

Godden Mackay Logan

Heritage Consultants



# Channel Nine, Willoughby

## Aboriginal Archaeological Due Diligence Report

Report prepared for Lend Lease  
29 January 2013

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Job No.	Issue No.	Notes/Description	Issue Date
13-0008	1	Draft	25 January 2013
13-0008	2	Final Report	29 January 2013

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## 1.0 Introduction

Godden Mackay Logan (GML) Pty Ltd has been engaged by Lend Lease to prepare a Due Diligence Aboriginal Archaeology Report for the Channel 9 Artarmon site, Willoughby (the study area). This report forms part of the Environmental Assessment for the study area prepared under Part 3A of the *Environmental Planning and Assessment Act 1979*.

The purpose of this report is to identify whether the study area possesses or has the potential to possess Aboriginal heritage sites, places, objects and/or values, in accordance with the Office of Environment and Heritage (OEH) guidelines for due diligence.

This report does not provide a significance assessment of any Aboriginal sites, places and/or values. This project does not follow the OEH guidelines for Aboriginal community consultation. Recommendations are provided as to whether further Aboriginal heritage assessment and management will be necessary.

This report was prepared by Joshua Madden, archaeologist and reviewed by Dr Tim Owen, Associate and David Logan, Partner. The site visit was conducted by Joshua Madden and Sam Cooling, archaeologists of GML.

### 1.1 NSW Legislation Relevant to Aboriginal Heritage

In NSW Aboriginal heritage is principally protected under two Acts:

- the *National Parks and Wildlife Act 1974* (NWS Act 1974); and
- the *Environmental Planning and Assessment Act 1979* (EP&A Act 1979).

On 1 October 2010 the mechanisms for the protection and management of Aboriginal heritage places and objects changed with the adoption of the *NPW Amendment (Aboriginal Objects and Places) Regulation 2010*.

New offences relating to the harm to, or desecration of, an Aboriginal object or declared Aboriginal Place were introduced. The definition of 'harm' now includes to destroy, deface, damage or move an Aboriginal object or declared Aboriginal Place. The DECCW has stated:

*The most significant change is the introduction of tiered offences and penalties. Offences committed with knowledge, in aggravating circumstances or in relation to an Aboriginal Place will attract higher penalties than previously. There is a new strict liability offence of harming Aboriginal objects and of harming or desecrating Aboriginal Places.<sup>1</sup>*

The strict liability offence of harming Aboriginal objects has a number of defences. The two defences relevant to this project include the statutory defence of due diligence through complying with an adopted industry code of practice (see due diligence below) or compliance with the conditions of an Aboriginal Heritage Impact Permit (AHIP).

### 1.2 Approach to Aboriginal Heritage Management

In order to administer the NPWS Act 1974 and EP&A Act 1979, the DECCW has issued a series of best practice guidelines and policies. The applicability of these depends upon the approval mechanism for a project. The current project will be assessed and granted approval under Part 3A

of the EP&A Act 1979. Therefore the approach to the preparation of this document was based on the following current best practice guidelines:

- Department of Planning (DoP) Director General's Requirements (DGR's) (reference 10\_0198, issues 16. Heritage);
- The Department of Planning and Infrastructure (DPI) letter '*Adequacy of Environmental Assessment for Channel Nine Site*' (MP10\_0198)' (8.1.13). This letter states that "an assessment of the significance and potential impact on the Aboriginal archaeological resources of the development" should be provided.
- DECCW (23-12-2009; Attachment A [DECC EA Requirements] and Attachment C [guidelines for Aboriginal cultural heritage]);
- NPWS Aboriginal Cultural Heritage. Standards and Guidelines Kit (draft 1997);
- Department of Planning's (DoP) *Part 3A EP&A Act Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation* (2005);
- Department of the Environment and Climate Change (DECC) *Interim Community Consultation Requirements for Applicants* (2005); and
- The *Australia ICOMOS Burra Charter 1999* (Burra Charter).

### 1.3 Due Diligence Approach

The OEH has issued a code of practice guideline that defines a 'due diligence' approach to Aboriginal heritage: OEH *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (13 September 2010). This guideline is designed to assist individuals and organisations to exercise due diligence when carrying out activities that may harm Aboriginal objects, and/or Aboriginal Places, and to determine whether they should apply for consent in the form of an AHIP.

Activities declared Part 3A project under s.75B of the EP&A Act normally adhere to the 2005 (draft) *Part 3A EP&A Act Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation*. However, the due diligence approach to Aboriginal heritage management has been taken as the DGR's for this project do not stipulate the necessity for adherence to the above guideline. Lend Lease has adopted the *Due Diligence Code of Practice* as a best practice management tool for potential Aboriginal heritage objects, places and/or values which could be associated with the project.

If this project is approved under Part 3A of the EP&A Act but subsequent applications to a consent authority (such as a local council) necessitate determination under Part 4 of the EP&A Act (ie staged development or concept plan approvals) any Aboriginal heritage matters not already covered by the Part 3A approval may still require an AHIP. In such as case then adherence to the following guidelines will be necessary:

- DECC *Guide to Determining and Issuing Aboriginal Heritage Impact Permits* (2009);
- DECC *Operational Policy: Protecting Aboriginal Cultural Heritage* (February 2009);
- DECCW *Aboriginal cultural heritage consultation requirements for proponents 2010. Part 6 National Parks and Wildlife Act 1974* (April 2010); and

- DECCW *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (24 September 2010).

The *Due Diligence Code of Practice* sets out the reasonable and practicable steps which individuals and organisations need to take in order to:

- identify whether or not Aboriginal objects are, or are likely to be, present in an area;
- determine whether or not their activities are likely to harm Aboriginal objects (if present); and
- determine whether an AHIP application (or further investigation under Part 3A of the EP&A Act) is required.

OEHL has defined due diligence thus:

*Due diligence is a legal concept describing a standard of care. Exercising due diligence means turning your mind to the likely risks of your proposed course of action. It is not enough to perform activities carefully. Due diligence requires consideration of your obligations under, in this case, the NPW Act, and the consideration and adoption of a course of action that is directed towards preventing a breach of the Act.*

*In the context of protecting Aboriginal cultural heritage, due diligence involves taking reasonable and practicable measures to determine whether your actions will harm an Aboriginal object and if so avoiding that harm.<sup>2</sup>*

The steps that are required to follow the due diligence process are:

- searching the Aboriginal Heritage Information Management System (AHIMS);
- checking for landscape features which may indicate the presence of Aboriginal objects;
- strategies to avoid harming Aboriginal objects; and
- desktop assessment and visual inspection to confirm the presence of Aboriginal objects.<sup>3</sup>

In preparing this report, GML complied with the guidelines set out in OEHL's *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (13 September 2010).

## 1.4 Description of the Study Area

The study area is located on the North Shore of Sydney with the primary address 6-30 Artarmon Road, Willoughby. The study area is located approximately 8km north of the Sydney CBD within the Willoughby Local Government Area (LGA). The study area is bounded by Artarmon Road to the north, Scott Street to the east and Richmond Avenue to the West, although the building at 6 Artarmon Road, on the southeast corner of Artarmon Road and Scott Street is also part of the study area. The study area and its location are shown in Figures 1.1 and 1.2.

As stated above the preferred option and three alternate options for building envelopes, site layout and access have been developed and are detailed in the SJB Concept Plan documentation from which this Due Diligence has based its conclusions.

## 1.5 The Due Diligence Process

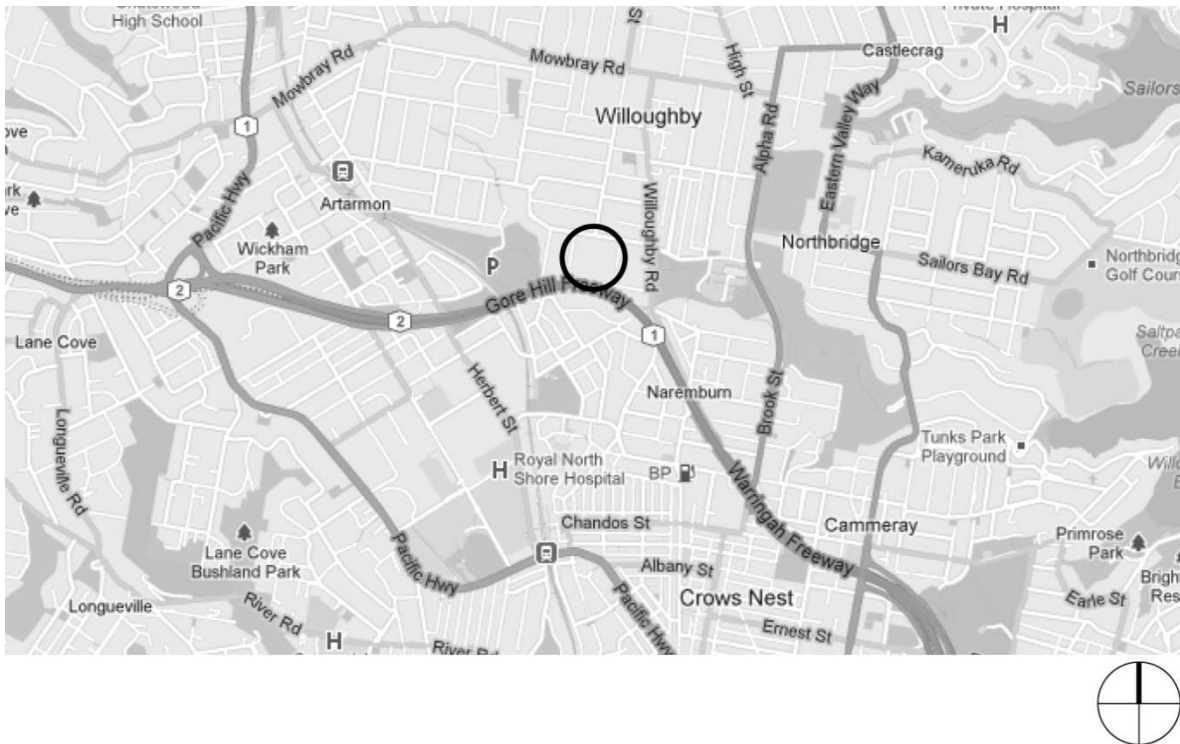
In accordance with Step 1 of the OEH *Due Diligence Code of Practice* it is identified that the proposed activity will disturb the ground surface of the study area. Therefore the following due diligence steps will be undertaken:

Step 2a—Aboriginal Heritage Information Management System (AHIMS) database search (Chapter 2 of this report);

Step 2b—the identification of landscape features that indicate the presence of Aboriginal objects (Chapter 2);

Step 3—discussion with respect to the extent of the development footprint (Chapter 3); and

Step 4—desktop assessment and visual inspection (Chapter 4).



**Figure 1.1** Location map showing the site (circled). (Source: Google Earth Pro with GML Overlay)





**Figure 1.2** Satellite image with the boundary of the site outlined in red. (Source: JBA Planning)

## 2.0 AHIMS and Environment Context

### 2.1 AHIMS Search

A search of the OEH Aboriginal Heritage Information Management System (AHIMS) database for a zone with a 1.8km buffer surrounding the study area was undertaken on 16 January 2013. The results of the search are shown in Table 2.1. The search identified five recorded Aboriginal sites and/or places, which comprised: middens, axe grinding grooves, shelters and a stone artefact (termed 'an isolated find').

**Table 2.1** Results of AHIMS search

Site Feature	Frequency
Axe Grinding Groove	1
Midden	1
Shelter with Midden	1
Shelter with Art and Midden	1
Stone Artefacts	1

The scant patterning of Aboriginal sites in the local area shows a strong association with sandstone landform feature, where these features exhibit evidence of past Aboriginal activities. The AHIMS search indicated that no previously recorded Aboriginal sites and/or places have been located within the study area boundary. The previously registered Aboriginal sites are located more than 500m south and south east of the study area.

### 2.2 The Environmental Context

The purpose of this section is to provide environmental contextual information for use in developing a predictive model of Aboriginal site locations associated with the study area. Interactions between people and their surroundings are of integral importance in both the initial formation and the subsequent preservation of the archaeological record. The nature and availability of resources including water, flora and fauna and suitable raw materials for the manufacture of stone tools and other items had (and continues to have) a significant influence over the way in which people use the landscape.

Alterations to the natural environment also impact upon the preservation and integrity of any cultural materials that may have been deposited whilst current vegetation and erosional regimes affect the visibility of Aboriginal sites and objects. For these reasons, it is essential to consider the environmental context as part of any heritage assessment.

#### 2.2.1 Geology and Soils

The study area is located approximately 2.2km west of the Sydney Middle Harbour and approximately 3km North of Sydney Harbour and is located within the Port Jackson, North Shore region. The study area sits within the Mesozoic, Triassic Period Hawkesbury Sandstone Group, which is comprised of medium course grained quartz sandstone, minor shale and laminate lenses.<sup>4</sup> The study area is overlain by two separate soil profiles:

Soil profile 1: the Hawkesbury colluvium is the predominating soil profile within the study area. This soil profile is shallow (>50cm) discontinuous and contains Siliceous Sand, yellow Earths and Sands and yellow and red Podzolic soils; and

Soil profile 2: is located to the north and north western portions of the study area, the soil profile is a Gynea erosional form. These soils range in depth from shallow to moderately deep (30-100cm) and consist of yellow Earths red and yellow Podzolic.<sup>5</sup>

### **2.2.2 Landforms, Landscape and Geomorphology**

The natural landscape of the Channel 9 Willoughby offices study area is characterised by rugged, rolling to very steep hills of the Hawkesbury Sandstone region. The natural landscape of the study area are characterised by its location on the north shore of Sydney Harbour within the Port Jackson catchment area.

Landforms across the subject area are comprised of narrow crests and ridges, narrow incised valleys and steep side slopes with rocky benches and boulders. Surrounding local relief is 40-200metres with a modal terrain slope of approximately >25%. This has resulted in an erosional landform pattern comprising of moderately inclined rolling hills sloping steeply, toward the southern and western portions of the study area.<sup>6</sup>

The primary modes of geomorphological activity within the study area are extreme soil erosion and mass movement of rock.

### **2.2.3 Hydrology**

The study area is located 4.3km northeast from the mouth of the Lane Cove River. Approximately 150m south of the study area is Flat Rock Creek, a third or fourth order creek which is the primary drainage channel for landforms surrounding the study area. The study area is also located approximately 2.2km west of the Sydney Middle Harbour and approximately 3km North of Sydney Harbour.

### **2.2.4 Flora, Fauna and Marine resources**

The North Shore Willoughby region originally contained a complex of woodland adapted to sandstone slopes. The vegetation community surrounding the subject area includes trees such as the Sydney Blue Gum (*E. saligna*), Red Bloodwood (*Corymbia gummifera*), Sydney Peppermint (*E. piperita*), Bangalay (*E. botryoides*), Black She-Oak (*Allocasuarina littoralis*), the Narrow-leafed Stringybark (*E. hoblonhga*), the Brown Stringybark (*E. capitellata*), scribbly gum (*E. haemostoma*) and the Grey Gum (*E. punctata*)<sup>7</sup>.

The original vegetation cover, based on the remnant survival of representative vegetation would have comprised of open woodland, the Hawkesbury Sandstone Flora, including heaths on exposed harbour side cliff faces, with pockets of tall open-forest and closed forests.<sup>8</sup>

The fauna of North Sydney, at the time of contact, is well documented and includes many species still present in other Sydney regions like that of the nearby Cumberland lowlands today. The various species included kangaroo, wallaby, wombat, echidna, bandicoots, flying fox, emus, quolls, various native rats and mice, snakes, frogs and lizards.

Marine resources, such as rock oysters, the hairy mussel, the Sydney cockle and mud oyster, both of which are now virtually extinct in Port Jackson<sup>9</sup> would have been plentiful and accessed, along

with various fish species from both Middle Harbour and Sydney harbour to the east and south of the study area respectively, although Watkin Tench, a military officer on the First Fleet, describes in 1788 that the fish at Port Jackson are less plentiful than at Botany Bay<sup>10</sup>.

## **2.3 Synopsis of the AHIMS Search and Environmental Context**

Based upon the AHIMS search, it can be stated that no previously recoded Aboriginal sites and/or places have been identified within the study area.

The assessment of the environmental context, within which the study area is located, suggests that the wider area associated with the study is likely to have scant Aboriginal archaeological material retained primarily in disturbed contexts.

The study area is located on steep landforms near a medium order creek. If present, landforms could present evidence associated with Aboriginal shelters and possibly midden material. However, this hypothesis should be tempered against land use history verified through visual inspection.





Figure 2.1 Outline of study area with location of previously registered sites (source: GML and AHIMS, 2013)



## 3.0 The Proposed Development

### 3.1 Description of the Proposed Development

The following proposal description has been provided by JBA Planning:

*The Concept Plan Application seeks to establish a high density residential land use for the Channel Nine, Willoughby site use with indicative building envelopes, site access arrangements, public open space, landscaping and infrastructure and stormwater concepts. The Concept Plan also includes details of project staging, superlot subdivision and establishes a framework for future development approvals and developer contributions.*

*The Preferred Option which has been developed by SJB Australia seeks to establish building envelopes which will provide approximately 600 dwellings (approximately 60,000m<sup>2</sup> of gross floor area) within the site as well as a new local park along part of the site's Artarmon Road and Richmond Avenue frontage. The Preferred Option provides for:*

- *6 residential flat buildings, with indicative building envelopes providing for three buildings being between 4 and 6 storeys in height, a 10 storey building, a 14 storey building and an 18 storey building and*
- *Approximately 30 attached dwellings up to two storeys in height.*

*Three alternate options for building envelopes, site layout and access have also been developed and are detailed in the SJB Concept Plan documentation.*

### 3.2 Impacts Arising from the Proposed Development

As no Aboriginal sites and/or places have been recorded within the boundary of the study area, the future re-development of the site will not have a negative impact on any known Aboriginal sites and/or places.

### 3.3 Heritage Avoidance Strategy

No previously recorded Aboriginal site and/or places have been recorded within the study area and analysis of the relevant literature has confirmed this. Thus, no heritage avoidance strategy needs to be developed at this point in time.





## 4.0 Desktop Assessment and Visual Inspection

### 4.1 Aboriginal Ethno-history

Most of the available ethnohistorical information available for the Aboriginal people who lived at and near Sydney Cove was written by officials who travelled to New South Wales with the First Fleet, including Governor Arthur Phillip, judge-advocate David Collins, Captain-lieutenant Watkin Tench and Lieutenant William Dawes. Dawes also recorded a large amount of vocabulary of the Port Jackson Aboriginal. Paintings and sketches were also produced, which frequently depicted Aboriginal people, camps, tools and weapons.<sup>11</sup> A wealth of information is contained in these documents.

The original Aboriginal inhabitants of the study area would have been among the first Aboriginal people to experience the effects of physical and social dislocation as a result of the arrival and settlement of the First Fleet at Sydney Cove. Consequently, epidemics of smallpox dramatically affected the Aboriginal population in Sydney, and across Australia. In 1790 Bennelong estimated to Governor Phillip that over half of Sydney's original Aboriginal population had died as a result of the smallpox epidemic that broke in 1789.<sup>12</sup>

Other effects of European colonisation on local Aboriginal populations included loss of access to traditional lands and resources, inter-tribal conflict, starvation, and the breakdown of traditional cultural practices. The effects of such severe social dislocation may have dramatically altered some aspects of the lives of local Aboriginal people recorded by early European observers. This is highlighted within the North Shore as by accounts confirming that by the 1860's no Aboriginal peoples inhabited their traditional lands on the North Shore. Processes of disease and land appropriation led to the North Shore area being visited for gatherings by the remaining tribal members at Christmas time.<sup>13</sup>

In 1790 Governor Phillip reported that the North Shore area was inhabited by the Cammeraygal and Wallumedegal Clans of the Kurringgai Tribe.<sup>14</sup> It is also noted by Attenbrow, that the Borogegal inhabited the lands west and south of Middle Harbour. This indicates that the 6-30 Artarmon Road, Willoughby study area was likely to have been located within Kurringgai lands and was inhabited by the Borogegal clan and neighboured by the Cammeraygal to the west.<sup>15</sup>

### 4.2 Historical Impacts to the Study Area

The following succinct history of the Post-European occupation of the study area and has been resourced from GML 2012,<sup>16</sup> which identified a series of historical developments that may have impacted original soil horizons and landforms across the study area.

#### 4.2.1 Early Development 1856-1904.

The study area is situated on part of three original five acre grants to John Sylvester Ryan, Thomas Cronin and Arthur Catlett. Subdivision of Catlett's land for residential subdivision began in 1911 followed by Ryan's land in 1912. Thomas Cronin's land was not subdivided.<sup>17</sup> The area during this time was primarily rural in nature.

#### 4.2.2 Forster's 'St Leonards' Dairy 1904-1955.

Thomas Cronin's land was sold in its entirety in 1904 to Robert Henry Foster, dairyman who established the 'St Leonards' Dairy. The existence of dairies had been part of the rural landscape of Willoughby for some time.

Aerial photographs from 1930 and 1943 (Figures 4.1 and 4.2) show the dairy as a large establishment. The dairy continued on the site until Forster's death in 1955. His wife Eliza then subdivided the property into three portions, Lots A, B, and C:

- Lot A which contained the Forster's house was sold to Television Corporation Limited (later TCN Channel Nine) in 1961;
- Lot B (over 2 acres), was purchased by Television Corporation Limited (later TCN Channel Nine) for its Channel Nine Centre in 1955; and
- Lot C which fronted Flat Rock Creek and contained over 2 acres was purchased by Willoughby Council in 1956.

In general, animal grazing and the associated agricultural uses, result in a low level of impact, where the affect is a small loss of soil integrity. Animal grazing on steep landforms can result in erosion and an extensive loss of soil condition.

Construction associated with this phase would have significantly impacted soil horizons, resulting in the bulk removal of natural profiles and the loss of condition and integrity.

These historical activities would have resulted in a low level of disturbance in the southern and central zones and mid to high disturbance in the northern section.

#### 4.2.3 Channel Nine Centre: 1955-2013

Television Corporation Limited bought Lots B and C of Forster's Dairy because they were located in an ideal position for a transmission tower on the top of a high hill in Willoughby. In November 1955 the old dairy, milking sheds and cows, were removed and work began on constructing the transmission tower.

Channel 9 quickly outgrew the Forster's Dairy site and from 1956 began buying up nearby properties.<sup>18</sup> These included residential sites on the western side of Scott Street formerly part of Catlett's grant and properties on the eastern side of Richmond Avenue formerly part of John Ryan's land. A couple of the Richmond Avenue cottages and most of the Scott Street cottages still remain within the Channel 9 site (Figure 4.3). In the early 1960s a new larger transmission tower was constructed on the site with the old tower demolished in 1972.

The entire natural landscape for the study during this phase has been altered and transformed. Demolition works of buildings associated with earlier phases and the construction of buildings, roads and car parks have severely compromised the natural soil horizons across the extent of the study area. This major phase of demolition and construction would have resulted in the holistic loss of soil condition and integrity across the majority of the study area. The consequence would be a low likelihood for any residual sub surface Aboriginal archaeology within the study area.

## 4.3 Relevant Local Studies

A few archaeological studies and academic works have been prepared that include the study area. Those works and reports of direct relevance to this due diligence assessment are detailed below.

### 4.3.1 Academic Literature Review

#### **Morris 1986<sup>19</sup>**

Morris undertook archaeological survey across the North Port Jackson, covering 100km<sup>2</sup>, including the current study area. The results of the survey included the identification of only six sites—two middens, three shelters with middens and a rock engraving (all outside the current study area boundary). Morris' review of Aboriginal site patterning showed the 1980's archaeological record comprised 27% rock engravings, 24% shelter/middens, 22% open midden sites, 15% shelter/rock art sites, 4% shelter/deposit sites, 3% axe grinding grooves, 2.5% burial sites.

#### **Attenbrow 1991—Port Jackson Archaeological Project<sup>20</sup>**

In 1991 Val Attenbrow undertook a project to relocate registered OEH sites as many were poorly recorded. Site survey was undertaken across the Port Jackson catchment, which Attenbrow divided into eight sub-catchments. Attenbrow identified a number of patterns of site distribution associated with aquatic zones and geological formations within the catchment.

Attenbrow's study revealed that 98% of middens in the Port Jackson catchment were located on Hawkesbury sandstone, even though there is a greater area of Wianamatta shale landscapes within the region, possibly due to the projects findings that a higher density of middens occurred within rock shelters as opposed to open areas/sites. The number of middens varied drastically across the Port Jackson catchment, partly due to discrepancies in factors such as land area of each sub-catchment and intensity of residential and industrial development. However, it was clear that middens and deposits occurred in higher densities in ocean and estuarine sub-catchments.<sup>21</sup>

Results for the Middle harbour sub-catchment identified the catchment as having a 12.5% ocean influenced zone, 59.5% as estuarine and 28% as freshwater. Of the 369 shell middens identified within the wider study 178 (48%) were identified within the Middle Harbour catchment area, within which the current study area is located and more specifically 92 (25%), were recorded in the Willoughby LGA (none of which were located within the current study area).

#### **Hoskins 2007—Aboriginal Northern Sydney<sup>22</sup>**

In 2007 Ian Hoskins and the North Sydney Council undertook a study of the Aboriginal history of North Sydney. Hoskins indicates that, prior to and during the initial colonisation phase, the study area was likely to have been located within Kurringgai lands and was inhabited by the Borogegal clan and neighboured by the Cammeraygal to the west.<sup>23</sup>

The history provides a brief account of the Aboriginal cultural heritage record and uses primary sources to inform the North Sydney Aboriginal people's spirituality, the interaction with colonists and the dispossession of lands and resulting outcomes.

It was acknowledged by early European observers that the Cammeraygal were a muscular and robust people who enjoyed a powerful place within the complex Aboriginal social system. Using primary sources written from early European settlers, Hoskins identified that the Cammeraygal were thought to have the best fishing grounds within Port Jackson. It was noted, that men tended to

make wooden objects for hunting and warfare while the women used and made fishing line and hooks. Hoskins notes that early records of Aboriginal lifestyle included the use of fire as both a hunting tool and land management strategy.

Throughout the early periods of colonisation interaction was both harmonious and at times volatile and highlights volatile and cooperative interaction with members of the ships *Sirius* and the ship *Supply* respectively. Dispossession of lands was continuous from the early 1790's, with all traditional Aboriginal owners of the North Shore/ North Sydney area not living on traditional lands by the mid 1800's.

#### **4.3.2 Archaeological Consultancy Studies Literature Review**

##### **Helen Brayshaw Heritage Consultants 2003**

In 2003 Helen Brayshaw Heritage Consultants (HBHC) was engaged by Mirvac Homes Pty Ltd to undertake an Aboriginal Heritage Assessment of land located between MacPherson Street and Warriewood Road, Warriewood, approximately 20km from the current study area. The survey identified no Aboriginal archaeological within Brayshaw's study area.

#### **4.4 Synopsis of Past Heritage Work**

As identified during Attenbrow's seminal works, a vast majority of the shell middens and rock shelters with middens around Port Jackson were located within aquatic Hawkesbury sandstone zones.<sup>24</sup> Likewise, it was noted that a greater number of middens within the Port Jackson catchment zone were located within shelters, assuming past Aboriginal peoples were consuming resources within the shelter of rock overhangs. The nature of middens, as places where extensive amounts of shell and other material have been discarded, sometimes over thousands of years, are often better preserved and more archaeologically obvious than other more ephemeral site types like open campsites. The current study area, although within the Hawkesbury sandstone formation zone and within an area where sandstone shelters are abundant, 3km from the Port Jackson harbour foreshore.

Attenbrow notes that previous studies within the Sydney wider area have indicated that Aboriginal sites and/or places are generally clustered within 200m of a permanent freshwater water ways.<sup>25</sup> The current study area is bordered by Flat Rock Creek, although, the steep landforms to the south of the study area could have precluded the use of the land immediately adjacent to the creek for habitation activities.

While the extent of development in the Willoughby area since the early 1800's has greatly disturbed and destroyed many Aboriginal archaeological sites, the archaeological data indicates that Aboriginal sites remain in a broad proximity of the study area. The majority of these sites, as indicated by Attenbrow, have been disturbed to some extent, however, they are still significant for their contribution to our understanding of Aboriginal occupation of the Sydney landscape.

#### **4.5 Visual Inspection of the Study Area**

An inspection of the subject area was undertaken on 21 January 2013 by Joshua Madden and Sam Cooling both of GML, and Bernadette Brendan, of The Nine Network.

The main purpose of the visual inspection was to determine whether the subject area contained or has the potential to contain Aboriginal archaeological sites.

The subject area inspection was informed by historical evidence, site plans, an AHIMS search and aerial photographs. During the inspection various aspects of the subject area were recorded, including: topography, the change in ground levels across the site and presence of above and sub-surface services. The following observations were made:

- The subject area is dominated by multiple buildings, houses and car parks (Figures 4.4 to 4.9);
- pedestrian and vehicular access within the subject area is dominated by concrete and bitumen car parking facilities and roadways (Figures 4.4, 4.5, 4.7 and 4.9);
- services both above ground and subsurface were evident across the subject area and concentrated within the substation zone (Figures 4.9 to 4.13);
- cutting, grading, filling and retaining of the natural land surfaces were evident across the entire study area (Figures 4.14 to 4.18); and
- sandstone outcroppings were evident outside the study area boundaries to the south (in residential premises) and to the east (appears to be altered).

The subject area inspection demonstrated that it has generally been highly developed with the creation of multiple surfaces, consisting of fill terraces, retained hill slopes, capping of area (i.e. car parks) and fill across the study area. Ground visibility was low due to high coverage of modern materials such as bitumen, asphalt, concrete and brick as well as dense vegetation. Within exposure and hillslope zones surface visibility was at a maximum of (~45%). A number of sandstone outcrops were present outside the study area boundary and were not examined due to access restrictions (Figures 4.19 to 4.22).

## 4.6 Synopsis of the Desktop Assessment and Visual Inspection

The study area inspection did not identify any Aboriginal archaeological sites. The study area has a very low to no level of potential for containing subsurface Aboriginal archaeological deposits.

It was determined that the majority of the study area had been impacted by historical development, which had modified the majority of original natural landforms.

Due to the dense vegetation cover and steep slopes, there was limited access to the southern portions of the site. Thus, in the southern area it was not possible to positively identify the presence or absence of Aboriginal objects, engravings, or any other evidence of Aboriginal occupation. However, areas that were accessed identified the presence of two separate fence lines, concrete and wooden retaining walls and associated fill and rubble, indicating a moderate-high level of disturbance in the southern zone.

In summary the study area has been assessed to possess no Aboriginal archaeological potential due to historical impacts associated with multiple phases of development. A very low chance for intact residual natural soil horizons exist for the study area. If present, these soils would have little integrity and given the landforms of the study area, are unlikely to possess Aboriginal objects. The small portion of the study area (to the south) which was not inspected has a low potential for containing Aboriginal sites on the steep sandstone landforms. However, these landforms will be avoided during the proposed re-development.

As such, it is recommended that the proponent can proceed with caution without further Aboriginal heritage management investigation. Details with respect to the mechanism for dealing with the unexpected discovery of an Aboriginal object are established in Chapter 5.



**Figure 4.1** 1930 aerial showing dairy in the centre plus and residential development on both Ryan's and Catlett's original land grants. (Source: Department of Lands)



**Figure 4.2** 1943 aerial showing dairy, indicated by an arrow surrounded by residential development. (Source: Department of Lands)





**Figure 4.3** 1980 aerial showing the current tower. (The original smaller tower has been demolished. (Source: Department of lands and JBA planning)



**Fig 4.4** Southern car park and main building facing NW(GML 2013)



**Fig 4.5** Southern car park and main building facing N (GML 2013)



**Fig 4.6** Main building, southern car park and substation area facing SW (GML 2013)



**Fig 4.7** Northern car park with main building facing E (GML 2012)



**Fig 4.8** One of the converted houses of the eastern border of the study area (GML 2013)



**Fig 4.9** Example of pedestrian access way within study area (GML 2013)





**Fig 4.10** Above ground service between 'middle' and 'southern' car parks (GML 2013)



**Fig 4.11** Services above and below ground within substation area (GML 2013)



**Fig 4.12** Services above and below ground within substation area (GML 2013)



**Fig 4.13** Storm water drainage (GML 2013)





**Fig 4.14** Cutting and filling for central area of study area 9GML 2013)



**Fig 4.15** Cutting for implementation of Satellite Dishes (GML 2013)



**Fig 4.16** Retaining wall and southern fence line (GML 2013)



**Fig 4.17** Multiple retaining walls and southern fence line (GML 2013)

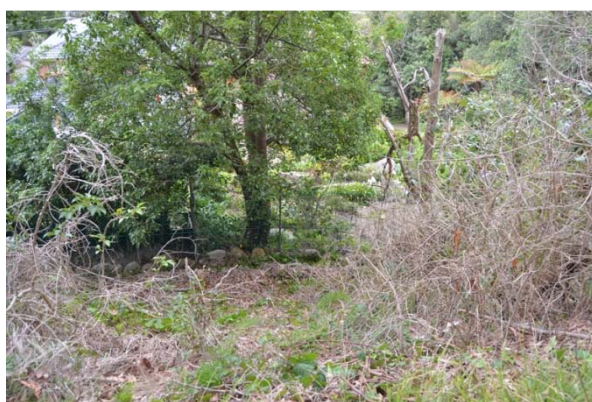




**Fig 4.18** Fill and cut areas for car park, helipad and gardens in the SW of study area (GML 2013)



**Fig 4.19** Dense vegetation along southern border (GML 2013)



**Fig 4.20** Dense vegetation along southern border (GML 2013)



**Fig 4.21** Example of ground exposure in garden beds (GML 2013)



**Fig 4.22** Sandstone outcropping on eastern border (looking vertically down) (GML 2013)

## 5.0 Conclusions and Recommendations

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### 5.1 Conclusions

This due diligence report has found that there are no previously recorded Aboriginal heritage sites or places within the subject area. The study area has very little to no Aboriginal archaeological potential.

The study area does not possess Aboriginal archaeological significance. As such, the proposed development would not impact Aboriginal archaeological resources.

### 5.2 Recommendations

Based on the findings of this assessment, the following management recommendations are provided for the study area:

- It is recommended that no further Aboriginal heritage management is required.
- This report can be included in the Environmental Assessment for the proposed redevelopment of the site.
- If unexpected Aboriginal archaeological deposits were to be identified during development of the subject land, works must stop and a suitable qualified archaeologist be notified immediately to assess the finds. The finds must be reported to OEH and further approvals may be necessary prior to the recommencement of works.
- If human remains were to be discovered during any development works on the property, the finding would need to be reported immediately to the New South Wales Coroner's Office and/or the New South Wales Police. If the remains are suspected to be Aboriginal, OEH would also need to be contacted and a specialist consulted to determine the nature of the remains.

## 6.0 Endnotes

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- <sup>3</sup> DECCW 2010. NPWS Act 1974. *Fact sheet 2*. September 2010.
- <sup>4</sup> <http://www.geoscience.gov.au/geoportal-geologicalmaps/download?map=125dpi/si5605.jpg>
- <sup>5</sup> Chapman, GA and Murphy, C, L 1989, *Soil Landscapes of the Sydney 1:100 000 sheet*. Soil Conservation Service of NSW, Sydney
- <sup>6</sup> Speight, J.G. 1990 *Landforms*. In *Australian Soil and Land Survey Field Handbook*. McDonald, R.C et al. Inkata Press.
- <sup>7</sup> Doug Benson and Jocelyn Howell, 1990, *Taken for Granted: The Bushland of Sydney and its suburbs*, Kangaroo press, Kenthurst.
- <sup>8</sup> Op cit. p45
- <sup>9</sup> North Sydney Heritage Centre, North Sydney Heritage Leaflet 1 *North Sydney's Aboriginal Past*
- <sup>10</sup> Tench W, 1789, *A Narrative of the Expedition to Botany Bay*, pp13–84. In Flannery, T (ed.) 2012, *Watkin Tench: 1788*, The TextPublishing Company, Melbourne.
- <sup>11</sup> Attenbrow, V 2002 (2<sup>nd</sup> ed. 2010), *Sydney's Aboriginal Past: Investigating the archaeological and historical records*, UNSW Press, Sydney. 13–14
- <sup>12</sup> Attenbrow Op cit, p21
- <sup>13</sup> North Sydney Heritage Centre, North Sydney Heritage Leaflet 1 *North Sydney's Aboriginal Past*
- <sup>14</sup> North Sydney Heritage Centre, North Sydney Heritage Leaflet 1 *North Sydney's Aboriginal Past*
- <sup>15</sup> Attenbrow Op cit, p 23
- <sup>16</sup> Channel Nine, *Willoughby Heritage Impact Statement Report*, GML November 2012
- <sup>17</sup> Channel Nine, *Willoughby Heritage Impact Statement Report*, GML November 2012; p8
- <sup>18</sup> Various Certificates of Title, Department of Lands
- <sup>19</sup> Morris A.K 1986, *An archaeological Survey of North Port Jackson*
- <sup>20</sup> Attenbrow, V 2002 (2<sup>nd</sup> ed. 2010), *Sydney's Aboriginal Past: Investigating the archaeological and historical records*, UNSW Press, Sydney
- <sup>21</sup> *Ibid* 50-53
- <sup>22</sup> Hoskins, Ian, 2007, *Aboriginal North Sydney: An Outline Of Indigenous History*, North Sydney Council
- <sup>23</sup> Hoskins, Op Cit, P5-7
- <sup>24</sup> *Ibid* 50-53
- <sup>25</sup> *Ibid* 50