

ARCHAEOLOGY - HERITAGE - MEDIATION - ARBITRATION

The New Primary School in Mulgoa Rise

Aboriginal Cultural Heritage Assessment Report

13 August 2021

Report to: School Infrastructure NSW

LGA: City of Penrith

Version: E.2021



DOCUMENT CONTROL

PROJECT NO: IS389 STATUS: FINAL

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EXECUTIVE SUMMARY

School Infrastructure NSW propose to construct a new primary school at 1-23 Forestwood Drive, Glenmore. The school will initially accommodate up to 414 students, with the potential to expand to 1000 students as demand arises. Any future expansion of the school will be the subject of a separate planning approval.

Planning Secretary's Environmental Assessment Requirements (SEARs) were issued on 2 December 2020 for the New Public School in Mulgoa Rise, Glenmore Park (SSD-11070211). Condition 8 of the SEARS requires that Aboriginal consultation be undertaken and an Aboriginal Cultural Heritage Assessment Report (ACHAR) be prepared.

Comber Consultants have been engaged to undertake the Aboriginal consultation in respect of the project and to prepare this Aboriginal Cultural Heritage Assessment Report (ACHAR). The consultation and this report have been undertaken in accordance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW) (Consultation Requirements) and to satisfy the Aboriginal Cultural Heritage SEARs.

The Registered Aboriginal Parties (RAPs) are as follows:

- Name withheld
- Name withheld
- Name withheld
- Paul Boyd, Didge Ngunawal Clan
- Phil Khan, Kamilaroi Yankuntjatjara Working Group
- Danny Franks, Tocomwall
- Bo Field, Yurrandaali Cultural Services
- Lee Field, Barraby Cultural Services Carolyn Hickey, A1 Indigenous Services
- Wendy Smith, Gulaga
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- James Eastwood, Aragung Aboriginal Cultural Heritage Site Assessments
- Clive Freeman, Freeman & Marx Pty Ltd
- Rodney Gunther, Waawaar Awaa Aboriginal Corporation
- Krystle Carroll-Elliot, Ginninderra Aboriginal Corporation
- Vicky Slater, Wurrumay Pty Ltd
- Arika Jalomaki, Yulay Cultural Services
- Kaarina Slater, Ngambaa Cultural Connection
- Carolyn Hickey, A1 Indigenous Services
- Justine Coplin, Darug Custodian Aboriginal Corporation
- Joel Tubbs or Corina Norman, Dharug Ngurra Aboriginal Corporation
- Steve Randall, Deerubbin Local Aboriginal Land Council

Background research undertaken for the Aboriginal Archaeological Assessment (Nutley 2020) found that the whole of the study area has previously been subjected to quarrying and fill. Geotechnical investigation undertaken within the study area in 2020 found that the whole area consists of extensive fill to depths of at least 6m and in places, to more than 12m. Therefore, if any sites did previously exist within the study area they would most likely have been removed by the quarrying activities.

This ACHAR makes the following recommendations:

- 1) Aboriginal community consultation in accordance with the Consultation Requirements should continue for the remainder of the project, including input into the design principles of the new school.
- 2) The study area is a former quarry. Therefore, as Aboriginal objects are not predicted to exist within the study area, no further Aboriginal archaeological assessment, testing, salvage or monitoring is required.



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COMPLIANCE WITH SEARS FOR SSD 11070211

Table 1: SEARs table identifying relevant SEARs item and where addressed in the report

SEARS Requirement 7. Aboriginal Cultural Heritage	Report Section
Provide an Aboriginal Cultural Heritage Assessment Report (ACHAR) that:	This report
 identifies and describes the Aboriginal cultural heritage values that exist across the site. 	Section 7 (page 21-22)
 includes surface surveys and test excavations where necessary. 	Section 5.1 (page 14) and Appendix B: Technical Report
 has been prepared in accordance with the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (OEH, 2011) and Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (OEH, 2010). 	
 incorporates consultation with Aboriginal people in accordance with Aboriginal Cultural Heritage Consultation Requirements for Proponents (Department of Environment, Climate Change and Water, 2010). 	Section 6 (page 16-21) and Appendix A: Consultation
 identifies, assesses and documents all impacts on the Aboriginal cultural heritage values. 	Section 5 (page 14-16)
 documents the significance of cultural heritage values of Aboriginal people who have a cultural association with the land. 	Section 7 (page 21-22)
 demonstrates attempts to avoid all impacts on the Aboriginal cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the ACHAR and EIS must outline measures proposed to mitigate impacts. 	
 demonstrates attempts to interpret the Aboriginal cultural heritage significance identified into the development. 	Section 5 (page 14-16) and Section 7 (page 21-22)



1.0 INTRODUCTION

1.1. Background

School Infrastructure NSW propose to construct a new primary school at 1-23 Forestwood Drive, Glenmore. The school will initially accommodate up to 414 students, which the potential to expand to 1000 students as demand arises. Any future expansion of the school will be the subject of a separate planning approval. Further details of the proposal are contained in Section 8.0 of this report.

Planning Secretary's Environmental Assessment Requirements (SEARs) were issued on 2 December 2020 for the New Primary School in Mulgoa Rise, Glenmore Park (SSD-11070211). Condition 8 of the SEARS requires that Aboriginal consultation be undertaken and an Aboriginal Cultural Heritage Assessment Report (ACHAR) be prepared.

Comber Consultants have been engaged to undertake Aboriginal consultation in respect of the project and to prepare this Aboriginal Cultural Heritage Assessment Report (ACHAR). The consultation and this report have been undertaken in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW) and to satisfy the Aboriginal Cultural Heritage SEARs.

1.2. Site description

The study area for the proposed school is Lot 1663, DP 1166869 at 1-23 Forestwood Drive, Glenmore Park NSW 2745 within the boundaries of the Penrith City Council LGA. This property is 50km west of the Sydney CBD (**Figure 1**), approximately 4km east of the Nepean River and on 170m to the east of Mulgoa Nature Reserve.

The study area is a rectilinear property, cleared of vegetation and within a residential subdivision area (**Figure 2**). To the north, the site is bound by Deerubbin Drive. On the northern side of Deerubbin Drive is a vacant site that is zoned B2 and is subject to a current DA for a mixed-use commercial and residential precinct. The southern boundary faces onto Forestwood Drive and to the west is Darug Avenue. Along the eastern border bituminised car parking spaces separates the study area from Council playing fields. Surveyors Creek lies 150m to the east of the site within a nature corridor.



Figure 1: Location map





Figure 2: Aerial view of the study area (Nearmaps)

1.3. Statutory controls

National Parks & Wildlife Act 1974

The National Parks & Wildlife Act 1974 (NPW Act) protects all Aboriginal objects and Places in New South Wales. The NPW Act is administered by Heritage NSW. An Aboriginal object and Place is defined as:

Aboriginal Object

Aboriginal object means 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.

Aboriginal Place

An Aboriginal Place means any place declared to be an Aboriginal Place under section 84. Section 84 states:

The Minister may, by order published in the Gazette, declare any place specified or described in the order, being a place that, in the opinion of the Minister, is or was of special significance with respect to Aboriginal culture, to be an Aboriginal place for the purposes of this Act.

Under Section 90 of the NPW Act it is an offence to harm an Aboriginal object without an Aboriginal Heritage Impact Permit (AHIP). However, as this site does not contain Aboriginal objects and as this project will be assessed as a State Significant Development (see below) an AHIP will not be required.



Environmental Planning & Assessment Act 1979

This project will be undertaken as a State Significant Development (SSD). Under Part 4, Division 4.1 of the Environmental Planning & Assessment Act 1979 (EPA Act). An Aboriginal Heritage Impact Permit is not required for an SSD. The EPA Act is administered by the Department of Planning, Industry and Environment who will provide the consent for this project and for any impact on Aboriginal objects.

Planning Secretary's Environmental Assessment Requirements (SEARs) were issued for the project on 23 December 2020, application number SSD-11802230. Condition requires the following:

8. Aboriginal Cultural Heritage

- Provide an Aboriginal Cultural Heritage Assessment Report (ACHAR) that:
 - o identifies and describes the Aboriginal cultural heritage values that exist across the site.
 - o includes surface surveys and test excavations where necessary.
 - has been prepared in accordance with the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (OEH, 2011) and Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (OEH, 2010).
 - o incorporates consultation with Aboriginal people in accordance with Aboriginal Cultural Heritage Consultation Requirements for Proponents (Department of Environment, Climate Change and Water, 2010).
 - documents the significance of cultural heritage values of Aboriginal people who have a cultural association with the land.
 - o identifies, assesses and documents all impacts on the Aboriginal cultural heritage values.
 - demonstrates attempts to avoid all impacts on the Aboriginal cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the ACHAR and EIS must outline measures proposed to mitigate impacts.
 - o demonstrates attempts to interpret the Aboriginal cultural heritage significance identified into the development.

Any Aboriginal objects recorded as part of the Aboriginal Cultural Heritage Assessment Report must be documented and notified to the Aboriginal Heritage Information Management System (AHIMS) within Heritage NSW of the Department of Premier and Cabinet.

This report addresses the above.

1.4. Objectives of the Aboriginal Cultural Heritage Assessment Report (ACHAR)

This ACHAR details the results of the assessment and recommendations for actions to be taken before, during and after the proposed activities associated with the project in order to manage and protect Aboriginal objects identified by the investigation, assessment and testing of the study area.



2.0 ABORIGINAL HISTORY

2.1. The Darug

The Darug people are the traditional owners of the main east-west ridge of the Blue Mountains, the northern Blue Mountains and the Cumberland Plain in which the study area is located (Tindale 1974; Attenbrow 2010).

Research by R.H. Mathews, a pioneer linguist and anthropologist, in the early twentieth-century revealed that the Darug (or 'Dharruk' people as he referred to them) inhabited an area adjoining the 'Thurawal' (Dharawal) to the south and Gundungurra and Wiradjuri to the west. Their territory extended along the coast to the Hawkesbury River and inland to Windsor, Penrith and Campbelltown; then from the mouth of the Hawkesbury River to Mount Victoria (Mathews 1901a:140; Mathews 1901b:155). Archaeological and historical records examined in Sydney's Aboriginal Past identify three distinct groups – the coastal, hinterland and mountain Darug (Attenbrow 2010:23). The Darug of the Mulgoa area were from the hinterland group.

The Darug were divided into smaller clans or bands - extended family units consisting of up to sixty people. Each of these clans was named after the area of land where they normally resided, and which the people had traditional links. Current Local Land Council boundaries differ from these 'traditional' boundaries (Attenbrow 2010: 22).

There was a complicated system of kinship and totems which prevented certain types of contact (Attenbrow 2009: 119). It is difficult to pinpoint exact language boundaries, as information came from early colonists, explorers and ethnographers trying to interpret Aboriginal languages (Attenbrow 2003: 35). While territorial boundaries were well defined by tradition, written accounts and mapping by Europeans was compromised by these language differences and lack of cultural understanding. The Darug language is believed to extend from the Western side of the Georges River to Appin and Picton and as far west as the Blue Mountains (Attenbrow 2003: 34).

The traditional Aboriginal economy was dependent on harvesting resources with only very little modification to the environment, with the Nepean River playing a central part of that economy. People fished from the bank or in canoes and dug for yams and collected various fruits and other food from trees, bushes, and grasses in season. (Low 1992 & Baker et al 1986: 136 cited in Comber Consultants May 2008: 8; Tench 1961:154,230; Hunter 1793 Ch 3; Phillip in Hunter 1793 Ch 20, 21)

Resource gathering and patterns of habitation were influenced by the season. Knowledge of food resources influenced the timing for journeys, gatherings and festivals. An intricate knowledge of edible plants, their medicinal uses and practical applications was held by the Darug. Artefacts such as spears, shields and canoes were made from timbers, gums and resins. Nuts, feathers, teeth, ochres, animal skins and plant fibres were used to create decorative clothing, cloaks and ornamentation (DEC 2009:12).

2.2. The Aboriginal Community in the Twenty-first Century

The 2016 census recorded 559 Aboriginal and Torres Strait Islander people as living in Glenmore Park in the City of Penrith LGA (2016 Census Stats). In the 2016 census, there were 23,004 people in Glenmore Park, of these, Aboriginal and/or Torres Strait Islander people made up 2.4% of the population (2016 Census Quickstats).

Although the Aboriginal population of Glenmore Park is small, the City of Penrith LGA of which it is part continues to be an important meeting place for Aboriginal people.

It is clear that the lives of people who had lived according to traditional ways, including the Darug, were catastrophically altered by European occupation from the late eighteenth century. Through perseverance and showing great resilience Aboriginal Australians retain and practice core traditions, language, customs and beliefs, passing them on to future generations despite the significant impact on their lives, livelihoods, culture and Country.



3.0 ENVIRONMENTAL CONTEXT

3.1. Topography

Glenmore Park is located within the Sydney Basin towards the southern end of the Cumberland Plain. The Sydney Basin is characterised by contrasting landscapes of rugged sandstone escarpments and gently undulating hills over shale (Sydney 1:100,000 geological map).

The study is area is located within the alluvial plain of the Nepean River which is located approximately 4km to the west. Surveyors Creek is located immediately to the east of the study area.

A small seasonal creek once flowed through the south east corner of the study area, (Figure 5). The site is located less than 1km from several ponds fed by first order streams. Such a stream and the ponds would most likely have been seasonal and not a reliable source of water.

3.2. Geology and soils

The Cumberland Plain overlies the Wianamatta Group of shales. Within the study area, this includes the Bringelly Shales overlying a thin layer of Minchinbury Sandstone over Ashfield Shales which overlies Hawkesbury Sandstone (sandstone with some quartz) (Penrith 1:100,000 Geological Map). This formation does not provide a good source of lithic material suitable for stone tool manufacture whilst the Minchinbury Sandstone does not provide good outcrops nor does it weather into overhangs or caves suitable for occupation.

Several locations on the Cumberland Plain within the vicinity of the study area contain material suitable for small stone tool manufacture, such as silcrete. The nearest known source of silcrete is located at Luddenham, approximately 8km to the south, St Clair approximately 10km to the east, and at Erskine Park approximately 11km to the east. Plumpton Ridge, 15km to the east also has a major outcrop of silcrete (McDonald 1986:1). Other materials used to manufacture small stone stools within the Cumberland Plain include chert, tuff, quartz, basalt, and quartzite. These can be found in the Rickaby's Creek formation approximately 12km to the north of the study area (Clarke & Jones 1988, Smith 1989a:9-11; 1989b:6-7).

The soil for the study area has been described as the Blacktown soils. These consisted of red clays with an overlay of dark topsoil (Bannerman & Hazleton 1989:29).

3.3. Vegetation

The vegetation of the Cumberland Plain was mapped by Benson (1979 & 1981) and the NSW National Parks and Wildlife Service (2002). Historically the undulating slopes of the Cumberland Plain would have supported a tall open forest of Cumberland Plain Woodland.

The area was mapped by Benson (1981) as being woodland of *Eucalyptus moluccana* (Grey Box) in association with *Eucalyptus tereticornis* (Forest Red Gum). The understorey included *Acacia parramattensis*, *Acacia floribunda*, and other acacia sp., *Casuarina cunning*hamiana (River Oak), *Bursaria spinosa* (Sweet Bursaria, Blackthorn) and *Hardenbergia violacea* (False Sarsaparilla) with grasses of *Themeda australis* (Kangaroo grass) and *Lomandra longifolia*.

Such a vegetation community would have provided a variety of edible plant species and plants suitable for artefact manufacture. For example, the tall Grey Box and Red Gum's would have provided bark to make coolamons, shields, or canoes, whilst the long Lomandra leaves would have been used for basket weaving (Baker et al 1986:136). Acacia gum was a sweet nutritious food source, and the acacia seeds were a valuable source of protein. The dried seeds were ground between stones and baked as a bread/damper and the green seeds eaten like peas (Low 1992:86). In addition, Cumberland Plain vegetation provided habitat for a variety of marsupials and birds whilst the River and Creeks would have provided fish, eels and yabbies.

However, the nature and composition of the study area has been completely altered by quarrying and the complete removal of original vegetation.

3.4. Current land use and disturbance

The study area has been cleared of original vegetation and currently contains various grasses. Geotechnical investigations in June 2020 found that the whole area consists of extensive fill to depths of at least 6m and in places, to



more than 12m. The report states that historical aerial imagery indicates that between 1986 and 2000 the site was subjected to quarrying and filling operations (JKGeotechnics June 2020:3). None of the boreholes recorded original topsoil units even when the boreholes reached down to bedrock. In addition, the June 2020 geotechnical report documents that:

The boreholes encountered a subsurface profile comprising clayey fill with gravel inclusions to beyond the depth of borehole termination, i.e. greater than 12.45m depth. (JKGeotechnics June 2020:2)



Figure 3: Borehole investigations across the study area



4.0 ARCHAEOLOGICAL CONTEXT

4.1. Introduction

The information summarised in this section will facilitate an understanding of Aboriginal site patterning in the region and thereby provide a context within which any sites located in the study area may be archaeologically assessed. It will also assist to determine whether sub-surface sites are likely to exist.

4.2. Cumberland Plain

Since the 1980s archaeological investigations in the Cumberland Plain have indicated that this area was intensively occupied (Byrne 1987:1). One of the oldest dated occupations for the Sydney region is 15,000 years BP from the Shaws Creek K2 rockshelter on the Nepean River (Kohen 1984; Nanson et al. 1987). The dates obtained by Kohen (1984) and Attenbrow (2010) must be considered in association with environmental data related to sea level rises. The Sydney region that we know today was vastly different to the landscape of 15,000 years ago.

The period of maximum glaciation was 15,000 - 18,000 years BP. Therefore, the date of the K2 rockshelter and Attenbrow's Darling Mills site indicate that Aboriginal people lived throughout a period of extreme environmental change. During this period, sea levels were up to 130m below current sea levels (Nutley 2006: 1). About 10,000 years ago, as temperatures began rising at the end of the last ice age, the polar ice started melting and sea levels rose. The rising sea levels forced people to abandon coastal sites and move inland, with the result that the oldest coastal sites were inundated.

By about 6,000 years ago, rising water levels had flooded the coastal plain forming the Sydney landscape that we know today. Most sites in the Sydney region date to around 5,000 years BP, after sea levels had stabilised. Whilst research into submerged indigenous sites is now being undertaken (Nutley 2006), there are few sites in the Sydney area that are known to date beyond 10,000 years BP. Therefore, research undertaken to date has focused on subsistence patterns and cultural change, e.g. Attenbrow (2010).

Many archaeological surveys have been conducted on the Cumberland Plain in relation to Environmental Impact Statements. As a result of these studies, which were occasioned by the burgeoning urban expansion extending onto the Cumberland Plain, the NPWS recognised the need for a coherent study of the area to fully assess the impact of urbanisation on the natural and cultural heritage of the Cumberland Plain. Smith (1989b) was commissioned by the NPWS to undertake an Aboriginal Site Planning Study to be utilised in the management of Aboriginal sites on the Cumberland Plain.

Prior to her study, 307 sites had been recorded on the Cumberland Plain, mainly open artefact scatters (297) with four scarred trees, one carved tree and four axe-grinding grooves and a Mission site (the Blacktown Institute). Smith (1989b:2) added 79 open sites and 29 isolated finds from field surveys related to her study.

Smith's (1989b:3) analysis indicated that site location and site densities were influenced by the availability of water and raw materials. She concluded that other factors such as topography, natural vegetation and soil types did not influence site location.

Since Smith's study there has been a dramatic increase in development in Western Sydney resulting in a great deal more archaeological survey and excavation (McDonald 1997). This further work has indicated the complexity in the archaeological record of the area that was not previously recognised. This includes recognition that surface artefact scatters do not represent the full nature and extent of such sites. The potential for sub-surface deposits to remain, despite agricultural disturbance is high whilst sites on permanent water are more complex than sites on ephemeral drainage lines with major confluences being prime site locations.

In 2005 McDonald published the results of excavations in the Rouse Hill Development area, which is north-north east of the present study area. This study refined the model of occupation for the Cumberland Plain. Her study examined site location, stone tool manufacture, mobility, change over time and occupation in relation to stream order. Second and Third Order streams are less likely to contain major sites unless they are at the confluence with another creek or river, which is not the case within the present study area.

McDonald's 2005a report demonstrates the dynamic nature of stone tool technologies on the Cumberland Plain. She reviewed previous work within a theoretical framework to identify intra and inter-regional variation. She not only



identified change over time in the stone tool technology, but the way that "stone technologies were organised in relation to landscape" (McDonald 2005: np). Her report provides a framework to tentatively date sites through technological analyses and to identify cultural changes.

Her study also indicated that the surface representation of a site on the Cumberland Plain does not necessarily reflect the actuality of that site. Of the excavations conducted by her, sub-surface deposits were present even when there was no surface indication of a site. According to McDonald (2005:5), "despite artefacts being rare or completely absent on the surface at each of the sites investigated, all six sites were found to contain intact archaeological deposit. Almost 500 square metres were excavated during this Project and almost 35,000 artefacts retrieved." McDonald (2005) also considers that Aboriginal occupation was focussed on the major river systems and characterised by mobility between a small number of sites. As a result of her various studies and applying stream order modelling she (2005) further predicts that the density and complexity of archaeological sites will vary according to stream order, as follows:

- Fourth-Fifth order creeks (or rivers): Archaeological evidence will be more complex and possibly stratified, reflecting more permanent and repeated occupation on major creeks.
- Third order creeks: Evidence of more frequent occupation such as knapping floors or higher artefact densities will be found in the lower reaches of tributary creeks.
- Second order creeks: Sparse archaeological evidence will be found which indicates occasional use and/or occupation.
- First order creeks: Due to the intermittent nature of water flow only very sparse evidence would be found in the headwaters of upper tributaries such as background artefact scatter.

Kohen's studies at Penrith confirmed the importance of fifth order creeks and rivers. He recorded over 50 sites in the Penrith area which included open artefact scatters, axe grinding grooves and rock shelters. Kohen (1997:7) indicates that sites occurring throughout the Penrith area "are particularly likely to occur adjacent to the rivers and creeks. The distribution of raw materials associated with the manufacture of stone tools suggests that chert and basalt were carried or traded east from the river gravels and that silcrete was traded or carried from sources near South Creek and Eastern Creek, west towards the Nepean flood plain".

Comber also recorded open artefact scatters and scarred trees within the Cumberland Plain. She undertook excavation at two sites at Penrith Lakes known PL9 (2010a) as Camenzulis (2010b) and at PL9 she retrieved more than 1,500 artefacts, including backed blades and an edge ground axe. Her work confirms McDonald's (2005) and Kohen's predictive model that sites are more likely to occur adjacent to the rivers and high order creeks. These excavations (Comber 2010a&b) at Penrith Lakes further indicates the possibility that sub-surface archaeological deposits will remain despite disturbance by non-Aboriginal activities and the complexity of such sites. Surveys (2006 & 2008) undertaken prior to the excavations recorded the areas as being disturbed by agricultural activities. They had been grazed, ploughed, planted with crops and a dam constructed. Only a small number of artefacts were recorded on the surface but over 1,500 artefacts retrieved during excavation.

A survey undertaken by Comber (2008) and subsequent excavations undertaken by Stening (2011) at Doonside demonstrated that although no surface artefacts were recorded (Comber 2008) substantial subsurface deposits did exist on the site with over 1,000 artefacts being recovered from a highly disturbed context (Stening 2011). This site was located beside Eastern Creek an important 4th or 5th order creek. It is an important watershed with extensive evidence of Aboriginal occupation.

Archaeological investigations within the Sydney Basin have established reliable Carbon 14 dating evidence of Aboriginal occupation dating from the Pleistocene but (14,700BP at Cranebrook Terrace). Most sites however have been dated to less than 5,000 years. The absence of earlier dates is due to the effect of sea level rises c6,000 years ago. The influx of seawater over former coastal plains is presumed to have forced people into the new confines of the Sydney Basin (Nutley 2006). This 'intensification', or increased population, was then associated with an increase in the physical evidence of post 5,000BP occupation now being recorded through archaeological investigation.

The model of occupation developed for the Cumberland Plain indicates that reliable water is a prime factor in the choosing of site locations by Aboriginal people. More complex higher density sites will be located at the confluence of several water bodies, whilst evidence of frequent occupation will be in the lower reaches of tributaries. However, evidence will still be in areas with seasonal creek lines, but it will sparse and less complex. Ground disturbance will impact on surface evidence, but subsurface evidence may still present in areas of high disturbance.



4.3. Mulgoa/Glenmore Park

Below is a summary of the findings of three archaeological investigations conducted in the vicinity of the study area. These include site inspections and archaeological excavations.

A) Greer, S, and Brayshaw, H, May 1983. 'An Archaeological Survey of Lot 1 DP541090 at Mulgoa New South Wales'. Report

The 1983 study area lay adjacent to the southern border of the current study area as shown in **Figure 4**. The map is a sketch map from 1983 archaeological survey overlaid on the current study area and an LPI topographic map (overlay by Comber Consultants in QGIS). Note that the original alignment of Bradley Street, as shown on the 1983 map in Figure 4, has been renamed Forestwood Road. Bradley Street still exists but has been realigned to south of the study area and its original alignment (see Figures 4-6).

The 1983 survey was a preliminary study commissioned by Mulgoa Quarries Pty Ltd in respect of proposed extraction of materials for brick manufacture and road making as well as screen plantings.

This survey identified a single light brown quartzite flake on top of a small hill in the centre of the study area and sparse scatter of 20 artefacts over an area of 350m east to west and 100m north to south. These artefacts were observed in a thin topsoil unit and were reported to consist of chert, silcrete, and mudstone. The artefact density was low with the highest being 3 artefacts per m².

The study concluded that the area had archaeological potential. It also concluded that the proposed extraction site would have impacts and recommended that more detailed recording and archaeological excavation be undertaken.

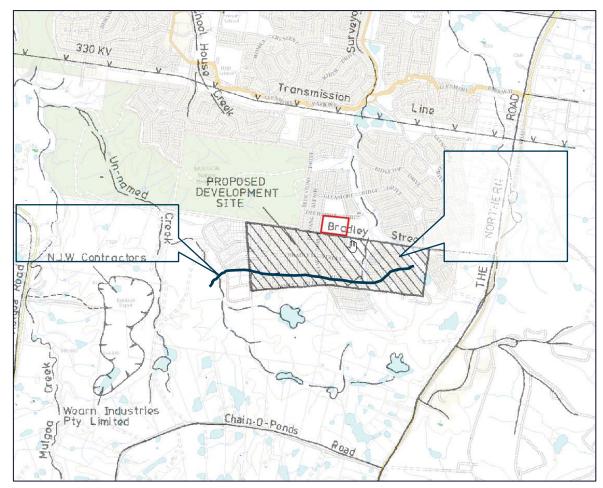


Figure 4: Overlay of current study area (red) with 1983 study area (hatched).



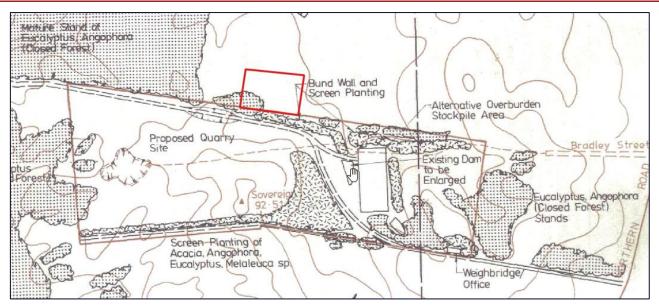


Figure 5: Relationship of 1983 survey and proposed extraction site to current study area (red)

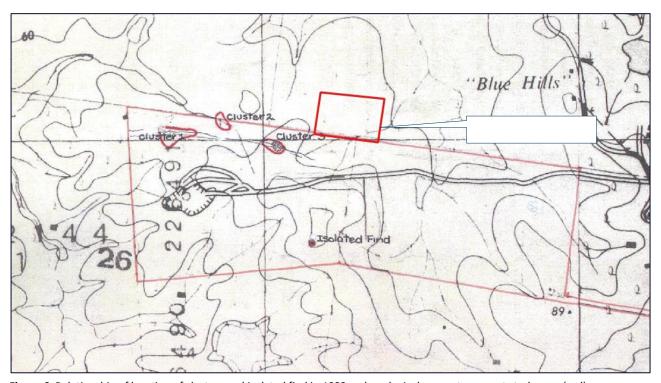


Figure 6: Relationship of location of clusters and isolated find in 1983 archaeological survey to current study area (red)

B) Kohen, J, December 1986. 'An Archaeological Survey of "Winbourne" at Mulgoa'. Report prepared for Christian Brothers Youth Apostolate

This survey was conducted approximately 5km south of the current study area and featured a sandstone slope and six minor creeks that predominantly crossed clay and alluvium. The property also contained quartzite gravels suitable for stone tool manufacture. Artefacts reported to be related to that area include basalt and hornfells pebbles formed into ground edge hatchets. This survey also reports the recording of grinding grooves and a rock shelter – indicating a significantly different landscape to the current study area.

C) Dallas, M, March 1981. ('An Aboriginal Survey of the South Penrith Development Site'. Report prepared for Housing Commission of NSW

This survey was conducted to identify and record Aboriginal sites within an area of proposed residential development to the north of the current study area (Figure 7). Twenty sites were identified either in hilltop or creekside settings. It was noted, however, that this could reflect the impacts of extensive ploughing. The identified Aboriginal lithic materials included chert, silcrete and mudstone and small amounts of quartz.



The nearest recorded site is over 400m to the south-east of the study area. A total of 12 Aboriginal sites had been recorded within 1km of the study area. Figures 8-9 and Table 1 detail registered sites in the vicinity of the study area.

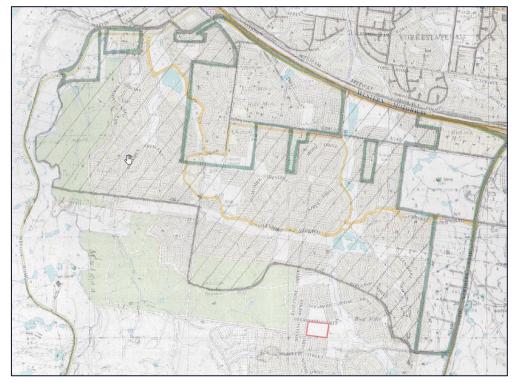


Figure 7: Overlay of the 1986 investigations by Dallas. Current study area in red



Figure 8: Map of the study area c2014 showing the location of entries in the AHIMS register and clearing for residential blocks





Figure 9: Map of the study area 2020 showing the location of entries in the AHIMS register (NearMap 2020)

The following table details Aboriginal sites recorded in the vicinity of the current study area:

AHIMS site card number	Name	Description
45-5-0407	Mulgoa	Artefact – Open Camp Site
45-5-0411	Mulgoa Open Site	Artefact – Open Camp Site
45-5-0413	SP 15 South Penrith	Artefact – Open Camp Site
45-5-0417	SP 19 South Penrith	Artefact – Open Camp Site
45-5-0310	SP 12;	Artefact – Open Camp Site
45-5-0311	SP 13;	Artefact – Open Camp Site
45-5-2612	Glenmore Park	Artefact
45-5-3112	GP5, Mulgoa Quarry	Artefact
45-5-3113	GP4, Mulgoa Quarry	Artefact
45-5-0412	SP 14 South Penrith	Artefact – Open Camp Site
45-5-0414	SP 16 South Penrith	Artefact – Open Camp Site
45-5-0415	SP 17 South Penrith	Artefact – Open Camp Site

Table 2: Aboriginal sites recorded in the vicinity of the study area (Site search dated 9/9/2020)



4.4. Study area

No previous archaeological surveys have been identified for the study area. The AHIMS search of the study area (9 September 2020) included a 1km buffer, but no sites were shown as having been recorded within the boundaries of the study area. The site is not a registered Aboriginal place.

However, it should be noted, as detailed in section 5.4 of this report the whole of the study area has previously been subjected to quarrying and fill. Therefore, if any sites did previously exist within the study area they would most likely have been removed by the quarrying activities.

4.5. Aboriginal Site Prediction modelling

The study area has been subjected to extensive quarrying and filling. Although it is possible that a low density of artefacts may once have existed on the property, due to the extensive disturbance, it is not predicted that any Aboriginal objects will be located on the property.



5.0 RESULTS, IMPACT AND MITIGATION

5.1. Results

An inspection of the study area was undertaken on 9 September 2020. The site inspection found that in most places the study area was covered by a dense coverage of weeds and grasses. Evidence of fill and subsequent compression or subsidence was observed along the southern and western boundaries. Embankments rose to the level of Darug Avenue and Forestwood Drive.

As previously detailed the study area has been subjected to quarrying and filling. The site inspection confirmed this as detailed below:

- Ground cover was 80%. Visibility within exposed areas ranged from 20% to 100% (
- Photograph 1-3).
- Exposed ground consisted of clay mixed with small traces of building rubble and large lumps of shale (perhaps from the former shale quarry) and appeared highly disturbed and subject to compaction.
- No trees or other evidence of original vegetation was present.
- No Aboriginal objects were observed.



Photograph 1: Nature and extent of ground cover within the study area



Photograph 2: Exposed area revealing redeposited clay fill





Photograph 3: Area along raised southern boundary with exposed rubble and clay fill

5.2. Impacts & Mitigation

The study area has been subject to extensive quarrying and filling between 1986 and 2000 and the natural soil profile has been removed from the site. As such, the potential for the study area to contain Aboriginal objects or places is nil. There will be no impacts to Aboriginal sites and therefore specific mitigation measures are not required. Aboriginal community consultation undertaken for the project has not identified any known Aboriginal sites or areas of significance related to the study area.



6.0 CONSULTATION

Table 2 below summarises the consultation undertaken in accordance with *Aboriginal cultural heritage consultation requirements for proponents 2010.* The letters and emails are attached at Appendix A.

 Table 3: Consultation undertaken in accordance with Aboriginal cultural heritage consultation requirements for proponents 2010.

Step	Task Requirement	Action	Date of action	Outcome
4.1.1	Identify if native title exists in relation to the project area.	A search of the National Native Title Register was undertaken.	03/05/2021	No claims, registrations or ILUAs exist over the study area.
4.1.2	Ascertain, from reasonable sources of information, the names of Aboriginal people who may hold cultural knowledge relevant to determining the significance of Aboriginal objects and/or places. Compile a list of Aboriginal people who may have an interest for the proposed project area and hold knowledge relevant to determining the cultural significance of Aboriginal objects and/or places	We wrote to the following organisations seeking the names of any Aboriginal people or organisations who may hold cultural knowledge: Derrubbin Local Aboriginal Land Council City of Penrith Council Greater Sydney Local Land Services (GSLLS) Heritage NSW Office of Registrar, Aboriginal Land Rights Act 1983 NTS Corporation	01/02/2021	We received responses from the following: Paul Houston, Heritage NSW provide a list of Aboriginal organisations with an interest in the area. Angela Dawson, City of Penrith Council who advised to contact the Deerubbin Local Aboriginal Land Council Rachel Rewiri, Office of Registrar, Aboriginal Land Rights Act 1983 who advised that there are no Aboriginal owners.
4.1.3	Written notification and advertisement: Write to the Aboriginal people whose names were obtained in step 4.1.2 and the relevant LALC(s) to notify them of the proposed project. Place a notice in the local newspaper circulating in the general location of the proposed project, explaining the project and its exact location. Notification by letter and newspaper must include: (a) the name and contact details of the proponent (b) a brief overview of the proposed project that may be the subject of an application for an AHIP, including the location of the proposed project (c) a statement that the purpose of community	We wrote to the following organisations/people identified in 4.1.2 Goodradigbee Cultural and Heritage Aboriginal Corporation Mura Indigenous Corporation Yulay Cultural Services Muragadi Heritage Indigenous Corporation Barraby Cultural Services Yurrandaali Cultural Services Peerubbin Local Aboriginal Land Council Darug Tribal Aboriginal Corporation Darug Land Observations Darug Custodian Aboriginal Corporation Gunjeewong Cultural Heritage Aboriginal Corporation Gunjeewong Cultural Heritage Aboriginal Corporation Murra Bidgee Mullangari Aboriginal Corporation Kamilaroi Yankuntjatjara Working Group Warragil Cultural Services A1 Indigenous Services Amanda Hickey Cultural Services Widescope Indigenous Group Dhinawan Culture & Heritage	Email sent 16/02/2021 with response date of 05/03/2021.	We received responses from the following: Name with held Name with held Name with held Name with held Paul Boyd, Didge Ngunawal Clan Phil Khan, Kamilaroi Yankuntjatjara Working Group Danny Franks, Tocomwall Bo Field, Yurrandaali Cultural Services Lee Field, Barraby Cultural Services Carolyn Hickey, A1 Indigenous Services Wendy Smith, Gulaga Phil Boney, Wailwan Aboriginal Group James Eastwood, Aragung Aboriginal Cultural Heritage Site Assessments Clive Freeman, Freeman & Marx Pty Ltd Rodney Gunther, Waawaar Awaa Aboriginal Corporation Krystle Carroll-Elliot, Ginninderra Aboriginal



Step	Task Requirement	Action	Date of action	Outcome
	Aboriginal people is to assist the proposed applicant in the preparation of an application for an AHIP and to assist the Director-General of OEH in his or her consideration and determination of the application (d) an invitation for Aboriginal people who hold cultural knowledge relevant to determining the significance of Aboriginal object(s) and/or place(s) in the area of the proposed project to register an interest in a process of community consultation with the proposed applicant regarding the proposed activity (e) a closing date for the registration of interests	 HSB Consultants Rane Consulting Gunyuu Walbunja Badu Goobah Developments Yerramurra Nundagurri Murrumbul Jerringong Pemulwuy CHTS Bilinga Munyunga Wingikara Walgalu Thauaira Dharug Gulaga Callendulla Murramarang DJMD Consultancy Butucarbin Aboriginal Corporation Didge Ngunawal Clan Ginninderra Aboriginal Corporation Wailwan Aboriginal Group Barking Owl Aboriginal Corporation Darug Boorooberongal Elders Aboriginal Corporation B.H. Heritage Consultants Ngambaa Cultural Connections Aragung Aboriginal Cultural Heritage Site Assessments Waawaar Awaa Aboriginal Corporation Clive Freeman Galamaay Cultural Consultants (GCC) Wurrumay Pty Ltd Tocomwall Biamanga Thoorga Nura A public notice was placed in the digital edition of the Penrith Press.	Public notice was published on 1 - 3 February 2021 with closing date of 22nd February 2021.	 Vicky Slater, Wurrumay Pty Ltd Arika Jalomaki, Yulay Cultural Services Kaarina Slater, Ngambaa Cultural Connection Justine Coplin, Darug Custodian Aboriginal Corporation Joel Tubbs/Corina Norman, Dharug Ngurra Aboriginal Corporation
4.1.4	A minimum of 14 days from the date the letter was sent or notice published in the newspaper to register an interest.	Closing date for registration of interest included in the notification letters and notice in the newspaper was at least 14 days from the date the letters were sent and notices appeared in the newspapers.	Closing date for registration of interest on 5/03/2021and for written notification 22/2/2021 for advertisement	Responses received as detailed above.



Step	Task Requirement	Action	Date of action	Outcome
4.1.5	Must advise Aboriginal people who are registering an interest that their details will be forwarded to DPC and the LALC unless they specify that they do not want their details released.	RAP's informed by letter/email 16/02/2021 and by advertisement dated 01/02/2021.		Three RAPs requested that their names be withheld
4.1.6	Make a record of the names of each Aboriginal person who registered an interest. Provide a copy of that record and copy of the notification from step 4.1.3 to the relevant DPC and LALC within 28 days of closing date for registration of interest.	List of RAPs compiled.	Email sent to Heritage NSW and Deerubbin LALC on 7 April 2021.	
4.1.7	LALCs holding cultural knowledge relevant to determining the significance of Aboriginal objects and places in the proposed project area who wish to register an interest to be involved in consultation must register their interest as an Aboriginal organisation rather than individuals.	Deerubbin LALC is a registered party to be involved in consultation (refer to 4.1.6)		DLALC is a RAP
4.1.8	Where an Aboriginal organisation representing Aboriginal people, who hold cultural knowledge has registered an interest, a contact person for that organisation must be nominated. Aboriginal cultural knowledge holders who have registered an interest may indicate they have appointed a representative to act on their behalf. Where this occurs, the registered Aboriginal party must provide written confirmation and contact details of those individuals to act on their behalf.			See 4.1.3 above
4.2	Presentation of information about the proposed project.	Email sent to all RAPs to explain project, ascertain significance and any other issues of concern.	Sent to RAPs on 8/3/2021 with responses due	See below for responses



Step	Task Requirement	Action	Date of action	Outcome
			7/4/2021.	
4.3.1- 4.3.2	Notification of proposed assessment methodology	Methodology sent to all RAPS in the same email as the presentation of information about the proposed project in step 4.2.	Methodology sent to RAPs on 8/3/2021 for review until 7/4/2021.	Responses received: Gulaga (Wendy Smith) responded by email on 9/03/2021 and supports the methodology Aragung (Jamie Eastwood) responded by email on 9/3/2021 and approves of the methodology Kamilaroi-Yankuntjatjara Working Group (Phil Khan) responded by email on 10/03/2021 and supports the methodology Waawaar Awaa Aboriginal Corportaion (Rodney Gunther) responded by email on 10/03/2021 and supports the methodology
4.3.3	Gathering information about cultural significance		8/3/2021	This information was requested as part of Step 4.3.1 and is included in the significance assessment.
4.4	Review of draft cultural heritage assessment report	ACHAR sent to RAPs for 28 day review period.	ACHAR sent on 7/04/2021 with responses due on 6/05/2021	Review period closes on 6 May 2021. The following responses organisations responded. All were in support of the ACHAR. Kamilaroi-Yankuntjatjara Working Group. Waawaar Awaa Aboriginal Corporation. Justine Coplin, Darug Custodian Aboriginal Corporation. Kaarina Slater, Ngambaa Cultural Connection.

As a result of the above consultation the following organisations are Registered Aboriginal Parties:

- Name withheld
- Name withheld
- Name withheld
- Paul Boyd, Didge Ngunawal Clan
- Phil Khan, Kamilaroi Yankuntjatjara Working Group
- Danny Franks, Tocomwall
- Bo Field, Yurrandaali Cultural Services
- Lee Field, Barraby Cultural Services Carolyn Hickey, A1 Indigenous Services
- Wendy Smith, Gulaga
- Phil Boney, Wailwan Aboriginal Group
- James Eastwood, Aragung Aboriginal Cultural Heritage Site Assessments
- Clive Freeman, Freeman & Marx Pty Ltd
- Rodney Gunther, Waawaar Awaa Aboriginal Corporation
- Krystle Carroll-Elliot, Ginninderra Aboriginal Corporation
- Vicky Slater, Wurrumay Pty Ltd
- Arika Jalomaki, Yulay Cultural Services
- Kaarina Slater, Ngambaa Cultural Connection
- Carolyn Hickey, A1 Indigenous Services



- Justine Coplin, Darug Custodian Aboriginal Corporation
- Joel Tubbs or Corina Norman, Dharug Ngurra Aboriginal Corporation
- Steve Randall, Deerubbin Local Aboriginal Land Council

No confidential, culturally sensitive or restricted information was identified.



7.0 CULTURAL HERITAGE VALUES AND STATEMENT OF SIGNIFICANCE

7.1. Preamble

Significance assessment is the process whereby sites or landscapes are assessed to determine their value or importance to the community.

A range of criteria have been developed for assessing the significance which embody the values contained in the Burra Charter. The Burra Charter provides principles and guidelines for the conservation and management of cultural heritage places within Australia.

Following are the criteria which will be used to assess the study area.

7.2. Criteria

Social Value (sometimes termed "Aboriginal" value) which refers to the spiritual, traditional, historical or contemporary associations and attachments which the place or area has for the present-day Aboriginal community.

Historic Value refers to the associations of a place with a person, event, phase or activity of importance to the history of an Aboriginal community.

Scientific Value refers to the importance of a landscape, area, place or object because of its archaeological and/or other technical aspects.

Aesthetic Value refers to the sensory, scenic, architectural and creative aspects of the place.

Representativeness refers to whether the site demonstrates the principal characteristics of that site and is a good representative example of that site type.

Rarity refers to the degree to which such a site is known elsewhere and whether the site is uncommon, rare or endangered.

7.3. Assessment

Social Values

The study area sits within the boundaries of the Darug, and the broader Aboriginal landscape of the Sydney Basin. However, as the study area has been extensively quarried and filled, consultation with representatives of the Aboriginal community has not identified social values related to the site. Evidence of Aboriginal occupation is not predicted to be present on site.

Historic Values

It is possible that the study area may have been occupied by Aboriginal people prior to the quarrying of the site, however evidence of such occupation no longer exists.

Scientific Values

The study area does not have the potential to yield further information through detailed scientific and archaeological research as the natural soil profile has been completely removed from the site as a result of extensive quarrying. The study area does not have the potential to contain sub-surface archaeological deposits.

Aesthetic Values

The study area does not contain aesthetic values.

Representative Values

The study area does not contain representative values.

Rarity Values



The study area does not contain rarity values.

7.4. Statement of significance

The study area sits within the boundaries of the Darug, and the broader Aboriginal landscape of the Sydney Basin. However, the study area consists of at least 6m of fill across the site as a result of quarrying and filling operations undertaken between 1986-2000. Due to this, evidence of Aboriginal occupation is not predicted to be present on site. Consultation with representatives of the Aboriginal community has not identified social values or significance related to the site.



8.0 PROPOSED ACTIVITY

The proposed development involves the construction and operation of a new primary school at Glenmore Park (Mulgoa Rise). The development will initially accommodate 414 students, with the ability to be expanded to 1000 students when demand requires, which would be subject of a separate planning approval process.

Development approval will facilitate a Core 21 school with 18 learning spaces (LS), plus 2 support classes. The development will also include a school hall, library, staff facilities, and administrative areas built to Core 35, allowing capacity for future expansion. A large assembly area, games court, shared sensory play area and playground will also form part of the development.

The new school will provide the surrounding community access to the school's core facilities and will also provide Outside School Hours Care (OSHC) services to assist working families that commute and work extended hours. The school is proposed to be open for students in January 2023.

The State Significant Development Application for the project seeks consent for the following key components.

- · General learning areas.
- Multipurpose communal hall.
- Covered Outdoor Learning Areas (COLA).
- Administration area.
- · Staff area including amenities.
- Student amenities.
- Library.
- · Canteen.
- Storage.
- Assembly Area.
- · Games Court.
- Shared sensory play area.
- Landscaping.
- Pedestrian circulation.
- Pedestrian access points.
- Internal open space.
- Staff car park with access off Forestwood Drive.
- Bike and scooter parking.
- Bus zone and drop off/pick spaces.
- Pedestrian crossings on Forestwood Drive, Darug Avenue, and Deerubbin Drive.
- Waste collection area.
- Connection of site services, including gas, potable water, sewer, power (including a new sub-station), and the NBN.



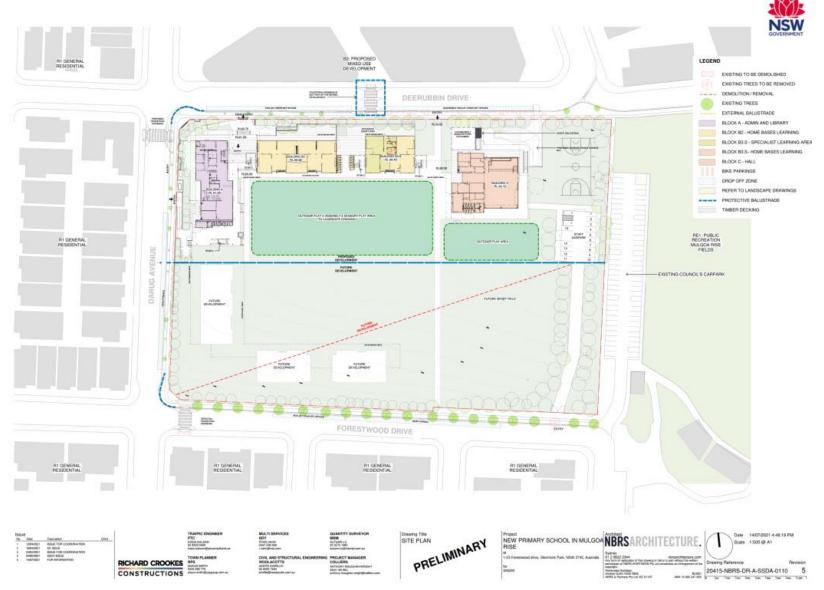


Figure 10: Proposed new primary school (NBRS Architecture)



9.0 RECOMMENDATIONS

The following recommendations are made based on:

- Legal requirements under the terms of the *National Parks & Wildlife Act 1974* (as amended), which states that it is an offence to harm or desecrate an Aboriginal place or object without first gaining a permit under Part 6 of the *National Parks & Wildlife Act 1974*.
- Consultation with the Registered Aboriginal Parties as detailed in this report.
- Research into the archaeological record for the Cumberland Plain and the study area.
- Results of the assessment as outlined in this report.

IT IS THEREFORE RECOMMENDED THAT:

- 1. Aboriginal community consultation in accordance with the Consultation Requirements should continue for the remainder of the project, including input into the design principles of the new school.
- 2. The study area is a former quarry. Therefore, as Aboriginal objects are not predicted to exist within the study area, no further Aboriginal archaeological assessment, testing, salvage or monitoring is required.



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APPENDIX A: CONSULTATION

4.1.1 Identify if Native Title exists

We searched the National Native Title Tribunal for a list of registered native title claimants, native title holders and registered Indigenous Land Use Agreements on 18th March 2021. An up to date search was undertaken on 3rd May and is included below. There are no current native title claims, holders or ILUAs relevant to the study area.

Search National Native Title Register

The National Native Title Register (NNTR) is a register established under s. 192 of the Native Title Act 1993 (Cth).

The NNTR contains determinations of native title made by:

- . the High Court of Australia
- · the Federal Court of Australia
- . or a recognised body such as South Australia's Supreme Court and Environment Resources and Development Court.

Further information about the NNTR is available.

Tribunal file no.]
Federal Court file no.		
Short name		
Case name		
State or Territory	ALL	
Registered Native Title Body Corporate*]
Representative A/TSI body area		
Local government area	Penrith City Council	
Determination type	ALL	
Legal process	ALL 💙	
Determination outcome	ALL 💙	
Determination date between	and iii	
Sort by	Determination date	Search >
*Please note: current contact details for the Regi Indigenous Corporations www.oric.gov.au	stered Native Title Body Corporate are avail	able from the Office of the Registrar of

No results for current search criteria



Search Register of Indigenous Land Use Agreements

Under the Native Title Act, the Registrar is responsible for maintaining the Register of Indigenous Land Use Agreements (ILUAs), which contains information about ILUAs that have been accepted for registration.

The register entry for each ILUA must include:

- · a description of the area covered by the agreement
- . the name of each party to the agreement and the address at which the party can be contacted
- · if the agreement specifies the period during which it will operate that period
- if the agreement includes any statements regarding extinguishment, the validation or doing of future acts, contracting out of the 'right
 to negotiate' provisions of the Native Title Act, or changing the effect of 'intermediate period acts' on native title a reference to that
 fact, setting out any such statements

The Registrar must remove details of the ILUA from the Register if:

- there is an approved determination of native title over the ILUA area and certain conditions exist, and the Court has not ordered that the ILUA should remain on the Register
- a party tells the Registrar in writing that the agreement has expired
- all parties tell the Registrar in writing that they wish to terminate the agreement
- . the Federal Court orders the Registrar to remove the details of the agreement

If you have a question about a particular ILUA, please contact the parties to the agreement identified on the register extract for the ILUA. If you need assistance searching the Register of ILUAs, please email iluas@nntt.gov.au.

Tribunal file no.	
ILUA name	
ILUA type	ALL 🗸
State or Territory	New South Wales
Representative A/TSI body area	
Subject Matter	
Date registered between	and
Sort by	Date registered 🔻

Your search returned 24 matches.

ILUA name	ILUA type	Subject matter(s)	Tribunal file no	Date registered
St Ives Pistol Club and Awabakal and Guringai People and Ors ILUA	Area Agreement	Access, Development	NI2020/001	01/09/2020
Cavanbah (Byron Bay) Arakwal Indigenous Land Use Agreement	Area Agreement	Native Title Settlement, Access, Community, Consultation protocol	NI2019/005	20/05/2020
Buronga HealthOne ILUA	Body Corporate	Government, Development	NI2019/006	04/03/2020
Copmanhurst Projects ILUA	Area Agreement	Mining, Infrastructure	NI2019/001	04/10/2019
Barkandji Single Dealings ILUA	Body Corporate	Extinguishment, Tenure resolution	NI2019/004	10/09/2019
Barkandji RNTBC Keltren ILUA	Body Corporate	Extinguishment, Not specified	NI2019/002	30/07/2019
Yaegl Interim Licences ILUA	Body Corporate	Native Title Settlement, Not specified	NI2018/006	20/11/2018
Barkandji Interim Licences ILUA	Body Corporate	Not specified	NI2018/007	20/11/2018



Gumbaynggirr (Boney) Settlement ILUA	Area Agreement	Extinguishment, Native Title Settlement	NI2018/004	26/07/2018
Gumbaynggirr Wenonah Head ILUA	Area Agreement	Native Title Settlement, Tenure resolution	NI2018/005	26/07/2018
Barkandji Appin Station ILUA	Area Agreement	Native Title Settlement	NI2018/002	13/07/2018
Barkandji Weinteriga and Yobel Station ILUA	Area Agreement	Native Title Settlement	NI2018/003	13/07/2018
Western Bundjalung Settlement ILUA	Area Agreement	Government, Consultation protocol, Tenure resolution	NI2018/001	12/07/2018
Tubba-Gah ILUA	Area Agreement	Native Title Settlement, Co-management	NI2015/001	12/01/2016
Gundungurra Area Agreement	Area Agreement	Native Title Settlement, Consultation protocol	NI2014/001	27/02/2015
Cubbitch Barta Clan of the Dharawal People Indigenous Land Use Agreement	Area Agreement	Access	NI2010/001	16/03/2011
Bundjalung People of Byron Bay (ILUA 2)	Area Agreement	Co-management, Consultation protocol, Extinguishment	NI2006/004	22/04/2008
Ti Tree Lake (Taylor's Lake) (ILUA 3)	Area Agreement	Co-management, Consultation protocol	NI2006/005	22/04/2008
Gundungurra Taralga Wind Farm Agreement	Area Agreement	Development, Commercial	NI2006/002	13/12/2007
Githabul People ILUA	Area Agreement	Access, Co-management, Consultation protocol, Extinguishment, Terms of Access	NI2006/001	15/08/2007
Twofold Bay	Area Agreement	Infrastructure, Transport	NI2001/003	29/04/2002
Powercoal Pty Ltd, Victor Perry, Stephen Seiver & NSW ALC ILUA Area Agreement	Area Agreement	Mining, Large mining	NIA2000/001	29/08/2001
Bunjalung of Byron Bay (Arakwal)	Area Agreement	Development, Community	NIA2001/001	28/08/2001



4.1.2 Ascertaining the names of people who may hold cultural knowledge

We wrote to the following organisations on 1 February 2021. Copies of the emails follow.

- Derrubbin Local Aboriginal Land Council
- City of Penrith Council
- Greater Sydney Local Land Services (GSLLS)
- Heritage NSW
- Office of Registrar, Aboriginal Land Rights Act 1983
- NTS Corporation



From: Agata M.C. Calabrese

Sent: Monday, 01 February 2021 1:08 PM

To: margaret.bottrell@lls.nsw.gov.au; Information@ntscorp.com.au; srandall@deerubbin.org.au; Heritage NSW

AHIP applications (heritagemailbox@environment.nsw.gov.au) **Subject:** Mulgoa Rise Primary School Aboriginal Consultation

MULGOA RISE PRIMARY SCHOOL, GLENMORE PARK

The Department of Education through School Infrastructure NSW of 259 George Street, Sydney, propose the redevelopment of the Mulgoa Rise Primary School, 1-23 Forestwood Drive, Glenmore Park, located within the Penrith Local Government Area. The proposal is to be assessed as a State Significant Development (SSD) under Part 4 Division 4.7 of the *Environmental Planning and Assessment Act 1979*. This requires Aboriginal community consultation to be undertaken in accordance with *Aboriginal cultural heritage consultation requirements for proponents 2010*.

Comber Consultants have been engaged by School Infrastructure NSW to undertake Aboriginal community consultation in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010.* As required, I am writing to you to ascertain if you are aware of Aboriginal people or organisations who may hold cultural knowledge relevant to determining the significance of Aboriginal objects and or/places within the study area. If so, I would be pleased if you could forward their contact details to me. Could you please provide your response by Monday 15th February 2021.

Kind regards

AGATA M.C. CALABRESE



From: Agata M.C. Calabrese

Sent: Monday, 01 February 2021 2:03 PM

To: jodie.rikiti2@oralra.nsw.gov.au

Subject: Mulgoa Rise Primary School, Glenmore Park - Aboriginal consultation

MULGOA RISE PRIMARY SCHOOL, GLENMORE PARK

The Department of Education through School Infrastructure NSW of 259 George Street, Sydney, propose the redevelopment of the Mulgoa Rise Primary School, 1-23 Forestwood Drive, Glenmore Park, located within the Penrith Local Government Area. The proposal is to be assessed as a State Significant Development (SSD) under Part 4 Division 4.7 of the *Environmental Planning and Assessment Act 1979*. This requires Aboriginal community consultation to be undertaken in accordance with *Aboriginal cultural heritage consultation requirements for proponents 2010*.

Comber Consultants have been engaged by School Infrastructure NSW to undertake Aboriginal community consultation in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010.* As required, I am writing to you to ascertain if you are aware of Aboriginal people or organisations who may hold cultural knowledge relevant to determining the significance of Aboriginal objects and or/places within the study area. If so, I would be pleased if you could forward their contact details to me. Could you please provide your response by Monday 15th February 2021.

Kind regards

AGATA M.C. CALABRESE



From: Agata M.C. Calabrese

Sent: Tuesday, 02 February 2021 12:06 PM

To: council@penrith.city

Subject: Mulgoa Rise Primary School, Glenmore Park - Aboriginal consultation

MULGOA RISE PRIMARY SCHOOL, GLENMORE PARK

The Department of Education through School Infrastructure NSW of 259 George Street, Sydney, propose the redevelopment of the Mulgoa Rise Primary School, 1-23 Forestwood Drive, Glenmore Park, located within the Penrith Local Government Area. The proposal is to be assessed as a State Significant Development (SSD) under Part 4 Division 4.7 of the *Environmental Planning and Assessment Act 1979*. This requires Aboriginal community consultation to be undertaken in accordance with *Aboriginal cultural heritage consultation requirements for proponents 2010*.

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Kind regards

AGATA M.C. CALABRESE



4.1.2 Responses to ascertaining the names of people who may hold cultural knowledge

The email sent to Margaret Bottrell, Local Land Services was returned as undeliverable. Therefore, the following email was sent as an online enquiry on 1st February 2021. A response was not received.

From: web.team@lls.nsw.gov.au <web.team@lls.nsw.gov.au>

Sent: Monday, 1 February 2021 2:26 PM

To: Jillian Comber < jillian.comber@comber.net.au >

Subject: Thank you for your online enquiry. We will be in touch soon!

Thank you for contacting Local Land Services.

This auto-reply is to let you know that we have received your enquiry and one of our staff members will get back to you (by email or phone) within 5 working days.

Please note we are experiencing a high volume of enquiries due to the Annual Land and Stock Returns but are working to get back to everyone as soon as possible.

If you need to report animal and plant disease emergencies after hours, please use the following numbers:

Emergency Animal Diseases Hotline - 1800 675 888

Emergency Plant Pest Hotline - 1800 084 881

Your safety and that of our employees is our top priority and we remain committed to taking important steps in reducing the spread of COVID-19.

We thank you for your understanding during this challenging time.

Local Land Services

View your submission here:

Name: Jillian Comber

Address line 1: Comber Consultants
Address line 2: 76 Edwin Street North

Town: Croydon
State: NSW
Postcode: 2193

Email address: jillian.comber@comber.net.au

Phone number:

0418788802

Customer reference number:

Region: Greater Sydney

What does

your enquiry Other

relate to?:

How can we

help?:

ABORIGINAL CULTURAL HERITAGE: NEW PRIMARY SCHOOL, GLENMORE PARK The Department of Education through School Infrastructure NSW of 259 George Street, Sydney, propose the establishment of a new Primary School in Mulgoa Rise, 1-23 Forestwood Drive, Glenmore Park, located within the Penrith Local



Government Area. The proposal is to be assessed as a State Significant Development (SSD) under Part 4 Division 4.7 of the Environmental Planning and Assessment Act 1979. This requires Aboriginal community consultation to be undertaken in accordance with Aboriginal cultural heritage consultation requirements for proponents 2010. Comber Consultants have been engaged by School Infrastructure NSW to undertake Aboriginal community consultation in accordance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010. As required, I am writing to you to ascertain if you are aware of Aboriginal people or organisations who may hold cultural knowledge relevant to determining the significance of Aboriginal objects and or/places within the study area. If so, I would be pleased if you could forward their contact details to me. Thank you for your assistance. Jillian Comber jillian.comber@comber.net.au





02 February 2021

By email: agata.calabrese@comber.net.au

Agata Calabrese Comber Consultants 1-23 Forestwood Drive GLENMORE PARK NSW 2745

Dear Agata,

Request - Search for Registered Aboriginal Owners - Mulgoa Rise Primary School, Glenmore Park

We refer to your email dated 01 February 2021 seeking the identification of Aboriginal organisations and people who may have an interest in the proposed redevelopment of the Mulgoa Rise Primary School, 1-23 Forestwood Drive Glenmore Park, New South Wales.

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

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

Yours sincerely

Rachel Rewiri Project Officer

Office of the Registrar, Aboriginal Land Rights Act 1983

Address: Level 3, 2 – 10 Wentworth Street, PARRAMATTA NSW 2150 Post: P.O Box 5068, PARRAMATTA NSW 2124 Phone: 02 8633 1266



From: Paul Houston < Paul. Houston@environment.nsw.gov.au >

Sent: Monday, 15 February 2021 3:17 PM

To: Jillian Comber < jillian.comber@comber.net.au >

Subject: RAP letter for the proposed Aboriginal Cultural Heritage Assessment for the "Redevelopment of the

Mulgoa Rise Primary School, Glenmore Park

Importance: High

Jillian

Please find attached the RAP letter for the proposed Aboriginal Cultural Heritage Assessment for the "Redevelopment of the Mulgoa Rise Primary School, Glenmore Park".

If you have any questions please contact me.

Thanxs

Paul

Paul Houston, Aboriginal Heritage Planning Officer
Heritage NSW, Community Engagement, Department of Premier and Cabinet
142 Brisbane St, Dubbo NSW 2830
T: 02 68835361, M: 0427832205| Paul.Houston@environment.nsw.gov.au

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

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



From: Development Services Admin Team <DS.Admin@penrith.city>

Sent: Monday, 15 February 2021 11:29 AM

To: Agata Calabrese <agata.calabrese@comber.net.au>

Subject: RE: Mulgoa Rise Primary School, Glenmore Park - Aboriginal consultation

Good Morning

Please be advised you will need to contact the Deerubbin Local Aboriginal Land Council on (02) 4724 5600 for all information relating to this application.

Kind regards

Angela Dawson

Administrative Officer - Development Services

E Angela.Dawson@penrith.city T <u>+612 4732 8992</u> | F +612 4732 7958 | M PO Box 60, PENRITH NSW 2751 www.visitpenrith.com.au www.penrithcity.nsw.gov.au

PENRITH CITY COUNCIL







CIVIC CENTRE AND LIBRARY BRANCHES CLOSED OVER HRISTMAS BREAK

Closed Midday 24 December 2020 - 3 January 2021





4.1.3 to 4.1.8 Newspaper Advertisement

An advertisement was placed in the digital edition of the Penrith Press from $1^{st} - 3^{rd}$ February with a closing date of 22^{nd} February 2021.

(Back to results | All Classifieds > Notices > Public Notices

ABORIGINAL CULTURAL HERITAGE

Date listed: 1/2/2021

ABORIGINAL CULTURAL HERITAGE

NEW PRIMARY SCHOOL, GLENMORE PARK

NOTIFICATION AND REGISTRATION OF ABORIGINAL INTERESTS

The Department of Education through School Infrastructure NSW of 259 George Street, Sydney, propose the establishment of a new Primary School in Mulgoa Rise, 1-23 Forestwood Drive, Glenmore Park, located within the Penrith Local Government Area.

The proposal is to be assessed as a State Significant Development (SSD) under Part 4 Division 4.7 of the Environmental Planning and Assessment Act 1979. This requires Aboriginal community consultation to be undertaken in accordance with Aboriginal cultural heritage consultation requirements for proponents 2010.

Registrations of interest are sought from Aboriginal people who hold cultural knowledge relevant to determining the significance of any potential Aboriginal objects or sites at this location. This will assist in the assessment of the proposal by the Department of Planning.

Please note that details of Aboriginal people or organisations who register an interest will be forwarded to Heritage NSW and the Deerubbin Local Aboriginal Land Council (DLALC). If you do not want your details forwarded, please specify this when registering.

Comber Consultants Pty Ltd has been engaged to undertake the archaeological assessment and consultation.

You can register, indicating the nature of your interest by phone or in writing to:

Agata Calabrese

Comber Consultants Pty Ltd

76 Edwin Street North

Croydon NSW 2132

Tel: (02) 9799 ...

agata.calabrese@comber.net.au

REGISTRATIONS MUST BE RECEIVED BY MONDAY 22nd FEBRUARY 2021.



4.1.3 to 4.1.8 Notification of project

We wrote to people/organisations whose names were obtained in step 4.1.2 and the relevant Local Aboriginal Land Council to notify them of the proposed project. Copies of the emails and letters appear below.

We wrote to:

From: Agata Calabrese

Sent: Tuesday, February 16, 2021 12:03 PM

To: yulayculturalservices@gmail.com; Jesse Johnson (muragadi@yahoo.com.au) <muragadi@yahoo.com.au>; barrabyculturalservices@gmail.com; yurrandaali_cs@hotmail.com; srandall@deerubbin.org.au; daruglandobservations@gmail.com; justinecoplin@optusnet.com.au; Darleen Johnson and Ryan Johnson (murrabidgeemullangari@yahoo.com.au) <murrabidgeemullangari@yahoo.com.au>; Phil Khan (philipkhan.acn@live.com.au) <philipkhan.acn@live.com.au>; Aaron Slater (Warragil_c.s@hotmail.com) <Warragil_c.s@hotmail.com>; cazadirect@live.com; amandahickey@live.com.au; Stephen Fields (dhinawan.ch@gmail.com) <dhinawan.ch@gmail.com>; ajw1901@bigpond.com; Kylie Ann Bell (gunyuuchts@gmail.com) <gunyuuchts@gmail.com>; walbunja@gmail.com; yerramurra@gmail.com; Newton Carriage (nundagurri@gmail.com) < nundagurri@gmail.com>; murrumbul@gmail.com; Joanne Anne Stewart (jerringong@gmail.com) <jerringong@gmail.com>; Pemulwuy Johnson (pemulwuyd@gmail.com) <pemulwuyd@gmail.com>; bilingachts@gmail.com; munyungachts@gmail.com; Hayley Bell (wingikarachts@gmail.com) <wingikarachts@gmail.com>; walgaluchts@gmail.com; Shane Carriage (thauairachts@gmail.com) <thauairachts@gmail.com>; dharugchts@gmail.com; Wendy Smith (gulagachts@gmail.com) <gulagachts@gmail.com>; Corey Smith (cullendullachts@gmail.com) <cullendullachts@gmail.com>; Roxanne Smith (murramarangchts@gmail.com) <murramarangchts@gmail.com>; darrenjohnduncan@gmail.com; Jennifer Beale (butuheritage@gmail.com) <butuheritage@gmail.com>; Lilly Carroll & Paul Boyd (didgengunawalclan@yahoo.com.au) < didgengunawalclan@yahoo.com.au>; Steven Johnson and Krystle Carroll (Ginninderra.corp@gmail.com) < Ginninderra.corp@gmail.com>; Waarlan12@outlook.com; barkingowlcorp@gmail.com; paulhand1967@gmail.com; hamptonralph46@gmail.com; kinghampton@77gmail.com; Kaarina Slater (ngambaaculturalconnections@hotmail.com) <ngambaaculturalconnections@hotmail.com>; Caine Carroll (goodradigbee1@outlook.com) <goodradigbee1@outlook.com>; mura.indigenous@bigpond.com; Jamie Eastwood (James.eastwood@y7mail.com) <James.eastwood@y7mail.com>; Rodney Gunther (Waawaar.awaa@gmail.com) <Waawaar.awaa@gmail.com>; clive.freeman@y7mail.com; Robert Slater (galamaay@hotmail.com) <galamaay@hotmail.com>; Kerrie Slater and Vicky Slater (wurrumay@hotmail.com) <wurrumay@hotmail.com>; Seli Storer (biamangachts@gmail.com)

 sliamangachts@gmail.com>; thoorganura@gmail.com; Darug Tribal Aboriginal Corporation (darug_tribal@live.com.au) <darug_tribal@live.com.au>; hsb.heritageconsultants@mail.com; goobahchts@gmail.com; scott@tocomwall.com.au Subject: Mulgoa Rise Primary School, Glenmore Park

NEW PRIMARY SCHOOL, MULGOA RISE PRIMARY SCHOOL, GLENMORE PARK

NOTIFICATION AND REGISTRATION OF ABORIGINAL INTERESTS

The Department of Education through School Infrastructure NSW of 259 George Street, Sydney, propose the establishment of a new Primary School in Mulgoa Rise, 1-23 Forestwood Drive, Glenmore Park, located within the Penrith Local Government Area.

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Please note that details of Aboriginal people or organisations who register an interest will be forwarded to Heritage NSW and the Deerubbin Local Aboriginal Land Council (DLALC). If you do not want your details forwarded, please specify this when registering.

Comber Consultants Pty Ltd has been engaged to undertake the archaeological assessment and consultation.

You can register, indicating the nature of your interest by phone or in writing to:

Agata Calabrese
Comber Consultants Pty Ltd
76 Edwin Street North
Croydon NSW 2132
Tel: (02) 9799 6000
agata.calabrese@comber.net.au

REGISTRATIONS MUST BE RECEIVED BY FRIDAY 05TH MARCH 2021.

Kind regards,

AGATA M.C. CALABRESE





From: Agata Calabrese

Sent: Tuesday, February 16, 2021 12:14 PM

To: baduchts@gmail.com

Subject: Mulgoa Rise Primary School, Glenmore Park

NEW PRIMARY SCHOOL, MULGOA RISE PRIMARY SCHOOL, GLENMORE PARK

NOTIFICATION AND REGISTRATION OF ABORIGINAL INTERESTS

The Department of Education through School Infrastructure NSW of 259 George Street, Sydney, propose the establishment of a new Primary School in Mulgoa Rise, 1-23 Forestwood Drive, Glenmore Park, located within the Penrith Local Government Area.

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76 Edwin Street North
Croydon NSW 2132
Tel: (02) 9799 6000
agata.calabrese@comber.net.au

REGISTRATIONS MUST BE RECEIVED BY FRIDAY 05TH MARCH 2021.

Kind regards, AGATA M.C. CALABRESE





16 February 2021

Mr Aaron Broad Minnamunnung 1 Waratah Avenue Albion Park Rail NSW 2527

Dear Mr Broad,

NEW PRIMARY SCHOOL, MULGOA RISE PRIMARY SCHOOL, GLENMORE PARK NOTIFICATION AND REGISTRATION OF ABORIGINAL INTERESTS

The Department of Education through School Infrastructure NSW of 259 George Street, Sydney, propose the establishment of a new Primary School in Mulgoa Rise, 1-23 Forestwood Drive, Glenmore Park, located within the Penrith Local Government Area.

The proposal is to be assessed as a State Significant Development (SSD) under Part 4 Division 4.7 of the *Environmental Planning and Assessment Act 1979*. This requires Aboriginal community consultation to be undertaken in accordance with *Aboriginal cultural heritage consultation requirements for proponents 2010*.

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You can register, indicating the nature of your interest by phone or in writing to:

Agata Calabrese Comber Consultants Pty Ltd 76 Edwin Street North Croydon NSW 2132 Tel: (02) 9799 6000

agata.calabrese@comber.net.au

REGISTRATIONS MUST BE RECEIVED BY FRIDAY 05TH MARCH 2021.

Yours sincerely

Agata Calabrese Archaeologist



16 February 2021

Mr Lee-Roy James Boota Wullung 54 Blackwood Street Gerringong NSW 2534

Dear Mr Boota,

NEW PRIMARY SCHOOL, MULGOA RISE PRIMARY SCHOOL, GLENMORE PARK NOTIFICATION AND REGISTRATION OF ABORIGINAL INTERESTS

The Department of Education through School Infrastructure NSW of 259 George Street, Sydney, propose the establishment of a new Primary School in Mulgoa Rise, 1-23 Forestwood Drive, Glenmore Park, located within the Penrith Local Government Area.

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You can register, indicating the nature of your interest by phone or in writing to:

Agata Calabrese
Comber Consultants Pty Ltd
76 Edwin Street North
Croydon NSW 2132
Tel: (02) 9799 6000
agata.calabrese@comber.net.au

REGISTRATIONS MUST BE RECEIVED BY FRIDAY 05TH MARCH 2021.

Yours sincerely

Agata Calabrese Archaeologist

4.1.6 Responses received to notification



We received the following responses to the notification. Copies of those responses follow.

- Name with held
- Name with held
- · Name with held
- Paul Boyd, Didge Ngunawal Clan
- Phil Khan, Kamilaroi Yankuntjatjara Working Group
- Danny Franks, Tocomwall
- Bo Field, Yurrandaali Cultural Services
- Lee Field, Barraby Cultural Services Carolyn Hickey, A1 Indigenous Services
- Wendy Smith, Gulaga
- Phil Boney, Wailwan Aboriginal Group
- James Eastwood, Aragung Aboriginal Cultural Heritage Site Assessments
- Clive Freeman, Freeman & Marx Pty Ltd
- Rodney Gunther, Waawaar Awaa Aboriginal Corporation
- Krystle Carroll-Elliot, Ginninderra Aboriginal Corporation
- Vicky Slater, Wurrumay Pty Ltd
- Arika Jalomaki, Yulay Cultural Services
- Kaarina Slater, Ngambaa Cultural Connection
- Carolyn Hickey, A1 Indigenous Services
- Justine Coplin, Darug Custodian Aboriginal Corporation
- Joel Tubbs or Corina Norman, Dharug Ngurra Aboriginal Corporation
- Steve Randall, Deerubbin Local Aboriginal Land Council



From: Paul Boyd and Lillie Carrol <didgengunawalclan@yahoo.com.au>

Sent: Tuesday, February 16, 2021 12:36 PM

To: Agata Calabrese <agata.calabrese@comber.net.au>

Subject:

Hi Agata

DNC would like to register an interest into Mulgoa rise public school

Kind regards Paul Director DNC

Sent from Yahoo Mail for iPhone

From: philip khan <philipkhan.acn@live.com.au> Sent: Tuesday, February 16, 2021 2:08 PM

To: Agata Calabrese <agata.calabrese@comber.net.au> **Subject:** RE: Mulgoa Rise Primary School, Glenmore Park

Hi Agata,

Thank you for informing us that **Comber Consultants** will be involved in an Aboriginal Cultural Heritage Assessment at **Mulgoa Rise Primary School, Glenmore Park** &, that you are inviting Aboriginal organisations to register, if they wish too be involved in the community consultation process.

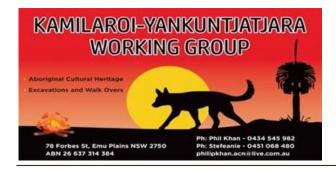
As a senior Aboriginal person for the past 40yrs, I actively participate in the protection of the Aboriginal Cultural Heritage throughout the Sydney Basin, & particularly throughout Western Sydney, on behalf of Kamilaroi Yankuntjatjara Working Group I wish to provide to you my organisation's registration of interest.

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

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

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

Kind Regards Phil Khan





From: Danny Franks <danny@tocomwall.com.au> Sent: Wednesday, February 17, 2021 9:28 AM

To: Agata Calabrese <agata.calabrese@comber.net.au>

Subject: NEW PRIMARY SCHOOL, MULGOA RISE PRIMARY SCHOOL, GLENMORE PARK

Dear Agata,

Tocomwall's staff have been involved in hundreds of heritage assessments within Sydney. We wish to be involved in all aspects of field work on a commercial basis.

Thank you.

regards,

Danny Franks

Cultural Heritage Manager Tocomwall Pty Ltd M: 0415226725



From: Bo Field <yurrandaali_cs@hotmail.com> Sent: Monday, February 22, 2021 1:20 PM

To: Agata Calabrese <agata.calabrese@comber.net.au> **Subject:** Re: Mulgoa Rise Primary School, Glenmore Park

Dear Agata,

Yurrandaali would like to register for this project

Regards,

Bo Field - Manager Yurrandaali 0403 048 263 | yurrandaali cs@hotmail.com



From: Lee Field <barrabyculturalservices@gmail.com>

Sent: Monday, February 22, 2021 11:43 AM

To: Agata Calabrese <agata.calabrese@comber.net.au> **Subject:** Re: Mulgoa Rise Primary School, Glenmore Park

Good morning Agata

Barraby would like to register for this project

Kind regards Lee Field

From: Gulaga <gulagachts@gmail.com> **Sent:** Thursday, February 18, 2021 4:59 PM

To: Agata Calabrese <agata.calabrese@comber.net.au> **Subject:** Re: Mulgoa Rise Primary School, Glenmore Park

Hi Agata,

Can you please register Gulaga for this upcoming project.

Kind Regards Wendy Smith Cultural Heritage Officer Gulaga 0401 808 988

From: Phillip Boney <Waarlan12@outlook.com> Sent: Thursday, February 18, 2021 2:51 PM

To: Agata Calabrese <agata.calabrese@comber.net.au> **Subject:** Re: Mulgoa Rise Primary School, Glenmore Park

Hi Agata,

Phil here. I hope to see you soon, I would like to register my interest in this project. Thank you.

Regards, Phil Boney Wailwan Aboriginal Group



From: Carolyn .H <cazadirect@live.com> Sent: Friday, February 19, 2021 10:24 AM

To: Agata Calabrese <agata.calabrese@comber.net.au> **Subject:** Re: Mulgoa Rise Primary School, Glenmore Park



Contact: Carolyn Hickey

M: 0411650057

E: Cazadirect@live.com

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

ACN: 639 868 876

ABN: 31 639 868 876

Hi,

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

I've had many years' experience in helping preserve Aboriginal cultural heritage on projects, I hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and values that exist in the project area.

I have attached A1 Indigenous Services Insurances.

Please feel free to contact me on details supplied

Kind Regards,

Carolyn Hickey



From: James Eastwood < james.eastwood@y7mail.com>

Sent: Wednesday, February 17, 2021 5:32 PM

To: Agata Calabrese <agata.calabrese@comber.net.au> **Subject:** Re: Mulgoa Rise Primary School, Glenmore Park



Dear Agata

Thank you for your recent notification RE: NEW PRIMARY SCHOOL - MULGOA RISE PRIMARY SCHOOL GLENMORE PARK.

Aragung Aboriginal cultural heritage Site Assessment gladly accepts your invitation to submit a expression of interest towards this project.

Aragung would like to be considered for involvement in all aspects of the proposed project.

kind regards Aragung Co/ Jamie Eastwood

From: Clive Freeman <clive.freeman@y7mail.com> Sent: Wednesday, February 17, 2021 9:36 AM

To: Agata Calabrese <agata.calabrese@comber.net.au> **Subject:** Re: Mulgoa Rise Primary School, Glenmore Park

Morning team,

We would like to register our interest in the project. Please let us know if you require anything further from us.

We look forward to working with you on this project.

Speak soon

Clive Freeman Managing Director Freeman&marx PtyLtd



From: Rodney Gunther <waawaar.awaa@gmail.com> Sent: Wednesday, February 17, 2021 10:04 AM

To: Agata Calabrese <agata.calabrese@comber.net.au> **Subject:** Re: Mulgoa Rise Primary School, Glenmore Park

Dear Agata,

Please register Waawaar Awaa Aboriginal Corporation for the proposed Aboriginal Cultural Heritage Assessment (ACHA) for the proposed development of a new Primary School in Mulgoa Rise, 1-23 Forestwood Drive, Glenmore Park NSW.

Waawaar Awaa Aboriginal Corporation is a local organisation situated in South Western Sydney.

Waawaar Awaa Aboriginal Corporation site officers are young and fit and have the skills, relevant experience to undertake any archaeological fieldwork.

Waawaar Awaa Aboriginal Corporation has the necessary certificates of currency (attached).

Best form of contact for reports is by email and also can ring the mobile.

Looking forward to working with you.

regards

Rodney Gunther 0410 580 962

From: Arika Jalomaki <yulayculturalservices@gmail.com>

Sent: Friday, February 26, 2021 10:51 AM

To: Agata Calabrese <agata.calabrese@comber.net.au> **Subject:** Re: Mulgoa Rise Primary School, Glenmore Park

Dear Agata,

Yulay Cultural service's would like to register our interest in the above project and would like to be involved in all aspects of this project.

Kind regards, Arika Jalomaki Manager 0481 251 385



From: Ginninderra Aboriginal Corporation < ginninderra.corp@gmail.com>

Sent: Tuesday, February 23, 2021 11:15 AM

To: Agata Calabrese <agata.calabrese@comber.net.au> **Subject:** Re: Mulgoa Rise Primary School, Glenmore Park

Hi Agata,

Thank you for your email.

Please register Ginninderra Aboriginal Corporation for the above mentioned project. We have several site officers with connections to the area, and as such would like to be involved in all aspects of the project.

All of our site officers have their white cards/insurances, and have extensive experience in surveys, excavations, sieving and recording of archaeological information.

We prefer to be contacted by email on ginninderra.corp@gmail.com. The postal address for Ginninderra AC is postal-address for Ginninderra

I myself will be the contact, and my mobile number is 0451016224.

Please let me know if there is anything else you require.

Krystle:)

Kind regards,

Krystle Carroll-Elliott Ginninderra Aboriginal Corporation

M: 0451016224

E: Ginninderra.corp@gmail.com

From: Vicky slater <wurrumay@hotmail.com> Sent: Wednesday, February 24, 2021 1:33 PM

To: Agata Calabrese <agata.calabrese@comber.net.au> **Subject:** Re: Mulgoa Rise Primary School, Glenmore Park

Good Afternoon Agata.

Hope you are well,

Wurrumay Pty Ltd would like to register an interest for the above project.

Experienced indigenous Site Officer's with Cultural knowledge connection to country.



From: Kaarina Slater < Ngambaaculturalconnections@hotmail.com>

Sent: Friday, February 26, 2021 11:08 AM

To: Agata Calabrese <agata.calabrese@comber.net.au>; yulayculturalservices@gmail.com; Jesse Johnson (muragadi@yahoo.com.au) <muragadi@yahoo.com.au>; barrabyculturalservices@gmail.com; yurrandaali cs@hotmail.com; srandall@deerubbin.org.au; daruglandobservations@gmail.com; justinecoplin@optusnet.com.au; Darleen Johnson and Ryan Johnson (murrabidgeemullangari@yahoo.com.au) <murrabidgeemullangari@yahoo.com.au>; Phil Khan (philipkhan.acn@live.com.au) <philipkhan.acn@live.com.au>; Aaron Slater (Warragil_c.s@hotmail.com) <Warragil_c.s@hotmail.com>; cazadirect@live.com; amandahickey@live.com.au; Stephen Fields (dhinawan.ch@gmail.com) <dhinawan.ch@gmail.com>; ajw1901@bigpond.com; Kylie Ann Bell (gunyuuchts@gmail.com) <gunyuuchts@gmail.com>; walbunja@gmail.com; yerramurra@gmail.com; Newton Carriage (nundagurri@gmail.com) <nundagurri@gmail.com>; murrumbul@gmail.com; Joanne Anne Stewart (jerringong@gmail.com) <jerringong@gmail.com>; Pemulwuy Johnson (pemulwuyd@gmail.com) <pemulwuyd@gmail.com>; bilingachts@gmail.com; munyungachts@gmail.com; Hayley Bell (wingikarachts@gmail.com) <wingikarachts@gmail.com>; walgaluchts@gmail.com; Shane Carriage (thauairachts@gmail.com) <thauairachts@gmail.com>; dharugchts@gmail.com; Wendy Smith (gulagachts@gmail.com) <gulagachts@gmail.com>; Corey Smith (cullendullachts@gmail.com) <cullendullachts@gmail.com>; Roxanne Smith (murramarangchts@gmail.com) <murramarangchts@gmail.com>; darrenjohnduncan@gmail.com; Jennifer Beale (butuheritage@gmail.com) <butuheritage@gmail.com>; Lilly Carroll & Paul Boyd (didgengunawalclan@yahoo.com.au) < didgengunawalclan@yahoo.com.au >; Steven Johnson and Krystle Carroll (Ginninderra.corp@gmail.com) < Ginninderra.corp@gmail.com>; Waarlan12@outlook.com; barkingowlcorp@gmail.com; paulhand1967@gmail.com; hamptonralph46@gmail.com; kinghampton@77gmail.com; Caine Carroll (goodradigbee1@outlook.com) <goodradigbee1@outlook.com>; mura.indigenous@bigpond.com; Jamie Eastwood (James.eastwood@y7mail.com) <James.eastwood@y7mail.com>; Rodney Gunther (Waawaar.awaa@gmail.com) <Waawaar.awaa@gmail.com>; clive.freeman@y7mail.com; Robert Slater (galamaay@hotmail.com) <galamaay@hotmail.com>; Kerrie Slater and Vicky Slater (wurrumay@hotmail.com) <wurrumay@hotmail.com>; Seli Storer (biamangachts@gmail.com)

biamangachts@gmail.com>; thoorganura@gmail.com; Darug Tribal Aboriginal Corporation (darug_tribal@live.com.au) <darug_tribal@live.com.au>; hsb.heritageconsultants@mail.com; goobahchts@gmail.com; scott@tocomwall.com.au Subject: Re: Mulgoa Rise Primary School, Glenmore Park

Ngambaa Cultural Connection would like to register an interest for the above project.

Experienced indigenous site officer & current insurances.

Cheers

Kaarina Slater Manager





DARUG CUSTODIAN ABORIGINAL CORPORATION

PO BOX 81 WINDSOR 2756

PHONE: 0245775181 FAX: 0245775098 MOBILE: 0414962766 Justine Coplin EMAIL: justinecoplin@optusnet.com.au

Attention Comber Consultants Date: 080221

Subject: NEW PRIMARY SCHOOL, MULGOA RISE PRIMARY SCHOOL, GLENMORE PARK

Dear Jillian

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

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

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

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

Regards



8h

Justine Coplin

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

·



Dharug Ngurra Aboriginal CorporationICN: 2734

Date:8/3/2021

To:

Thank you for the invitation to participate in the NEW PRIMARY SCHOOL, MULGOA RISE PRIMARY SCHOOL, GLENMORE PARK.

As Traditional Custodians of Dharug ngurra (country) our corporation supports Dharug yura (people) and serves the wider community in caring as-country. Our past, present and future is embedded in our ngurra and is enriched by our ancestral pathways that include our connection to sacred sites.

Protecting and preserving Dharug places is our core business, therefore, on behalf of our Members, Dharug Ngurra Aboriginal Corporation, formally known as Darug Tribal Aboriginal Corporation, do hereby request to be included in all activities regarding this project, including any future correspondence there from arising.

The Corporation is a Not for Profit entity, and as such, all net income, following payment of wages to archaeological workers, derived from our participation in the project, goes toward supporting our Members and the functioning of the Corporation and its services.

We can provide advisory, on site consulting, and other services as required.

- HOURLY RATE \$150.00 (plus GST)
- WORKSHOP RATE maximum of 2hrs \$300.00 (plus GST) per person

Certificate of currency available on request. Please do not hesitate to contact Joel Tubbs or Corina Norman on the following numbers:

Yours sincerely,

Joel Tubbs | 0422 450 822

Corina | 0402 534 773



4.1.6 Notification of Registered Aboriginal Parties

The below email was sent to DLALC and Heritage NSW on 7 April 2021 providing a list of Registered Aboriginal Parties (RAPs) and included the newspaper notification.

From: Veronica Norman

Sent: Wednesday, 7 April 2021 6:09 PM

To: Steve Randall [srandall@deerubbin.org.au] <srandall@deerubbin.org.au>

Cc: Jillian Comber < jillian.comber@comber.net.au>

Subject: Mulgoa Rise Primary School, Glenmore Park: Step 4.1.6

Hi Steve,

Please find attached notification of Registered Aboriginal Parties for the proposed Mulgoa Rise Primary School, Glenmore Park in accordance with Step 4.1.6 of the *Aboriginal Cultural Heritage Consultation Requirements 2010*.

Kind regards,

VERONICA NORMAN ARCHAEOLOGIST HERITAGE CONSULTANT

From: Veronica Norman

Sent: Wednesday, 7 April 2021 6:10 PM

To: heritagemailbox@environment.nsw.gov.au **Cc:** Jillian Comber < jillian.comber@comber.net.au>

Subject: Mulgoa Rise Primary School, Glenmore Park: Step 4.1.6

Hello,

Please find attached notification of Registered Aboriginal Parties for the proposed Mulgoa Rise Primary School, Glenmore Park in accordance with Step 4.1.6 of the *Aboriginal Cultural Heritage Consultation Requirements 2010*.

Kind regards,

VERONICA NORMAN ARCHAEOLOGIST HERITAGE CONSULTANT



7 April 2021

TO: Heritage NSW; and

Deerubbin Local Aboriginal Land Council

RE: MULGOA RISE PRIMARY SCHOOL: GLENMORE PARK

This letter is being sent as part of the Notification of Registered Aboriginal Parties (Step 4.1.6) for the proposed Mulgoa Rise Primary School located at Lot 1663, DP 1166869 at 1-23 Forestwood Drive, Glenmore Park.

Registration was received from the following 21 people and organisations:

Date	Organisation	Representative	Contact Details	Method of
		•		Registration
26/2/2021	Yulay Cultural Services	Arika Jalomaki	yulayculturalservices@gmail.com	Email
22/2/2021	Yurrandaali	Bo Field	yurrandaali_cs@hotmail.com	Email
19/2/2021	A1 Indigenous Services	Carolyn Hickey	Cazadirect@live.com_	Email
17/2/2021	Freeman&marx PtyLtd	Clive Freeman	clive.freeman@y7mail.com	Email
17/2/2021	Tocomwall	Danny Franks	danny@tocomwall.com.au	Email
8/03/2021	Darug Custodian Aboriginal Corporation	Justine Coplin	justinecoplin@optusnet.com.au	Email
8/3/2021	Dharug Ngurra	Joel Tubbs or		Email
47/0/0004	Aboriginal Corporation	Corina Norman	archaeology@dharugngurra.org.au	F9
17/2/2021	Aragung	Jamie Eastwood	james.eastwood@y7mail.com	Email
26/2/2021	Ngambaa Cultural Connection	Kaarina Slater	ngambaaculturalconnections@hotmail.com	Email
23/2/2021	Ginninderra Aboriginal Corporation	Krystle Carroll- Elliott	ginninderra.corp@gmail.com	Email
22/2/2021	Barraby	Lee Field	barrabyculturalservices@gmail.com	Email
16/2/2021	Didge Ngunawal Clan	Paul Boyd	didgengunawalclan@yahoo.com.au	Email
18/2/2021	Wailwan Aboriginal Group	Phil Boney	waarlan12@outlook.com	Email
16/2/2021	Kamilaroi Yankuntjatjara Working Group	Phil Khan	philipkhan.acn@live.com.au	Email
17/2/2021	Waawaar Awaa Aboriginal Corporation	Rodney Gunther	waawaar.awaa@gmail.com	Email
24/2/2021	Wurrumay Pty Ltd	Vicky Slater	wurrumay@hotmail.com	Email
18/2/2021	Gulaga	Wendy Smith	gulagachts@gmail.com	Email
NA	Deerubbin Local Aboriginal Land Council	Steve Randall	srandall@deerubbin.org.au	NA
	Information withheld			
	Information withheld			
	Information withheld			

Veronica Norman

Archaeologist/Heritage Consultant



4.2, 4.3.1-4.3.2 Presentation of information and notification of proposed assessment methodology

Project information and the proposed methodology was sent to all RAPs on 8/3/2021 for a 28 day review and comment period, closing on 7/4/2021.

From: Veronica Norman

Sent: Monday, 8 March 2021 4:35 PM

To: Arika Jalomaki (yulayculturalservices@gmail.com) <yulayculturalservices@gmail.com>; Bo Field (yurrandaali_cs@hotmail.com) <yurrandaali_cs@hotmail.com>; Carolyn Hickey (cazadirect@live.com) <cazadirect@live.com>; Clive Freeman (clive.freeman@y7mail.com) <clive.freeman@y7mail.com>; Danny Franks <danny@tocomwall.com.au>; Justine Coplin (justinecoplin@optusnet.com.au) <justinecoplin@optusnet.com.au>; archaeology@dharugngurra.org.au; Jamie Eastwood (james.eastwood@y7mail.com) <james.eastwood@y7mail.com>; Ngambaaculturalconnections@hotmail.com; Steven Johnson and Krystie Carroll (ginninderra.corp@gmail.com) <ginninderra.corp@gmail.com>; barrabyculturalservices@gmail.com; didgengunawalclan@yahoo.com.au; waarlan12@outlook.com; philipkhan.acn@live.com.au;

Cc: Jillian Comber < jillian.comber@comber.net.au>

Subject: Mulgoa Rise Primary School, Glenmore Park methodology

NEW PRIMARY SCHOOL, MULGOA RISE PRIMARY SCHOOL, GLENMORE PARK

waawaar.awaa@gmail.com; wurrumay@hotmail.com; Gulaga <gulagachts@gmail.com>

METHODOLOGY

Good afternoon,

Thank you for registering your interest in the new Mulgoa Rise Primary School project, located at 1-23 Forestwood Drive, Glenmore Park. The proposal is to be assessed as a State Significant Development (SSD) under Part 4 Division 4.7 of the *Environmental Planning and Assessment Act 1979*. This requires Aboriginal community consultation to be undertaken in accordance with *Aboriginal cultural heritage consultation requirements for proponents 2010*.

Please find attached the Aboriginal Archaeological Assessment Comber Consultants have prepared for the project. The assessment has indicated that the school is to be built on a former quarry. It is highly unlikely that any Aboriginal objects are located on the site. **We are not recommending any further work, including testing or salvage.**

Under the *Aboriginal cultural heritage consultation requirements for proponents 2010,* we are required to send out the methodology for consultation for review by the Registered Aboriginal Parties. Please find attached the proposed methodology.

Could you please provide any comments you may have on the methodology by 7 April 2021 by phone or email to:

Veronica Norman Comber Consultants

Email: veronica.norman@comber.net.au

Phone: 0419 118 399

Kind regards,

VERONICA NORMAN ARCHAEOLOGIST HERITAGE CONSULTANT



A.2021

8th March 2021

METHODOLOGY

NEW PRIMARY SCHOOL, MULGOA RISE PRIMARY SCHOOL, GLENMORE PARK

The Department of Education through School Infrastructure NSW of 259 George Street, Sydney, propose the establishment of a new Primary School in Mulgoa Rise, 1-23 Forestwood Drive, Glenmore Park, located within the Penrith Local Government Area.

The proposal is to be assessed as a State Significant Development (SSD) under Part 4 Division 4.7 of the *Environmental Planning and Assessment Act 1979.* This requires Aboriginal community consultation to be undertaken in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010.*

The attached Aboriginal Archaeological Assessment of the site indicates that due to prior quarrying and filling of the site, it is highly unlikely that any Aboriginal objects are located on the site. As such, no further Aboriginal assessment, including test or salvage excavation, is recommended. The proposed redevelopment will not impact upon any Aboriginal archaeological sites. The consultation is being undertaken to inform the Registered Aboriginal Parties about the project and to determine if the study area contains Aboriginal cultural significance.

In accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010,* following is the consultation methodology:

- Relevant government agencies have been asked if they are aware of any Aboriginal organisations who may hold cultural knowledge relevant to determining the significance of the study area.
- All names obtained from the above were invited to register an interest.
- The project was advertised and interested Aboriginal organisations/people invited to register an interest.
- This methodology was sent out to all RAPs on 8th March 2021 who then have 28 days in which to provide any comment. Responses will be due on Wednesday 7th April 2021.
- At the end of the above 28 day period, the Aboriginal Cultural Heritage Assessment Report (ACHAR) is to be prepared and sent to all RAPs for comment. Another 28 days is allowed for responses to the ACHAR.
- Once all responses have been received the ACHAR is finalised.
- The final ACHAR will be submitted to Department of Planning, Industry and Environment (DPIE) to satisfy the Secretaries Environmental Assessment Requirements.



4.2, 4.3.1-4.3.2 Responses to presentation of information and notification of proposed assessment methodology

Four responses were received to the methodology, all agreeing with the proposed methodology.

From: James Eastwood < james.eastwood@y7mail.com>

Sent: Tuesday, 9 March 2021 7:35 AM

To: Veronica Norman < Veronica. Norman@comber.net.au>

Subject: Re: Mulgoa Rise Primary School, Glenmore Park methodology



Dear Veronica Hope this email find you well

Aragung Aboriginal Cultural Heritage Site assessments has review the Aboriginal Archaeological Assessment and Methodolodgy prepared by Comber Consultants for **Mulgoa Rise Primary School Project** - *located at 1-23 Forestwood Drive Glenmore Park*.

Aragung supports and agrees with the above mentioned assessment information that no further works including test excavations or savage works is required.

Kind Regards Aragung Co/ Jamie Eastwood



From: Gulaga <gulagachts@gmail.com> Sent: Tuesday, 9 March 2021 5:13 PM

To: Veronica Norman < Veronica.Norman@comber.net.au >

Cc: Arika Jalomaki (yulayculturalservices@gmail.com) <yulayculturalservices@gmail.com>; Bo Field (yurrandaali_cs@hotmail.com) <yurrandaali_cs@hotmail.com>; Carolyn Hickey (cazadirect@live.com)

<cazadirect@live.com>; Clive Freeman (clive.freeman@y7mail.com) <clive.freeman@y7mail.com>; Danny Franks
<danny@tocomwall.com.au>; Justine Coplin (justinecoplin@optusnet.com.au) <justinecoplin@optusnet.com.au>;
archaeology@dharugngurra.org.au; Jamie Eastwood (james.eastwood@y7mail.com)

<james.eastwood@y7mail.com>; Ngambaaculturalconnections@hotmail.com; Steven Johnson and Krystie Carroll (ginninderra.corp@gmail.com) <ginninderra.corp@gmail.com>; barrabyculturalservices@gmail.com; didgengunawalclan@yahoo.com.au; waarlan12@outlook.com; philipkhan.acn@live.com.au; waawaar.awaa@gmail.com; wurrumay@hotmail.com; Jillian Comber <jillian.comber@comber.net.au>

Subject: Re: Mulgoa Rise Primary School, Glenmore Park methodology

Received, thank you.

I support the methodology.

Kind Regards Wendy Smith Cultural Heritage Officer Gulaga 0401 808 988

From: philip khan <philipkhan.acn@live.com.au> Sent: Wednesday, 10 March 2021 11:59 AM

To: Veronica Norman < Veronica. Norman@comber.net.au>

Subject: RE: Mulgoa Rise Primary School, Glenmore Park methodology

Hi Veronica,

Thank you for your report, we agree and support your methodology regarding Mulgoa Rise Primary School.

Kind Regards Phil Khan Ph: 0434545982

Email: philipkhan.acn@live.com.au





From: Rodney Gunther <waawaar.awaa@gmail.com>

Sent: Wednesday, 10 March 2021 12:12 PM

To: Veronica Norman < Veronica. Norman@comber.net.au>

Subject: Re: Mulgoa Rise Primary School, Glenmore Park methodology

Hi Veronica,

Waawaar Awaa Aboriginal Corporation supports the proposed methodology for the new Mulgoa Rise Primary School project, located at 1-23 Forestwood Drive, Glenmore Park and that no further Aboriginal assessment, including test or salvage is warranted for the following reasons:

- The Aboriginal Archaeological Assessment of the site indicates that due to previous quarrying and filling of the site, it is highly unlikely that any Aboriginal objects are located on the site.
- The proposed redevelopment will not impact upon any Aboriginal archaeological sites.

regards

Rodney Gunther



4.4 Review of draft ACHAR

The draft ACHAR was sent to RAPs for review on Wednesday 7 April for a 28 day review period. Responses were due on Wednesday 6th May 2021

Three responses were received to the draft ACHAR, all supporting the draft ACHAR.

From: Veronica Norman

Sent: Wednesday, 7 April 2021 6:58 PM

To: 'Arika Jalomaki (yulayculturalservices@gmail.com)' <yulayculturalservices@gmail.com>;

'yurrandaali_cs@hotmail.com' <yurrandaali_cs@hotmail.com>; 'Cazadirect@live.com' <Cazadirect@live.com>;

'clive.freeman@y7mail.com' <clive.freeman@y7mail.com>; 'danny@tocomwall.com.au'

<danny@tocomwall.com.au>; 'justinecoplin@optusnet.com.au' <justinecoplin@optusnet.com.au>;

'archaeology@dharugngurra.org.au' <archaeology@dharugngurra.org.au>; 'james.eastwood@y7mail.com'

<james.eastwood@y7mail.com>; 'ngambaaculturalconnections@hotmail.com'

<ngambaaculturalconnections@hotmail.com>; 'ginninderra.corp@gmail.com' <ginninderra.corp@gmail.com>;

'barrabyculturalservices@gmail.com' <barrabyculturalservices@gmail.com>; 'didgengunawalclan@yahoo.com.au'

<didgengunawalclan@yahoo.com.au>; 'waarlan12@outlook.com' <waarlan12@outlook.com>;

'philipkhan.acn@live.com.au' <philipkhan.acn@live.com.au>; 'waawaar.awaa@gmail.com'

<waawaar.awaa@gmail.com>; 'wurrumay@hotmail.com' <wurrumay@hotmail.com>; 'gulagachts@gmail.com'

<gulagachts@gmail.com>; 'Steve Randall [srandall@deerubbin.org.au]' <srandall@deerubbin.org.au>

Cc: Jillian Comber <jillian.comber@comber.net.au>

Subject: Mulgoa Rise Primary School, Glenmore Park: draft ACHAR

Hello,

Please find attached the draft Aboriginal Cultural Heritage Assessment Report (ACHAR) for the proposed Mulgoa Rise Primary School, Glenmore Park in accordance. Attached to the ACHAR is the technical report.

Could you please provide any comments you may have on the report by email or phone by 6 May 2021?

My contact details are:

M 0419 118 399

E veronica.norman@comber.net.au

Kind regards,

VERONICA NORMAN ARCHAEOLOGIST HERITAGE CONSULTANT



From: philip khan <philipkhan.acn@live.com.au>

Sent: Friday, 9 April 2021 4:20 PM

To: Veronica Norman < Veronica.Norman@comber.net.au >

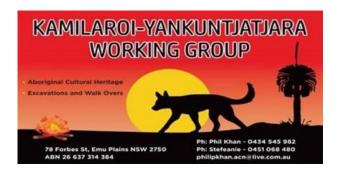
Subject: Re: Mulgoa Rise Primary School, Glenmore Park: draft ACHAR

Dear Veronica,

Thank you for your ACHA for Mulgoa Rise Primary School: Glenmore Park. Aboriginal people have walked the land for tens thousands of years and continue to do so today. We have followed the water way and used the stars as our guide. We hold connection to mother earth and all that she holds, we look after her as she provides us with resources. It saddens me to hear that there will be no excavation due to large amounts of disturbance and fill levels. This is disheartening that our land and culture has been stripped from this area, which once flora and furan would have thrived and the Aboriginal people would have utilized for hunting, gathering and camping. I agree to your recommendations and support you report.

Kind Regards

Kadibulla Khan



From: Rodney Gunther <waawaar.awaa@gmail.com>

Sent: Wednesday, 14 April 2021 10:09 AM

To: Veronica Norman < Veronica. Norman@comber.net.au>

Subject: Re: Mulgoa Rise Primary School, Glenmore Park: draft ACHAR

Hi Veronica,

Waawaar Awaa Aboriginal Corporation supports the draft Aboriginal Cultural Heritage Assessment Report (ACHAR) for the proposed Mulgoa Rise Primary School, Glenmore Park.

regards

Rodney Gunther



DARUG CUSTODIAN ABORIGINAL CORPORATION



DARUG CUSTODIAN
ABORIGINAL
CORPORATION

PO BOX 81 WINDSOR 2756

PHONE: 0245775181 FAX: 0245775098 MOBILE: 0415770163 Leanne Watson 0414962766 Justine Coplin

Attention: Comber Consultants Date: 210421

Subject Mulgoa Rise Primary School, Glenmore

Dear Jillian

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

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

Our Darug land can only be assessed by Darug people, we have our song lines and creation places that only our people can identify, our connection to our nura is part of us and our country.

Our histories are held by our people and places, when we are looking for cultural aspects of an area they are not only seen but felt, our spiritual connections are our culture and heritage that connect us to our old people through the evidence that we see on our site visits.

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



Darug Custodians Support the recommendations in this report.

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

Regards

Justine Coplin

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

From: Kaarina Slater < Ngambaaculturalconnections@hotmail.com>

Sent: Thursday, 20 May 2021 2:29 PM

To: Jillian Comber <jillian.comber@comber.net.au>

Subject: Re: Mulgoa Rise ACHAR

Thanks Jillian

We have reviewed ACHAR report

No further comments at this stage

Review of final ACHAR

From: Dragomir Garbov

Sent: Thursday, 15 July 2021 4:00 PM

To: Arika Jalomaki <yulayculturalservices@gmail.com>; yurrandaali_cs@hotmail.com; Carolyn .H <cazadirect@live.com>; clive.freeman@y7mail.com; Danny Franks <danny@tocomwall.com.au>; justinecoplin@optusnet.com.au; archaeology@dharugngurra.org.au; James Eastwood <james.eastwood@y7mail.com>; ngambaaculturalconnections@hotmail.com; ginninderra.corp@gmail.com; Lee Field <barrabyculturalservices@gmail.com>; Phillip Boney <Waarlan12@outlook.com>; philip khan <philipkhan.acn@live.com.au>; Rodney Gunther <waawaar.awaa@gmail.com>; wurrumay@hotmail.com; gulagachts@gmail.com; Steve Randall@deerubbin.org.au>

Cc: Jillian Comber <jillian.comber@comber.net.au>; Joe Hanna <hannaj@richardcrookes.com.au>

Subject: Consultation: The New Primary School in Mulgoa Rise Updated ACHAR

Dear Madams/Sirs,

I hope you are well in these difficult times.

I note that you and/or the community organisations you represent, are registered for consultation per the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (2010) for the proposed development of a new primary school in Mulgoa Rise, NSW.

I am writing to inform you that there have been minor updates to this proposal including:



- Updated project name;
- Updated project description;
- Updated project master plan.

In accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (2010) I am therefore sending you the ACHAR and Aboriginal archaeological assessment pertinent to this project, which have been updated accordingly with the new information.

I note that due to the site being a backfilled former quarry, there have been no changes to our assessments, or our recommendations for this proposal.

Please find the updated reports attached.

I would be very grateful if you could provide me with any comments and remarks you may have in relation to this proposal by email, or by phone, by COB Thursday 12/8/2021 at:

Dr Dragomir Garbov Comber Consultants 76 Edwin Street North Croydon NSW 2193 dragomir.garbov@comber.net.au

Mobile: 0448 464 768

With kind regards,

DR DRAGOMIR GARBOV

BA, MA, PhD, M. ICOMOS-ICUCH, Cert IV Hyperbaric Ops SCUBA & SSBA

ARCHAEOLOGIST HERITAGE CONSULTANT

76 EDWIN STREET NORTH, CROYDON, NSW, 2132 M 0448 464 768

E <u>dragomir.garbov@comber.net.au</u>





Responses:

From: philip khan <philipkhan.acn@live.com.au>

Sent: Wednesday, 21 July 2021 2:54 PM

To: Dragomir Garbov < Dragomir.Garbov@comber.net.au>

Subject: Re: Consultation: The New Primary School in Mulgoa Rise Updated ACHAR

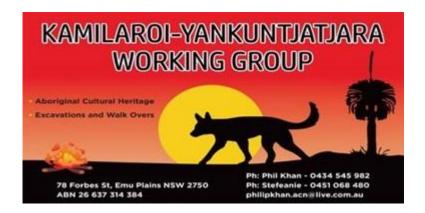
Dear Dragomir,

Thank you for your ACHA for the New Primary School in Mulgoa Rise. Here at KYWG we hold over 50 years of cultural knowledge, our aspiration is to conserve our cultural heritage and our aim is to pass on cultural knowledge. Aboriginal people have walked this land for tens of thousands of years and continue to do so. We follow the water ways as they provide resource, we hold a deep connection with mother earth, and we are guided by the skies. Aboriginal people would camp, hunt, gather, practice lore and followed customs across mother earth, we protect our sacred sites such as men's and woman's sites.

It saddens us to think that potential cultural heritage is being destroyed across Sydney and yet again at the current study area which is highly disturbed due it being a quarry. Our rich cultural heritage is lost once again. For this reason we agree to your recommendations, and look forward to working with you in the near future.

Kind Regards

Kadibulla Khan



From: Phillip Boney <Waarlan12@outlook.com>

Sent: Monday, 2 August 2021 7:43 PM

To: Dragomir Garbov < Dragomir.Garbov@comber.net.au>

Subject: Re: Consultation: The New Primary School in Mulgoa Rise Updated ACHAR

Hi Drago,

Phil here. Spite the minor updates for this project, I am confident Comber Consultants have the best recommendations for the outcome of this project.

Respects always, Phil Boney Wailwan Aboriginal Group



APPENDIX B: TECHNICAL REPORT



ARCHAEOLOGY - HERITAGE - MEDIATION - ARBITRATION

The New Primary School in Mulgoa Rise

Aboriginal Archaeological Assessment

July **2021**

Report to: School Infrastructure NSW

LGA: City of Penrith

Version: F:2021



DOCUMENT CONTROL

PROJECT NO: IS389 STATUS: FINAL

REV	DATE	PREPARED	EDITED	APPROVED
Α	02/10/2020	David Nutley	Dr Jillian Comber	Dr Jillian Comber
В	18/03/2021	David Nutley	Dr Jillian Comber	Dr Jillian Comber
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D	04/05/2021	David Nutley	Dr Jillian Comber	Dr Jillian Comber
E	23/06/2021	David Nutley	Dr Jillian Comber	Dr Jillian Comber
F	15/07/2021	David Nutley	Dr Dragomir Garbov	Dr Jillian Comber

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EXECUTIVE SUMMARY

School Infrastructure NSW propose to construct a new primary school at 1-23 Forestwood Drive, Glenmore Park. The school will initially accommodate up to 414 students, with the potential to expand to 1,000 students as demand arises. Any future expansion of the school will be the subject of a separate planning approval.

To ensure that Aboriginal archaeology and cultural heritage would not be adversely impacted upon by the proposal, Comber Consultants was engaged to undertake this Aboriginal archaeological assessment. This report is written in accordance with the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW.*

The report makes the following recommendations:

- 1) Due to the prior quarrying and filling of the site, it is highly unlikely that any Aboriginal objects are located on the site. Therefore, there is no objection to the proposed redevelopment of the site in respect of Aboriginal archaeology. It will not be necessary to undertake any further assessment, testing, salvage or monitoring.
- 2) It will not be necessary to apply for an Aboriginal Heritage Impact Permit.
- 3) In the unlikely event that an Aboriginal object is uncovered, all work must cease in the vicinity of that object and the consultant contacted for further advice.



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1.0 INTRODUCTION

1.1. Background

School Infrastructure NSW propose to construct a new primary school at 1-23 Forestwood Drive, Glenmore Park. The school will initially accommodate up to 414 students, with the potential to expand to 1,000 students as demand arises. Any future expansion of the school will be the subject of a separate planning approval.

The new primary school in Mulgoa Rise is being assessed as a State Significant Development (SSD). The Secretary's Environmental Assessment Requirements (SEARs) for this proposal have been issued on 2 December 2020. Requirement 8 of the SEARs, entitled *Aboriginal Cultural Heritage*, details the management and mitigation measures for impacts to Aboriginal cultural heritage values to be undertaken ahead of this proposal:

- Provide an Aboriginal Cultural Heritage Assessment Report (ACHAR) that:
 - identifies and describes the Aboriginal cultural heritage values that exist across the site.
 - includes surface surveys and test excavations where necessary.
 - has been prepared in accordance with the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (OEH, 2011) and Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (OEH, 2010).
 - o incorporates consultation with Aboriginal people in accordance with Aboriginal Cultural Heritage Consultation Requirements for Proponents (Department of Environment, Climate Change and Water, 2010).
 - documents the significance of cultural heritage values of Aboriginal people who have a cultural association with the land
 - identifies, assesses and documents all impacts on the Aboriginal cultural heritage values.
 - demonstrates attempts to avoid any impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the ACHAR and EIS must outline measures proposed to mitigate impacts.
 - o demonstrates attempts to interpret the Aboriginal cultural heritage significance identified into the development.
- Any Aboriginal objects recorded as part of the Aboriginal Cultural Heritage Assessment Report must be
 documented and notified to the Aboriginal Heritage Information Management System (AHIMS) within
 Heritage NSW of the Department of Premier and Cabinet.

To ensure that Aboriginal archaeology and cultural heritage would not be adversely impacted upon by the proposal Comber Consultants was engaged to undertake this Aboriginal archaeological assessment. This report is written in accordance with the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* and the *Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW* (OEH, 2010). Its purpose is to support the Aboriginal Cultural Heritage Assessment Report (ACHAR) as required by the SEARs to inform the Environmental Impact Statement for the new primary school in Mulgoa Rise.

1.2. Location and description

The study area for the proposed school is Lot 1663, DP 1166869 at 1-23 Forestwood Drive, Glenmore Park NSW 2745 within the boundaries of the Penrith City Council LGA. This property is 50km west of the Sydney CBD (**Figure 1**), approximately 4km east of the Nepean River and on 170m to the east of Mulgoa Nature Reserve.

The study area is a rectilinear property, cleared of vegetation and within a residential subdivision area (**Figure 2**). To the north, the site is bounded by Deerubbin Drive. On the northern side of Deerubbin Drive is a vacant site that is zoned B2 and is subject to a current DA for a mixed-use commercial and residential precinct. The southern boundary faces onto Forestwood Drive and to the west is Darug Avenue. Along the eastern border bituminised car parking spaces separates the study area from Council playing fields. Surveyors Creek lies 150m to the east of the site within a nature corridor.





Figure 1: Location map



Figure 2: Aerial view of the study area (Nearmaps)

1.3. Project description

The proposed development involves the construction and operation of a new primary school at Glenmore Park (Mulgoa Rise). The development will initially accommodate 414 students, with the ability to be expanded to 1000 students when demand requires, which would be subject of a separate planning approval process.



Development approval will facilitate a Core 21 school with 18 learning spaces (LS), plus 2 support classes. The development will also include a school hall, library, staff facilities, and administrative areas built to Core 35, allowing capacity for future expansion. A large assembly area, games court, shared sensory play area and playground will also form part of the development.

The new school will provide the surrounding community access to the school's core facilities and will also provide Outside School Hours Care (OSHC) services to assist working families that commute and work extended hours. The school is proposed to be open for students in January 2023.

The State Significant Development Application for the project seeks consent for the following key components:

- General learning areas.
- Multipurpose communal hall.
- Covered Outdoor Learning Areas (COLA).
- Administration area.
- Staff area including amenities.
- Student amenities.
- Library.
- Canteen.
- Storage.
- Assembly Area.
- Games Court.
- Shared sensory play area.
- · Landscaping.
- Pedestrian circulation.
- Pedestrian access points.
- Internal open space.
- Staff car park with access off Forestwood Drive.
- Bike and scooter parking.
- Bus zone and drop off/pick spaces.
- Pedestrian crossings on Forestwood Drive, Darug Avenue, and Deerubbin Drive.
- Waste collection area.
- Connection of site services, including gas, potable water, sewer, power (including a new sub-station), and the NBN.



2.0 LEGISLATION

2.1. National Parks & Wildlife Act 1974

The National Parks & Wildlife Act 1974 (NPW Act) provides statutory protection to all Aboriginal sites within New South Wales. Heritage NSW is the State Government agency responsible for the implementation and management of this Act.

Part 6 of the NPW Act protects of all Aboriginal objects and Aboriginal Places, and states that it is an offence to harm or desecrate an Aboriginal object or Aboriginal place, without an Aboriginal Heritage Impact Permit (AHIP). An Aboriginal object and an Aboriginal Place are defined as:

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 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.

Aboriginal Place

The Minister may, by order published in the Gazette, declare any place specified or described in the order, being a place that, in the opinion of the Minister, is or was of special significance with respect to Aboriginal culture, to be an Aboriginal place for the purposes of this Act.

The study area is not an Aboriginal Place and it is highly unlikely that an Aboriginal object, which is protected by the provisions of Part 6 of the NPW Act, will be located within the study area. Redevelopment of the site will not require an application for an AHIP prior to the commencement of such works.

However, as it is highly likely that this project will be assessed as a State Significant Development under Division 4.7 of the *Environmental Planning & Assessment Act 1979*, the NPW Act does not apply. Please see below.

2.2. Heritage Act 1977

State Heritage Register

s31 of the NSW Heritage Act 1977 provides for the establishment and maintenance of the State Heritage Register by the Heritage Council. s32 allows the Minister to direct the listing of an item which is of State heritage significance and sets out the procedure for listing an item. Aboriginal sites can be listed on the State heritage register if they are of State heritage significance. Such places can include Mission sites and cemeteries. The current study area is not listed on the State Heritage Register.

However, as it is highly likely that this project will be assessed as a State Significant Development under Division 4.7 of the *Environmental Planning & Assessment Act 1979*, the Heritage Act does not apply. Please see below.

2.3. Environmental Planning and Assessment Act 1979

Some types of Development (including new educational facilities) are deemed to have State significance due to the size, economic value or potential impacts that they may have. Under Division 4.7 of the EP&A Act, the Minister for Planning is the consent authority for State Significance Development applications (SSD). SSD applications are assessed by the Department of Planning & Environment and the Secretary will issue the Secretary's Environmental Assessment Requirements (SEARS). This project will be assessed as a State Significant Development.

s4.41 details the authorisations that are not required for State significant development, as detailed below. S4.41(d) states that an Aboriginal Heritage Impact Permit is not required.

- (1) The following authorisations are not required for State significant development that is authorised by a development consent granted after the commencement of this Division (and accordingly the provisions of any Act that prohibit an activity without such an authority do not apply)—
- (a) (Repealed)
- (b) a permit under section 201, 205 or 219 of the Fisheries Management Act 1994,
- (c) an approval under Part 4, or an excavation permit under section 139, of the Heritage Act 1977,



- (d) an Aboriginal heritage impact permit under section 90 of the National Parks and Wildlife Act 1974,
- (e) (Repealed)
- (f) a bush fire safety authority under section 100B of the Rural Fires Act 1997,
- (g) a water use approval under section 89, a water management work approval under section 90 or an activity approval (other than an aquifer interference approval) under section 91 of the Water Management Act 2000.



3.0 METHODOLOGY

This project was conducted in three stages, being background research, field survey and report preparation, as detailed below.

Sge 1: Background Research

Prior to the field component of this project, the Aboriginal Heritage Information Management System (AHIMS) was searched on 9 September 2020. A copy of the extensive search is attached at Appendix A. Site data, associated documents and archaeological survey reports held by AHIMS were reviewed. Environmental information relating to Aboriginal land use was also researched. Such research facilitated an understanding of the potential nature of sites and site patterning in the region, which enabled a predictive statement to be made. It also provided an archaeological and environmental context within which a significance assessment could be made, if any Aboriginal sites were located during the field survey.

Stage 2: Site Inspection

The archaeological site inspection was undertaken by David Nutley and Dr Dragomir Garbov, archaeologists of Comber Consultants on Friday 18th September 2020. The inspection was undertaken on foot and covered all exposed areas on the site.

Stage 3: Report Preparation

Further archaeological research was conducted, where necessary, to clarify the results of the survey. This report was then compiled and provided to School Infrastructure NSW.



4.0 ABORIGINAL HISTORY

4.1. The Darug

The Darug people are the traditional owners of the main east-west ridge of the Blue Mountains, the northern Blue Mountains and the Cumberland Plain in which the study area is located (Tindale 1974; Attenbrow 2010).

Research by R.H. Mathews, a pioneer linguist and anthropologist, in the early twentieth-century revealed that the Darug (or 'Dharruk' people as he referred to them) inhabited an area adjoining the 'Thurawal' (Dharawal) to the south and Gundungurra and Wiradjuri to the west. Their territory extended along the coast to the Hawkesbury River and inland to Windsor, Penrith and Campbelltown; then from the mouth of the Hawkesbury River to Mount Victoria (Mathews 1901a:140; Mathews 1901b:155). Archaeological and historical records examined in Sydney's Aboriginal Past identify three distinct groups – the coastal, hinterland and mountain Darug (Attenbrow 2010:23). The Darug of the Mulgoa area were from the hinterland group.

The Darug were divided into smaller clans or bands - extended family units consisting of up to sixty people. Each of these clans was named after the area of land where they normally resided, and which the people had traditional links. Current Local Land Council boundaries differ from these 'traditional' boundaries (Attenbrow 2010: 22).

There was a complicated system of kinship and totems which prevented certain types of contact (Attenbrow 2009: 119). It is difficult to pinpoint exact language boundaries, as information came from early colonists, explorers and ethnographers trying to interpret Aboriginal languages (Attenbrow 2003: 35). While territorial boundaries were well defined by tradition, written accounts and mapping by Europeans was compromised by these language differences and lack of cultural understanding. The Darug language is believed to extend from the Western side of the Georges River to Appin and Picton and as far west as the Blue Mountains (Attenbrow 2003: 34).

The traditional Aboriginal economy was dependent on harvesting resources with only very little modification to the environment, with the Nepean River playing a central part of that economy. People fished from the bank or in canoes and dug for yams and collected various fruits and other food from trees, bushes, and grasses in season. (Low 1992 & Baker *et al* 1986: 136 cited in Comber Consultants May 2008: 8; Tench 1961:154,230; Hunter 1793 Ch 3; Phillip in Hunter 1793 Ch 20, 21)

Resource gathering and patterns of habitation were influenced by the season. Knowledge of food resources influenced the timing for journeys, gatherings and festivals. An intricate knowledge of edible plants, their medicinal uses and practical applications was held by the Darug. Artefacts such as spears, shields and canoes were made from timbers, gums and resins. Nuts, feathers, teeth, ochres, animal skins and plant fibres were used to create decorative clothing, cloaks and ornamentation (DEC 2009:12).



5.0 ENVIRONMENTAL CONTEXT

5.1. Topography

Glenmore Park is located within the Sydney Basin towards the southern end of the Cumberland Plain. The Sydney Basin is characterised by contrasting landscapes of rugged sandstone escarpments and gently undulating hills over shale (Sydney 1:100,000 geological map).

The study is area is located within the alluvial plain of the Nepean River which is located approximately 4km to the west. Surveyors Creek is located immediately to the north east of the study area.

A small seasonal creek once cut through the south east corner of the study area, (Figure 5). The site is located less than 1km from several ponds fed by first order streams. Such a stream and the ponds would most likely have been seasonal and not a reliable source of water.

5.2. Geology and soils

The Cumberland Plain overlies the Wianamatta Group of shales. Within the study area, this includes the Bringelly Shales overlying a thin layer of Minchinbury Sandstone over Ashfield Shales which overlies Hawkesbury Sandstone (sandstone with some quartz) (Penrith 1:100,000 Geological Map). This formation does not provide a good source of lithic material suitable for stone tool manufacture whilst the Minchinbury Sandstone does not provide good outcrops nor does it weather into overhangs or caves suitable for occupation.

Several locations on the Cumberland Plain within the vicinity of the study area contain material suitable for small stone tool manufacture, such as silcrete. The nearest known source of silcrete is located at Luddenham, approximately 8km to the south, St Clair approximately 10km to the east, and at Erskine Park approximately 11km to the east. Plumpton Ridge, 15km to the east also has a major outcrop of silcrete (McDonald 1986:1). Other materials used to manufacture small stone stools within the Cumberland Plain include chert, tuff, quartz, basalt and quartzite. These can be found in the Rickaby's Creek formation approximately 12km to the north of the study area (Clarke & Jones 1988, Smith 1989a:9-11; 1989b:6-7).

The soil for the study area have been described as the Blacktown soils. These consisted of red clays with an overlay of dark topsoil (Bannerman & Hazleton 1989:29).

5.3. Vegetation

The vegetation of the Cumberland Plain was mapped by Benson (1979 & 1981) and the NSW National Parks and Wildlife Service (2002). Historically the undulating slopes of the Cumberland Plain would have supported a tall open forest of Cumberland Plain Woodland.

The area was mapped by Benson (1981) as being woodland of *Eucalyptus moluccana* (Grey Box) in association with *Eucalyptus tereticornis* (Forest Red Gum). The understorey included *Acacia parramattensis*, *Acacia floribunda*, and other acacia sp., *Casuarina cunning*hamiana (River Oak), *Bursaria spinosa* (Sweet Bursaria, Blackthorn) and *Hardenbergia violacea* (False Sarsaparilla) with grasses of *Themeda australis* (Kangaroo grass) and *Lomandra longifolia*.

Such a vegetation community would have provided a variety of edible plant species and plants suitable for artefact manufacture. For example, the tall Grey Box and Red Gum's would have provided bark to make coolamons, shields, or canoes, whilst the long Lomandra leaves would have been used for basket weaving (Baker et al 1986:136). Acacia gum was a sweet nutritious food source and the acacia seeds were a valuable source of protein. The dried seeds were ground between stones and baked as a bread/damper and the green seeds eaten like peas (Low 1992:86). In addition, Cumberland Plain vegetation provided habitat for a variety of marsupials and birds whilst the River and Creeks would have provided fish, eels and yabbies.

However, the nature and composition of the study area has been completely altered by quarrying and the complete removal of original vegetation.



5.4. Current land use and disturbance

The study area has been cleared of original vegetation and currently contains various grasses. Geotechnical investigations in June 2020 found that the whole area consists of extensive fill to depths of at least 6m and in places, to more than 12m. The report states that historical aerial imagery indicates that between 1986 and 2000 the site was subjected to quarrying and filling operations (JKGeotechnics June 2020:3). None of the boreholes recorded original topsoil units even when the boreholes reached down to bedrock. In addition, the June 2020 geotechnical report documents that:

The boreholes encountered a subsurface profile comprising clayey fill with gravel inclusions to beyond the depth of borehole termination, i.e. greater than 12.45m depth. (JKGeotechnics June 2020:2)



Figure 3: Borehole investigations across the study area



6.0 ARCHAEOLOGICAL BACKGROUND

6.1. Introduction

The information summarised in this section will facilitate an understanding of Aboriginal site patterning in the region and thereby provide a context within which any sites located in the study area may be archaeologically assessed. It will also assist to determine whether sub-surface sites are likely to exist.

6.2. Cumberland Plain

Since the 1980s archaeological investigations in the Cumberland Plain have indicated that this area was intensively occupied (Byrne 1987:1). One of the oldest dated occupations for the Sydney region is 15,000 years BP from the Shaws Creek K2 rockshelter on the Nepean River (Kohen 1984; Nanson et al. 1987). The dates obtained by Kohen (1984) and Attenbrow (2010) must be considered in association with environmental data related to sea level rises. The Sydney region that we know today was vastly different to the landscape of 15,000 years ago.

The period of maximum glaciation was 15,000 - 18,000 years BP. Therefore, the date of the K2 rockshelter and Attenbrow's Darling Mills site indicate that Aboriginal people lived throughout a period of extreme environmental change. During this period, sea levels were up to 130m below current sea levels (Nutley 2006: 1). About 10,000 years ago, as temperatures began rising at the end of the last ice age, the polar ice started melting and sea levels rose. The rising sea levels forced people to abandon coastal sites and move inland, with the result that the oldest coastal sites were inundated.

By about 6,000 years ago, rising water levels had flooded the coastal plain forming the Sydney landscape that we know today. Most sites in the Sydney region date to around 5,000 years BP, after sea levels had stabilised. Whilst research into submerged indigenous sites is now being undertaken (Nutley 2006), there are few sites in the Sydney area that are known to date beyond 10,000 years BP. Therefore, research undertaken to date has focused on subsistence patterns and cultural change, e.g. Attenbrow (2010).

Many archaeological surveys have been conducted on the Cumberland Plain in relation to Environmental Impact Statements. As a result of these studies, which were occasioned by the burgeoning urban expansion extending onto the Cumberland Plain, the NPWS recognised the need for a coherent study of the area to fully assess the impact of urbanisation on the natural and cultural heritage of the Cumberland Plain. Smith (1989b) was commissioned by the NPWS to undertake an Aboriginal Site Planning Study to be utilised in the management of Aboriginal sites on the Cumberland Plain.

Prior to her study, 307 sites had been recorded on the Cumberland Plain, mainly open artefact scatters (297) with four scarred trees, one carved tree and four axe-grinding grooves and a Mission site (the Blacktown Institute). Smith (1989b:2) added 79 open sites and 29 isolated finds from field surveys related to her study.

Smith's (1989b:3) analysis indicated that site location and site densities were influenced by the availability of water and raw materials. She concluded that other factors such as topography, natural vegetation and soil types did not influence site location.

Since Smith's study there has been a dramatic increase in development in Western Sydney resulting in a great deal more archaeological survey and excavation (McDonald 1997). This further work has indicated the complexity in the archaeological record of the area that was not previously recognised. This includes recognition that surface artefact scatters do not represent the full nature and extent of such sites. The potential for sub-surface deposits to remain, despite agricultural disturbance is high whilst sites on permanent water are more complex than sites on ephemeral drainage lines with major confluences being prime site locations.

In 2005 McDonald published the results of excavations in the Rouse Hill Development area, which is north-north east of the present study area. This study refined the model of occupation for the Cumberland Plain. Her study examined site location, stone tool manufacture, mobility, change over time and occupation in relation to stream order. Second and Third Order streams are less likely to contain major sites unless they are at the confluence with another creek or river, which is not the case within the present study area.



McDonald's 2005a report demonstrates the dynamic nature of stone tool technologies on the Cumberland Plain. She reviewed previous work within a theoretical framework to identify intra and inter-regional variation. She not only identified change over time in the stone tool technology, but the way that "stone technologies were organised in relation to landscape" (McDonald 2005: np). Her report provides a framework to tentatively date sites through technological analyses and to identify cultural changes.

Her study also indicated that the surface representation of a site on the Cumberland Plain does not necessarily reflect the actuality of that site. Of the excavations conducted by her, sub-surface deposits were present even when there was no surface indication of a site. According to McDonald (2005:5), "despite artefacts being rare or completely absent on the surface at each of the sites investigated, all six sites were found to contain intact archaeological deposit. Almost 500 square metres were excavated during this Project and almost 35,000 artefacts retrieved." McDonald (2005) also considers that Aboriginal occupation was focussed on the major river systems and characterised by mobility between a small number of sites. As a result of her various studies and applying stream order modelling she (2005) further predicts that the density and complexity of archaeological sites will vary according to stream order, as follows:

- Fourth-Fifth order creeks (or rivers): Archaeological evidence will be more complex and possibly stratified, reflecting more permanent and repeated occupation on major creeks.
- Third order creeks: Evidence of more frequent occupation such as knapping floors or higher artefact densities will be found in the lower reaches of tributary creeks.
- Second order creeks: Sparse archaeological evidence will be found which indicates occasional use and/or occupation.
- First order creeks: Due to the intermittent nature of water flow only very sparse evidence would be found in the headwaters of upper tributaries such as background artefact scatter.

Kohen's studies at Penrith confirmed the importance of fifth order creeks and rivers. He recorded over 50 sites in the Penrith area which included open artefact scatters, axe grinding grooves and rock shelters. Kohen (1997:7) indicates that sites occurring throughout the Penrith area "are particularly likely to occur adjacent to the rivers and creeks. The distribution of raw materials associated with the manufacture of stone tools suggests that chert and basalt were carried or traded east from the river gravels and that silcrete was traded or carried from sources near South Creek and Eastern Creek, west towards the Nepean flood plain".

Comber also recorded open artefact scatters and scarred trees within the Cumberland Plain. She undertook excavation at two sites at Penrith Lakes known PL9 (2010a) as Camenzulis (2010b) and at PL9 she retrieved more than 1,500 artefacts, including backed blades and an edge ground axe. Her work confirms McDonald's (2005) and Kohen's predictive model that sites are more likely to occur adjacent to the rivers and high order creeks. These excavations (Comber 2010a&b) at Penrith Lakes further indicates the possibility that sub-surface archaeological deposits will remain despite disturbance by non-Aboriginal activities and the complexity of such sites. Surveys (2006 & 2008) undertaken prior to the excavations recorded the areas as being disturbed by agricultural activities. They had been grazed, ploughed, planted with crops and a dam constructed. Only a small number of artefacts were recorded on the surface but over 1,500 artefacts retrieved during excavation.

A survey undertaken by Comber (2008) and subsequent excavations undertaken by Stening (2011) at Doonside demonstrated that although no surface artefacts were recorded (Comber 2008) substantial subsurface deposits did exist on the site with over 1,000 artefacts being recovered from a highly disturbed context (Stening 2011). This site was located beside Eastern Creek an important 4th or 5th order creek. It is an important watershed with extensive evidence of Aboriginal occupation

Archaeological investigations within the Sydney Basin have established reliable Carbon 14 dating evidence of Aboriginal occupation dating from the Pleistocene but (14,700BP at Cranebrook Terrace). Most sites however have been dated to less than 5,000 years. The absence of earlier dates is due to the effect of sea level rises c6,000 years ago. The influx of seawater over former coastal plains is presumed to have forced people into the new confines of the Sydney Basin (Nutley 2006). This 'intensification', or increased population, was then associated with an increase in the physical evidence of post 5,000BP occupation now being recorded through archaeological investigation.



The model of occupation developed for the Cumberland Plain indicates that reliable water is a prime factor in the choosing of site locations by Aboriginal people. More complex higher density sites will be located at the confluence of several water bodies, whilst evidence of frequent occupation will be in the lower reaches of tributaries. However, evidence will still be in areas with seasonal creek lines, but it will sparse and less complex. Ground disturbance will impact on surface evidence, but subsurface evidence may still present in areas of high disturbance.

6.3. Mulgoa/Glenmore Park

Below is a summary of the findings of three archaeological investigations conducted in the vicinity of the study area. These include site inspections and archaeological excavations.

A) Greer, S, and Brayshaw, H, May 1983. 'An Archaeological Survey of Lot 1 DP541090 at Mulgoa New South Wales'. Report prepared for Resource Learning

The 1983 study area lay adjacent to the southern border of the current study area as shown in **Figure 4**. The map is a sketch map from 1983 archaeological survey overlaid on the current study area and an LPI topographic map (overlay by Comber Consultants in QGIS). Note that the original alignment of Bradley Street, as shown on the 1983 map in Figure 4, has been renamed Forestwood Road. Bradley Street still exists but has been realigned to south of the study area and its original alignment.

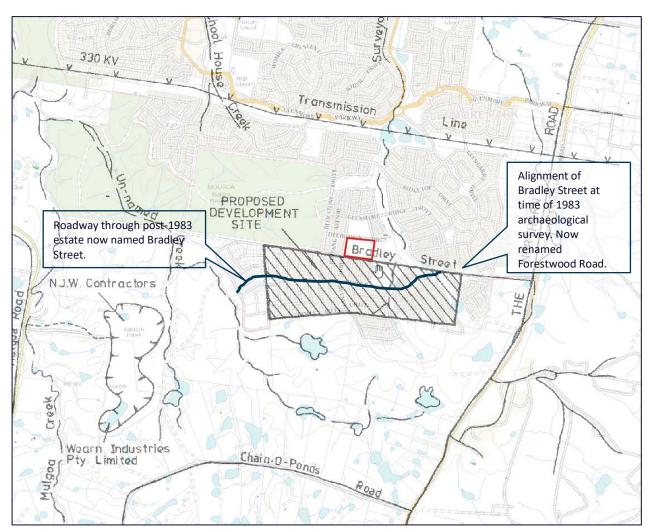


Figure 4: Overlay of current study area (red) with 1983 study area (hatched).

The 1983 survey was a preliminary study commissioned by Mulgoa Quarries Pty Ltd in view of proposed extraction of materials for brick manufacture and road making as well as screen plantings.



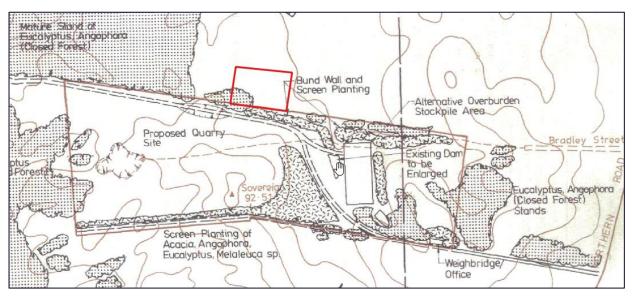


Figure 5: Relationship of 1983 survey and proposed extraction site to current study area (red)

This survey identified a single light brown quartzite flake on top of a small hill in the centre of the study area and sparse scatter of 20 artefacts over an area of 350m east to west and 100m north to south. These artefacts were observed in a thin topsoil unit and were reported to consist of chert, silcrete, and mudstone. The artefact density was low with the highest being 3 artefacts per m².

The study concluded that the area had archaeological potential from a local and regional perspective. It also concluded that the proposed extraction site would have impacts and recommended that more detailed recording and archaeological excavation be undertaken.

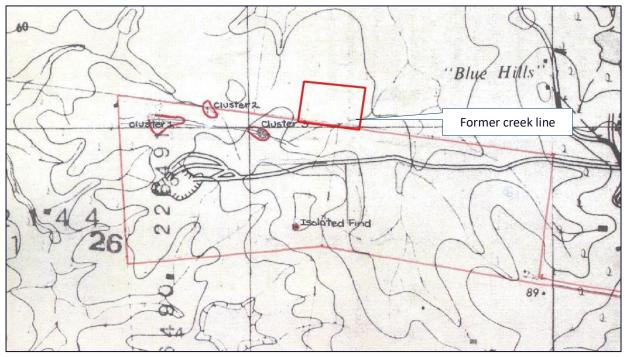


Figure 6: Relationship of location of clusters and isolated find in 1983 archaeological survey to current study area (red)

B) Kohen, J, December 1986. 'An Archaeological Survey of "Winbourne" at Mulgoa'. Report prepared for Christian Brothers Youth Apostolate



This survey was conducted approximately 5km south of the current study area and featured a sandstone slope and six minor creeks that predominantly crossed clay and alluvium. The property also contained quartzite gravels suitable for stone tool manufacture. Artefacts reported to be related to that area include basalt and hornfells pebbles formed into ground edge hatchets. This survey also reports the recording of grinding grooves and a rock shelter – indicating a significantly different landscape to the current study area.

C) Dallas, M, March 1981. ('An Aboriginal Survey of the South Penrith Development Site'. Report prepared for Housing Commission of NSW

This survey was conducted to identify and record Aboriginal sites within an area of proposed residential development to the north of the current study area. Twenty sites were identified either in hilltop or creekside settings. It was noted, however, that this could reflect the impacts of extensive ploughing. The identified Aboriginal lithic materials included chert, silcrete and mudstone and small amounts of quartz.

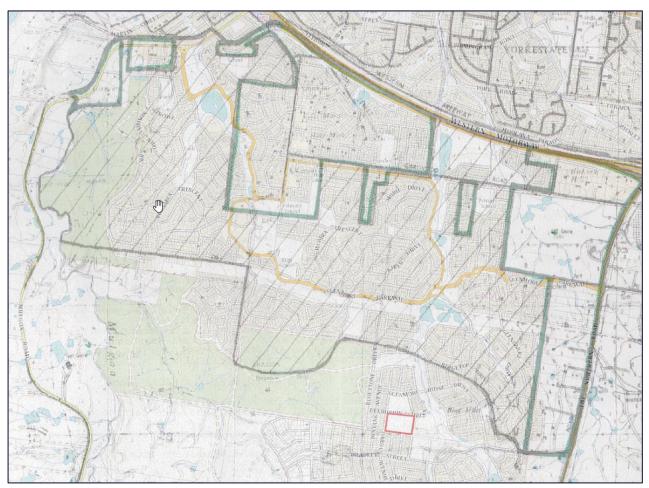


Figure 7: Overlay of the 1986 investigations by Dallas. Current study area in red

The nearest recorded site is over 400m to the south-east of the study area. A total of 12 Aboriginal sites had been recorded within 1km of the study area. Figures 8-9 and Table 1 detail registered sites in the vicinity of the study area.





Figure 8: Map of the study area c2014 showing the location of entries in the AHIMS register and clearing for residential blocks



Figure 9: Map of the study area 2020 showing the location of entries in the AHIMS register (NearMap 2020)



AHIMS site card number	Name	Description
45-5-0407	Mulgoa	Artefact – Open Camp Site
45-5-0411	Mulgoa Open Site	Artefact – Open Camp Site
45-5-0413	SP 15 South Penrith	Artefact – Open Camp Site
45-5-0417	SP 19 South Penrith	Artefact – Open Camp Site
45-5-0310	SP 12;	Artefact – Open Camp Site
45-5-0311	SP 13;	Artefact – Open Camp Site
45-5-2612	Glenmore Park	Artefact
45-5-3112	GP5, Mulgoa Quarry	Artefact
45-5-3113	GP4, Mulgoa Quarry	Artefact
45-5-0412	SP 14 South Penrith	Artefact – Open Camp Site
45-5-0414	SP 16 South Penrith	Artefact – Open Camp Site
45-5-0415	SP 17 South Penrith	Artefact – Open Camp Site

Table 1: Aboriginal sites recorded in the vicinity of the study area (Site search dated 9/9/2020)

6.4. Study area

As demonstrated in section 5.3 above, no previous archaeological surveys have been identified for the study area. The AHIMS search of the study area (9 September 2020) included a 1km buffer, but no sites were shown as having been recorded within the boundaries of the study area. The site is not a registered Aboriginal place.

However, it should be noted, as detailed in section 5.4 of this report that the whole of the study area has previously been subjected to quarrying and fill. Therefore, if any sites did previously exist within the study area they would most likely have been removed by the quarrying activities.

6.5. Site prediction

The study area has been subjected to extensive quarrying and filling. Although it is possible that a low density of artefacts may once have existed on the property, due to the extensive disturbance, it is not predicted that any Aboriginal objects will be located on the property.



7.0 RESULTS, IMPACT & MITIGATION

7.1. Results

The site inspection found that in most places the study area was covered by a dense coverage of weeds and grasses. Evidence of fill and subsequent compression or subsidence was observed along the southern and western boundaries. Embankments rose to the level of Darug Avenue and Forestwood Drive.

As previously detailed the study area has been subjected to quarrying and filling. The site inspection confirmed this as detailed below:

- Ground cover was 80%. Visibility within exposed areas ranged from 20% to 100% (Photograph 1-3).
- Exposed ground consisted of clay mixed with small traces of building rubble and large lumps of shale (perhaps from the former shale quarry) and appeared highly disturbed and subject to compaction.
- No trees of other evidence of original vegetation was present.
- No Aboriginal objects were observed.



Photograph 1: Nature and extent of ground cover within the study area



Photograph 2: Exposed area revealing redeposited clay fill





Photograph 3: Area along raised southern boundary with exposed rubble and clay fill

7.2. Impacts

Due to the lack of evidence of Aboriginal occupation on the site and the extensive quarrying and filling of the study area, the proposed construction of a school on this site would have no impact on Aboriginal objects.

7.3. Mitigation

Due to the extensive disturbance on the site no specific mitigation measures are required. However, in the unlikely event that an Aboriginal object was identified during construction works, those works must cease immediately in the vicinity of that object and further advice sought from the consultant.



8.0 RECOMMENDATIONS

The following recommendations are made based on:

- Legal requirements under the terms of the National Parks & Wildlife Act 1974 (as amended), which states that it
 is an offence to harm or desecrate an Aboriginal object or place without first gaining a permit under Part 6 of the
 National Parks & Wildlife Act 1974.
- Research into the archaeological record for the Cumberland Plain and the study area.
- Results of the assessment as outlined in this report.

IT IS THEREFORE RECOMMENDED THAT:

- Due to the prior quarrying and filling of the site, it is highly unlikely that any Aboriginal objects are located on the site. Therefore, there is no objection to the proposed redevelopment of the site in respect of Aboriginal archaeology.
- 2) It will not be necessary to apply for an Aboriginal Heritage Impact Permit.
- 3) In the unlikely event that an Aboriginal object is uncovered, all work must cease in the vicinity of that object and the consultant contacted for further advice.



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APPENDIX A: AHIMS SEARCH

AHIMS extensive search results dated 9/9/2020

Client Service ID: 534139 Your Ref/PO Number: Mulgoa SINSW

AHIMS Web Services (AWS) Extensive search - Site list report

Office of Environment & Heritage

NSW

SiteID	SiteName	Datum	Zone Ea	Easting	Northing	Context	Site Status	SiteFeatures	Sa	SiteTypes	Reports
45-5-0407	Mulgoa	AGD	56 285	285040 6	6256270	Open site	Valid	Artefact:-		Open Camp Site	1018
	Contact	Recorders	Helen Brayshaw	ayshaw					Permits		
45-5-0411	Mulgoa Open Site	AGD	56 284805		6257090	Open site	Destroyed	Artefact:-		Open Camp Site	347,1018
	Contact	Recorders	Shelly Gr	eer, Matthe	Shelly Greer, Matthew Kelleher				Permits		
45-5-0413	SP 15 South Penrith	AGD	56 285710		6257860	Open site	Valid	Artefact:-		Open Camp Site	256,369,1018,1 567
	Contact	Recorders	Mary Dall	las Consul	ting Archaec	Mary Dallas Consulting Archaeologists (MDCA)			Permits	173	
45-5-0417	SP 19 South Penrith	AGD	56 284	284560	6257510	Open site	Valid	Artefact:-		Open Camp Site	256,369,1018,1 567
	Contact	Recorders	Mary Dall	las Consult	ting Archaeo	Mary Dallas Consulting Archaeologists (MDCA)			Permits	173	
45-5-0310	SP 12;	AGD	56 285	285860 6	6257840	Open site	Valid	Artefact:-		Open Camp Site	256,260,1018,1
	Contact	Recorders	Mary Dal	las Consul	ting Archaeo	Mary Dallas Consulting Archaeologists (MDCA)			Permits		/95
45-5-0311	SP 13;	AGD	56 285	285800	6257820	Open site	Valid	Artefact:-		Open Camp Site	256,260,1018,1
	Contact	Recorders	Mary Dall	las Consub	ting Archaeo	Mary Dallas Consulting Archaeologists (MDCA)			Permits	173	
45-5-2612	Glenmore Park	AGD	56 285	285200 6	6257600	Open site	Valid	Artefact:-			
	Contact	Recorders	Mary Dall	las Consult	ting Archaeo	Mary Dallas Consulting Archaeologists (MDCA)			Permits		
45-5-3112	GP5, Mulgoa Quarry	GDA	56 285	285796 (6256906	Open site	Valid	Artefact: 7			
	Contact T Russell	Recorders	Tom Knight	ght					Permits		
45-5-3113	GP4, Mulgoa Quarry	GDA	56 284	284820 6	6256573	Open site	Valid	Arrefact: 5			
,	Contact T Russell	Recorders	Tom Knight	ght					Permits	3828	
45-5-0412	SP 14 South Penrith	AGD	56 285750	3750 (6257860	Open site	Valid	Artefact:-		Open Camp Site	256,369,1018,1 567
	Contact	Recorders	Mary Dall	las Consult	ting Archaec	Mary Dallas Consulting Archaeologists (MDCA)			Permits	173	
45-5-0414	SP 16 South Penrith	AGD	56 285	285470	6257830	Open site	Valid	Arrefact:-		Open Camp Site	256,369,1018,1 567
	Contact	Recorders	Mary Dall	las Consul	ting Archaeo	Mary Dallas Consulting Archaeologists (MDCA)			Permits	173	
45-5-0415	SP 17 South Penrith	AGD	56 284	284800 (6257710	Open site	Valid	Artefact:-		Open Camp Site	256,369,1018,1 567
	Contact	Recorders	Mary Dall	las Consult	ting Archaeo	Recorders Mary Dallas Consulting Archaeologists (MDCA)			Permits	173	

Page 1 of 1

Report generated by AHIMS Web Service on 09/09/2020 for David Nutley for the following area at Lot: 1663, DP:DP1166869 with a Buffer of 1000 meters. Additional Info: Archaeological Assessment. Number of Aboriginal sites and Aboriginal objects found is 12.
This information is not guaranteed to be free from error omission. Office of Environment and Hertage (NSW) and its employees disclaim Hability for any act done or omission made on the Information and consequences of such act or omission.



APPENDIX B: GLOSSARY

Adze: an axe like bifacial tool with a bevelled bit or blade edge usually used to work wood, or sometimes to dig for root crops.

Alluvium: material which is transported by a river and deposited at points along the flood plain of the river.

Artefact: any object made by human agency. All lithic tools and lithic debitage are considered artefacts.

Artefact scatter: also known as a surface scatter or open site, where prehistoric material such as artefacts and waste debris are lying exposed on the surface of the ground.

Assemblage: a collection of artefacts from an archaeological site.

Australian small tool tradition: a mid Holocene tool industry of the Australian Aborigines that appeared about 5,000 years ago when a new ensemble of small, flaked stone tools began to come into use. The types consisted of backed blades and flakes, Unifacial and bifacial points, and small adze flakes. There are some regional distributions of tools, including Bondi points, geometric microliths, Pirri points and Tula adzes.

Axe: a stone artefact that has been ground on one or more sides to produce a sharp edge.

Backed blade: a blade flake that has been abruptly retouched along one or more margins opposite an acute (sharp) edge. Backed pieces include backed blades and geometric microliths. They are thought to have been hafted onto wooden handles to produce composite cutting tools or spears. Backed blades are a feature of the "Australian small tool tradition", dating from between 5,000 and 1,000 years ago in south eastern Australia (Mulvaney 1975).

Bifacial flaking or retouch: when flakes have been removed from two opposing faces.

Biomantle: the upper part of soil produced by biodynamical agents and processes of which bioturbation is normally hierarchically dominant. By definition, it contains at least 50% biofabric, a condition met in essentially all topsoils.

Bioturbation: the alteration of a site by non-human agency, eg. burrowing animals, tree and grass roots, insects

Blade: a flake that is at least twice as long as it is wide.

Bondi point: a small, asymmetric backed point, named after Bondi Beach where it was first found, which is a component of the Australian small tool tradition. It is usually less than 5cm long and is sometimes described as a backed blade.

Broad platform flake: a flake which has a platform which is as wide as, or wider than, the body of the flake.

Bulb of percussion: a rounded bulge where the force from the hammerstone has radiated through the stone and split it from the core.

Burin: a flake tool that was produced by the removal of two flakes at right angles to one another to produce a very fine sharp and durable edge.

Carved trees: trees which have had designs carved into the bark or heartwood and in some areas may have been used to mark burial or initiation sites.

Chert: a very fine crystalline aggregate of silica.

Context: the time and space setting of an artefact, feature or culture. The context of a find is its position on a site, its relationship through association with other artefacts, and its chronological position as revealed through stratigraphy. An artefact's context usually consists of its immediate matrix (the material surrounding it, eg. clay, gravel or sand), its provenience (horizontal and vertical position within the matrix), and its association with other artefacts (occurrence together with other archaeological remains, usually in the same matrix). The assessment of context includes study of what has happened to the



find since it was deposited.

Core: a piece of stone bearing one or more negative (concave) flake scars. A stone which has obviously had flakes and flaked pieces struck from it.

Cortex: refers to the original weathered outer surface of the rock used to manufacture an artefact.

Debitage (debris): detached pieces that are discarded during the reduction process.

Distal end: the end opposite to the platform or the point end of a blade.

Dorsal surface: the 'back' of the artefact or the side that was once part of the outside of the core or shows evidence of previous flake removals.

Edge-ground artefact: an artefact (generally an axe or adze) whose cutting edges have been ground, rather than flaked, to form a sharp edge.

Eraillure scar: the small flake scar on the dorsal side of a flake next to the platform. It is the result of rebounding force during percussion flaking.

Erosion: the wearing away or loosening and transportation of soil or rock by water, wind and ice.

Fabricator: a stone or bone artefact used in the manufacture of other tools. Often rod shaped and worn heavily on one end, it is used to chip flakes from a core, or to retouch a flake.

Flake: any piece of stone removed from a larger mass (core) by application of force (percussion), and having a striking platform and bulb of percussion.

Flaked piece: any stone struck from a larger mass by percussion but not containing all or any of the characteristics of a flake.

Focal platform flake: a flake which has a platform narrower than the body of the flake.

Grinding groove: a depression resulting from the sharpening of stone tools such as axes and adzes, usually located on surfaces of fine homogenous sandstone and near water.

Grinding stone: a thick stone used as a mortar for grinding seeds, roots, tubers, or ochre.

Hammerstone: the stone that is used to remove flakes from the core.

Holocene: that portion of geologic time that postdates the latest episode of continental glaciation. The Holocene Epoch is synonymous with the recent or postglacial interval of Earth's geologic history and extends from 10,000 years ago to the present day. It was preceded by the Pleistocene Epoch and is part of the Quaternary Period, a time characterised by dramatic climatic oscillations from warm (interglacial) to cold (glacial) conditions that began about 1.6 million years ago. The term Holocene is also applied to the sediments, processes, events, and environments of the epoch.

Horizon (or soil horizon): the layers of the upper crust of the earth. The top, or O, horizon is the layer of undecomposed litter; the A horizon is topsoil, where most roots grow; B is the subsoil; and C is the parent rock material, broken into chunks. Although some roots can penetrate into the C horizon, few microorganisms live there.

Isolated find: a single stone artefact found on the surface of the land not in association with any other artefact.

Knapping: the process of hitting one stone (core) with another (hammerstone) to produce a flaked artefact.

Lamellate flaked piece: thin and wedge shaped, similar to a flake, but without the diagnostic features of a flake. A lamellate may by the distal end of a flake which has had its platform broken off.



Lithic: anything made of stone. Derived from the Greek word meaning stone or anything pertaining to stone.

Manuport: piece of stone intended to be, or used as, a core that has been carried to the area from somewhere else.

Microlith: a small (1 - 3cm long) flake with evidence of retouch. Bondi points, scrapers and backed blades are all types of microliths

Midden: a prehistoric refuse site chiefly composed of shell fragments.

Multidirectional core: a lithic mass (core) with evidence of flaking originating from more than one direction and with more than a single striking platform.

Negative flake scar: the scar left by the removal of a flake. The scar may also show a rounded depression which is the negative of the bulb of percussion.

Open site: also known as a surface or artefact scatter, where prehistoric material such as artefacts and waste debris are lying exposed on the surface of the ground.

Pirri point: a symmetrical leaf-shaped point, up to 7cm long, unifacially flaked all over its dorsal surface. The striking platform and bulb of percussion are sometimes removed to produce a rounded, thinned butt. Pirri points are a component of the Australian small tool tradition, found generally in inland Australia.

Platform: the flat surface which receives percussion or pressure in the removal of a flake or flaked piece.

Pleistocene: a geochronological division of geological time, an epoch of the Quaternary period following the Pliocene. During the Pleistocene, large areas of the northern hemisphere were covered with ice and there were successive glacial advances and retreats. The lower Pleistocene began about 1.8 million years ago; the Middle Pleistocene about 730,000 years ago; and the Upper Pleistocene about 127,000 years ago; it ended about 10,000 years ago. The Pleistocene was succeeded by the Holocene.

Potential archaeological deposit (PAD): any location considered to have a moderate to high potential for subsurface archaeological material

Potlid: small circular piece of stone that has literally "popped off" the surface of the artefact due to exposure to extreme heat.

Proximal end: the 'top' of the artefact, or the part that the knapper hit to remove it from the core, where the platform is expected to be.

Quarry: a location from which stone has been extracted in order to make stone artefacts.

Retouch: refers to the secondary working of an artefact after it has been struck from the core. Retouch is used to sharpen the edges. It is the intentional modification of a stone tool edge by either pressure or percussion flaking techniques.

Scarred trees: trees from which bark has been removed for the manufacture of everyday items such as containers, canoes or shields.

Scraper: a generalised term used to describe a flake tool that has a retouched edge angle of approximately 60 to 90 degrees.

Silcrete: silica rich duricrust identified by the presence of complete granules or even pebbles within the matrix.

Stratigraphy: the study and interpretation of the stratification of rocks, sediments, soils, or cultural debris, based on the principle that the lowest layer is the oldest and the uppermost layer is the youngest. The sequence of deposition can be assessed by a study of the relationships of different layers.

Taphonomy: Literally, 'the laws of burial'. In archaeology, it is the study of the processes by which archaeological remains are transformed by human and natural processes during their incorporation into archaeological deposits, their subsequent long-term preservation within those deposits, and their recovery by archaeologists. The aim is to understand the processes resulting



in the archaeological record.

Thumbnail scraper: a small flake with a convex scraper edge, shaped like a thumbnail and located opposite the flake's platform. They exhibit unifacial retouch (usually on the ventral surface) and are usually less than 30mm in length.

Transect: an arbitrary sample unit which is a linear corridor of uniform specified width. A straight line or narrow sections through an archaeological site, along which a series of observations or measurements is made.

Tuff: a rock formed of volcanic fragments (generally ash).

Typology: a scheme to order multiple types in a relational manner. A common typology orders types in a hierarchical manner.

Unidirectional core: a core with only one striking platform surface and with flake scars extending in only one direction.

Unifacial flaking or retouch: where flakes have been removed from one face only.

Use-wear: the physical changes to the edges of an artefact as a result of its use. Modification of a tool resulting from its use.

Ventral surface: the 'front' of the artefact, or the side that was once part of the interior of the core.



APPENDIC C: PLANS

