

# **Appendix H**

## **Aboriginal Cultural Heritage Assessment Report by Niche Environment and Heritage**



## 3000 Remembrance Drive, 1, 5 & part 3 Olive Lane, Bargo, NSW

### Aboriginal Cultural Heritage Assessment Report

Prepared for the Anglican Schools Corporation

The Wollondilly Local Government Area

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Consultancy: Niche Environment and Heritage

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*Cover photograph: Photo of open eucalypt forest in the west of the Subject Area*

## Executive Summary

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The Anglican Schools Corporation is applying to rezone 3000 Remembrance Drive, 1, 5 & part 3 Olive Lane, Bargo, NSW (Figure 1 and Figure 2; hereafter referred to as the 'Subject Area') under Part 4 of the *Environmental Planning and Assessment Act 1979*.

Niche Environment and Heritage (Niche) was commissioned by The Anglican Schools Corporation to undertake an Aboriginal Cultural Heritage Assessment (ACHA) for the Subject Area. To accompany this assessment Niche prepared an Aboriginal Cultural Heritage Assessment Report (ACHAR) and Archaeological Report (AR) in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010b)* (hereafter referred to as 'the Code of Practice') and the *Guide to investigating, assessing and reporting Aboriginal cultural heritage in NSW (Office of Environment and Heritage [OEH], 2011a)*.

Aboriginal community consultation for the ACHAR was undertaken in accordance with *the Aboriginal cultural heritage consultation requirements for proponents (2010)*. Registered Aboriginal Parties (RAPs) Barraby Cultural Services, Cubbitch Barta Native Title Claimants, Didge Ngunawal Clan, Tharawal Local Aboriginal Land Council, Yalay Cultural Services, Yurrandaali Cultural Services, Gulaga, Biamanga, Cullendulla, Murramarang and Goobah were provided with the opportunity to be involved in the project and to provide comment on the cultural values of the Subject Area.

A site inspection was completed with representatives from Cubbitch Barta Native Title Claimants. The site assessment was conducted on the 5 November 2018 By Sam Richards (Heritage Consultant, Niche) and concluded that the Subject Area contained no Aboriginal objects within the proposed area of development. The eastern part of Lot 12 DP1122904, Lot 4 DP1010127 and Lot 2 DP877585 are considered as having a low scientific value due to the large amount of disturbance. However the western portion of Lot 12 DP1122904 has remained undisturbed and are likely to hold subsurface evidence of Aboriginal occupation.

No Aboriginal objects will be impacted by the proposed activity in the eastern part of Lot 12 DP1122904, Lot 4 DP1010127 and Lot 2 DP877585 (Figure 3). The rezoning and eventual redevelopment of Wollondilly Anglican School will only effect areas previously cleared, disturbed soil profiles from farming (lot 2 DP 1010127 and lot 2 DP 877585 ) and the initial development of the current school grounds (western segment of lot 12 DP 1122804).



## **Regulatory requirements and recommendations**

Aboriginal objects and sites are protected under the *National Parks and Wildlife Act 1974*. The results from this ACHA found no identified Aboriginal Objects within Subject Area that are to be harmed by the proposed rezoning and eventual development. Areas of archaeological potential have been identified by this assessment within the Subject Area, outside of the area of planned development. Areas of low, moderate and high archaeological potential are present in the western part of Lot 12 DP1122904 (Figure 4) the following recommendation are made bases on this ACHAR:

### **Recommendation 1: Avoidance of undisturbed areas**

The proposed activity is unlikely to harm any Aboriginal objects. The level of disturbance leaves diminished archaeological potential within eastern part of Lot 12 DP1122904, Lot 4 DP1010127 and Lot 2 DP877585 (Figure 3). Any future development in the western part of Lot 12 DP1122904 will require further assessment of archaeological potential of the soil profiles (Figure 4).

### **Recommendation 2: Human remains- Stop work provision**

In the event that suspected human remains are encountered during construction, all work in the area that may cause further impact, must cease immediately.

- The location, including a 20 m curtilage, should be secured using barrier fencing to avoid further harm.
- The NSW Police must be contacted immediately.
- No further action is to be undertaken until the NSW Police provide written notification to the Department of Justice.

If the skeletal remains are identified as Aboriginal, The Anglican Schools Corporation or their agent must contact:

- the OEH or the Enviroline on 131 555; and,
- representatives of the Registered Aboriginal Parties.

### **Recommendation 3: Unexpected finds in areas of disturbance and low archaeological potential- Stop work provision**

In the unlikely event that Aboriginal objects are identified within the areas of disturbance and low archaeological potential, work should stop and The Anglican Schools Corporation or their agent must contact:

- the OEH's or the Enviroline on 131 555.

## Glossary

Term	Definition
Aboriginal cultural heritage	The tangible (objects) and intangible (dreaming stories, legends and places) cultural practices and traditions associated with past and present day Aboriginal communities.
Aboriginal object(s)	The legal definition for tangible aspects of Aboriginal cultural heritage under the NSW <i>National Parks and Wildlife Act 1974</i> .
Aboriginal stakeholders	Members of a local Aboriginal land council, registered holders of Native Title, Aboriginal groups or other Aboriginal people who may have an interest in the Project.
ACHA	Aboriginal Cultural Heritage Assessment.
ACHMP	Aboriginal Cultural Heritage Management Plan.
ACHCRs	<i>Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010</i> .
AHIMS	NSW Aboriginal Heritage Information Management System.
Archaeological deposit	A layer of sediment known to contain archaeological material.
Archaeological investigation	The process of assessing the archaeological potential of an area by a qualified archaeologist.
Archaeological risk layer	A GIS dataset designed to predict the likelihood of the presence of Aboriginal objects in a landscape.
Archaeological site	A location preserving material evidence of past human activity.
Archaeology	The scientific study of human history, particularly the cultural remains of the distant past.
Artefact (AFT)	Any object made by humans (e.g. stone artefacts).
Assemblage	Assemblage can be used to define: <ul style="list-style-type: none"> <li>• A group of stone artefacts found in close association with one another; or</li> <li>• Any group of items designated for analysis - without any assumptions of chronological or spatial relatedness.</li> </ul>
Avoidance	A management strategy which protects Aboriginal sites within an impact area by avoiding them totally in development.
Bora Rings	Sites of Aboriginal cultural significance, containing a ring of depressed/raised earth or stone. Used for ceremonial activities. Multiple rings can occur in one place.
Burial	Location of human burial.
Catchment	The area from which a surface watercourse or a groundwater system derives its water.
Cemetery	Location of multiple human burials.
Continuous Scatter	Aboriginal objects present (either surface or subsurface) separated by less than 40 m.
Culturally Modified Trees (ST) (CMT)	Trees preserving evidence of human alteration. Examples include bark removal for: <ul style="list-style-type: none"> <li>• shelters;</li> <li>• canoes;</li> <li>• shields;</li> <li>• coolamons;</li> <li>• food;</li> <li>• grub or possums hunting;</li> <li>• burial huts etc.</li> </ul>
DECCW	NSW Department of Environment Climate Change and Water.



Term	Definition
Discontinuous	<p>Areas 50 m or greater that do not contain Aboriginal objects. This definition is further divided into two categories:</p> <p>Frequent but discontinuous artefact scatters: The occurrence of many sites that are more than 40 m apart and have definable boundaries and are unlikely to be connected by buried artefacts</p> <p>Infrequent and discontinuous artefact scatters: The occasional occurrence of a site with clearly definable boundaries.</p>
Disturbance Area	Land directly disturbed for the Balranald Project.
Drainage	Natural or artificial means for the interception and removal of surface or subsurface water.
EIS	Environmental Impact Statement.
EP&A Act	<i>Environment Planning and Assessment Act 1979.</i>
EP&A Regulation	<i>Environment Planning and Assessment Regulation 2000.</i>
EPBC	<i>Environment Protection and Biodiversity Conservation Act 1999.</i>
Flake	A piece of stone detached from a core by human action. Diagnostic features include a bulb of percussion, ripples and fissures on the ventral surface, a striking platform and dorsal features that may include evidence of prior flake removal.
GIS	Geographic Information System.
Harm	With regard to Aboriginal objects this has the same meaning as the NSW <i>National Parks and Wildlife Act 1974</i> .
Hearth (HTH)	Material evidence of surface fire features and fires that were dug into the ground. Hearths were recorded using the definition by Fanning, Holdaway and Phillips in " <i>Heat-retainer hearth identification as a component of archaeological survey in western NSW, Australia</i> "
IBRA	Interim Biogeographic Regionalisation of Australia.
ICOMOS	International Council on Monuments and Sites.
Impact	Influence or effect exerted by a project or other activity on the natural, built and community environment.
<i>In situ</i>	Latin words meaning 'on the spot, undisturbed'.
Isolated find	A single artefact found in an isolated context, being at least 40 m from other artefacts.
LALC	Local Aboriginal Land Council.
Land unit	An area of common landform, and frequently with common geology, soils and vegetation types, occurring repeatedly at similar points in the landscape over a defined region. It is a constituent part of a land system.
Landform	Any one of the various features that make up the surface of the earth.
Landscape character	The aggregate of built, natural and cultural aspects that make up an area and provide a sense of place. Includes all aspects of a tract of land – built, planted and natural topographical and ecological features.
LTWP	For this project, LTWP (Long Term Water Pipeline) forms part of the Aboriginal site names. The naming convention to provide an indication of their geographic location or activity area.
Management plans	Conservation plans which identify short and long term management strategies for all known sites recorded within a (usually approved) Study area.
MBHP	For this project, MBHP (Murray Broken Hill Pipeline) forms part of the Aboriginal site name. The naming convention is to provide an indication of their geographic location or activity area.
Methodology	The procedures used to undertake an archaeological investigation.



Term	Definition
Midden	The accumulation of shell, bone, stone artefacts and other materials related to selection of, cooking and disposal of food.
Mitigation	To address the problem of conflict between land use and site conservation.
Mounds	The accumulation of debris from cooking ovens, habitation site, plant processing etc.
Mythological Sites	Sites of cultural significance that may or may not contain tangible evidence of occupation/use/visitation.
NTSCORP	Native Title Services Corporation Limited.
NNTT	National Native Title Tribunal.
NPW Act	<i>.NSW National Parks and Wildlife Act 1974.</i>
OEH	Office of Environment and Heritage
Off Country	Any place not identified by the RAPs as being On Country (refer to entry below).
On Country	A term used by Aboriginal people to refer to the land to which they belong and their place of Dreaming. As guidance the RAPs have identified this area as west of the Lachlan River and north of Wakool River and as close as possible to the Activity area.
Open camp site	An archaeological site situated within an open space (e.g. archaeological material located on a creek bank, in a forest, on a hill, etc.).
OSL	Optically Stimulated Luminescence. A method of dating sediments in archaeological sites.
PAD	Potential Archaeological Deposit. A location considered to have a potential for subsurface archaeological material.
RAP	Registered Aboriginal Party.
Significant incident	Any incident or event that has the potential to have caused serious environmental harm or breaches of consent conditions or laws
Scraper	A retouched artefact with evidence of use in scraping tasks.
Site Boundary	<p>Defined by the presence of <i>visible</i> Aboriginal objects:</p> <ul style="list-style-type: none"> <li>• separated by a distance of 40 m;</li> <li>• may have an additional 5-10 m buffer; and</li> <li>• can also be defined by landscape feature such as a dune, sand hill or pan.</li> </ul> <p>There is always potential for further Aboriginal objects to exist immediately adjacent to a defined site boundary and/or beyond a surveyed area. A location preserving material evidence of past human activity.</p>
Site naming convention	The project uses as a site naming convention of [Short Project ID][Site Features][Site Number]. Eg. LTWP AFT 1000 translates to the Long Term Water Pipeline Artefact 1000 or MBHP AFT HTH SHL 1000 translates to Murray Broken Hill Pipeline Artefact Hearth Shell 1000.
Site recording	The systematic process of collecting archaeological data for an archaeological investigation.
Significance Assessment	Significance defines the meanings and values of a cultural heritage item or collection through research and analysis, and by assessment against a standard set of criteria. Significance is a theoretical framework and a practical method for collection management practice. Significance assessment of Aboriginal heritage in NSW is guided by a number of regulations and guidelines.
Stone Tools	Interchangeable with stone artefacts.
Temporary storage	Temporary storage in this document refers to the location in which Aboriginal objects are stored after they have been salvaged from the Activity area Interchangeable with stone artefacts. State Significant Development.
The Code	<i>Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales 2010.</i>



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## 1. Introduction

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### 1.1 Proponent, background and need for the proposed activity

The Anglican Schools Corporation ('the Proponent') is proposing to rezone 3000 Remembrance Drive, 1, 5 and part 3 Olive Lane, Bargo (Figure 1 and Figure 2; hereafter referred to as the 'Subject Area'). The proposed rezoning would lead to the eventual proposed development of the Subject Area (Figure 3). This would involve the creation of additional alternative access (entry) into the College, a gymnasium and performing arts block, external sporting facilities including a playing field (and associated spectator stand, amenities and equipment store), other courts used for various sporting activities, a college access road, car parks and a school bus shelter.

An archaeological survey was completed by Niche Environment and Heritage (Niche 2018) as part of this Aboriginal Cultural Heritage Assessment for the proposed rezoning. Part 3 Olive Lane, Bargo was not assessed as part of the survey due to access constraints and has been withdrawn from this Aboriginal Cultural Heritage Assessment. No Aboriginal objects will be impacted by the rezoning and the eventual proposed development of the Subject Area (Figure 3).

Niche was commissioned by The Anglican Schools Corporation ('the Proponent') to undertake an Aboriginal Cultural Heritage Assessment Report (ACHAR) and Archaeological Report (AR) in accordance with the following guidelines:

- *Aboriginal cultural heritage consultation requirements for proponents 2010* (Department of Environment, Climate Change and Water [DECCW], 2010a) (hereafter referred to as 'the Consultation Requirements').
- *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW, 2010b) (hereafter referred to as 'the Code of Practice').
- *Guide to investigating, assessing and reporting Aboriginal cultural heritage in NSW* (Office of Environment and Heritage [OEH], 2011a).
- *Applying for an Aboriginal Heritage Impact Permit: Guide for applicants* (OEH, 2011b).
- *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance* (Australia ICOMOS, 2013).

This Aboriginal Cultural Heritage Assessment report details the findings of the investigation and assessment of Aboriginal cultural heritage, and whether the proposed activity would harm any Aboriginal objects, Places and/or Aboriginal cultural heritage values. The results of the archaeological investigations are presented in the Archaeological Report (AR) in Appendix 1 of this report. The archaeological assessment has identified that no Aboriginal objects will be harmed by the proposed activity.

### 1.2 The Proposed Activity

The Subject Area is located on three parcels of land (approximately 38 Ha) located at 3000 Remembrance Drive, 1 and 5 Olive Lane, Bargo (Lot 12 DP 1122904, Lot 4 DP 1010127, Lot 2 DP 877585, Figure 1, and Figure 2). It lies within the Local Government Area (LGA) of Wollondilly and the Local Aboriginal Land Council (LALC) of Tharawal.

Ultimately, the proposal is to support a rezoning application to the Department of Planning and Environment to rezone the Subject Area from RU1 Primary Production to SP2 Infrastructure. This will allow for development proposed under the Masterplan for Lots 2 and 4 (Figure 3) which will include the creation of additional alternative access (entry) into the College, a gymnasium and performing arts block,

external sporting facilities including a playing field (and associated spectator stand, amenities and equipment store), other courts used for various sporting activities, and a college access road, car parks and a school bus shelter.

### 1.3 Regulatory requirements and statutory controls

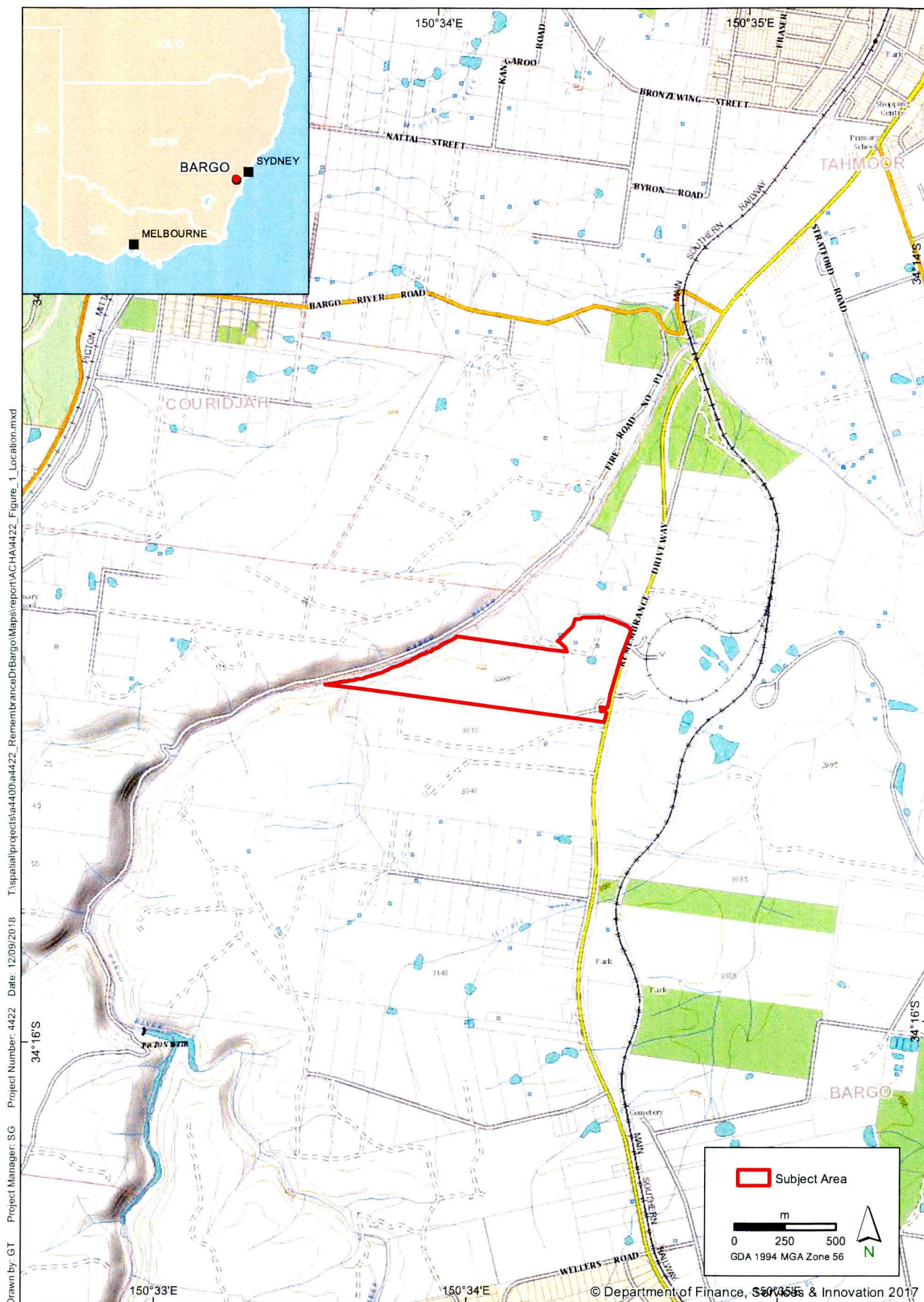
This ACHA is intended to satisfy the requirements of the Wollondilly Local Environment Plan (WLEP) 2011 and the Wollondilly Development Control Plan (DCP) 2016 (Niche 2018). It is necessary to satisfy the approval requirements of the Department of Planning and to manage potential Aboriginal sites and objects under the *National Parks and Wildlife Act 1974* (NPW Act) and Part 4 *Environmental Planning and Assessment Act 1979* (EP&A Act).

### 1.4 Objectives

The objectives of this ACHA report are to meet the regulatory framework outlined above and to:

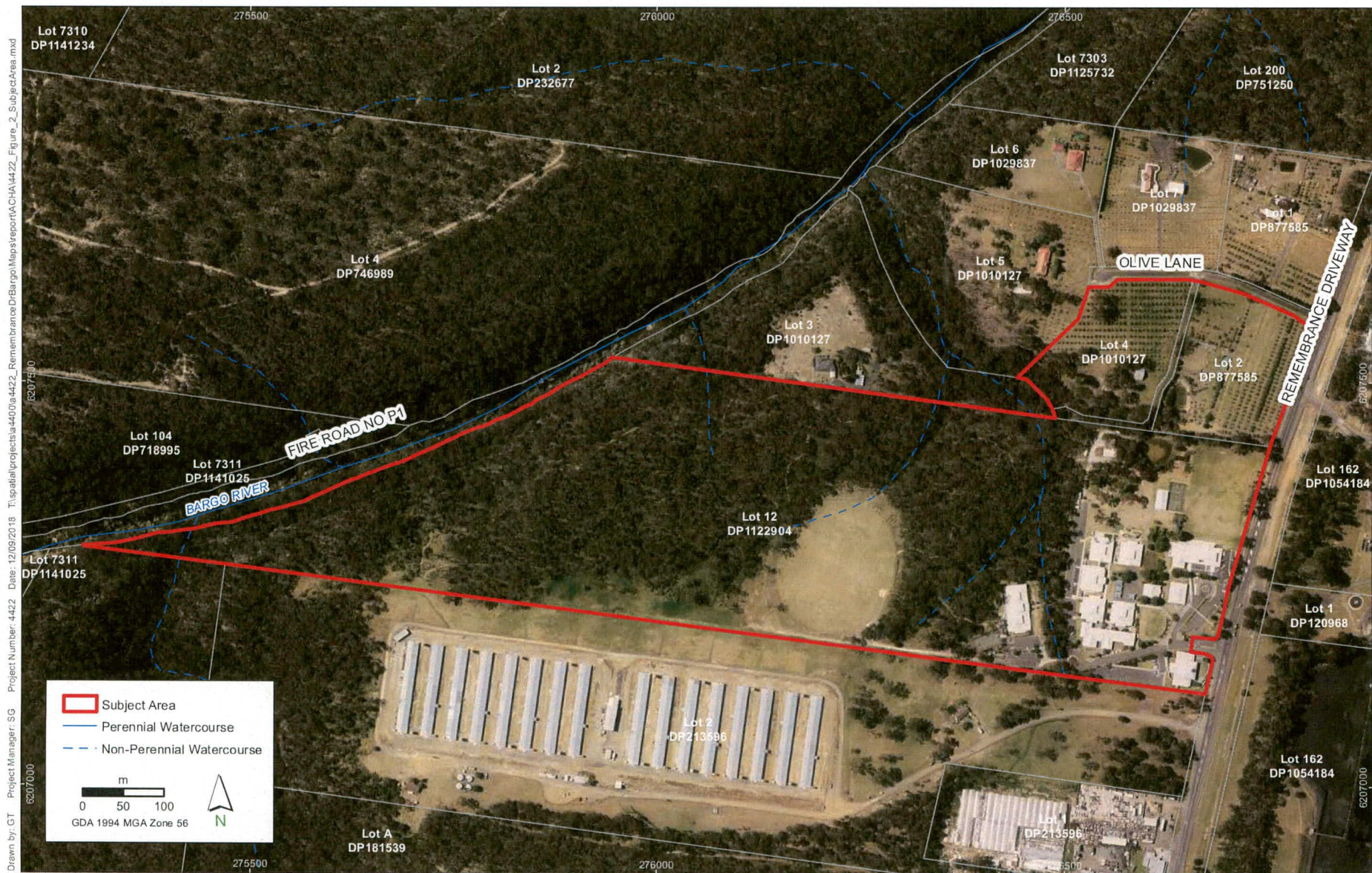
- Present the results of the background research.
- Provide a description of the Aboriginal objects and/or declared Aboriginal places that maybe located within the area of the proposed activity (Section 2, Appendix 1).
- Provide a description of the cultural heritage values, including the significance of any Aboriginal object and/or declared Aboriginal places, that may exist across the whole area that will be affected by the proposed activity and the significance of these values for the Aboriginal people who have a cultural association with the land (Section 3, Section 4, Section 5).
- Show how the requirements for consultation with Aboriginal people have been met (as specified in clause 80C of the NPW Regulation (Section 3).
- Present the views of those Aboriginal people regarding the likely impact of the proposed activity on their cultural heritage (if any submissions have been received as a part of the consultation requirements (Section 3, Appendix 2).
- Present the actual or likely harm posed to any Aboriginal objects and/or declared Aboriginal places from the proposed activity, with reference to the cultural heritage values identified (Section 6).
- Present any practical measures that may be taken to protect and conserve those Aboriginal objects or declared Aboriginal places (Section 7).
- Present any practical measures that may be taken to avoid or mitigate any actual or likely harm, alternatives to harm or, if this is not possible, to manage (minimise) harm in accordance with the National Parks and Wildlife Act 1974 and relevant guidelines (Section 7 and Section 8).





Location map





Subject Area







## 2. Description of the Area

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### 2.1 Project Location

The Subject Area is located on the western side of Remembrance Drive, Bargo (Lot 12 DP1122904, Lot 4 DP 1010127, and Lot 2 DP 877585) (see Figure 1 and Figure 2). The north west boundary of the project area abuts Bargo River. It is approximately 36 km north west of Wollongong's central business district, within the Wollondilly LGA.

### 2.2 Description of land where Aboriginal objects are proposed to be harmed

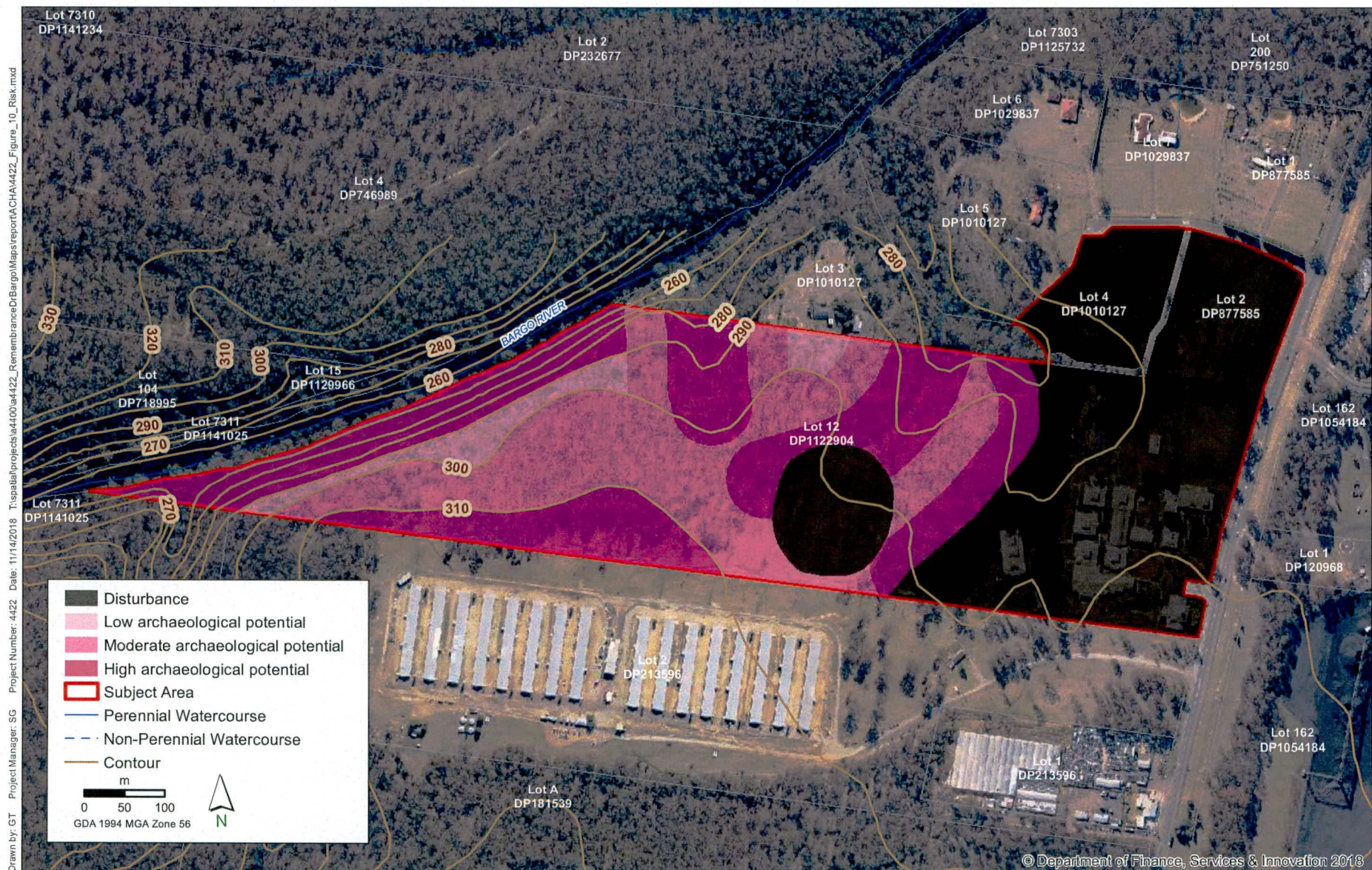
The results from the site survey found no identified Aboriginal Objects within Subject Area that are to be harmed by the proposed rezoning and eventual development. Areas of archaeological potential have been identified by this assessment within the Subject Area, outside of the area of planned development. Areas of low, moderate and high archaeological potential are present in the western part of Lot 12 DP1122904 (Figure 4). These areas have been mapped based on landform and distance to water. Ridgelines and upper slopes have a high to moderate archaeological potential to contain sub surface Aboriginal objects. Areas in the Subject Area within 0-100 m of drainage channels have a high to moderate potential to contain sub surface Aboriginal objects. All other areas that remain undisturbed have been classified as having a Low Archaeological Potential. All areas outlined in Figure 4 will not be harmed by the proposed rezoning and subsequent development proposal. If these areas of archaeological potential (Figure 4) are to be impacted by future development, further investigation and an impact assessment will be required to understand if Aboriginal objects or Aboriginal cultural heritage values are present.

### 2.3 Description of land where Aboriginal objects are proposed not to be harmed

The area of the proposed activity for the eventual development has been significantly modified from initial development of the school grounds and from farming practices. Such disturbance has removed the likelihood of *in situ* Aboriginal objects. Retaining development to areas of previous disturbance (Figure 4) diminishes unplanned harm to undiscovered Aboriginal objects.

No conservation areas have formally been identified by the Proponent in the Subject Area.





## Aboriginal Heritage Constraints

3000 Remembrance Driveway, 1 & 5 Olive Lane and part 3 Olive Lane, Bargo - Aboriginal Cultural Heritage Assessment

**FIGURE 4**

Imagery: (c) LPI 2016-11-04



## 2.4 Description of the Environment

### 2.4.1 Overview

Understanding the past and present environmental contexts of a Subject Area is requisite in any Aboriginal Archaeological and Cultural Heritage Investigation (DECCW, 2010a).

The following section provides a summary of the environmental characteristics of the Subject Area. The section concludes by considering how the environmental character of the Subject Area affects the way in which the area would have been occupied by Aboriginal people in the past, and how Aboriginal archaeological and cultural heritage sites will be distributed across the landscape. Further detail is provided in the Archaeological Report (Appendix 1).

The Subject Area is located on the Cumberland Lowlands, in a transitional zone between two physiographic regions – the Cumberland Plain and the Woronora Plateau. The Cumberland Lowlands is largely underlain by the Triassic Wianamatta Group Shales, with portions of both the Hawkesbury Sandstone Subgroup being present. These subgroups are characterised by shale sandstone, conglomerates, tuff, chert and coal (Branagan and Packham 2000). Sandstone outcrops are found within erosional landscapes, primarily along the larger rivers and creeks, usually as steep, blocky scarps flanking the drainage lines.

The landscape are therefore characterised as a plateau incised by streams in various states of development, from shallow gullies, through to steep sided rocky gorges surrounding the Bargo River. The nature of this landscape has a clear effect on how Aboriginal people would have used it in the past, and the kind of archaeological sites that will be present in the different topographic environments. The gentle slopes and hills of the plain, which are generally undifferentiated in terms of topography, may be expected to have been used in a transitory way by Aboriginal people – being visited for resource gathering, and possibly for some longer term camping. The waterways would have been an obvious focus for occupation, providing resources of their own, but also rock shelters which would have been lived in, and used for art and probably non-utilitarian activities.

Adjacent to the Subject Area is The Bargo River with three second order tributaries of the Bargo River entering the Subject Area on the northern boundary. The Nepean River runs to the north east of the Subject Area.

There is three soil landscapes that have been defined as occurring in the Subject Area; Blacktown, Lucas Heights and Hawkesbury (Hazelton and Tille 1990, Murphy and Chapman 1989, Figure 5). Each soil landscape has distinct morphological and topological characteristics. Resulting in the occupational history and archaeological potential varying greatly.

The Blacktown Soil Landscape consists of Ashfield and Bringelly shale lenses. The topography associated with this soil landscape is typified by gently undulating rises, with local relief ranging between 10 and 30 metres (Hazelton and Tille 1990). Gentle slopes predominate (5% - 10%). Crests and ridges within this landscape are broad and rounded with convex upper slopes grading into concave lower slopes and broad drainage depressions and valley flats, with little to no rock outcrops (Hazelton & Tille 1990: 27).

The Lucas Heights Landscape consists of alternating bands of shale and fine grained sandstone within the Mittagong formation. The topography consist of gently undulating plateaus with level inclined slopes (<10%). Rock outcrops are absent in these landscapes.

The Hawkesbury landscape consist of steep, to rolling hills and ridges on Hawkesbury sandstone with slopes >25% and rock outcrops >50%. Narrow crest and valleys have narrow incised valleys and steep



slopes with rock benches. The Hawkesbury sandstone geology consists of medium to coarse grained quartz sandstone with minor shale and laminate lenses (Murphy and Chapman 1989) (Figure 5 and Figure 6).

## **2.4.2 Current environmental context**

### **2.4.2.1 Landforms and hydrology**

The landforms within the Subject Area consist of a ridgeline with a north east facing aspect overlooking the deeply incised Bargo River, a third order drainage line. The south of the Subject Area consists of a gentle rise of a flat hill crest and upper slope facing north overlooking three second order drainage line in the north, north east and north west. These drainage lines all slope to the north towards the Bargo River. The east portion of the Subject Area consists of mid gentle slope down to Remembrance Drive with a gentle rises to the north and north eastern. The north western portion of the Subject area is characterised by a steep rocky cliff face overlooking the deeply incised Bargo River, with sandstone outcrops and overhangs. Landforms such as these, in close proximity to water, are frequently associated with Aboriginal objects and shelters (Figure 7).

The Archaeological investigation that took place within the Subject Area have predicted that the flat hill crest and upper slope in the south and of the Subject Area and areas within 100 m of the three second order drainage lines in the north have the potential to be associated with Aboriginal objects. The steep rocky cliff face overlooking the deeply incised Bargo River has the potential to be associated with occupation shelters.

### **2.4.2.2 Soils**

The three identified soil landscapes within the Subject Area are characterised by their slope and bed rock material. The Blacktown soil landscape has shallow to moderately deep soils (<100cm) on upper slope areas. Soil fertility is generally low with moderate erodibility and have slightly reactive surface movement potential. The Lucas height soils are similarly moderately deep (<100 cm) it consists of loose fine sand grand and therefore, has low fertility with moderate erodibility and slightly reactive surface potential. Hawkesbury soil profiles are shallow (>50 cm) and are generally quartz rich sands with low fertility and low erodibility with a slightly reactive to stable surface movement potential.

The Blacktown and Lucas Heights soil landscape is known to preserve Aboriginal objects in association with hill crests, upper slopes and flats with a good outlooks over and/or associated with drainage lines. This landscape is prone to localised erosion, which may impact the integrity of archaeological deposits. Areas in deep soil have potential to withhold archaeological deposits (Figure 5).

### **2.4.2.3 Climate**

The climate at Bargo consists of mild summers with an average maximum of 29.3 degrees Celsius and minimum of 15.4 degrees Celsius in February, and cold, wet winters with an average minimum of 1.7 degrees Celsius and a maximum of 16.8 degrees Celsius in July (Bureau of Meteorology 2011, based on records taken between 1981-2010).

Recorded rainfall readings indicate an average annual rainfall of 802.7 millimetres (Bureau of Meteorology 2011, based on records taken at Picton between 1880 and 2010). Whilst conditions and temperatures are wide ranging, the conditions in the region of the Subject Area can be summarised as being mild and very suitable for year round hunter-gatherer occupation of all parts of the region.

### **2.4.2.4 Vegetation, ecology and resources**

The eastern part of Lot 12, which contains the existing school has previously been cleared of native vegetation and now contains buildings, concrete pathways and gardens. Lots 2 and 4 are currently primarily

agricultural land (olive plantations). Existing development on these lots comprises several outbuildings. The eastern section with focus on the Bargo River and associated tributaries within lot 12 have remained relatively undisturbed and consist of Red Bloodwood and Grey Gum woodland.

The Wollondilly region includes distinct ecological zones, including open forest and open woodland, with riparian vegetation extending along many of the watercourses, including the Bargo River. Each ecological zone hosts a different array of vegetation and animals, many of which would have been utilised according to seasonal availability. Aboriginal inhabitants of the region would have had access to a wide range of fauna and management of the vegetation would have opened up the landscape allowing ease of access through and between different resource zones.

Plant resources were used in a variety of ways. Fibres were twisted into string, uses of which include the weaving of nets, baskets and fishing lines, as well as personal adornment. Bark was used in the provision of shelter; a large sheet of bark being propped against a stick to form a gunyah (Attenbrow 2010: 90-97).

Barrallier's 1802 descriptions of the Wollondilly River area noted that the Aboriginal people of the area were:

*...mountaineers...exactly the same as at Sydney, Parramatta and Hawkesbury. They have the same customs, the same way of living; their food consists of different species of kangaroos, opossums, squirrels, wild dogs, river and swamp fish and shells, lizard eggs (which they find in the sand on the banks of the rivers at a depth of 1 foot{ca 30cm}), large ant eggs, colo, or monkey (a species of opossum different from the others), wombat, serpents, lizards with red bellies, and other species (Attenbrow 2010: 71).*

The Subject Area supports a number of woodland and open forest plant communities such as *Eucalyptus sclerophylla*, *Corymbia gummifera*, and *Eucalyptus globoidea*. The structure was of an open forest with a shrubby understorey. A canopy of *Corymbia gummifera*, *Eucalyptus globoidea*, *E. sclerophylla*, *E. punctata*, *E. sieberi*, a midstorey of *Allocasuarina littoralis*, *Melaleuca linariifolia* and *Ceratopetalum gummiferum* Woodland. Areas in the eastern portion of the subject area have a high level of disturbance, with larger areas in an advanced state of regrowth. The southern areas supports an Endangered Ecological Community – Shale Sandstone Transitional Forest – which is characterised by remnant and regrown *Eucalyptus fibrosa*, *Eucalyptus punctata*, and *Corymbia gummifera*, and a diverse shrub layer.

No stone sources have been identified in the Subject Area. The proximity to food and resources, as well as common Hawkesbury sandstone outcrops and overhangs for temporary shelter have been considered favourable for Aboriginal occupation. The wider Wollondilly area also generally provides a number of resources used by Aboriginal inhabitants including silcrete, silicified wood, tuff, mudstone, quartz, quartzite and basalt. Suitable pebbles of hard, igneous rock for axes also occur along the Nepean River (JMCHM 2007:17). Silcrete is the most common raw material type used for stone tool making recovered from archaeological sites within the greater Wollondilly area and across the Cumberland Plain and the Cumberland Lowlands, with known sources including the St Marys Formation, Rickabys Creek gravels and terraces along the Nepean River.



**Table 1: Local traditional resources and their occurrence within the Wollondilly area**

Resource	Traditional Uses	Information Reference
Silcrete, silicified wood, tuff, mudstone, quartz, quartzite and basalt	Flaked tools, grindstones, hammerstones, etc.	JMCHM 2007
Red Bloodwood ( <i>Corymbia gummifera</i> )	The sap from this tree can be used for toothache and mouth wash, or used for mixing with paints to stain artefacts and rock art. It is also used to tan fishing ropes and nets.	DEC 2005b
Grey Ironbark ( <i>Eucalyptus paniculata</i> )	The bark is mixed with bloodwood gum to tan fishing nets.	DEC 2005b
Thin-leaved Stringybark ( <i>Eucalyptus globoides</i> )	Bark was removed using various tool types, such as ground edge axes, and was used for a range of purposes such as coolamons, canoes and shields.	DEC 2005b
Yellow stringybark ( <i>Eucalyptus muellerana</i> )	Bark was removed using various tool types, such as ground edge axes, and was used for a range of purposes such as coolamons, canoes and shields.	DEC 2005b
Prickly Leaved Paperbark ( <i>Melaleuca styphelioides</i> )	Bark was removed using various tool types, such as ground edge axes, and was used for a range of purposes such as coolamons, canoes and shields.	DEC 2005b
Banksia ( <i>Banksia</i> sp.)	When in flower, the Aboriginal people would collect the early morning nectar soaked dew in coolamons.	DEC 2005b
Long-necked Turtles ( <i>Chelondin longicollis</i> )	Eggs were collected, cooked and eaten.	DEC 2005b
Goanna ( <i>Varanus varius</i> )	Eggs were collected and eaten. Goanna meat was also cooked and eaten.	DEC 2005b
Ringtail Possum ( <i>Pseudocheirus peregrinus</i> )	Possum meat was cooked and eaten.	DEC 2005b
Wombat ( <i>Vombatus ursinus</i> )	The meat was cooked and eaten, while the fat was rubbed on the skin of newborns to keep them warm.	DEC 2005b

#### 2.4.2.5 Recent land use, disturbance and condition

Past land use can often disturb the integrity or even remove archaeological deposits and Aboriginal objects from the landscape. A study of historical aerial imagery portray past land use within the Subject Area. A summary of the available aerals (Figure 8) is presented in Table 2.

**Table 2: Details of historical aerial photographs.**

Year	Description of Subject Area
<b>1955</b>	The Subject Area appears largely vegetated. The south of the Subject Area (boarding Remembrance Drive) is largely cleared of vegetation with some sparse buildings present and driveways. The rest of the Subject Area is heavily vegetated by woodland. Remembrance Drive is a formed road at this time. The eastern side of Remembrance Dive is mostly cleared and suspected to be fenced into paddocks. One building is in view with some surrounding driveways.
<b>1963</b>	The Subject Area retains a large amount of vegetation, especially in the Eastern third directly adjacent to the Bargo River. The western half of the Subject area has experienced development of larger buildings, paddocks and drive ways. A new drive way has been constructed in the northern segment of the Subject area, which travels outside of the Subject Area boundary in a north eastern direction towards the Bargo River. The eastern side of Remembrance Drive, outside the Subject area remains relatively unchanged.



3000 Remembrance Drive, 1 & 5 Olive Lane, Bargo is currently split into three lots. Lot 12 DP 1122904 consist of undisturbed native open woodlands to the west of the lot with the exception of a dirt road positioned 100 m inset, running parallel to the Bargo River. The centre of lot 12 DP 1122904 has a cleared area for a sports oval, large earth works have taken place in this area to level and build up the flat playing field. The eastern end of lot 12 DP 1122904 has been cleared and developed for Wollondilly Anglican College. It consist of 13 main buildings, asphalt driveway networks and concrete courtyards, playing fields and pathways. A large cleared field is situated in the north east corner of the school with a large dam to the west of this field.

Lot 4 DP 1010127 and lot 2 DP 87785 consist of a series of small olive farms. Majority of the land in these two lots have been cleared of native vegetation for cropped paddocks that have trees alighted in furrows. There are 5 main cropped paddocks with mature trees at different growth stages. A series of sealed driveways separating paddocks, as well as a series of fences. There is a series of four residences situated on the borders of the lot boundaries.

## **2.5 Past Aboriginal Land Use**

### **2.5.1 Ethnography and Regional Character**

A search of the Aboriginal Heritage Information System (AHIMS) was undertaken on 10 October 2018 (AHIMS Client ID#363300). A total of 52 Aboriginal objects or cultural sites were identified within a 9 km by 7 km search area (Figure 9). A search of the State Heritage Register was also completed. No heritage items are located in close proximity to the Subject Area. A detailed description of previous archaeological assessment in the region is provided in Appendix 1.

The Subject Area is located on the traditional country of the Tharawal people. Tindale (1940, 1974) has identified the Tharawal boundaries as being from the south side of Botany Bay to north of the Shoalhaven River, and running inland to the Campbelltown and Camden area (Attenbrow 2010: 34, SA Museum 2010). Attenbrow (2010:35) points out that such boundary mapping, undertaken as it was in the nineteenth century, is indicative at best; however there appears to be reasonably strong agreement between those who have mapped language boundaries that the area is Tharawal country. The Wodi Wodi also spoke the Tharawal dialect, and they inhabited the coastal plains. Tharawal people distinguished themselves as Fresh Water, Bitter Water or Salt Water depending on where in the wider language boundary their traditional lands were – the inland hills and valleys, the plateaus and swamps or the coastal plain respectively (DEC 2005b: 6).

The records and histories of the Tharawal and their country at the time of contact with Europeans are subject to bias and are generally fragmented, providing nothing like a complete picture of the way Aboriginal people were living prior to European contact. Nevertheless, we know the Tharawal regularly communicated, moved, traded and participated in ceremonies between their country and neighbouring areas. It is most likely family groups or clans would 'intermingle and interact along both physical and social boundaries' rather than be strictly confined to the 'tribal' borders that were to be artificially imposed by European anthropologists (Organ 1990: xliii).

It is generally accepted that Aboriginal occupation of Australia dates back at least 40,000 years (Allen and O'Connell 2003). The result of this extensive and continued occupation of the Sydney Basin, of which the Woronora Plateau is a part, has left a vast amount of accumulated depositional evidence. The oldest date generally considered to be reliable for the earliest occupation around the region comes from excavations at Parramatta where archaeological material has been dated to 30,735 ± 407 BP (McDonald et al 2005), while



the site of Bass Point at Shellharbour was occupied from 20,000 years ago, indicating a great antiquity of Aboriginal occupation in the region (Attenbrow 2010: 153, Flood 1995: 112).

Curracurrang 1 in the Royal National Park is the earliest radiocarbon-dated site within the Woronora Plateau with the base of the cultural deposits dated 8,000–9,000 years old (Attenbrow 2012). The majority of reliably dated archaeological sites within the region are less than 5,000 years old, with other excavations in the Woronora Plateau returning dates of just over 2,000 years before present (Sefton 1998 a, 1998b). A combination of reasons has been suggested for this collection of relatively recent dates. There is an argument that an increase in population and ‘intensification’ of much of the continent took place around this time leading to a great deal more evidence being deposited than was deposited as a result of the sparser former occupation period. It is also the case that many archaeological sites along the former coastline may have been submerged as the seas rose to approximately their current level around 6,000 years ago. This would have had the effect of covering evidence of previous coastal occupation. In addition it is also true that the acidic soils that predominate around the Sydney region are not conducive to the long-term survival of sites (Hiscock 2008: 106).

There is currently an absence of dated Aboriginal sites in an open context in the transitional zone between the Cumberland Plain and the Woronora Plateau, leaving a gap in the regional scientific understanding of Pre-European Aboriginal occupation in this area. As a result, any dateable samples obtained from Aboriginal sites outside of rockshelters in the Tahmoor, Thirlmere and Bargo have regional significance as they can provide a chronology of site formation, environmental conditions, technological choices and landscape use. There is also a limited number of subsurface excavations that have been undertaken in the Tahmoor and Thirlmere area.

The arrival of the First Fleet in Sydney Cove in 1788 was followed the next year by a smallpox epidemic, which spread to the neighbouring regions and is believed to have killed over half the Aboriginal population of the areas effected (Organ 1990: 5).

Early in the nineteenth century European graziers began taking land in the south of the Cumberland Plain and the coastal plains around Wollongong, with cedar getting being conducted in the narrower northern coastal plain and rainforest areas of the Illawarra Escarpment (DEC 2005). Cowpastures was opened for settlement in 1822 which made land in the Picton, Appin, Bargo and Tahmoor area into a patchwork of settlement between Camden and the Southern Highlands. The first land grants were small, ranging between 30 and 80 acres with the rear boundaries being either Myrtle Creek or the Bargo River, the recipients being mainly ex-convicts and their families who grew maize, wheat and corn. Tahmoor includes part of a grant of 50 acres to Edward Doyle by Governor Macquarie (Urbis 2016: 22).

Access to traditional and everyday resources (such as water) and clearing the land of trees would have had a major impact on the ways in which Aboriginal people would have been living, and also caused significant social disruption between Aboriginal groups, and pressure between Aboriginal people and the ever increasing European population. This period was a time of drought, and the competition for resources between the Europeans and the Tharawal, who were adapting to the massive changes that were so quickly upon them, led to several years of conflict. Organ (1990) documents the various skirmishes, killings and reprisals between Europeans and the Tharawal during the 1814 – 1815 period in the Cowpastures, Camden and Appin districts. Eventually this sporadic bloodshed would lead to larger scale conflict, with Governor Macquarie implementing a sustained punitive action against the Aboriginal population in the district. This resulted in the Appin Massacre of 17 April 1816, in which Aboriginal people were shot and driven over



steep cliffs (probably near Broughtons Pass) to their death during a surprise attack by a detachment of the 46th Regiment, in the middle of the night.

When Australia federated in 1901 to the exclusion of Aboriginal Australians, it was a continuation of the policy, procedures and behaviours which had existed throughout the 1800s, allowing and/or encouraging the discrimination, oppression, division, and in some cases murder of Aboriginal people. A series of segregationist, assimilative, and integrationist policies, along with statutory bodies such as the NSW Aboriginal Protection Board, continued to monitor and control the everyday reality of Aboriginal life well into the 1960s.

Despite the massive changes that were so quickly brought to the Aboriginal people of the region, they maintained a sense of community, traditional customs and practices, cultural knowledge and continued to care for significant sites and the land in general.

A growing civil rights movement throughout the sixties culminated in the 1967 Referendum, where an overwhelming majority of Australians voted to count Indigenous Australians in the census and include them under the power of the Commonwealth Government (with both positive and negative effects). Although it did not immediately facilitate change, the decision provided a baseline for later federal legislation concerning land rights, discriminatory practices, financial assistance, and preservation of cultural heritage.

Continued civil rights activism throughout the 1970s included landmark events such as the Tent Embassy (1972), Gough Whitlam's 'hand back' of Gurindji land and the Racial Discrimination Act (1975), and the 1976 Aboriginal Land Rights Act (NT). This land rights act was the first national land rights legislation in Australia and the basis for the Aboriginal Land Rights Act 1983 (NSW) which recognised the dispossession and displacement of NSW Aboriginal peoples from their traditional lands. A three tier system of Aboriginal Land Councils (state, regional and local) was set up in NSW under this legislation which continues today, with Local Aboriginal Land Councils (LALCs) now closely interconnected to their local community. Tahmoor Local Aboriginal Land Council manages and delivers a range of support services and continues to work towards Aboriginal self-determination.

Today there are many thousands of Aboriginal people living in the Wollondilly, Camden and Campbelltown Local Government Area. According to the 2016 ABS census, 4.5% of the Tahmoor population identify as Aboriginal or Torres Strait Islanders. Aboriginal people in the region continue to be custodians of the land, whilst traditional owners maintain cultural knowledge (DEC 2005).

### **2.5.2 Aboriginal land use in the Subject Area**

The Subject Area contains a lack of material evidence of past Aboriginal land use, identified through desktop assessment (Section 4, Section 5 and Section 6 in Appendix 1) and a visual inspection. Although, undisturbed land within the Subject Area, western Lot 12 DP 1122904, has the potential for retaining Aboriginal archaeological resources.

A predictive model (Section 7 in Appendix 1) (Section 8, Section 9 and Section 10 in Appendix 1), has been developed, identifying areas for further investigation of low, moderate and high archaeological potential based on landscape, proximity to resources, known travel routes and the level of disturbance. This may be used for future assessments if further development occurs on undisturbed land in the western part of Lot 12 DP 1122904 of the Subject Area.

Results of the above investigation has identified that all land correlating with the proposed activity (Figure 3) is situated within the areas that have been subject to significant disturbance. Human modification of



the soil profile from initial development of the school grounds (eastern area of lot 12 DP 1122904) and farming practices (lot 4 DP 1010127 and lot 2 DP 878585) has added fill and displaced topsoil, diminishing potential of *in situ* archaeological potential.



Drawn by: GT Project Manager: SG Project Number: 4422 Date: 12/09/2018 T:\spatial\projects\4422\Remembrance\Bargo\Map\report\ACHA\4422\_Figure\_5\_Soils.mxd



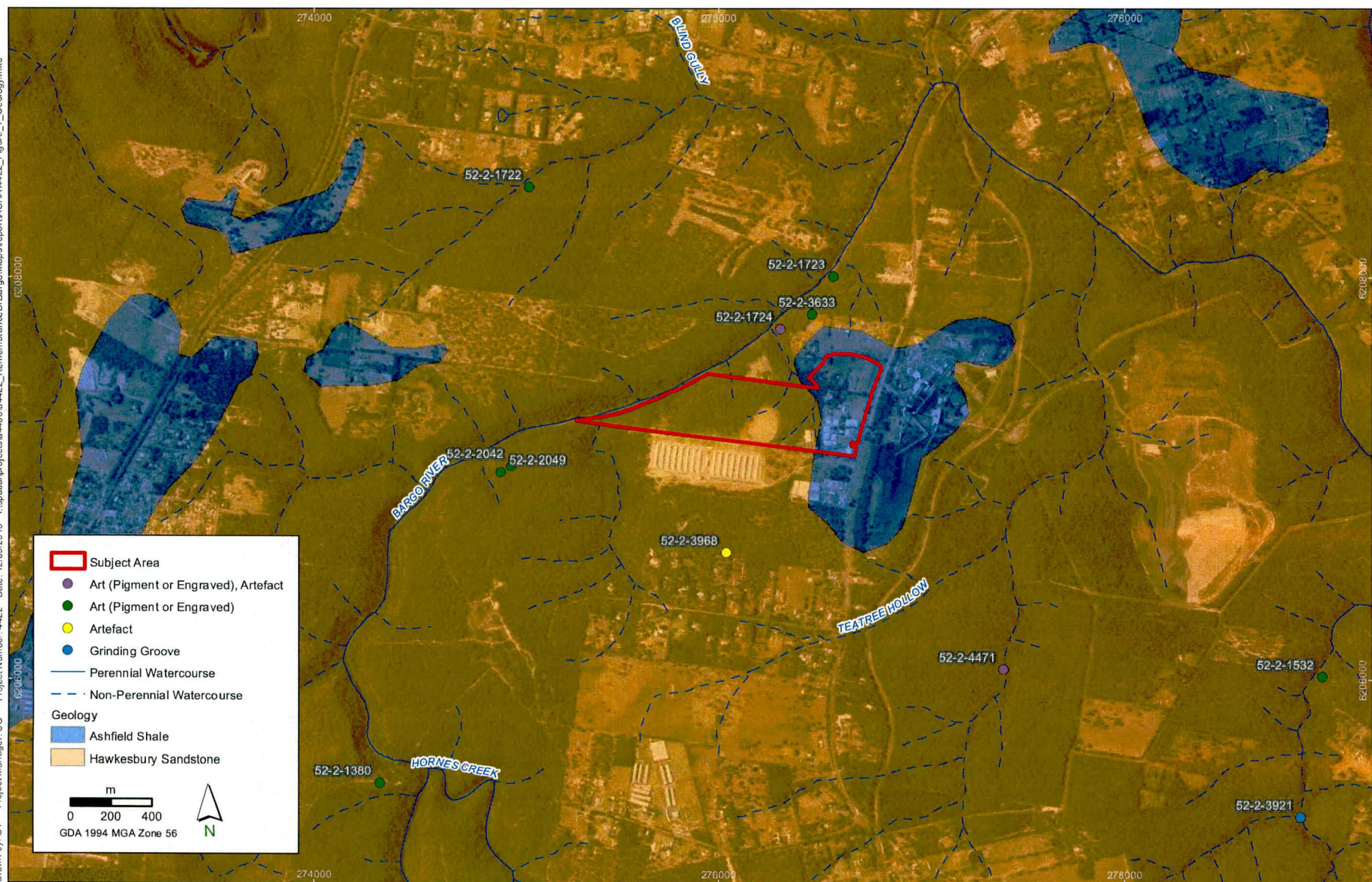
Soil landscapes within a regional context of the Subject Area

3000 Remembrance Driveway, 1 & 5 Olive Lane and part 3 Olive Lane, Bargo - Aboriginal Cultural Heritage Assessment

**FIGURE 5**

Imagery: (c) LPI 2016-11-04





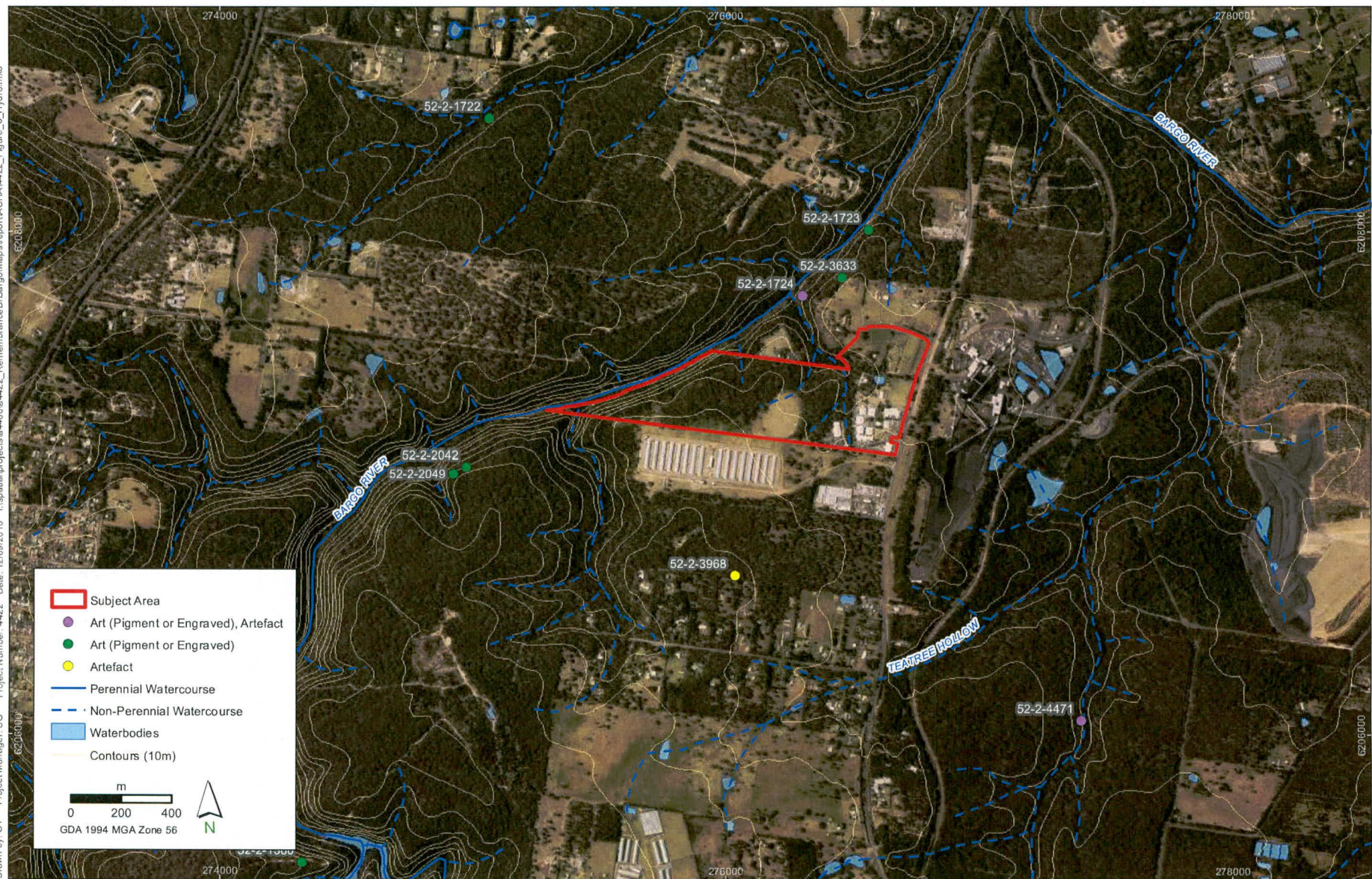
Geology within a regional context of the Subject Area

3000 Remembrance Driveway, 1 & 5 Olive Lane and part 3 Olive Lane, Bargo - Aboriginal Cultural Heritage Assessment

**FIGURE 6**

Imagery: (c) LPI 2016-11-04





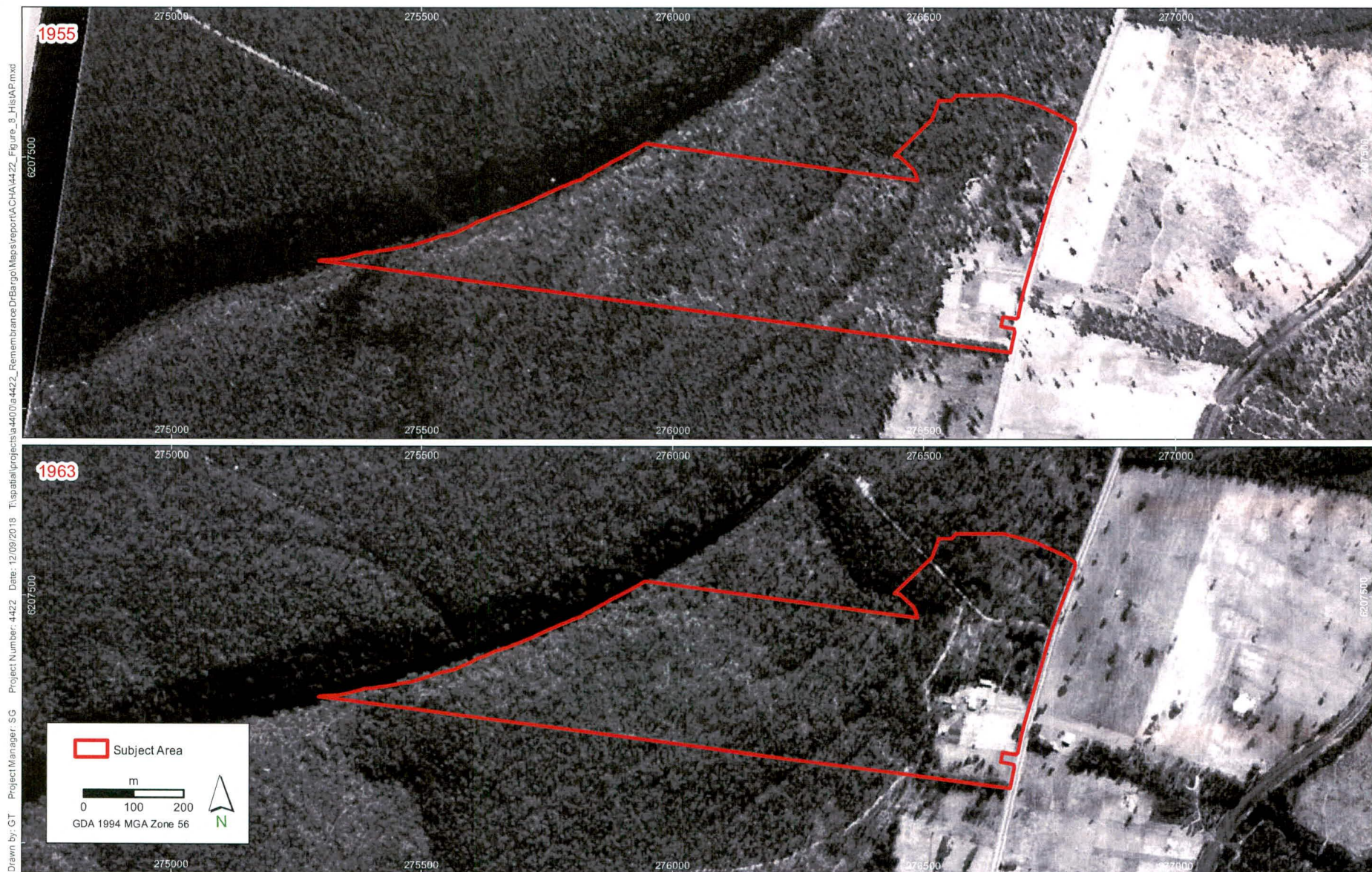
Hydrology within a regional context of the Subject Area

3000 Remembrance Driveway, 1 & 5 Olive Lane and part 3 Olive Lane, Bargo - Aboriginal Cultural Heritage Assessment

**FIGURE 7**

Imagery: (c) LPI 2016-11-04





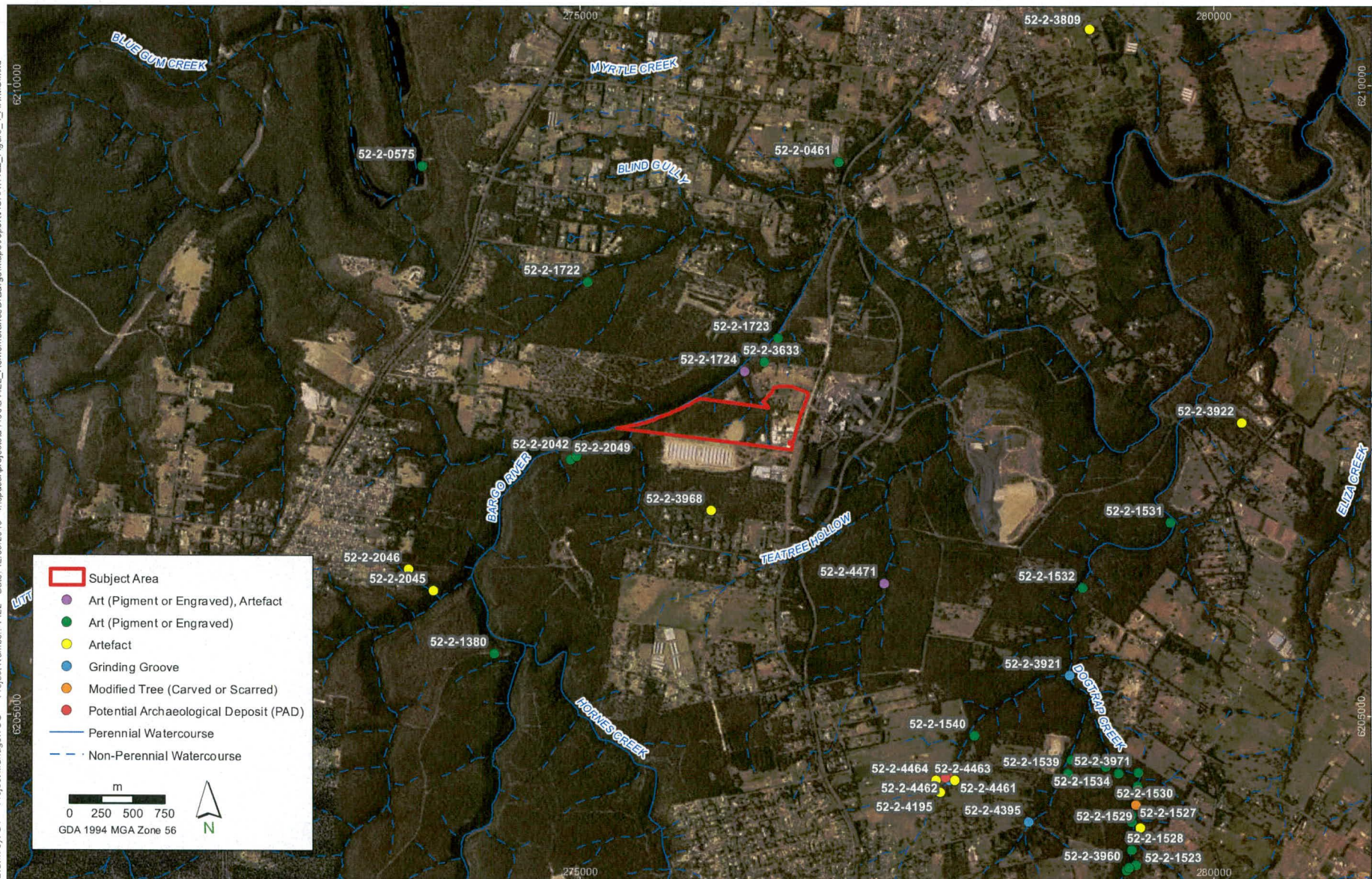
Historical aerial photographs

3000 Remembrance Driveway, 1 & 5 Olive Lane and part 3 Olive Lane, Bargo - Aboriginal Cultural Heritage Assessment

**FIGURE 8**

Imagery: (c) LPI 2016-11-04





Location of AHIMS Sites

3000 Remembrance Driveway, 1 & 5 Olive Lane and part 3 Olive Lane, Bargo - Aboriginal Cultural Heritage Assessment

**FIGURE 9**

Imagery: (c) LPI 2016-11-04



### 3. The Consultation Process

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In administering its statutory functions under Part 6 of the NPW Act, OEH requires that proponents consult with Aboriginal people about the Aboriginal cultural heritage values (cultural significance) of Aboriginal objects and/or places within any given development area, in accordance with Clause 80c of *NSW National Parks and Wildlife Regulation 2009* ('the Regulation').

The OEH maintains that the objective of consultation with Aboriginal communities about the cultural heritage values of Aboriginal objects and places is to ensure that Aboriginal people have the opportunity to improve ACHA outcomes (DECCW 2010a). This is ensured by:

- Providing relevant information about the cultural significance and values of Aboriginal objects and /or places,
- Informing the design of the methodology to assess cultural significance of Aboriginal objects and/or places,
- Actively contributing to the development of cultural heritage management options and recommendations for any Aboriginal objects and/or places within the proposed Subject Area, and
- Commenting on draft assessment reports before they are submitted by the Proponent to the OEH.

Consultation in the form outlined in the Consultation Requirements (DECCW 2010a) is a formal requirement in cases where a proponent is aware that their development activity has the potential to harm Aboriginal objects or places. The OEH also recommends that these requirements be used when the certainty of harm is not yet established but a proponent has, through some formal development mechanism, been required to undertake a cultural heritage assessment to establish the potential harm their proposal may have on Aboriginal objects and/or places.

The Consultation Requirements outline a four stage consultation process that includes detailed step-by-step guidance as to the aim of the stage, how it should proceed, and what actions are necessary for it to be considered successfully completed. The four stages are:

- Stage 1 – Notification of project proposal and registration of interest.
- Stage 2 – Presentation of information about the proposed project.
- Stage 3 – Gathering information about the cultural significance of the project area.
- Stage 4 – Review of the draft Aboriginal Cultural Heritage Assessment report.

The Consultation Requirements also outline the roles and responsibilities of the OEH, Registered Aboriginal Parties (RAPs) including Local and State Aboriginal Land Councils, and proponents throughout the consultation process.

To meet the requirements of consultation it is expected that the Proponent will:

- Bring the RAPs (or their nominated representatives) together and be responsible for ensuring appropriate administration and management of the consultation process.
- Consider the cultural perspectives, views, knowledge and advice of the RAPs involved in the consultation process when they assess cultural significance and work together to develop any heritage management outcomes for Aboriginal object(s) and/or place(s).
- Provide evidence to the OEH of consultation by including information such as cultural perspectives, views, knowledge and advice provided by the RAPs.



- Accurately record and clearly articulate all consultation findings in the final cultural heritage assessment report, and
- Provide copies of their final cultural heritage assessment report to the RAPs who have been consulted.

The consultation process undertaken to seek active involvement from appropriate Aboriginal representatives for the project followed the current NSW statutory guidelines – the Consultation Requirements. Section 1.3 of the Consultation Requirements describes the guiding principles of the document, which have been derived directly from the Principles section of the Australian Heritage Commission’s *Ask First: A guide to respecting Indigenous heritage places and values* (Australian Heritage Commission, 2002). Both documents share the aim of creating a system where advice can be sought from the Aboriginal community.

The following sections outline the process and results of the consultation conducted during this assessment to ascertain and reflect the Aboriginal cultural heritage values of the Subject Area. Further detail in regards to the Aboriginal community consultation process is outlined in Appendix 2.

### 3.1 Stage 1 – Notification of project proposal and registration of interest

Notification was initiated on 27 of August 2018 to all relevant organisations named under Section 4.1.2 of the Consultation Requirements. This is done to identify Aboriginal people who may have cultural knowledge relevant to the subject Area and whom may have an interest in the proposed project. The list of the contacted organisations is provided in Table 3 and a copy of the notification letter is provided in Appendix 2.

**Table 3: List of contacted organisations**

Name of Organisation	Date of notification sent	Date of response received
NTS Corp Limited	27 July 2018	No Response
Wollondilly Shire Council	27 July 2018	No response
NSW Office of Environment and Heritage, Sydney	27 July 2018	9 August 2018
National Native Title Tribunal	7 August 2018	8 August 2018
South East Local Land Services	27 July 2018	No response
Office of the Registrar, Aboriginal Land Rights Act 1983	27 July 2018	16 August 2018
Tharawal Local Aboriginal Land Council	27 July 2018	10 August 2018

In accordance with Section 4.1.3 of the guidelines, a newspaper advertisement was placed in the Campbelltown-Macarthur Advertiser on 15 August 2018 to provide additional opportunity for Aboriginal people who may be interested in the project to come forward. A copy of the advertisement is included in Appendix 2.

A list of potential cultural knowledge holders was compiled from submissions and information collected during the notification and registration periods. This list is presented in Table 4 and a copy of the contact letter is included in Appendix 2.



**Table 4: Potential cultural heritage knowledge holders contacted**

Organisation			
Barking Owl Aboriginal Corporation	Barraby Cultural Services	Butucarbin Aboriginal Corporation	Biamanga
Bilinga Cultural Heritage Technical Services	Cubbitch Barta Native Title Claimants Aboriginal Corporation (CBNTAC)	Cullendulla	D'harawal Mens Aboriginal Corporation
Dharug	Didge Ngunawal Clan	Garrara Aboriginal Corporation	Ginniderra Aboriginal Corporation
Gulaga	Guntawang Aboriginal Resources incorporated	Gunyu Cultural Heritage Technical Services	Kawul Cultural Services
Munyunga Cultural Heritage Technical Services	Murrumbul Cultural Heritage Technical Services	Murramarang	Pheasants Wurrumay Consultancy
Tharawal Local Aboriginal Land Council	Thauaira	Thoorga Nura	Walgula
Wingikara Cultural Heritage Technical Services	Yalay Cultural Services		

As a result of the Stage 1 enquiries, the following organisations and/or individuals have become Registered Aboriginal Parties (RAPs) for this project (see Table 5), and a consultation log of all correspondence is included in Appendix 2.

**Table 5: Registered Aboriginal Parties**

Organisation	Contact Name
Cubbitch Barta Native Title Claimants	Glenda Chalker
Didge Ngunawal Clan	Paul Boyd and Lilly Carroll
Tharawal Local Aboriginal Land Council	Rebecca Jarvis
Cullendulla	Corey Smith
Murramarang	Roxanne Smith
Goobah	Basil Smith
Biamanga	Seli Storer
Yalay Cultural Services	Arika Jones
Barraby Cultural Services	Lee Field
Gulaga	Wendy Smith
Biamanga	Seli Storer
Cullendulla	Corey Smith
Murramarang	Roxanne Smith
Goobah	Basil Smith



### 3.2 Stage 2 Presentation of information about the proposed project

The RAPs were provided with a letter outlining information about the project and a copy of the proposed methodology for the ACHA in accordance with the Consultation Requirements (DECCW, 2010a) and the Code of Practice (DECCW, 2010b). The purpose of the provided documents was to:

- Describe the project, outline the project scope, time frame and proposed works.
- Describe the environment of the Subject Area and information relevant to the ACHA process.
- Provide an opportunity for the RAPs to understand the process and comment on the proposed methodology.
- Set a time frame for providing feedback and comments on the methodology and project information.

The draft methodology was submitted to the RAPs on 30 August 2018 and the closing date for comments was at 5 pm, 27 September 2018. A copy of the cover letter and methodology is included in Appendix 2.

RAPs provided feedback on the proposed methodology within the statutory timeframe. Copies of all submissions made are included in Appendix 2.

### 3.3 Stage 3 – Gathering information about the cultural significance of the Subject Area

Information about cultural heritage significance and other cultural information relating to the Subject Area has been sought throughout the consultation process. Opportunity was provided for all RAPs to express their views and provide information on cultural heritage matters and significance.

Responses are detailed in Table 6, and copies of all submissions made are included in Appendix 2.

**Table 6: Details of RAPs and feedback from Stages 2 and 3**

Registered Aboriginal Party	Stakeholder	Comment made	Response from Niche
Barraby Cultural Services, Lee Field		Barraby Cultural Services supports the methodology for this project.	Thank you for your response.
Yurrandaali Cultural Services, Bo Field		Yurrandaali Cultural Services supports the methodology for this project.	Thank you for your response.

### 3.4 Stage 4 – Review of draft cultural heritage assessment report

A draft of this report was provided to the RAPs for their review and comment on 11 December 2018 in accordance with the consultation requirements (DECCW 2010a). A minimum of 28 days was provided to each of the RAPs with a request for comments to be provided by 16 January 2019.

As of 16 January 2019 the following written submissions on the draft ACHA had been received from RAPs in accordance with the consultation requirements (DECCW 2010a):

- Mrs Glenda Chalker- Cubbitch Barta Native Title Claimants.

Copies of the submissions are included in this report in Appendix 2. Responses to each submission are provided below in Table 7.



**Table 7: Verbal comment made by RAPs in regards to the draft ACHA**

Representative Group	Comment	Niche Response
Cubbitch Barta Native Title Claimants	<p>Thank you for the opportunity of participating and commenting on this proposed project.</p> <p>I agree with the recommendations that have been made in the ACHAR, particularly if any earthworks or construction takes place within the moderate to high sensitive areas anytime in the future. Even if this happens five or ten years, or more in the future, it will require further assessment.</p> <p>Yours faithfully,</p> <p>Glenda Chalker</p>	<p>Thank you for your comments Glenda.</p> <p>Kind Regards.</p>



## 4. Summary and Analysis of Background Information

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Niche has carried out a desktop assessment and a site inspection of the Subject Area to assess the potential for any Aboriginal archaeological resource that might exist within its boundaries (Appendix 1) and undertaken consultation with RAPs to understand its cultural heritage significance (Section 3).

The investigation has identified areas of archaeological potential within the western part of Lot 12 DP 1122904 of the Subject Area (Figure 4):

- Areas of moderate archaeological sensitivity with proximity to tributaries and upper slopes with no disturbance.
- Areas of high archaeological sensitivity with focal points of ridgelines, tributaries and ridgeline flats with no disturbance.

The RAPs have contributed to the project by providing feedback on the archaeological potential of the landscape and methods of investigation. This feedback was incorporated into the investigation and resulted in the identification of the areas of high, moderate and low archaeological sensitivity.

The results of the investigation sit comfortably within previously suggested models of past Aboriginal land use for the Cumberland Plain/Cumberland Lowlands and the Woronora Plateau, with some distinct local characteristics. The general observation that larger sites containing stone artefacts (these are interpreted to be representative of more intensive or more repeated use of particular areas by Aboriginal people in the past) are only found in close proximity to drainage lines with good lookouts over the landscape is supported by the results of this assessment (White and McDonald 2010, RPS in prep).

There is a general information gap in the Wollondilly region regarding the chronology of Aboriginal occupation in the lowlands. This is predominately due to the shallow nature of soils and their ability to preserve dating samples, however where they are present they are valuable.

In summary, these areas identified above may provide research opportunity to study technology, the use of resources and the interconnectedness of Aboriginal sites in an important transitional environment between the Woronora Plateau and the Cumberland Plain within the wider regional area of the Sydney Basin.



## 5. Cultural Heritage Values and Statement of Significance

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### 5.1 Methods of assessing heritage significance

Heritage significance is assessed by considering each cultural or archaeological site against the significance criteria set out in the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH, 2011).

Niche recognises that Aboriginal people are the determinants of the cultural significance of their heritage. If any culturally sensitive values of the Subject area were identified, their specifics would not be included in this report, or made publically available, but would be documented and lodged with the knowledge holder providing the information.

### 5.2 Assessment framework

The Burra Charter (Australian ICOMOS, 1999) defines the basic principles and procedures to be observed in the conservation of important places. It provides the primary framework, within which decisions about the management of heritage sites in Australia should be made. The Burra Charter defines the cultural significance as being derived from the values listed below (Section 5.3.1 to 5.3.4).

### 5.3 Identifying values

The information collected during the background review of the project can be used to help identify social, historical, scientific and aesthetic values. The review of background information and knowledge gained through consultation with Aboriginal people should provide insight into past events. These include how the landscape was used and why the identified Aboriginal objects are in this location, along with contemporary uses of the land.

Information gaps are not uncommon and should be acknowledged. They may require further investigation to adequately identify the values present across the Subject Area. It may be helpful to prepare a preliminary value map that identifies, to the extent of information available, information such as:

- Known places of social, spiritual and/or cultural value including natural resources of significance.
- Known historic places.
- Known Aboriginal objects and/or declared Aboriginal places.
- Potential places/areas of social, spiritual and/or cultural value including natural resources, or places of historic or archaeological significance.

Places of potential value that are not fully identified or defined should be included as 'sensitive' areas to target further investigation.

#### 5.3.1 Social or cultural value

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

Places of social or cultural value have associations with contemporary community identity. These places can have associations with tragic or warmly remembered experiences, periods or events. Communities and individuals can experience a sense of loss should a place of social or cultural value be damaged or destroyed.



There is not always consensus about a place's social or cultural value. When identifying values it is not necessary to agree with or acknowledge the validity of each other's values, but it is necessary to document the range of values being identified.

Social or cultural value can only be identified through consultation with Aboriginal people. This could involve a range of methodologies such as cultural mapping, oral histories, archival documentation and/or specific information provided by Aboriginal people specifically for the investigation.

When recording oral history:

- Identify who was interviewed and why.
- Document the time, place and date the interview was conducted.
- Describe the interview arrangements (the number of people present, recording arrangements, information access arrangements).
- Summarise the information provided by each person interviewed.
- Provide a summary of the information provided to the person being interviewed.

More information on conducting oral history projects can be found in the OEH publication *Talking history: oral history guidelines* (Veale, 2004).

Occasionally information about social value may not be forthcoming. In these circumstances, document the consultation process but make it clear, in discussions and conclusions about social value, that this was the case.

### 5.3.2 Historic value

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

Places of post-contact Aboriginal history have generally been poorly recognised in investigations of Aboriginal heritage. Consequently the Aboriginal involvement and contribution to important regional historic themes is often missing from accepted historical narratives. This means it is often necessary to collect oral histories along with archival or documentary research to gain a sufficient understanding of the historic values.

### 5.3.3 Scientific (archaeological) value

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

Information about scientific values is gathered through any archaeological investigation undertaken. Archaeological investigations must be carried out according to OEH's Code of Practice (DECCW, 2010b).

### 5.3.4 Aesthetic value

This refers to the sensory, scenic, architectural and creative aspects of the place, area, structure or object. It is often closely linked with the social values. It may consider form, scale, colour, texture and material of the fabric or landscape, and the smell and sounds associated with the place and its use (Australia ICOMOS, 1988).



## 5.4 Assessing values and significance

This stage is used to assess and discuss the cultural significance of the values recorded during the identification and assessment of cultural significance by the Aboriginal people consulted, and to prepare a statement of significance. The assessment of values is a discussion of what is significant and why. An assessment of values is more than simply restating the evidence collected during the background review and identification of value across each stage of the project. Rather, the assessment should lead to a statement of significance that sets out a succinct summary of the salient values that have been identified.

The assessment and justification in the statement of significance must discuss whether any value meets the following criteria (NSW Heritage Office, 2001):

- Does the Subject Area have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons? [Social value]
- Is the Subject Area important to the cultural or natural history of the local area and/or region and/or state? [Historic value]
- Does the Subject Area have potential to yield information that would contribute to an understanding of the cultural or natural history of the local area and/or region and/or state? [Scientific/Archaeological value]
- Is the Subject Area important in demonstrating aesthetic characteristics in the local area and/or region and/or state? [Aesthetic value]

Assessment of each of the criteria listed above should be graded in terms that allow the significance to be described and compared; for example, as high, moderate or low. In applying these criteria, consideration should also be given to:

- Research potential – Does the evidence suggest any potential to contribute to an understanding of the area and/or region and/or state natural and cultural history?
- Representativeness – How much variability (outside and/or inside the subject area) exists, what is already conserved, and how much connectivity is there?
- Rarity – Is the subject area important in demonstrating a distinctive way of life, custom, process, land-use, function or design no longer practiced? Is it in danger of being lost or of exceptional interest?
- Educational potential – Does the Subject Area contain teaching sites or sites that may have teaching potential?

Then discuss what is significant and why (summarised into a statement of significance). The statement of significance is therefore a succinct summary of the salient values drawn from the identification and assessment of each value criteria. The statements for the valuation of these criteria is provided in the Archaeological Report in Appendix 1.



## 5.5 Identified values of the subject area

Table 8 outlines the identified values for the Subject Area.

**Table 8: Identified values of the Subject Area**

Subject Area details	The nearest water source to the Subject Area is the Bargo River, which is one of the largest and most significant waterways within the local region. Aboriginal people would have used this water course for gathering resources, occupation and spiritual activities. This is evident from the number of recorded sites along the water's edge.
Social or cultural values	The Subject Area has a moderate social and cultural value. The Subject Area abuts the Bargo River, part of a system of waterways that feed into the Nepean River. Aboriginal people would have used this water course extensively for gathering resources, occupation and spiritual activities. The waterways of the Nepean and Bargo Rivers would have had a strong cultural connection to Aboriginal people due to the everyday focus of life that surrounds them.
Historic value	The Subject Area has a moderate historic value as it is associated with the Bargo River which has been extensively surveyed in the modern day. There are no historical records relating to Aboriginal occupation or specific Aboriginal people at 3000 Remembrance Drive, 1 & 5 Olive Lane. However, multiple Aboriginal sites are located along the River banks of varying significance. This waterway would have been used extensively by Aboriginal people in the past giving it great cultural connection and meaning to Aboriginal people in the present day.
Scientific (Archaeological) value	<p>The proposed activity is within an area of significant disturbance. It is unlikely that <i>in situ</i> Aboriginal objects would be present, therefore scientific value would be regarded as low. Undisturbed areas of the Subject Area are considered to have the potential to contain Aboriginal objects preserved in a subsurface context (buried) as the Subject Area has areas of relatively intact soil profiles.</p> <p>The Bargo River is known as an area where Aboriginal people were utilising rock shelters and created rock art, whereas the Aboriginal people of the Cumberland Plain were camping in the open. Where charcoal is preserved there is the potential to connect these technological choices to a specific period of time. Specific artefacts in assemblages (volcanic artefacts) have the ability to demonstrate interconnectedness of Aboriginal people in the Sydney Basin through trade routes for sourcing volcanic stone. Further development of the Subject Area will require further investigation of the <i>in situ</i> potential of undisturbed soils.</p>
Aesthetic value	The proposed activity is located adjacent to Remembrance Drive and has historically been utilised as a semi-rural area. Aesthetic values would not be further harmed from the proposed development. The Subject Area as a whole, has a moderate aesthetic value as it is associated with the Bargo River which is a deeply incised and is an outstanding feature within the landscape. The nature and integrity of the landscape is closely related to the spiritual and cultural values of the creek line.



## 6. The Proposed Activity

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### 6.1 History of the Subject Area

The Subject Area is located within the traditional land of the Tharawal-speaking people. Since the arrival of non-indigenous people the area has been cleared of most native vegetation, a number of modern and historic houses are visible in the surrounding area and form the historical town of Bargo. Details of recent land use and conditions is provided in Section 2.4.2.5.

The 38 Ha properties at 3000 Remembrance Drive, 1 and 5 Olive Lane, Bargo will be developed into additional alternative access (entry) into the college, a gymnasium and performing arts block, eternal sporting facilities including a playing field (and associated spectator stand, amenities and equipment store), other courts used for various sporting activities, and a college access road, car parks and a school bus shelter.

Ultimately, the proposed works will involve the construction of roads, infrastructure and buildings. This work will necessarily involve the excavation and relocation of varying amounts of topsoil, the infill of an existing dam and the removal and compensatory planting of some trees.

Within the proposed development plans (Figure 3) no harm will come to Aboriginal objects.

### 6.1 Likely impacted values

The proposed activity would not result in any loss of value.

### 6.2 Consideration of cumulative impacts

Cumulative impacts are the successive, incremental and combined impacts of one or more activities on the environment, including cultural heritage values. Taken in context with pre-existing development and conservation in the region, the proposed activities will have a continuing impact on the cultural heritage values of the region. The proposed activity will not have any direct impact on Aboriginal objects. The potential of *in situ* archaeological objects is diminished by substantial disturbance to the soil profile from previous development and farming, therefore it is unlikely that there are any Aboriginal objects to be impacted by the proposed activity.

### 6.3 Project justification

The development falls within the Bargo Growth Area proposed by the Wollondilly Shire Council. It is predicted that the LGA will require an additional 2000 dwellings over the coming years and the Council has set a target of an additional 4000 dwellings (Wollondilly Shire Council 2011). The Development of the Wollondilly Anglican College will provide education from preparatory through infants, primary and secondary for a growing community.



## 7. Avoiding and Minimising Harm

### 7.1 Management Strategies and Framework

The two founding principles behind the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011a:12) are ecologically sustainable development and intergenerational equity. These principles hold that “the present generation should make every effort to ensure the health, diversity and productivity of the environment – which includes cultural heritage – is available for the benefit of future generations”.

The strong emphasis, as in the Burra Charter, is to quantify and understand the heritage values of a place, a site, or an object and exhaust avenues of avoiding harm to those values. If harm cannot be avoided then there must be consideration and implementation of strategies to minimise harm (OEH 2011a:13).

It follows that the hierarchy for consideration in regards to management strategies available for Aboriginal objects and areas of archaeological potential, fall into four general categories, in order of preference from a conservation perspective:

- avoidance and *in-situ* conservation;
- partial avoidance and partial *in-situ* conservation (includes partial harm);
- harm caused with mitigating circumstances such as collection or salvage; and
- unmitigated harm.

The four general categories (described above) have been considered in the following subsections with regard to both direct impacts (e.g. surface disturbance) and indirect impacts (e.g. increased traffic, erosion).

As identified during the site inspection of the Subject Area, no Aboriginal objects were located within the proposed development footprint, eastern part of Lot 12 DP1122904, Lot 4 DP1010127 and Lot 2 DP877585 (Figure 3). The proposed development will involve the construction of roadways and buildings and the incorporation of services, and landscaping. This work would involve the excavation and relocation of varying amounts of topsoil. In its current layout, the proposed activity is unlikely to cause harm to any subsurface unaccounted Aboriginal objects within the Subject Area as the area of the proposed development has previously been disturbed by the original construction of the school and farming practises.

Any unplanned works within the western part of Lot 12 DP1122904 would likely impact areas of Archaeological Potential (Figure 4) and would require a test excavation to further assess the cultural heritage values. If Aboriginal objects are found, an Aboriginal Heritage Impact Permit (AHIP) would be required for the harm or destruction of said objects within the Subject Area.

#### Avoidance and in-situ conservation

The proponent has planned to contain the proposed activity to eastern part of Lot 12 DP1122904, Lot 4 DP1010127 and Lot 2 DP877585 (Figure 3) that has previously been disturbed to avoid likelihood of uncovering naturally intact soil profiles that hold heightened archaeological potential (Figure 4). This area is not to be utilised by the proposed activity. Future development of western part Lot 12 DP112290 will require further investigation.



## Avoidance and Partial Conservation

Eastern part of Lot 12 DP1122904, Lot 4 DP1010127 and Lot 2 DP877585 will be effected by the proposed development (Figure 3) and has been subject to significant soil disturbance from previous development, therefore archaeological potential has been diminished. The proposed activity can go ahead without impacting Aboriginal objects or cultural heritage.

The western proportion of Lot 12 DP1122904 holds undisturbed soil profiles and riparian landscapes which have a scientific value with the potential of *in situ* Aboriginal objects that may hold valuable information regarding lifestyle of Aboriginal people in a transitional zone in which people were known for utilising rock shelters for art and occupation and the Cumberland Plain were people where utilising open camp sites. Preservation of this landscape would reduce the cumulative impacts to Aboriginal cultural heritage in an area that is likely to become impacted by urban growth. Such preservation would have a positive conservation outcome for the local area.

The proponent should avoid areas of heightened archaeological potential within the western proportion of Lot 12 DP1122904.

## 7.2 Consideration of ecologically sustainable development

Section 5(vii) of the *Environmental Planning and Assessment Act 1979* requires proponents to consider the key principles of Ecologically Sustainable Development (ESD) in the design of their projects. The principles of ESD are defined within the Protection of the Environment Administration Act 1991. This Act defines the precautionary principle and the principles of inter-generational equity, conservation of biological diversity and ecological integrity. The precautionary principle is defined as:

*"If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation".*

Australia's National Strategy for Ecologically Sustainable Development (1992) defines ecologically sustainable development as: 'using, conserving and enhancing the communities' resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased.' Aboriginal heritage programs which seek to address indigenous concerns in relation to the land, heritage, economic and cultural development include the Commonwealth Indigenous Protected Areas Initiative, Land Acquisition and Maintenance, and Heritage Protection Programs; the Victorian Aboriginal Capital Projects and Aboriginal Cultural Heritage Programs; and the South Australian Aboriginal Tourism Strategy.' (Australian Government 1992: Chapter 22).

Table 9 considers the key principles of ESD with respect to the results of the literature review, Aboriginal heritage survey results and significance assessment contained within the ACHA.

**Table 9: Assessment of ESD**

Principles of the EIA and ESD Guidelines	ESD Assessment
A fundamental consideration for conservation of biological diversity and ecological integrity	The Proponent has undertaken an ACHA including a site inspection in consultation with the RAPs and determined that there are no Aboriginal objects present within the Subject Area.
Careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment	The proposed activity would not result in damage to the cultural heritage environments as there is no evidence of existing



Principles of the EIA and ESD Guidelines	ESD Assessment
Consideration of intergenerational equity	cultural heritage within the area of development. It is noted that the RAPs have not identified a spiritual or ceremonial aspect to the Subject Area .The proposed mitigation measures, including this assessment, and site visit, would provide sufficient assessment for development of the land.
Where risk of serious or irreversible harm and lack of scientific knowledge of the nature of environmental harm combine, the precautionary principle applies. Where there is risk of serious or irreversible harm, it is necessary to establish whether there is adequate scientific knowledge of the subject to evaluate the perceived threat.	The precautionary principle does not apply in this case as there is adequate scientific knowledge gained through assessment. This assessment has involved a desktop literary review, a survey and consultation with the RAPs to adequately characterise both the surface likelihood and significance of Aboriginal objects in the Subject Area.
An assessment of the risk-weighted consequences of various options	A consideration of harm and mitigation is provided above in Section 7.1 and Section 7.2. Avoidance is always preferred, however given that there are other similar landscapes within the Bargo area and the overall growth strategy for the Wollondilly Shire, mitigation of harm is considered sufficient if avoidance is not possible.



## 8. Recommendations

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The Anglican Schools Corporation is applying to rezone 3000 Remembrance Drive, 1, 5 & part 3 Olive Lane, Bargo, NSW under Part 4 of the *Environmental Planning and Assessment Act 1979*. The ACHA was carried out in accordance with the Code of Practice (DECCW, 2010b) and the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH, 2011). It included consultation with Registered Aboriginal Parties in accordance with the Consultation Requirements (DECCW, 2010a) (details of which are in Appendices 1 and 2).

This assessment concluded that no harm will come to any Aboriginal objects. The proposed activity will only effect previously cleared and disturbed soil profiles from farming (Lot 4 DP1010127 and Lot 2 DP877585) and the initial development of the current school grounds (western segment of lot 12 DP 1122804). The disturbance of this area has diminished any potential for *in situ* Aboriginal Objects. The proposed activity can go ahead without harm to Aboriginal objects or places.

The eastern part of Lot 12 DP1122904, Lot 4 DP1010127 and Lot 2 DP877585 were found to hold low scientific value due to the significant disturbance. However the western portion of Lot 12 DP1122904 have remained undisturbed and are likely to hold evidence of Aboriginal occupation (Figure 4). Undisturbed soil profiles may hold archeological potential and evidence of the lifestyle of Aboriginal people in the transitional landscape between the Woronora Plateau Cumberland Plain. Any future development to west portion of Lot 12 DP1122904 will require further investigation of the areas of archaeological potential and an impact assessment.

It is therefore recommended that:

### **Recommendation 1: Avoidance of undisturbed areas**

The proposed activity is unlikely to harm any Aboriginal objects. The level of disturbance leaves diminished archaeological potential within eastern part of Lot 12 DP1122904, Lot 4 DP1010127 and Lot 2 DP877585 (Figure 3 and Figure 4). Any future development in the western part of Lot 12 DP1122904 will require further assessment of archaeological potential of the soil profile (Figure 3 and Figure 4).

### **Recommendation 2: Human remains- Stop work provision**

In the event that suspected human remains are encountered during construction, all work in the area that may cause further impact, must cease immediately.

- The location, including a 20 m curtilage, should be secured using barrier fencing to avoid further harm.
- The NSW Police must be contacted immediately.
- No further action is to be undertaken until the NSW Police provide written notification to the Department of Justice.

If the skeletal remains are identified as Aboriginal, Precise Planning, Common Grounds or their agent must contact:

- the OEH or Enviroline on 131 555; and,
- representatives of the Registered Aboriginal Parties.

No works are to continue until the OEH provides written notification to The Anglican Schools Corporation or their Agent.



**Recommendation 3: Unexpected finds in areas of disturbance and low archaeological potential - Stop work provision**

In the unlikely event that Aboriginal objects are identified within the areas of disturbance and low archaeological potential, work should stop and The Anglican Schools Corporation or their agent must contact:

- the OEH or the Enviroline on 131 555.



## References

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## Appendix 1: Archaeological Report

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