to the Project Area, **it is not anticipated that any archaeological material of Aboriginal origin will be disturbed by the proposed works.** However, as Aboriginal material can be encountered in almost any context, the following predictions were made in 2014 for the Westmead Precinct on the basis of the environmental context, available historic observations of Aboriginal people in the

region, previous archaeological investigations, the results of an AHIMS search, Aboriginal community consultation, and geotechnical investigations.

- Artefact sites are possible in the vicinity of Toongabbie Creek and Parramatta River. Superficial disturbances may have removed any surface artefacts, however, subsurface artefacts are possible in these zones.
- Stone artefacts are the most common site type across the Cumberland Plain and within the local area. It is therefore predicted that stone tools will be the most likely physical remnants of past Aboriginal land use.
- Complex artefact scatters are more likely given that Toongabbie Creek and Parramatta River are high order streams. It is also likely that complex artefact scatters will be located within the vicinity of the confluence of the two watercourses.
- Previous assessments and AHIMS results have identified that silcrete artefacts dominate the archaeological record. As such, if artefacts are identified, it is predicted the vast majority will be of silcrete raw material.
- Natural sand sheets may have been capped with rubble fill. It is therefore predicted that natural soil landscapes may be located in parts of the Hospital grounds that have been capped with fill.