

Alex Avenue Public School, Schofields: Aboriginal cultural heritage assessment report

FINAL REPORT Prepared for Schools Infrastructure NSW 14 May 2019



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Glossary

ACHA	Aboriginal Cultural Heritage Assessment
AHIP	Aboriginal Heritage Impact Permit
AHIMS	Aboriginal Heritage Information Management System
AR	Archaeological report
CBD	Central business district
Consultation Requirements	Aboriginal cultural heritage consultation requirements for proponents (DECCW 2010a)
DECCW	Department of Environment, Climate Change and Water (now OEH)
DP	Deposited Plan
EP&A Act	Environmental Planning and Assessment Act 1979
ICOMOS	International Council on Monuments and Sites
LALC	Local Aboriginal Land Council
NNTT	National Native Title Tribunal
NPW Act	National Parks and Wildlife Act 1974
NPWS	National Parks and Wildlife Service
NSW	New South Wales
OEH	NSW Office of Environment and Heritage
PAD	Potential archaeological deposit
RAPs	Registered Aboriginal Parties
SEARs	Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
SSD	State Significant Development
The Code	Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW 2010b)



Summary

Biosis Pty Ltd was commissioned by to undertake an Aboriginal cultural heritage assessment (ACHA) of the proposed the Alex Avenue Public School development at 34-38 Schofields Road, Schofields New South Wales (NSW) (the study area). The study area encompasses part of Lot 4 DP 1208329 and part of Lot 121 DP 1203646 and is located approximately 4.3 kilometres west of Rouse Hill and approximately 35.6 kilometres north-west of the Sydney central business district (CBD).

There are 94 Aboriginal cultural heritage sites registered with the Aboriginal Heritage Information Management System (AHIMS) register within vicinity of the study area.

The proposed development will be assessed as a State Significant Development (SSD) under Section 89(c) of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and Schedule 1 of the State Environmental Planning Policy (SEPP) (State and Regional Development) 2011(SSD 9368), under delegation from the Minister of Planning. In accordance with requirement 10 of the Secretary's Environmental Assessment Requirements (SEARs) issued for this development (22 June 2018, and updated on 2 October 2018 and 30 January 2019); an assessment of Aboriginal cultural heritage is required in order to assess any potential impacts to Aboriginal cultural heritage the project may have.

The western portion of the study area has been subject to previous assessment and was included within Aboriginal Heritage Impact Permit (AHIP) C000550, issued to Landcom, trading as UrbanGrowth NSW, and commencing on 11 September 2014. The AHIP is for a period of five years, and is due to expire on 11 September 2019. There are no sites listed on the AHIP or in AHIMS which are located within the study area.

Consultation

The Aboriginal community was consulted regarding the heritage management of the project throughout its lifespan. Consultation has been undertaken as per the process outlined in the DECCW document, *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010a) (consultation requirements). The appropriate government bodies were notified and advertisements placed in the *Rouse Hill Times* newspaper (10 October 2018 and 28 November 2018), which resulted in the following Aboriginal organisations registering their interest (Table 1):

Organisation	Contact person
Aboriginal Archaeology Service	Andrew Williams
Barking Owl Aboriginal Corporation	Jody Kulakowski
Butucarbin Aboriginal Corporation	Jennifer Beale
Darug Aboriginal Land Care	Des Dyer
Darug Boorooberongal Elders Aboriginal Corporation	Gordon Workman
Darug Land Observations	Jamie and Anna Workman
Darug Tribal Aboriginal Corporation	Dirk Schmitt

Table 1 List of registered Aboriginal parties and group contact



Organisation	Contact person	
Deerubbin Local Aboriginal Land Council	Steven Randall	
Didge Ngunawal Clan	Lillie Carroll and Paul Boyd	
Kamilaroi Yankuntjatjara Working Group	Phil Khan	
Merrigarn Indigenous Corporation	Shaun Carroll	
Muragadi	Jessie	
Murra Bidgee Mullangari Aboriginal Corporation	Darleen Johnson	

A search conducted by the Office of the Registrar, *Aboriginal Land Rights Act 1983* listed no Aboriginal Owners with land within the study area. A search conducted by the National Native Title Tribunal (NNTT) listed no Registered Native Title Claims, Unregistered Claimant Applications or Registered Indigenous Land Use Agreements within the study area.

Upon registration, the Aboriginal parties were invited to provide their knowledge on the study area and on the proposal provided in the project information and methodology documents in the Stage 3 consultation documentation. The responses did not provide any information on the cultural significance of the study area. Responses from the Registered Aboriginal Parties (RAPs) are included in Appendix 3.

Site officers from elected RAPs participated in the field survey and did not provide comment on the study area with regard to the proposal.

The outcome of the consultation process was that the RAPs considered the study area to have a moderate level of cultural significance, although that significance was not clearly defined and specific examples were not provided. The results of the consultation process are included in this document.

The recommendations that resulted from the consultation process are provided below.

Results

The ACHA undertook background research for the proposed study area. Key considerations arising from the background research include:

- The registered AHIMS sites in the vicinity of the study area are either isolated artefacts or artefact scatters.
- Sites have been primarily focused adjacent to higher order creeks and slopes with sporadic sites occurring on elevated areas.

Biosis undertook a field survey which identified one Aboriginal heritage site within the study area, an area of potential archaeological deposit (PAD) (Table 2). Alex Avenue PS PAD 1 consists of a crest and ridgeline through the northern part of the study area, continuing south into the simple slope. The presence of third and first order streams to the south and north suggest that this portion of the study area could have been a suitable location for a temporary camp site associated with resource gathering. Test excavations were conducted within the area of moderate archaeological potential between 18 and 26 February 2019. A total of 31 test pits were excavated as part of the test excavations and a total of three artefacts were recovered. The test excavations resulted in the identification of two new Aboriginal sites, Alex Avenue PS 01 (AHIMS site no. 45-5-5218) and Alex Avenue PS 02 (AHIMS site no. 45-5-5219).



Site name	Site type	Significance	Type of harm before mitigated	Consequence of unmitigated harm	Consequence of mitigated harm	Site specific recommendations
Alex Avenue PS 01 (AHIMS site no. 45- 5-5218)	Artefact	Low	Direct	Total loss of value	Impact cannot be avoided	No further archaeological works required; establish Care and Control agreement
Alex Avenue PS 02 (AHIMS site no. 45- 5-5219)	lsolated artefact	Low	Direct	Total loss of value	Impact cannot be avoided	No further archaeological works required; establish Care and Control agreement

Table 2 Site details

Management recommendations

Prior to any development impacts occurring within the study area, the following is recommended:

Recommendation 1: Conditions of AHIP C000550

Although SSD projects are not required to comply with Part 6 of the *National Parks and Wildlife Act 1974* (NPW Act), the Office of Environment and Heritage (OEH) advises that conditions of valid AHIPs are followed by SSDs in order to reduce the risk of impacting Aboriginal heritage values.

OEH also advises that the holder of the AHIP should be contacted to confirm the works that are intended on the area covered by the AHIP.

Recommendation 2: No further archaeological works required for Alex Avenue PS 01 and Alex Avenue PS 02

It is recommended that no further archaeological works are required for Alex Avenue PS 01 and Alex Avenue PS 02 prior to development impacts.

Recommendation 3: Preparation and lodgement of AHIMS site cards for Alex Avenue PS 01 and Alex Avenue PS 02

It is recommended that AHIMS site cards are prepared and lodged with AHIMS for newly identified sites Alex Avenue PS 01 and Alex Avenue PS 02, and that the site numbers are included in the final version of this report.

Following development impacts it will be necessary to update these AHIMS records with AHIMS site impact recording forms for Aboriginal sites Alex Avenue PS 01 and Alex Avenue PS 02. This should occur within four months following completion of development impacts or as otherwise stated in SSD approval conditions.

Recommendation 4: Long term care and control of artefacts

In consultation with TSA Management on behalf of School Infrastructure NSW (SINSW), it has been determined that there are a number of areas within the study area which will not be subject to development or landscaping as part of the proposed works and will be maintained as a natural ground areas in the south-



eastern portion of the study area. It is proposed that the artefacts will be reburied on site somewhere within this location.

Recommendation 5: Discovery of unanticipated heritage items

Aboriginal objects

All Aboriginal objects and Places are protected under the NPW Act. It is an offence to knowingly disturb an Aboriginal site without a consent permit issued by the OEH. Should any Aboriginal objects be encountered during works associated with this proposal, works must cease in the vicinity and the find should not be moved until assessed by a qualified archaeologist. If the find is determined to be an Aboriginal object the archaeologist will provide further recommendations. These may include notifying the OEH and Aboriginal stakeholders.

Aboriginal ancestral remains

Aboriginal ancestral remains may be found in a variety of landscapes in NSW, including middens and sandy or soft sedimentary soils. If any suspected human remains are discovered during any activity you must:

- 1. immediately cease all work at that location and not further move or disturb the remains
- 2. notify the NSW Police and OEH's Environmental Line on 131 555 as soon as practicable and provide details of the remains and their location
- 3. not recommence work at that location unless authorised in writing by OEH.

Recommendation 6: Continued consultation with registered Aboriginal stakeholders

As per the consultation requirements, it is recommended that the proponent provides a copy of this draft report to the Aboriginal stakeholders and considers all comments received. The proponent should continue to inform these groups about the management of Aboriginal cultural heritage sites within the study area throughout the life of the project.

Recommendation 7: Lodgement of final report

A copy of the final report will be sent to the RAPs, the client, OEH and the AHIMS register for their records.



1 Introduction

1.1 Project background

This ACHA has been prepared by Biosis on behalf of the Schools Infrastructure NSW (the Applicant). It accompanies an Environmental Impact Statement (EIS) in support of an SSD Application (SSD 18_9368) for the new Alex Avenue Public School at the corner of Farmland Drive and future realignment of Pelican Road in Schofields (the study area) (Figure 1 and Figure 2). The study area is legally described as proposed Lots 1 and 2, being part of existing Lot 4 in DP1208329 and Lot 121 in DP1203646.

The new school will cater for approximately 1,000 primary school students and 70 full-time staff upon completion. The proposal seeks consent for:

- Construction of a 2-storey library, administration and staff building (Block A) comprising:
 - School administrative spaces including reception.
 - Library with reading nooks, makers space and research pods.
 - Staff rooms and offices.
 - Special programs rooms.
 - Amenities.
 - Canteen.
 - Interview rooms.
 - Presentation spaces.
- Construction of four 2-storey classroom buildings (Block B) containing 40 homebases comprising:
 - Collaborative learning spaces.
 - Learning studios.
 - Covered outdoor learning spaces.
 - Practical activity areas.
 - Amenities.
- Construction of a single storey assembly hall (Block C) with a performance stage and integrated covered outdoor learning area (COLA). The assembly hall will have OOSH facilities, store room areas and amenities.
- Associated site landscaping and open space including associated fences throughout and games courts.
- Pedestrian access points along both Farmland Drive and the future Pelican Road.
- Substation on the north-east corner of the site.
- School signage to the front entrance.

All proposed school buildings will be connected by a covered walkway providing integrated covered outdoor learning areas. School staff will use the Council car park for the adjacent sports fields pursuant to a Joint Use



agreement. The proposed School pick up and drop off zone will also be contained within the future shared car park and will be accessed via Farmland Drive.

The Aboriginal Cultural Heritage Assessment was_required by the SEARs for SSD 18_9368 issued on 22 June 2018 and updated on 2 October 2018 and 30 January 2019. This table identifies the SEARs and relevant reference within this report.

Table 3SEARs and relevant references issued on the 22 June 2018, 2 October 2018 and 30
January 2019

SEARs item	Report reference
Identify and describe the Aboriginal cultural heritage values that exist across the whole area that would be affected by the development and document these in an Aboriginal Cultural Heritage Assessment Report (ACHAR). This may include the need for surface survey and test excavation. The identification of cultural heritage values must be conducted in accordance with the Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (OEH 2010), and guided by the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (DECCW 2011).	Section 4 and 5 of AR
Consultation with Aboriginal people must be undertaken and documented in accordance with the Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW 2010). The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented in the ACHAR.	Section 4 and Appendix 1 of the ACHAR
Impacts on Aboriginal cultural heritage values are to be assessed and documented in the ACHAR. The ACHAR must demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the ACHAR must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and notified to OEH.	Section 7 of AR and section 6 of ACHAR

The western portion of the study area has been subject to previous assessment and was included within AHIP C000550, issued to Landcom, trading as UrbanGrowth NSW, and commencing on 11 September 2014. The AHIP is for a period of five years, and is due to expire on 11 September 2019. There are no sites listed on the AHIP or in AHIMS which are located within the study area.

1.2 Study area

The study area encompasses part of Lot 4 DP 1208329 and part of Lot 121 DP 1203646 and is located approximately 7.8 kilometres north-north-west of Blacktown and approximately 34.5 kilometres north-west of the Sydney central business district (CBD) (Figure 1). It encompasses two hectares of private land and the adjacent road reserves.

The study area is within the:

- Blacktown Local Government Area
- Parish of Gidley



• County of Cumberland (Figure 2).

The study area is currently bounded on its northern side by Farmland Drive and Lot 121, DP 1203646, on its western side by Lot 121, DP 1203646, by Lot 121, DP 1203646 and Lot 4, DP 1208329 on its southern side, and by Lot 2, DP 1209060 on its eastern side.

1.3 Proposed development

School Infrastructure NSW are proposing to develop a new school on a Greenfields site with capacity for 1,000 students and 70 staff members. The study area will incorporate part of Lot 4, DP 1208329, and part of Lot 121, DP 1203646 (Plate 1, Plate 2, Plate 3, Plate 4). The project involves the following elements:

- Two two-storey Home Base buildings.
- A two-storey admin and staff building.
- A two-storey library.
- A hall and out of school hours care facilities.
- Three learning courtyards and sports court.
- Covered outdoor learning area and walkway.
- Interconnected external area.
- Two storey home base building.





Plate 1 Proposed development - landscape



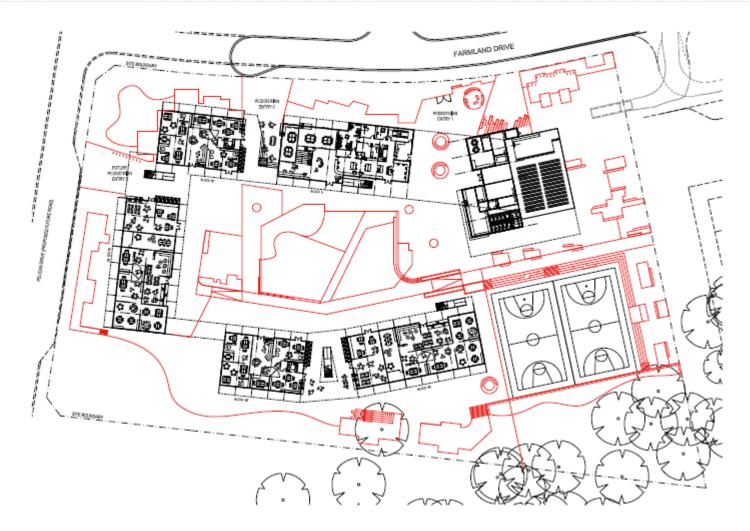


Plate 2 Proposed development - ground floor



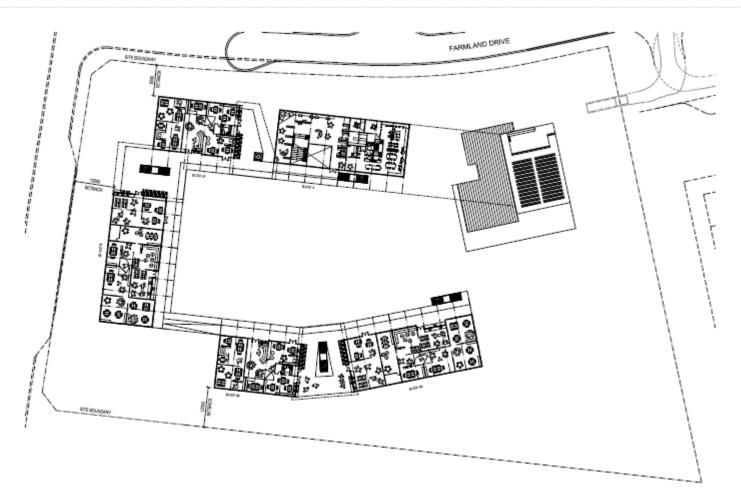


Plate 3 Proposed development - level one



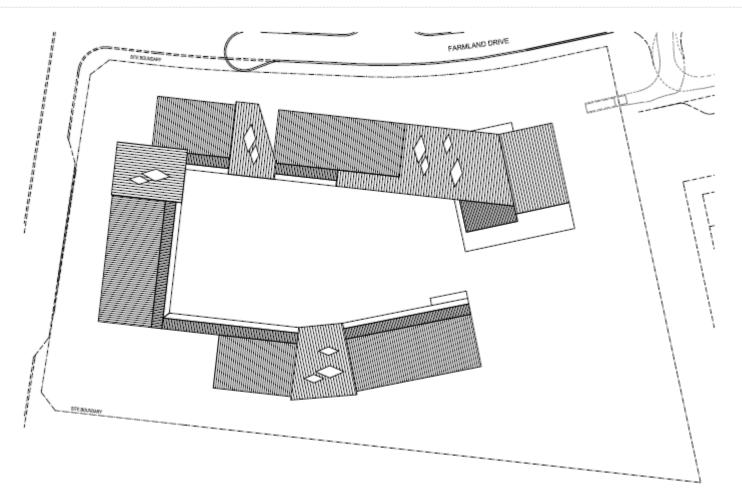


Plate 4 Proposed development - roof



1.4 Planning approvals

The proposed development will be assessed as a SSD under Section 89(c) of the EP&A Act and Schedule 1 of the SEPP (State and Regional Development) 2011. Other relevant legislation and planning instruments that will inform the assessment include:

- Blacktown Development Control Plan 2015
- Blacktown Local Environmental Plan 2015
- National Parks and Wildlife Amendment Act 2010
- NPW Act

1.5 Restricted and confidential information

Appendix 1 in the Archaeological Report (AR) (Appendix 5) contains AHIMS information which is confidential and not to be made public. This is clearly marked on the title page for the Attachment.

1.6 Aboriginal cultural heritage

1.6.1 General description

It is generally accepted that people have inhabited the Australian landmass for the last 50,000 years (Allen & O'Connell 2003). Dates of the earliest occupation of the continent by Aboriginal people are subject to continued revision as more research is undertaken. In NSW, according to Bowler et al. (2003), Aboriginal people have occupied the land for over 42,000 years. However, preliminary evidence presented by Biosis (2016) from a subsurface testing program in south-western NSW suggests Aboriginal people may have occupied the semi-arid zone of the region for 50,000 years.

The timing for the human occupation of the Sydney Basin is still uncertain. While there is some possible evidence for occupation of the region around 40,000 years ago, the earliest known radiocarbon date for the Aboriginal occupation of the Sydney Basin is associated with a cultural / archaeological deposit at Parramatta, which was dated to 30,735 ± 407 BP (Jo McDonald Cultural Heritage Management. 2005a, Jo McDonald Cultural Heritage Management. 2005b). Archaeological evidence of Aboriginal occupation of the Cumberland Plains indicates that the area was intensively occupied from approximately 4000 years BP. Such 'young' dates are probably more a reflection of the conditions associated with the preservation of this evidence and the areas that have been subject to surface and sub-surface archaeological investigations, rather than actual evidence of the Aboriginal people prior to this time.

Without being part of the Aboriginal culture and the productions of this culture, it is not possible for non-Aboriginal people to fully understand the meaning of site, objects and places to Aboriginal people – only to move closer towards understanding this meaning with the help of the Aboriginal community. Similarly, definitions of Aboriginal culture and cultural heritage without this involvement constitute outsider interpretations.

With this preface Aboriginal cultural heritage broadly refers to things that relate to Aboriginal culture and hold cultural meaning and significance to Aboriginal people (DECCW 2010a, p.3). There is an understanding in Aboriginal culture that everything is interconnected. In essence Aboriginal cultural heritage can be viewed as potentially encompassing any part of the physical and/or mental landscape, that is, 'Country' (DECCW 2010a, p.iii).



Aboriginal people's interpretation of cultural value is based on their 'traditions, observance, lore, customs, beliefs and history' (DECCW 2010a, p.3). The things associated with Aboriginal cultural heritage are continually and actively being defined by Aboriginal people (DECCW 2010a, p.3). These things can be associated with traditional, historical or contemporary Aboriginal culture (DECCW 2010a, p.3).

1.6.2 Tangible Aboriginal cultural heritage

Three categories of tangible Aboriginal cultural heritage may be defined:

- Things that have been observably modified by Aboriginal people.
- Things that may have been modified by Aboriginal people but no discernible traces of that activity remain.
- Things never physically modified by Aboriginal people (but associated with Dreamtime Ancestors who shaped those things).

1.6.3 Intangible Aboriginal cultural heritage

Examples of intangible Aboriginal cultural heritage would include memories of stories and 'ways of doing', which would include language and ceremonies (DECCW 2010a, p.3).

1.6.4 Statutory

Currently Aboriginal cultural heritage, as statutorily defined by the NPW Act, consists of objects and places which are protected under Part 6 of the Act.

Aboriginal objects are defined as:

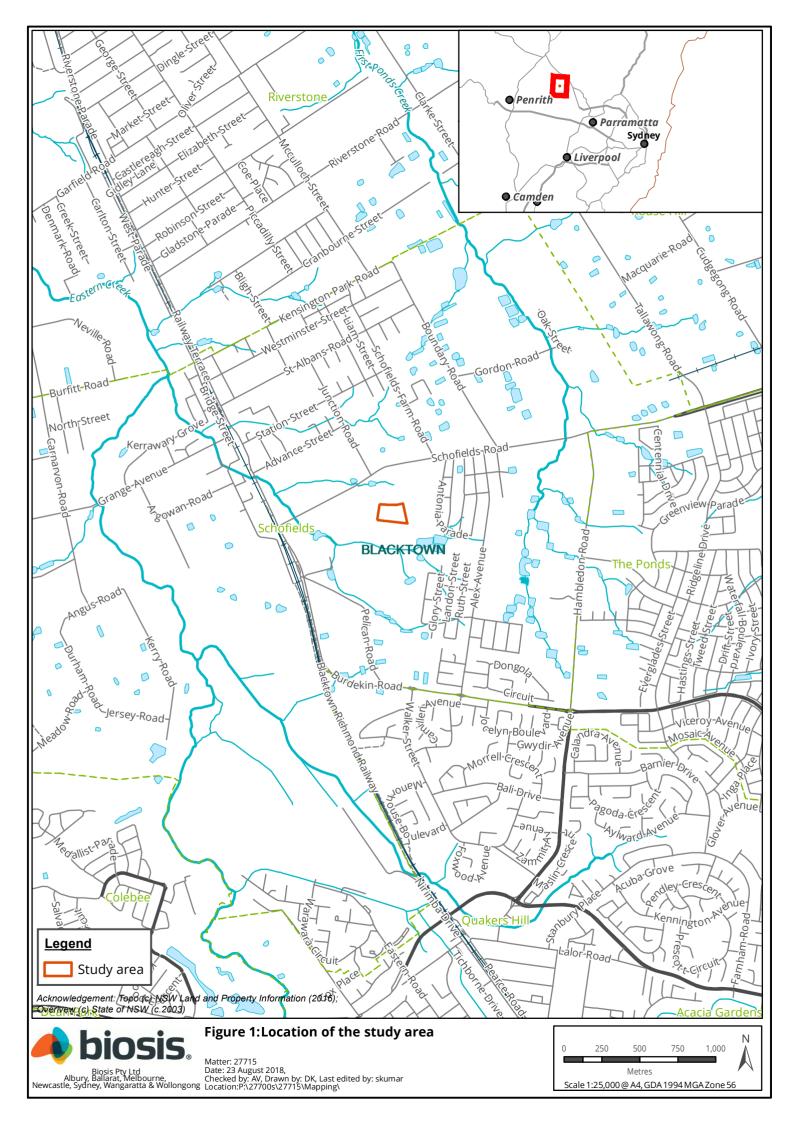
any deposit, object or material evidence...relating to the Aboriginal habitation of the area that comprises NSW, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains.

Aboriginal places are defined as a place that is or was of special Aboriginal cultural significance. Places are declared under section 84 of the NPW Act.

1.6.5 Values

Aboriginal cultural heritage is valued by Aboriginal people as it is used to define their identity as both individuals and as part of a group (DECCW 2010a, p.iii). More specifically it is used:

- to provide a:
 - 'connection and sense of belonging to Country' (DECCW 2010a, p.iii)
 - link between the present and the past (DECCW 2010a, p.iii)
- as a learning tool to teach Aboriginal culture to younger Aboriginal generations and the general public (DECCW 2010a, p.3)
- as further evidence of Aboriginal occupation prior to European settlement for people who do not understand the magnitude to which Aboriginal people occupied the continent (DECCW 2010a, p.3).







2 Study area context

This section discusses the study area in regards to its landscape, environmental and Aboriginal cultural heritage context. This section should be read in conjunction with the archaeological report attached in Appendix 5. Background research has been undertaken in accordance with the code (DECCW 2010b).

2.1 Topography and hydrology

The study area lies within the Cumberland Plain, which is a broad and shallow basin that stretches westwards from Parramatta to the Hawkesbury-Nepean River and southwards from Windsor to Thirlmere. The study area is contained within the Wianamatta Group geological formation, specifically the Bringelly Shale geological unit. The Bringelly Shale formation is primarily composed of shale, with occasional calcareous claystone, laminate, and coal (Bannerman & Hazelton 1990, p.28). The formation also contains subsidiary sandstone bands, varying in thickness from one inch to five feet (Lovering 1954).

Common landform elements within these systems include hillslopes, crests, drainage depressions, valley flats, and stream channels. A review of topographic maps of the study area indicates that it is dominated by gentle slopes. Landform units present in the vicinity of the study area include crests, alluvial plains, hillslopes, and creek banks. The study area contains a crest which gradually descends to the west in the northern portion, and a simple slope descending south towards an open depression and a third order non-perennial stream, which is located outside of the study area.

Stream order is recognised as a factor which assists the development of predictive modelling in Sydney Basin Aboriginal archaeology, and has seen extensive use in the Sydney region, most notably by Jo McDonald Cultural Heritage Management (Jo McDonald Cultural Heritage Management 2000, Jo McDonald Cultural Heritage Management Pty Ltd 2005a, Jo McDonald Cultural Heritage Management Pty Ltd 2005b, Jo McDonald Cultural Heritage Management 2006, Jo McDonald Cultural Heritage Management 2008). Predictive models which have been developed for the region have a tendency to favour higher order streams as the locations of campsites as they would have been more likely to provide a stable source of water and by extension other resources which would have been used by Aboriginal groups.

The stream order system used for this assessment was originally developed by Strahler (1952). It functions by adding two streams of equal order at their confluence to form a higher order stream, as shown in Plate 5. As stream order increases, so does the likelihood that the stream would be a perennial source of water.



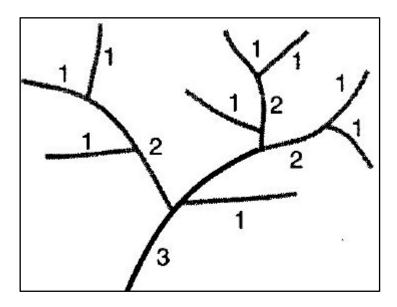


Plate 5 Diagram showing Strahler stream order (Ritter et al. 1995, p.151)

The nearest water course to the study area is a third order creek line approximately 50 metres to the south. Approximately 1.5 kilometres to the west is Eastern Creek, a fourth order creek line, which would have provided a more stable source of water. Flood mapping undertaken by Blacktown City Council indicates that the study area is outside of any flood risk extent areas (Plate 6).

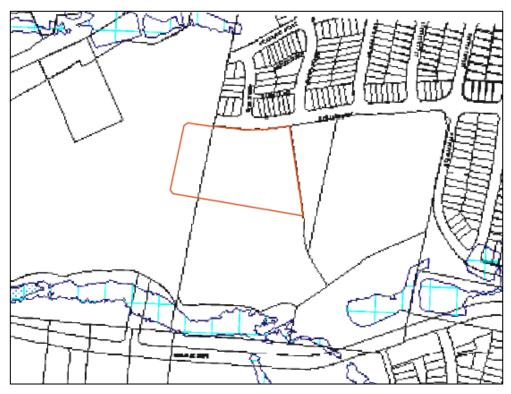


Plate 6 Flood risk extent areas in the vicinity of the study area (Source: Blacktown City Council)



2.2 Soil landscapes

Soil landscapes have distinct morphological and topological characteristics that result in specific archaeological potential. They are defined by a combination of soils, topography, vegetation and weathering conditions. Soil landscapes are essentially terrain units that provide a useful way to summarise archaeological potential and exposure.

The study area is contained within the Blacktown soil landscape. This landscape is characterised by its low reliefs and gentle slope, and is generally associated with a landform pattern of gently undulating rises. The local relief is around 30 metres, with slopes of 5 per cent. The soil characteristics of this landscape are described in Table 4 below.

Soil material	Description	
bt1—Friable brownish black loam	This is a friable brownish black loam to clay loam with moderately pedal subangular blocky (2 – 20 mm) structure and rough-faced porous ped fabric. This material occurs as topsoil (A horizon). Colour is brownish black (10YR 2/2) but can range from dark reddish brown (5YR 3/2) to dark yellowish brown (10YR 3/4). Rounded iron indurated fine gravel-sized shale fragments and charcoal fragments are sometimes present. Roots are common.	
bt2—Hardsetting brown clay loam	This is a brown clay loam to silty clay loam which is hardsetting on exposure or when completely dried out. It occurs as an A2 horizon. This material is water repellent when extremely dry. Colour is dark brown (7.5YR 4/3) but can range from dark reddish brown (2.5YR 3/3) to dark brown (10YR 3/3). Platy, iron indurated gravel-sized shale fragments are common. Charcoal fragments and roots are rarely present.	
bt3—Strongly pedal, mottled brown light clay	This is a brown light to medium clay with strongly pedal polyhedral or sub-angular to blocky structure and smooth-faced dense ped fabric. This material usually occurs as subsoil (B horizon). Colour is brown (7.5YR 4/6) but may range from reddish brown (2.5YR 4/6) to brown (10YR 4/6). Frequent red, yellow or grey mottles occur often becoming more numerous with depth. Fine to coarse gravel-sized shale fragments are common and often occur in stratified bands. Both roots and charcoal fragments are rare.	
bt4—Light grey plastic mottled clay	This is a plastic light grey silty clay to heavy clay with moderately pedal polyhedral to subangular blocky structure and smoothfaced dense ped fabric. This material usually occurs as deep subsoil above shale bedrock (B3 or C horizon). Colour is usually light grey (10YR 7/1) or, less commonly, greyish yellow (2.5YR 6/2). Red, yellow or grey mottles are common. Strongly weathered ironstone concretions and rock fragments are common. Gravel-sized shale fragments and roots are occasionally present. Charcoal fragments are rare.	

Table 4 Blacktown soil landscape characteristics (Bannerman & Hazelton 1990, pp.29–30)

On crests and ridges there can be up to 30 centimetres of friable brownish black loam (bt1) overlying 10-20 centimetres of hardsetting brown clay loam (bt2) and up to 90 centimetres strongly pedal brown mottled light clay (bt3). Soil horizons are generally clear and total soil depth is <100 centimetres, though bt1 material is occasionally absent. On upper slopes and midslopes there can be up to 30 centimetres of bt1 overlying 10-20 centimetres of bt2 and 20-50 centimetres of bt3, under which lies up to 100 centimetres of a light grey plastic mottled clay (bt4). Soil depth is <200 centimetres, and similar to crests and ridges soil horizons are clear and bt1 may be absent. On lower side slopes there can be up to 30 centimetres of bt1 overlying 10-30 centimetres



of bt2 and 40-100 centimetres of bt3, under which usually lies <100 centimetres of bt4; soil horizons are clear and total depth is >200 centimetres (Bannerman & Hazelton 1990, p.30).

Subsurface artefacts in the Blacktown soil landscape are typically located in the A horizon topsoil. In the Blacktown soil landscape, it is likely that any subsurface artefacts would be identified in the upper two stratigraphic profiles (bt1 and bt2). The soils described in Table 4 align closely with profiles described in nearby excavations at the Rouse Hill Anglican College, on the northern side of Rouse Road (Stephanie Garling Archaeological Consulting 2000, p.45). The descriptions given by Stephanie Garling Archaeological Consulting (2000) suggest that the bt1 profile had largely eroded away from the study area, and that the majority of the artefacts identified came from the bt2 profile. Raw material sources in the vicinity of the study area include silcrete quarries at Riverstone and Plumpton Ridge, which are located approximately 1 kilometres west (Archaeological & Heritage Management Solutions 2015, p.18).

Geotechnical investigations were undertaken in 2017 and 2018. Areas of stockpiling were noted in the central portion. Three boreholes were established within the study area in the 2017 investigations, which displayed similar soils in varying colours throughout, namely clayey silt up to 20-50 centimetres, overlying a silty clay extending to a depth of 110-200 centimetres, underlain by sandstone. Borehole 3 in the north-eastern portion of the study area identified 20 centimetres of silty sand fill material containing organic material and traces of clay (JK Geotechnics 2017). Similar results were found in the 2018 investigation, with 24 boreholes established (Greencap 2018).

2.3 Climate and rainfall

The climate in the Schofields area is classified as warm and temperate where summers are long and mild, with relatively dry winters. The mean monthly temperatures during the day range from 28.4°C in December to 17.4°C in July (Bureau of Meteorology 2018). Annual rainfall throughout the year ranges from 113.2 millimetres in February to 42.6 millimetres in July. The consistent amount of annual rainfall combined with mild temperatures would have made this region a desirable place for Aboriginal occupation.

2.4 Landscape resources

While the diverse natural environment would have provided vast and plentiful floral and faunal resources and the temperate climate would have made the area suitable for year-round occupation, the distance of the study area from permanent water sources would have detracted from its appeal as a long term occupation site. Although extensively cleared today, the Blacktown Soil Landscape typically supports dry sclerophyll forest; predominantly species of eucalypt, including Forest Red Gum, Narrow Leaved Ironbark, and Grey Box (Bannerman & Hazelton 1990, p.29). Broad Leaved Ironbark and White Stringy Bark are also occasionally present.

Within the Cumberland subregion of the Sydney Basin Bioregion there is a variety of vegetation types present, with Grey Box, Forest Red Gum, Narrow-leaved Ironbark woodland, and Spotted Gum are present on shale hills. Hard-leaved Scribbly Gum, Rough-barked Apple, and Old Man Banksia are identified on alluvial sands and gravels. Broad-leaved Apple, Cabbage Gum, Forest Red Gum, and Swamp Oak are present on river flats. Tall Spike Sush, and Juncus with Parramatta Red Gum is noted around lagoons and swamps (NSW National Parks and Wildlife Service 2003, p.193).

Native fauna that would have been present in the vicinity of the study area include: Australian Wood Duck, White-faced Heron, Eastern Long-necked Tortoise, Eastern Water Skink, Garden Skink, Welcome Swallow, Purple Swamphen, as well as arboreal fauna including owls, Ring- and Brush-tailed Possums, and gliders.



Plant resources were used in a variety of ways. Fibres were twisted into string which was used for many purposes including the weaving of nets, baskets and fishing lines. String was also used for personal adornment. Bark from eucalypts was used in the provision of shelter; a large sheet of bark being propped against a stick to form a gunyah (Attenbrow 2002). Swamp oak bark could be used for the making of canoes, and smooth-barked apple for the making of baskets and bowls.

As well as being important food sources, animal products were also used for tool making and fashioning a myriad of utilitarian and ceremonial items. For example, tail sinews are known to have been used to make fastening cord, while 'bone points', which would have functioned as awls or piercers, are often an abundant part of the archaeological record. Animals such as Brush-tailed Possums were highly prized for their fur, with possum skin cloaks worn fastened over one shoulder and under the other (Attenbrow 2002).

2.5 European land use history

The study area is located within a land grant of 100 acres (40.4686 hectares) initially made to Josh Ward in 1815, and later made to Joseph Pye on 19 October 1831 by Crown grant (Plate 7) (NSW Department of Lands, Vol. 1101 Fol. 101, Colonial Secretary's Office 1831). The study area remained under the ownership of the Pye family until 1938. The Pye family were known as orchardists and also grazed cattle, so it is possible that orcharding and/or grazing activities may have taken place within the study area (Windsor and Richmond Gazette 1897, 8; AHMS 2015). In 1938, part of the Pye lands were sold to Joseph and Harold Langlade, who established 'Langlade's Dairy'; several dairy-related structures were constructed east of the study area (AHMS 2015). It is likely the study area continued to be used for grazing purposes under their ownership, and that of subsequent owners, including the Geddes from 1949-c.1960 (master butcher), Gordons from 1960-1973 (horse trainer) and Jones' from 1973 (farmer) (NSW Department of Lands, Vol. 1932 Fol. 207).



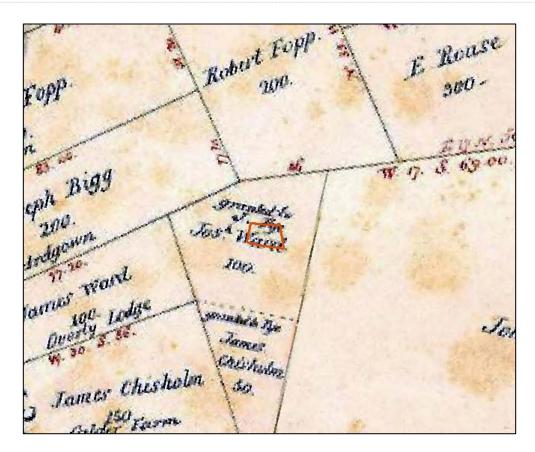


Plate 7 Extract from an 1833 Gidley Parish Map, with the study area highlighted (Source: NSW Land Registry Services)

Aerial photographs from the mid-20th century onwards reveal detail of the use and disturbance of the study area (Plate 8, Plate 9, Plate 10, Plate 11, Plate 12, Plate 13, Plate 14, Plate 15, Plate 16, Plate 17). Table 5 provides a summary of the changes to the study area from 1956 to 2018.

Year	Comments
1956	A large proportion of the study area appears to have been ploughed, specifically in the northern sections. The southern areas retain some bushland but app has been partially cleared.
1961	Significant changes to the study area, with the installation of an unsealed oval track in the north- eastern portion of the study area; this may have been a horse track considering the ownership of the study area by a horse trainer at this time. Possibly some earthworks or terracing in the south and south-eastern portions of the study area. Some bushland has been retained in the south-eastern corner, and plough marks are also strongly evident.
1965	Similar to previous aerial, with the track less defined and sparser bushland in the south-eastern corner.
1970	The track appears to be out of use, having been grown over. Bushland in the south-eastern corner appears to be in similar condition to the previous aerial.
1978	Very little evidence of the track remains; possibly used for grazing animal stock.
1982	Several tracks run through the study area, and potentially an earthwork in the north-eastern corner.

Table 5Analysis of aerial photographs of the study area



Year	Comments
1991	Western portion of the study area has been developed for agricultural purposes, with grass cover appearing sparse in this area.
2005	An informal track appears to run across the south-eastern corner of the study area near the area of bush, while grass cover has increased in the western portion, with some earth scours remaining.
2009	The track running across the south-eastern corner is more defined, suggesting heavier use, with a further track running north-south in the central portion of the study area. There is an area of exposure in the south-western corner.
2018	Introduction of residential development north of the study area has resulted in some removal of topsoil along the northern boundary, and possible deposited materials just south of this exposure



Plate 8 1956 aerial of the study area, with the study area highlighted in red (please note the pink outline is the area assessed in Environmental Investigation Services 2017) (Source: Environmental Investigation Services 2017)





Plate 9 1961 aerial of the study area, with the study area highlighted in red (please note the pink outline is the area assessed in Environmental Investigation Services 2017) (Source: Environmental Investigation Services 2017)



Plate 10 1965 aerial of the study area, with the study area highlighted in red (please note the pink outline is the area assessed in Environmental Investigation Services 2017) (Source: Environmental Investigation Services 2017)





Plate 11 1970 aerial of the study area, with the study area highlighted in red (please note the pink outline is the area assessed in Environmental Investigation Services 2017) (Source: Environmental Investigation Services 2017)



Plate 12 1978 aerial of the study area (Source: NSW Spatial Services 2018)





Plate 13 1982 aerial of the study area, with the study area highlighted in red (please note the pink outline is the area assessed in Environmental Investigation Services 2017) (Source: Environmental Investigation Services 2017)



Plate 14 1991 aerial of the study area, with the study area highlighted in red (please note the pink outline is the area assessed in Environmental Investigation Services 2017) (Source: Environmental Investigation Services 2017)





Plate 15 2005 aerial of the study area, with the study area highlighted in red (please note the pink outline is the area assessed in Environmental Investigation Services 2017) (Source: Environmental Investigation Services 2017)



Plate 16 2009 aerial of the study area, with the study area highlighted in red (please note the pink outline is the area assessed in Environmental Investigation Services 2017) (Source: Environmental Investigation Services 2017)





Plate 17 2018 aerial of the study area, with the study area highlighted in red (Source: GoogleMaps 2018)



3 Aboriginal cultural heritage context

3.1 Ethnohistory

Our knowledge of Aboriginal people and their land-use patterns and lifestyles prior to European contact is mainly reliant on documents written by non-Aboriginal people. These documents are affected by the inherent bias of the class and cultures of their authors, who were also often describing a culture that they did not fully understand - a culture that was in a heightened state of disruption given the arrival of settlers and disease. Early written records can however be used in conjunction with archaeological information and surviving oral histories from members of the Aboriginal community in order to gain a picture of Aboriginal life in the region.

Despite a proliferation of Aboriginal heritage sites there is considerable ongoing debate about the nature, territory and range of pre-contact Aboriginal language groups in the greater Sydney region. These debates have arisen largely because, by the time colonial diarists, missionaries and proto-anthropologists began making detailed records of Aboriginal people in the late 19th century, pre-European Aboriginal groups had been broken up and reconfigured by European settlement activity. The following information relating to Aboriginal people on the Cumberland Plains is based on such early records.

There is some confusion relating to group names, which can be explained by the use of differing terminologies in early historical references. Language groups were not the main political or social units in Aboriginal life. Instead, land custodianship and ownership centred on the smaller named groups that comprised the broader language grouping. There is some variation in the terminology used to categorise these smaller groups; the terms used by Attenbrow (2002) will be used here. Attenbrow (2002, p.34) suggests that a total of four dialects were spoken in the Sydney region:

- Darug coastal dialect/s the Sydney Peninsula (north of Botany Bay, south of Port Jackson, west to Parramatta), as well as the country to the north of Port Jackson, possibly as far as Broken Bay
- Darug hinterland dialect on the Cumberland Plain from Appin in the south to the Hawkesbury River in the north; west of the Georges River, Parramatta, the Lane Cove River and Berowra Creek
- Dharawal from south side of Botany Bay, extending south as far as the Shoalhaven River; from the coast to the Georges River and Appin, and possibly as far west as Camden,
- Gundungurra southern rim of the Cumberland Plain west of the Georges River, as well as the southern Blue Mountains.

Early interactions between local Aboriginal groups in the Sydney region and European settlers varied in nature between peaceful and hostile. It was not long before the effects of colonisation proved detrimental to local groups, with farming practices employed by the settlers removing land that had until that point been used for subsistence (Attenbrow 2002).

Early observers made no note of the language of the local groups, and it was not until the latter part of the nineteenth century that the name Darug was used. Matthews (1901, p. 155, cited by Attenbrow 2002, p.32) stated that "The Dharuk speaking people adjoined the Thurrawal on the north, extending along the coast to the Hawkesbury River, and inland to what are now Windsor, Penrith, Campbelltown, and intervening towns". Subsistence activities varied based on the local landscapes, with Darug groups closer to the coast employing different food sources and means of hunting in order to survive, compared to those further inland (Kelleher Nightingale Consulting 2010, p.10).

After the arrival of European settlers the movement of Aboriginal hunter-gatherers became increasingly restricted. European expansion along the Cumberland Plain was swift and soon there had been considerable



loss of land to agriculture. This led to violence and conflict between Europeans and Aboriginal people as both groups sought to compete for the same resources (Brookes & Associates et al. 2003, p.16). At the same time diseases such as small pox were having a devastating effect on the Aboriginal population. Death, starvation and disease were some of the disrupting factors that led to a reorganisation of the social practices of Aboriginal communities after European contact. The formation of new social groups and alliances were made as Aboriginal people sought to retain some semblance of their previous lifestyle.

3.2 Aboriginal heritage located in the study area

The archaeological assessment of the study area identified the following Aboriginal sites in the study area:

- Alex Avenue PS 01 (AHIMS site no. 45-5-5218).
- Alex Avenue PS 02 (AHIMS site no. 45-5-5219).

The archaeological report attached in Appendix 5 provides details for the Aboriginal site identified during the archaeological assessment and shown on Figure 3. A brief description of each site is provided below.

Alex Avenue PS 01 (AHIMS site no. 45-5-5218)

Alex Avenue PS 01 consists of two artefacts, a grey brown chert distal fragment, recovered from Spit 3, TP11 and silcrete medial fragment, recovered from Spit 2, TP12, located on a simple slope in the south-western portion of the study area (Plate 18, Plate 19). Soils at this location consisted of three stratigraphic layers. Topsoils ranged from a dark brown silty clay of low compaction to a dark yellowish brown silty sand of low compaction. These overlaid a moderately compacted dark brown silty clay to a moderately compacted red silty clay followed by a highly compacted red clay. The base of this deposit was reached at 350 millimetres.



Plate 18 Overview of TP11 in Alex Avenue PS 01 (AHIMS site no. 45-5-5218), facing north





Plate 19 Section of TP12 in Alex Avenue PS 01 (AHIMS site no. 45-5-5218), facing north

Alex Avenue PS 02 (AHIMS site no. 45-5-5219)

Alex Avenue PS 02 consists of a single artefact, a complete silcrete flake, recovered from Spit 2, TP27, located on the edge of an open depression landform in the south-eastern portion of the study area (Plate 20). Soils at this location consisted of three stratigraphic layers, including a brown moderately compacted sandy silt, overlying a highly compacted brown silty sand, followed by a highly compacted red clay. The base of this deposit was reached at 380 millimetres.





Plate 20 Overview of TP27 within Alex Avenue PS 02 (AHIMS site no. 45-5-5219), facing north



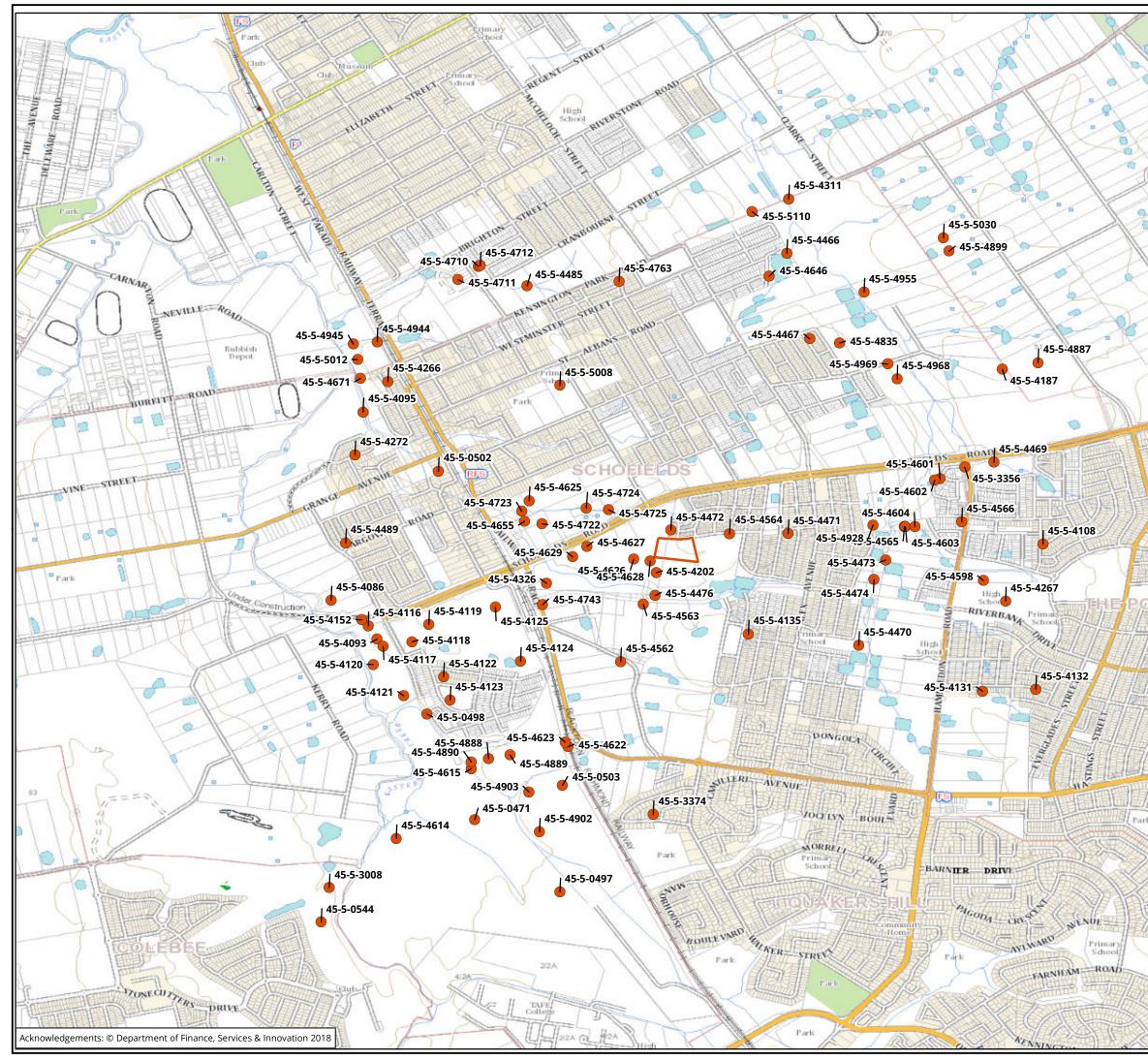


3.3 Interpretation of past Aboriginal land use

Previous archaeological surveys indicate that proximity to a permanent water supply is a primary factor in the determination of the location for past Aboriginal occupation (ENSR Australia Pty Ltd 2008, p.16). There appears to be a high correlation between the permanence of a water source and the complexity of sites. Lithic assemblages identified near permanent water sources suggest a greater range of activity (for example tool use, manufacture and maintenance, food processing and quarrying) while sites located near more ephemeral water sources indicate only transitory occupation (isolated knapping and discarded tools) (Kelleher Nightingale Consulting Pty Ltd 2008, p.7).

Based on the environmental context of the study area, it is likely that it would have supported Aboriginal occupation, being located on a crest, ridgeline and upper slope in the vicinity of a third order and first order stream. This location would have provided access to a range of animal and plant resources, as well as fresh water, making it an ideal location of occupation for Aboriginal people in the area. This statement is supported by the AHIMS data which has identified several Aboriginal sites located on the surrounding slopes in the vicinity of the current study area.

Two Aboriginal sites, Alex Avenue PS 01 and Alex Avenue PS 02, were identified within the study area as a result of test excavations. The presence of the artefacts on the slope and open depression landforms suggest the objects may have washed down the slope from higher ground, and as such may not be in their original context. It is not surprising that fewer artefacts were found here given the greater distance from Second Ponds Creek and is therefore consistent with the predictive statement that sites will be closer to permanent water sources, despite being within an elevated landform. The low density of artefacts identified within the study area indicate that Alex Avenue PS 01 and Alex Avenue PS 02 are 'background scatter'; it is considered unlikely that camping or knapping took place at these sites. It is likely that Aboriginal groups may have favoured the lower slope areas closer to the unnamed creek south of the study area, or Eastern Creek, west of the study area.





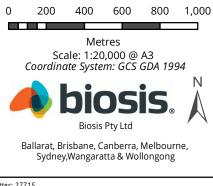


Legend

AHIMS Record

Figure 4: AHIMS search results in the vicinity of the study area

NOT TO BE MADE PUBLIC



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4 Aboriginal community consultation

Consultation with the Aboriginal community has been undertaken in compliance with the consultation requirements as detailed below. A consultation log of all communications with RAPs is provided in Appendix 1.

4.1 Stage 1: Notification of project proposal and registration of interest

4.1.1 Identification of relevant Aboriginal stakeholders

In accordance with the consultation guidelines, Biosis Pty Ltd notified the following bodies regarding the proposal:

- Blacktown City Council
- Deerubbin Local Aboriginal Land Council (LALC)
- Greater Sydney Local Land Services
- National Native Title Tribunal (NNTT)
- NSW Native Title Services Corporation Limited (NTSCORP Limited)
- OEH
- Office of the Registrar, Aboriginal Land Rights Act 1983 of Aboriginal Owners

A list of known Aboriginal stakeholders in the Blacktown region was provided by OEH (a copy of this responses is provided in Appendix 2 and include:

- Amanda Hickey Cultural Services
- Barking Owl Aboriginal Corporation
- Bidjawong Aboriginal Corporation
- Billinga
- Cullendulla
- Darug Boorooberongal Elders Aboriginal Corporation
- Darug Land Observations
- Deerubbin Local Aboriginal Land Council
- Dharug
- Didge Ngunawal Clan
- Ginninderra Aboriginal Corporation
- Gulaga
- Gunyuu

- Badu
- Biamanga
- Bilinga Cultural Heritage Technical Services
- Butucarbin Aboriginal Corporation
- Darug Aboriginal Cultural Heritage Assessments
- Darug Custodian Aboriginal Corporation
- Darug Tribal Aboriginal Corporation
- Des Dyer Darug Aboriginal Land Care
- Dhinawan-Dhigaraa Culture & Heritage Pty Ltd
- DJMD Consultancy
- Goobah Developments
- Gunjeewong Cultural Heritage Aboriginal Corporation
- Gunyuu Cultural Heritage Technical Services



- HSB Consultants
- Kawul Cultural Services
- Minnamunnung
- Munyunga Cultural Heritage Technical Services
- Murramarang
- Murrumbul Cultural Heritage Technical Services
- Nundagurri
- Phil Khan Kamilaroi Yankuntjatjara Working
 Group
- Thauaira
- Tocomwall
- Walbunja
- Warragil Cultural Services
- Wingikara
- Wullung
- Yerramurra

- Jerringong
- Merrigarn Indigenous Corporation
- Mununga
- Murra Bidgee Mullangari Aboriginal Corporation
- Murrumbul
- Nerrigundah
- Pemulwuy CHTS
- Rane Consulting
- Thoorga Nura
- Wailwan Aboriginal Digging Group
- Walgalu
- Widescope Indigenous Group
- Wingikara Cultural Heritage Technical Services
- Wurrymay Consultancy

A search conducted by the Office of the Registrar, *Aboriginal Land Rights Act 1983* (NSW) listed no Aboriginal Owners with land within the study area. A search conducted by the NNTT listed no Registered Native Title Claims, Unregistered Claimant Applications or Registered Indigenous Land Use Agreements within the study area.

4.1.2 Public notice

In accordance with the consultation guidelines, a public notification was placed in the following newspaper:

- Rouse Hill Times (10 October 2018)
- Rouse Hill Times (28 November 2018)

The wrong version of the public notice was published on the 10 October 2018; therefore, an additional public notice was advertised on the 28 November 2018. No new Aboriginal parties registered for the project as a result of the republication. The advertisements invited Aboriginal people who hold cultural knowledge to register their interest in a process of community consultation to provide assistance in determining the significance of Aboriginal object(s) and/or places in the vicinity of the study area. A copy of the public notice is provided in Appendix 2.

4.1.3 Registration of Aboriginal parties

Aboriginal groups identified in Section 4.1.1 were sent a letter inviting them to register their interest in a process of community consultation to provide assistance in determining the significance of Aboriginal object(s) and/or places in the vicinity of the study area. In response to the letters and public notice, a total of 13 groups registered their interest in the project. Responses to registration from Aboriginal parties are provided in Appendix 2. A full list of Aboriginal parties who registered for consultation is provided below:



- Aboriginal Archaeology Service
- Barking Owl Aboriginal Corporation
- Butucarbin Aboriginal Corporation
- Darug Boorooberongal Elders Aboriginal Corporation
- Darug Land Observations
- Darug Tribal Aboriginal Corporation
- Deerubbin LALC
- Des Dyer Darug Aboriginal Land Care
- Didge Ngunawal Clan
- Merrigarn Indigenous Corporation
- Muragadi
- Murra Bidgee Mullangari Aboriginal Corporation
- Phil Khan Kamilaroi Yankuntjatjara Working Group

4.2 Stage 2: Presentation of information about the proposed project

On 5 November 2018 Biosis provided RAPs with details about the proposed development works (project information pack). A copy of the project information pack is provided in Appendix 3.

4.3 Stage 3: Gathering information about cultural significance

4.3.1 Archaeological assessment methodology information pack

On 5 November 2018, Biosis provided each RAP with a copy of the project methodology pack outlining the proposed Aboriginal cultural heritage assessment process and methodology for this project. RAPs were given 28 days to review and prepare feedback on the proposed methodology. A copy of the project methodology pack is provided in Appendix 3.

Murra Bidgee Mullangari Aboriginal Corporation, Darug Aboriginal Land Care, Darug Land Observations, Merrigarn, Butucarbin Aboriginal Corporation, and Aboriginal Archaeology Service all agreed with and supported the methodology. Darug Land Observations suggested that any artefacts recovered during test excavations should be reburied on site. Aboriginal Archaeology Service suggested that any artefacts collected could be displayed in a museum, local library or local government building or reburied in close proximity of the area.

4.3.2 Test excavations

The following groups participated in test excavations within the study area from 18 to 25 February 2019:

- Barking Owl Aboriginal Corporation
- Darug Aboriginal Land Care
- Deerubbin Local Aboriginal Land Council
- Kamilaroi Yankuntjatjara Working Group



4.3.3 Information gathered during fieldwork

No comments or information was supplied either on-site or through correspondence during the fieldwork period.

4.4 Stage 4: Review of draft Aboriginal cultural heritage assessment report

Following completion of the DRAFT ACHA report, a copy of the report was provided to RAPs on 28 March 2019 for review and comment. RAPs were provided with 28 days to provide comments, and five responses were received as detailed below. Comments on the draft report are provided in Appendix 4.

Muragadi confirmed that they had read the ACHA and agreed with the recommendations made. Darug Land Observations also confirmed that they had reviewed the ACHA and confirmed their supports the methodology for the proposed school, and strongly agree with the recommendation that the artefacts recovered from the test excavation program be reburied on Country in the south-eastern corner of the study area. Barking Owl Aboriginal Corporation confirmed they were satisfied with the ACHA and AR and have no further comments or recommendations to add. Kamilaroi Yankuntjatjara Working Group confirmed that they agreed with and support all recommendations regarding the study area.

Darug Aboriginal Land Care confirmed they had no objections to the planned development, and agree with the recommendations and methodology in the report. Darug Aboriginal Land Care requested that native plants be used in the landscape, that if any artefacts are uncovered while the development is in progress that work stops until the artefacts can be salvaged and moved. Regarding care and control of recovered artefacts, Darug Aboriginal Land Care requested that all artefacts either be reburied on site out of harms way, put on display in the new building or signage with signage as to where they came from, or held in the Keeping Place in the Parramatta Goal. Darug Aboriginal Land Care also asked that that any rock caverns and scarred tree be preserved, where possible, and be recorded.



5 Aboriginal cultural significance assessment

The two main values addressed when assessing the significance of Aboriginal sites are cultural values to the Aboriginal community and archaeological (scientific) values. This report will assess the cultural values of Aboriginal sites in the study area. Details of the scientific significance assessment of Aboriginal sites in the study area are provided in Appendix 5.

5.1 Introduction to the assessment process

Heritage assessment criteria in NSW fall broadly within the significance values outlined in the Australia International Council on Monuments and Sites (ICOMOS) *Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance* (Australia ICOMOS 2013) (the Burra Charter). This approach to heritage has been adopted by cultural heritage managers and government agencies as the set of guidelines for best practice heritage management in Australia. These values are provided as background and include:

- **Historical significance** (evolution and association) refers to historic values and encompasses the history of aesthetics, science and society, and therefore to a large extent underlies all of the terms set out in this section. A place may have historic value because it has influenced, or has been influenced by, a historic figure, event, phase or activity. It may also have historic value as the site of an important event. For any given place the significance will be greater where evidence of the association or event survives *in situ*, or where the settings are substantially intact, than where it has been changed or evidence does not survive. However, some events or associations may be so important that the place retains significance regardless of subsequent treatment.
- **Aesthetic significance** (Scenic/architectural qualities, creative accomplishment) refers to the sensory, scenic, architectural and creative aspects of the place. It is often closely linked with social values and may include consideration of form, scale, colour, texture, and material of the fabric or landscape, and the smell and sounds associated with the place and its use.
- **Social significance** (contemporary community esteem) refers to the spiritual, traditional, historical or contemporary associations and attachment that the place or area has for the present-day community. Places of social significance have associations with contemporary community identity. These places can have associations with tragic or warmly remembered experiences, periods or events. Communities can experience a sense of loss should a place of social significance be damaged or destroyed. These aspects of heritage significance can only be determined through consultative processes with local communities.
- Scientific significance (Archaeological, industrial, educational, research potential and scientific significance values) refers to the importance of a landscape, area, place or object because of its archaeological and/or other technical aspects. Assessment of scientific value is often based on the likely research potential of the area, place or object and will consider the importance of the data involved, its rarity, quality or representativeness, and the degree to which it may contribute further substantial information.

The cultural and archaeological significance of Aboriginal and historic sites and places is assessed on the basis of the significance values outlined above. As well as the Burra Charter significance values guidelines, various government agencies have developed formal criteria and guidelines that have application when assessing the significance of heritage places within NSW. Of primary interest are guidelines prepared by the Australian



Government, the NSW OEH and the Heritage Branch, and the NSW Department of Planning and Environment. The relevant sections of these guidelines are presented below.

These guidelines state that an area may contain evidence and associations which demonstrate one or any combination of the Burra Charter significance values outlined above in reference to Aboriginal heritage. Reference to each of the values should be made when evaluating archaeological and cultural significance for Aboriginal sites and places.

In addition to the previously outlined heritage values, the OEH *Guidelines to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (OEH 2011) also specify the importance of considering cultural landscapes when determining and assessing Aboriginal heritage values. The principle behind a cultural landscape is that 'the significance of individual features is derived from their inter-relatedness within the cultural landscape'. This means that sites or places cannot be 'assessed in isolation' but must be considered as parts of the wider cultural landscape. Hence the site or place will possibly have values derived from its association with other sites and places. By investigating the associations between sites, places, and (for example) natural resources in the cultural landscape the stories behind the features can be told. The context of the cultural landscape can unlock 'better understanding of the cultural meaning and importance' of sites and places.

Although other values may be considered – such as educational or tourism values – the two principal values that are likely to be addressed in consideration of Aboriginal sites and places are the cultural/social significance to Aboriginal people and their archaeological or scientific significance to archaeologists and the Aboriginal community. The determinations of archaeological and cultural significance for sites and places should then be expressed as statements of significance that preface a concise discussion of the contributing factors to Aboriginal cultural heritage significance.

5.2 Cultural (social significance) values

Cultural or social significance refers to the spiritual, traditional, historical and/or contemporary associations and values attached to a place or objects by Aboriginal people. Aboriginal cultural heritage is broadly valued by Aboriginal people as it is used to define their identity as both individuals and as part of a group (DECCW 2010a, p.iii). More specifically it provides:

- a 'connection and sense of belonging to Country' (DECCW 2010a, p.iii)
- a link between the present and the past (DECCW 2010a, p.3)
- a learning tool to teach Aboriginal culture to younger Aboriginal generations and the general public (DECCWa 2010 p.3)
- further evidence of Aboriginal occupation prior to European settlement for people who do not understand the magnitude to which Aboriginal people occupied the continent (DECCW 2010a, p.3).

It is acknowledged that Aboriginal people are the primary determiners of the cultural significance of Aboriginal cultural heritage.

5.3 Historic values

Historic significance refers to associations a place or object may have with a historically important person, event, phase or activity to the Aboriginal and other communities. The study area is not known to have any historic associations.



5.4 Archaeological (scientific significance) values

An archaeological scientific assessment was undertaken for the study area and is presented in detail as part of the attached Archaeological Report (Appendix 5).

5.5 Aesthetic values

Even though the study area demonstrates disturbances in some areas, it is a typical example of an undulating landform pattern with low reliefs and gentle slopes. The landscape of the study area is closely linked with Aboriginal cultural values and provides a context for Aboriginal sites that gives a strong sense of place. The local Aboriginal community strongly identifies with the landscape of the study area.

5.6 Statement of significance

The significance of sites was assessed in accordance with the following criteria:

- requirements of the code
- the Burra Charter
- Guide to investigating and reporting on Aboriginal heritage.

The combined use of these guidelines is widely considered to represent the best practice for assessments of Aboriginal cultural heritage. The identification and assessment of cultural heritage values includes the four values of the Burra Charter: social, historical, scientific and aesthetic values. The resultant statement of significance has been constructed for the study area based on the significance ranking criteria assessed in Table 6.

5.6.1 Statement of significance for Alex Avenue PS 01

Alex Avenue PS 01 consists of two sub-surface artefacts, a chert distal fragment with a hinge termination and retouch evidence, and a silcrete medial fragment, located on a slope landform approximately 180 m north of an unnamed third order creekline connected to Eastern Creek, approximately 1.5 km west of the site. The site contains moderate levels of disturbance from historical farming activities and represents a common site type within the area. Alex Avenue PS 01 is considered to be representative of opportunistic background scatter. The site has no direct historical or aesthetic associations, and has low scientific significance. The significance of Alex Avenue PS 01 has been assessed as low.

Site name	Criteria	Ranking
Alex Avenue PS 01 AHIMS site no. 45-5- 5218	Cultural – discussions with the local Aboriginal communities reflect that the site is moderate in value.	Moderate
	Historical – the site is not connected to any historical event or personage.	Low
	Scientific – the site possesses low archaeological values.	Low
	Aesthetic – the site is a typical example of an undulating landform pattern with low reliefs and gentle slopes.	Moderate

Table 6 Significance assessment criteria



5.6.2 Statement of significance for Alex Avenue PS 02

Alex Avenue PS 02 consists of a single isolated sub-surface artefact, a complete silcrete flake with a flaked platform and feather termination, located on a slope landform approximately 180 m north of an unnamed third order creekline connected to Eastern Creek, approximately 1.5 km west of the site. The site contains moderate levels of disturbance from historical farming activities and represents a common site type within the area. Alex Avenue PS 02 is considered to be representative of opportunistic background scatter. The site has no direct historical or aesthetic associations, and has low scientific significance. The significance of Alex Avenue PS 02 has been assessed as low.

Site name	Criteria	Ranking
Alex Avenue PS 02 AHIMS site no. 45-5- 5219	Cultural – discussions with the local Aboriginal communities reflect that the site is moderate in value.	Moderate
	Historical – the site is not connected to any historical event or personage.	Low
	Scientific – the site possesses low archaeological values.	Low
	Aesthetic – the site is a typical example of an undulating landform pattern with low reliefs and gentle slopes.	Moderate

Table 7 Significance assessment criteria



6 Development limitations and mitigation measures

Within the study area, there is one recorded Aboriginal sites that may be subject to harm. It is expected that the potential of harm to Aboriginal archaeological sites from the proposed development in the study area will be direct, with a total loss of value. Strategies to avoid or minimise harm to Aboriginal heritage in the study area are discussed below.

A summary of the potential impacts of the proposed works on known Aboriginal sites within the study area is provided in Table 8.

AHIMS site no.	Site name	Significance	Type of harm	Degree of harm	Consequence of harm
45-5-5218	Alex Avenue PS 01	Low	Direct	Complete	Total loss of value
45-5-5219	Alex Avenue PS 02	Low	Direct	Complete	Total loss of value

Table 8 Summary of potential archaeological impact

6.1 Potential risks to Aboriginal cultural heritage

The current proposed works within the study area include activities which will impact Alex Avenue PS 01 and Alex Avenue PS 02. The construction of the school buildings, facilities and associated infrastructure associated with the development will impact the majority of the area identified as holding archaeological potential within the study area. If not mitigated the impact may include:

- Vehicle movement within study area with potential compaction of surface soils.
- Earthworks, which will involve the removal of topsoil and subsoil.

Left unmitigated, these activities have potential to completely remove or disturb archaeological deposits and Aboriginal objects.

6.2 Avoiding harm to Aboriginal heritage

Harm cannot be avoided to the Aboriginal site within the study area as a part of the proposed works.

6.3 Management and mitigation measures

Ideally, heritage management involves conservation of sites through the preservation and conservation of fabric and context within a framework of 'doing as much as necessary, as little as possible' (Australia ICOMOS 2013). In cases where conservation is not practical, several options for management are available. For sites, management often involves the salvage of features or artefacts, retrieval of information through excavation or collection (especially where impact cannot be avoided) and interpretation.

Avoidance of impact to archaeological and cultural heritage sites through design of the development is the primary mitigation and management strategy, and should be implemented where practicable. It is not possible for the proposed works to avoid impacts to the areas containing Alex Avenue PS 01 and Alex Avenue



PS02 within the study area, and as such Alex Avenue PS 01 and Alex Avenue PS02 will be impacted by the proposed SSD project.

Alex Avenue PS 01 and Alex Avenue PS 02 have been assessed as holding low scientific significance. The two sites contained within the study area represent opportunistic background scatter and do not warrant further investigation. Accordingly, no further archaeological works are required within the study area prior to development impacts.

6.4 Long term management of Alex Avenue PS 01 and Alex Avenue PS 02

As part of this assessment, the long term management of the three artefacts recovered during test excavations must be addressed. In consultation with the TSA Management on behalf of SINSW, it has been determined that there are a number of areas within the study area which will not be subject to development or landscaping as part of the proposed works and will be maintained as a natural ground areas in the south-eastern portion of the study area. It is proposed that the artefacts will be reburied on site somewhere within this location.



7 Recommendations

The recommendations below respond specifically to the wishes of the RAPs. Recommendations regarding the archaeological value of the site, and the subsequent management of Aboriginal cultural heritage is provided in the archaeological report (Appendix 5).

Recommendation 1: Conditions of AHIP C000550

Although SSD projects are not required to comply with Part 6 of the *National Parks and Wildlife Act 1974* (NPW Act), the Office of Environment and Heritage (OEH) advises that conditions of valid AHIPs are followed by SSDs in order to reduce the risk of impacting Aboriginal heritage values.

OEH also advises that the holder of the AHIP should be contacted to confirm the works that are intended on the area covered by the AHIP.

Recommendation 2: No further archaeological works required for Alex Avenue PS 01 and Alex Avenue PS 02

It is recommended that no further archaeological works are required for Alex Avenue PS 01 and Alex Avenue PS 02 prior to development impacts.

Recommendation 3: Preparation and lodgement of AHIMS site cards for Alex Avenue PS 01 and Alex Avenue PS 02

It is recommended that AHIMS site cards are prepared and lodged with AHIMS for newly identified sites Alex Avenue PS 01 and Alex Avenue PS 02, and that the site numbers are included in the final version of this report.

Following development impacts it will be necessary to update these AHIMS records with AHIMS site impact recording forms for Aboriginal sites Alex Avenue PS 01 and Alex Avenue PS 02. This should occur within four months following completion of development impacts or as otherwise stated in SSD approval conditions.

Recommendation 4: Long term care and control of artefacts

In consultation with TSA Management on behalf of SINSW, it has been determined that there are a number of areas within the study area which will not be subject to development or landscaping as part of the proposed works and will be maintained as a natural ground areas in the south-eastern portion of the study area. It is proposed that the artefacts will be reburied on site somewhere within this location.

Recommendation 5: Discovery of unanticipated heritage items

Aboriginal objects

All Aboriginal objects and Places are protected under the NPW Act. It is an offence to knowingly disturb an Aboriginal site without a consent permit issued by the OEH. Should any Aboriginal objects be encountered during works associated with this proposal, works must cease in the vicinity and the find should not be moved until assessed by a qualified archaeologist. If the find is determined to be an Aboriginal object the archaeologist will provide further recommendations. These may include notifying the OEH and Aboriginal stakeholders.



Aboriginal ancestral remains

Aboriginal ancestral remains may be found in a variety of landscapes in NSW, including middens and sandy or soft sedimentary soils. If any suspected human remains are discovered during any activity you must:

- 4. immediately cease all work at that location and not further move or disturb the remains
- 5. notify the NSW Police and OEH's Environmental Line on 131 555 as soon as practicable and provide details of the remains and their location
- 6. not recommence work at that location unless authorised in writing by OEH.

Recommendation 6: Continued consultation with registered Aboriginal stakeholders

As per the consultation requirements, it is recommended that the proponent provides a copy of this draft report to the Aboriginal stakeholders and considers all comments received. The proponent should continue to inform these groups about the management of Aboriginal cultural heritage sites within the study area throughout the life of the project.

Recommendation 7: Lodgement of final report

A copy of the final report will be sent to the RAPs, the client, OEH and the AHIMS register for their records.



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Appendices



Appendix 1 Consultation log

Stage 1 - Notification of project proposal and registration of interest

Step 1- Identification of Aboriginal people/parties with an interest in the proposed study area

Organisation contacted	Date and type of contact	Date and type of response	Response details
OEH	17/9/2018 – email	18/9/2018 – email	Provided a list of Aboriginal stakeholder groups in the Blacktown region
Native Title Services CORP Limited	17/9/2018 – email	N/A	N/A
Office of the Registrar, Department of Aboriginal Affairs	17/9/2018 – email	26/9/2018	The study area does not have any Registered Aboriginal Owners
Greater Sydney Local Land Services	17/9/2018 – email	24/9/2018 – email	Recommends contacting OEH for contact list of people and organisations who may have an interest in the project
NNTT	17/9/2018 – email	20/9/2018 – email	No native title registered in the study area
Blacktown City Council	17/9/2018 – email	18/10/2018 – email	Confirmed that stakeholder lists are confidential and recommended contacting OEH
Deerubbin Local Aboriginal Land Council	17/9/2018 – email	N/A	N/A

Step 2- Public advertisement

The public notice was published in the *Rouse Hill Times*. The wrong version of the public notice was published on the 10 October 2018; therefore, an additional public notice was advertised on the 28 November 2018. No new Aboriginal parties registered for the project as a result of the republication. A copy of the advertisements are provided in Appendix 2.

Step 3- Registration of interest

The registration period ran from the 3 October 2017 to 17 October 2018. Leeway was given to Aboriginal parties/groups who provided responses shortly after the close of this period and they have been registered as Aboriginal parties for consultation.

Organisation contacted	Date and type of contact	Date and type of response	Response details
Aboriginal Archaeology Service	N/A	10/10/2018 – email	Registered an interest
Amanda Hickey Cultural Services	3/10/2018 – letter	Date unknown – letter	Letter inviting registration of interest returned to sender; attempted to contact by phone but no response



Organisation contacted	Date and type of contact	Date and type of response	Response details
Badu	3/10/2018 – letter	N/A	N/A
Barking Owl Aboriginal Corporation	3/10/2018 – email	13/10/2018 – email	Registered an interest
Biamanga	3/10/2018 – email	N/A	N/A
Bidjawong Aboriginal Corporation	3/10/2018 – letter	N/A	N/A
Bilinga Cultural Heritage Technical Services	3/10/2018 – email	N/A	N/A
Billinga	3/10/2018 – email	N/A	N/A
Butucarbin Aboriginal Corporation	3/10/2018 – email	12/10/2018 – email	Registered an interest
Cullendulla	3/10/2018 – email	N/A	N/A
Darug Aboriginal Cultural Heritage Assessments	3/10/2018 – letter	N/A	N/A
Darug Boorooberongal Elders Aboriginal Corporation	3/10/2018 – email	N/A	N/A
Darug Boorooberongal Elders Aboriginal Corporation	3/10/2018 – email	4/10/2018 – email	Registered an interest
Darug Custodian Aboriginal Corporation	3/10/2018 – email	N/A	N/A
Darug Land Observations	3/10/2018 – email	15/10/2018 – email	Registered an interest
Darug Tribal Aboriginal Corporation	3/10/2018 – letter	10/10/2018 – email	Registered an interest
Deerubbin Local Aboriginal Land Council	3/10/2018 – letter	N/A	No response was received but Deerubbin LALC was registered for consultation
Des Dyer – Darug Aboriginal Land Care	3/10/2018 – letter	7/10/2018 – email	Registered an interest
Dharug	3/10/2018 – email	N/A	N/A
Dhinawan-Dhigaraa Culture & Heritage Pty Ltd	3/10/2018 – email	N/A	N/A
Dhinawan-Dhigaraa Culture & Heritage Pty Ltd	3/10/2018 – email	N/A	N/A
Didge Ngunawal Clan	3/10/2018 – email	3/10/2018 – email	Registered an interest
DJMD Consultancy	3/10/2018 – email	N/A	N/A



Organisation contacted	Date and type of contact	Date and type of response	Response details
Ginninderra Aboriginal	3/10/2018 – email	N/A	N/A
Corporation			
Goobah Developments	3/10/2018 – letter	N/A	N/A
Gulaga	3/10/2018 – email	N/A	N/A
Gunjeewong Cultural Heritage Aboriginal Coporation	3/10/2018 – email	N/A	N/A
Gunyuu	3/10/2018 – email	N/A	N/A
Gunyuu Cultural Heritage Technical Services	3/10/2018 – email	N/A	N/A
HSB Consultants	3/10/2018 – letter	N/A	N/A
Jerringong	3/10/2018 – email	N/A	N/A
Kawul Cultural Services	3/10/2018 – email	N/A	N/A
Merrigarn Indigenous Corporation	3/10/2018 – letter	13/10/2018 – email	Registered an interest
Minnamunnung	3/10/2018 – letter	N/A	N/A
Mununga	3/10/2018 – email	N/A	N/A
Munyunga Cultural Heritage Technical Services	3/10/2018 – email	N/A	N/A
Muragadi	N/A	13/10/2018 – email	Registered an interest
Murra Bidgee Mullangari Aboriginal Corporation	3/10/2018 – letter	13/10/2018 – email	Registered an interest
Murramarang	3/10/2018 – email	N/A	N/A
Murrumbul	3/10/2018 – email	N/A	N/A
Murrumbul Cultural Heritage Technical Services	3/10/2018 – email	N/A	N/A
Nerrigundah	3/10/2018 – email	N/A	N/A
Nundagurri	3/10/2018 – email	N/A	N/A
Pemulwuy CHTS	3/10/2018 – email	N/A	N/A
Phil Khan - Kamilaroi Yankuntjatjara Working Group	3/10/2018 – letter	3/10/2018 – phone	Registered an interest
Rane Consulting	3/10/2018 – email	N/A	N/A



Organisation contacted	Date and type of contact	Date and type of response	Response details
Thauaira	3/10/2018 – email	N/A	N/A
Thoorga Nura	3/10/2018 – email	N/A	N/A
Tocomwall	3/10/2018 – letter	N/A	N/A
Wailwan Aboriginal Digging Group	3/10/2018 – email	N/A	N/A
Walbunja	3/10/2018 – email	N/A	N/A
Walgalu	3/10/2018 – email	N/A	N/A
Warragil Cultural Services	3/10/2018 – email	N/A	N/A
Widescope Indigenous Group	3/10/2018 – letter	N/A	N/A
Wingikara	3/10/2018 – email	N/A	N/A
Wingikara Cultural Heritage Technical Services	3/10/2018 – email	N/A	N/A
Wullung	3/10/2018 – letter	N/A	N/A
Wurrymay Consultancy	3/10/2018 – email	N/A	N/A
Yerramurra	3/10/2018 – email	N/A	N/A

Step 4- Confirmation of RAPs

Organisation contacted	Date and type of contact	Date and type of response	Response details
OEH	20/12/2018 – email	N/A	N/A
Deerubbin Local Aboriginal Land Council	20/12/2018 – email	N/A	N/A

Stage 2 – Presentation of information about the proposed project

Step 1- Provision of project information pack

A copy of the information pack is provided in Appendix 3 and a copy of the covering email is provided following.

Organisation contacted	Date and type of contact	Date and type of response	Response details
Aboriginal Archaeology Serivice	5/11/2018 – email	N/A	N/A



Organisation contacted	Date and type of contact	Date and type of response	Response details
Barking Owl Aboriginal Corporation	5/11/2018 – email	N/A	N/A
Butucarbin Aboriginal Corporation	5/11/2018 – email	N/A	N/A
Des Dyer - Darug Aboriginal Land Care	5/11/2018 – email	N/A	N/A
Darug Boorooberongal Elders Aboriginal Corporation	5/11/2018 – email	N/A	N/A
Darug Land Observations	5/11/2018 – email	N/A	N/A
Darug Tribal Aboriginal Corporation	5/11/2018 – email	N/A	N/A
Deerubbin Local Aboriginal Land Council	5/11/2018 – email	N/A	N/A
Didge Ngunawal Clan	5/11/2018 – email	N/A	N/A
Merrigarn Indigenous Corporation	5/11/2018 – email	N/A	N/A
Muragadi	5/11/2018 – email	N/A	N/A
Murra Bidgee Mullangari Aboriginal Corporation	5/11/2018 – email	N/A	N/A
Phil Khan - Kamilaroi Yankuntjatjara Working Group	5/11/2018 – letter	N/A	N/A

Stage 3 – Gathering information about cultural significance

Step 1- Provision of project methodology pack and consultation meeting

A copy of the methodology pack is provided in Appendix 3 and a copy of the covering email is provided following.

Organisation contacted	Date and type of contact	Date and type of response	Response details
Aboriginal Archaeology Serivice	5/11/2018 – email	3/12/2018 – email	Supports the methodology and suggests that recovered artefacts be reburied within the study area
Barking Owl Aboriginal Corporation	5/11/2018 – email	N/A	N/A
Butucarbin Aboriginal Corporation	5/11/2018 – email	4/12/2018 – email	Supports the methodology



Organisation contacted	Date and type of contact	Date and type of response	Response details
Des Dyer - Darug Aboriginal Land Care	5/11/2018 – email	10/11/2018 – email	Supports the methodology
Darug Boorooberongal Elders Aboriginal Corporation	5/11/2018 – email	N/A	N/A
Darug Land Observations	5/11/2018 – email	14/11/2018 – email	Supports the methodology and suggests that recovered artefacts be displayed in a museum, local library or local government building, or reburied within the study area
Darug Tribal Aboriginal Corporation	5/11/2018 – email	N/A	N/A
Deerubbin Local Aboriginal Land Council	5/11/2018 – email	N/A	N/A
Didge Ngunawal Clan	5/11/2018 – email	N/A	N/A
Merrigarn Indigenous Corporation	5/11/2018 – email	8/11/2018 – email	Supports the methodology
Muragadi	5/11/2018 – email	N/A	N/A
Murra Bidgee Mullangari Aboriginal Corporation	5/11/2018 – email	21/11/2018 – email	Supports the methodology
Phil Khan - Kamilaroi Yankuntjatjara Working Group	5/11/2018 – email	9/11/2018 – letter	Supports the methodology

Step 2- Field survey

Organisation contacted	Date and type of contact	Date and type of response	Response details
Deerubbin Local Aboriginal Land Council	15/11/2018 – phone	15/11/2018 – phone	Confirmed attendance for field survey

Step 3- Test excavations

Organisation contacted	Date and type of contact	Date and type of response	Response details
OEH	25/01/2019 – letter	31/01/2019 – email	Confirmed receipt of letter notifying of test excavations; requested digital copy of letter
Barking Owl Aboriginal	07/02/2019 –	07/02/2019 – email	Confirmed attendance at test
Corporation	email		excavations
Deerubbin Local	07/02/2019 –	08/02/2019 – email	Confirmed attendance at test
Aboriginal Land Council	email		excavations



Organisation contacted	Date and type of contact	Date and type of response	Response details
Des Dyer – Darug Aboriginal Land Care	07/02/2019 – email	07/02/2019 – email	Confirmed attendance at test excavations
Phil Khan - Kamilaroi Yankuntjatjara Working Group	07/02/2019 – email	14/02/2019 – email	Confirmed attendance at test excavations

Stage 4 - Review of draft report

Organisation contacted	Date and type of contact	Date and type of response	Response details
Aboriginal Archaeology Service	28/03/2019 – email	N/A	N/A
Barking Owl Aboriginal Corporation	28/03/2019 – email	15/04/2019 – email	Confirmed that they are satisfied with the ACHA and AR, and have no further comments or recommendations to add.
Butucarbin Aboriginal Corporation	28/03/2019 – email	N/A	N/A
Des Dyer - Darug Aboriginal Land Care	28/03/2019 – email	11/04/2019 – email	Confirmed that they have no objections to the planned development, have read the report and agree with the recommendations and methodology. They requested that native plants be used in the landscape, and that while the development is in progress if any artefacts are uncovered that work stops until the artefacts can be salvaged and moved. They requested that all artefacts either be reburied on site out of harms way, put on display in the new building or museum with signage explaining where they came from or kept in the Keeping Place in the Parramatta Goal. They requested that any rock caverns and scarred trees be preserved, were possible, and be recorded.
Darug Boorooberongal Elders Aboriginal Corporation	28/03/2019 – email	N/A	N/A
Darug Land Observations	28/03/2019 – email	10/04/2019 – email	Confirmed that they have reviewed the draft ACHA and AR, and supports the

A copy of the correspondence provided to each RAP is provided in Appendix 4.



Organisation contacted	Date and type of contact	Date and type of response	Response details
			methodology for the proposed development of a new school of Lots 1 & 2 being part of existing Lot 4 DP 1208329 and Lot 121 DP 1203646, located at the corner of Farmland Drive and future realignment of Pelican Road, in Schofields. In regards to the long- term storage of recovered artefacts, they strongly agreed that the recovered artefacts should be reburied on Country, within the south-eastern portion of the study area.
Darug Tribal Aboriginal Corporation	28/03/2019 – email	N/A	N/A
Deerubbin Local Aboriginal Land Council	28/03/2019 – email	N/A	N/A
Didge Ngunawal Clan	28/03/2019 – email	N/A	N/A
Merrigarn Indigenous Corporation	28/03/2019 – email	N/A	N/A
Muragadi	28/03/2019 – email	03/04/2019 – email	Confirmed that they have read the draft ACHA for the above project, and agree with the recommendations.
Murra Bidgee Mullangari Aboriginal Corporation	28/03/2019 – email	N/A	N/A
Phil Khan - Kamilaroi Yankuntjatjara Working Group	28/03/2019 – email	17/04/2019 – email	Confirmed that they agree and support all recommendations regarding Alex Avenue Public School, Schofields.



Appendix 2 Stage 1: Notification of project proposal and registration of interest



17 September 2018

Native Title Services Corporation PO Box 2105 Strawberry Hills NSW 2012

Dear Sir or Madam,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Notification to Agencies

Our Ref: Matter 27715

School Infrastructure NSW are proposing to develop a new school on a greenfields site at 34-38 Schofields Road, Schofields (the study area), with capacity for 500 students in the Stage 1 of the development, and a further 500 students in Stage 2. The study area will incorporate part of Lot 4, DP 1208329, and part of Lot 121, DP 1203646 (Figure 1, Figure 2). The project involves the following elements:

- a two storey Home Base building (stage 1)
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Biosis have been engaged by School Infrastructure NSW to undertake an Aboriginal Cultural Heritage Assessment (ACHA) under *the Code of practice for archaeological investigation of Aboriginal objects in NSW* (DECCW 2010a) for the project.

In accordance with the NSW Office of Environment and Heritage's *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010b) (consultation requirements), Part 6 *National Parks and Wildlife Act 1974*, individuals or groups are invited to register their interest in writing to participate in the ACHA and consultation process for the proposal.

Biosis Pty Ltd is assisting with consultation with the Aboriginal community in accordance with the consultation requirements. The purpose of the Aboriginal community consultation will be to assist with the preparation of an Environmental Impact Statement and to provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development application.

Biosis Pty Ltd Sydney Resource Group



Biosis wishes to identify Aboriginal people who may have an interest in the proposed study area and hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and/or places in the Schofields area. If you could please provide contact details for any such Aboriginal people or organisations of which you are aware it would be greatly appreciated. Please provide these details by **4pm on 1 October 2018**.

In accordance with the consultation requirements, please note that the relevant client contact for this project is:

Sam Werner School Infrastructure NSW – Program Manager sam.werner1@det.nsw.edu.au

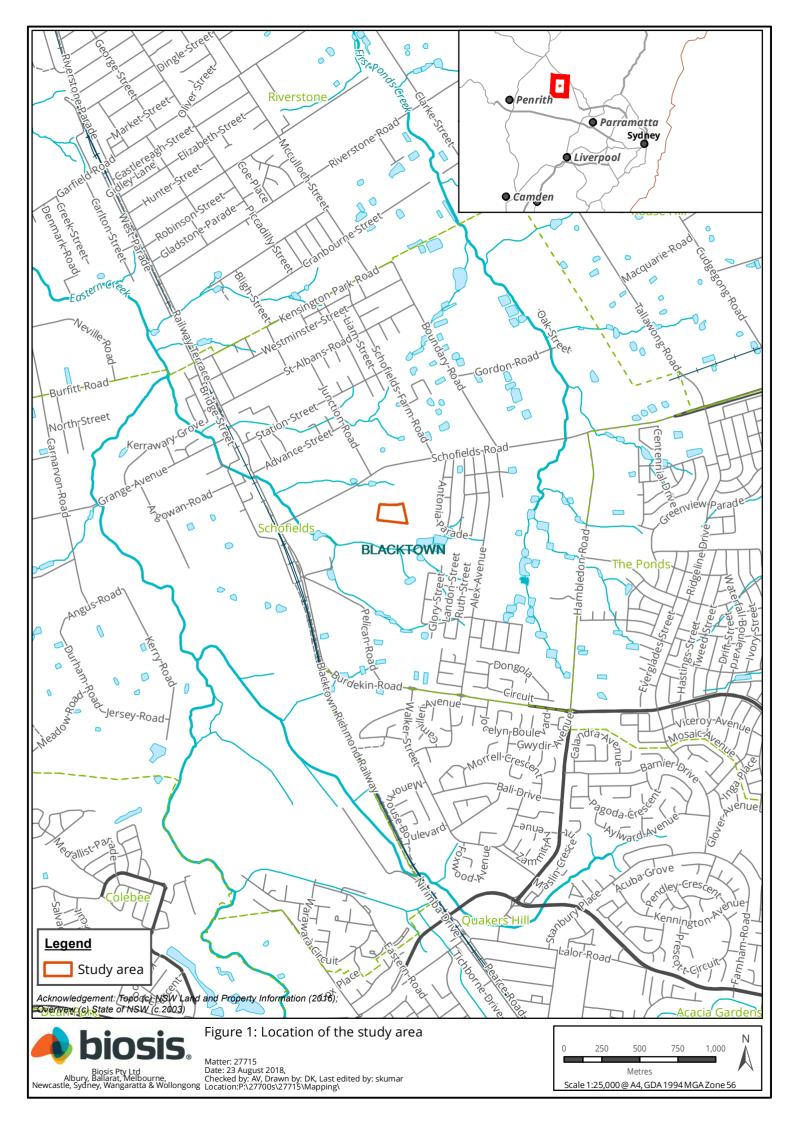
All correspondence regarding provision of names and contact details of Aboriginal people who may hold cultural knowledge relevant to the study area should be provided in writing to:

Charlotte Allen Biosis Pty Ltd 14, 17-17 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

If you have any queries regarding the Project please don't hesitate to contact me on the details below.

Yours sincerely,

Charlotte Allen Field Archaeologist 02 9101 8712 0437 641 267 callen@biosis.com.au







17 September 2018

National Native Title Tribunal GPO Box 9973 Sydney NSW 2001

Dear Sir or Madam,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Notification to Agencies

Our Ref: Matter 27715

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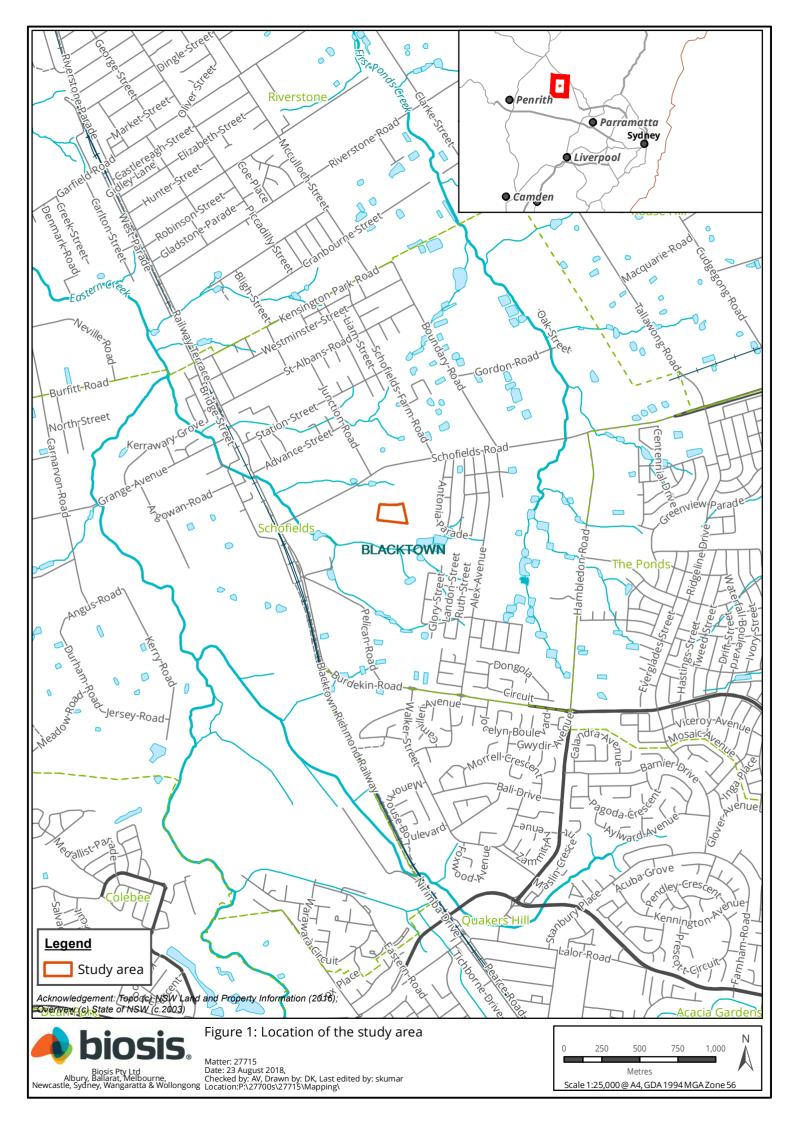
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Yours sincerely,

Charlotte Allen Field Archaeologist 02 9101 8712 0437 641 267 callen@biosis.com.au







1. Your details

NAME: POSITION: COMPANY/ORGANISATION: POSTAL ADDRESS: TELEPHONE: EMAIL: YOUR REFERENCE: DATE OF REQUEST:

2. Reason for your request

Are you a party to a native title
proceeding?
Please provide Federal Court/Tribunal file
number/or application name:

OR

Do you need to identify existing native title interests to comply with the *Native Title Act 1993* (Cth) or other State/Territory legislation? Please provide brief details of these obligations here:

Request for Search of	Tribunal Registers
------------------------------	---------------------------

Search for overlapping interests i.e.: Is there a native title claim, determination or land use agreement over this land? Please note: the NNTT cannot search over freehold land. For further information on freehold land: <u>Click Here</u> (NNTT website)

Cha	arlotte Allen
Fiel	ld Archaeologist
Bio	sis Pty Ltd
Uni	it 14, 17-27 Power Avenue, Alexandria NSW 2015
02 9	9101 8712 / 0437 641 267
call	en@biosis.com.au
277	715
17/	/09/2018

Yes	No	

Yes No

Consultation under NPW Act 1974, as part of an Aboriginal Cultural Heritage Assessment

3. Identify the area to be searched

If there is insufficient room below, please send more information on a Word or Excel document.

Mining tenure

State/Territory:

Tenement ref/s:

OR

Crown land / non-freehold tenure	
Tenure type:	Lease Reserve or other Crown land
State/Territory:	NSW
Lot and plan details:	part of Lot 4, DP 1208329, and part of Lot 121, DP
Pastoral Lease number or name:	1203646
Other details: (Town/County/Parish/	Schofields / Cumberland county / Gideon parish
Section/Hundred/Portion):	



Blacktown City Council 62 Flushcombe Road Blacktown NSW 2148

Dear Sir or Madam,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment - Notification to Agencies

Our Ref: Matter 27715

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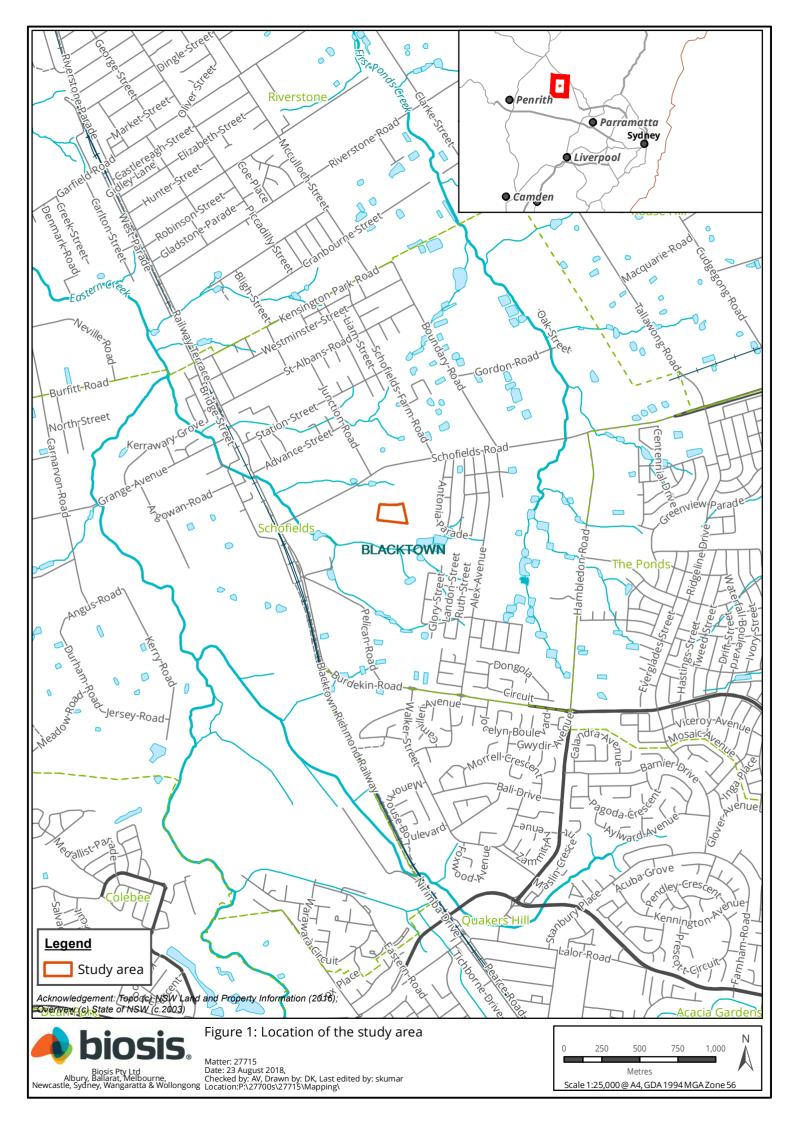
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Charlotte Allen Biosis Pty Ltd 14, 17-17 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

If you have any queries regarding the Project please don't hesitate to contact me on the details below.

Yours sincerely,







Deerubbin Local Aboriginal Land Council 2/9 Tindale Street Penrith NSW 2750

Dear Sir or Madam,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment - Notification to Agencies

Our Ref: Matter 27715

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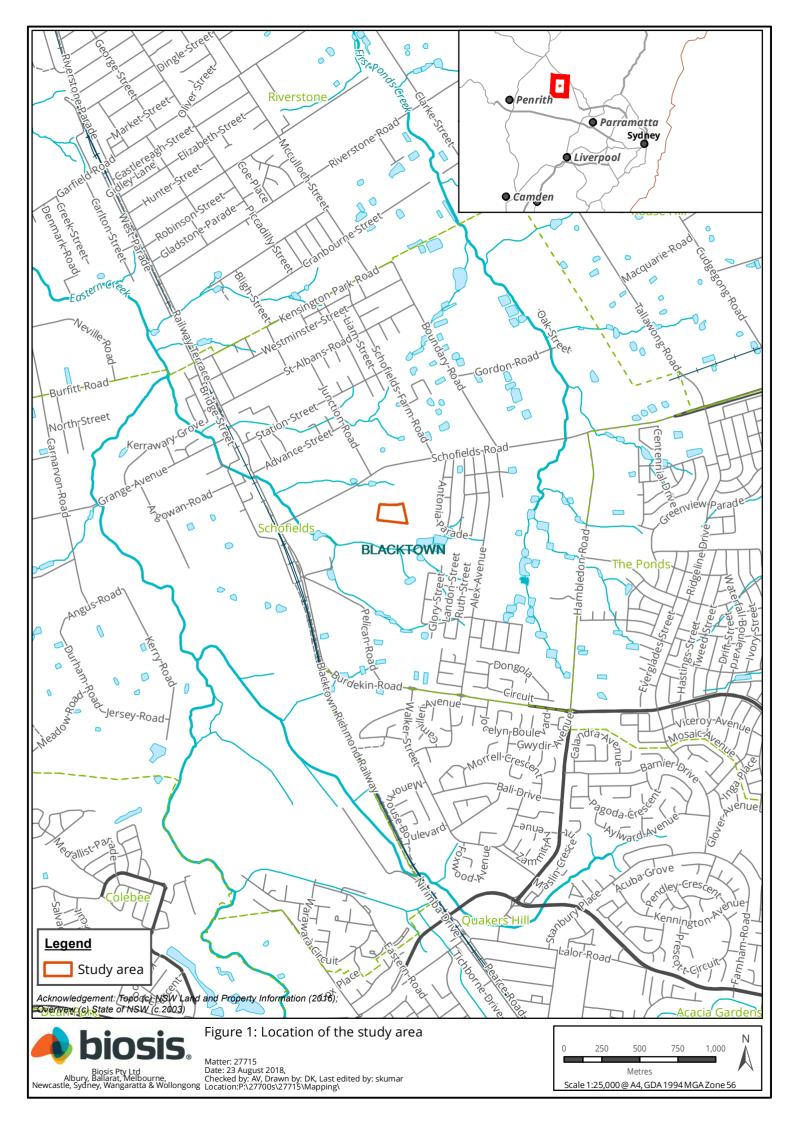
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If you have any queries regarding the Project please don't hesitate to contact me on the details below.

Yours sincerely,







Senior Team Leader - Planning Office of Environment and Heritage PO Box 644 Parramatta NSW 2124

Dear Senior Team Leader - Planning,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Notification to Agencies

Our Ref: Matter 27715

School Infrastructure NSW are proposing to develop a new school on a greenfields site at 34-38 Schofields Road, Schofields (the study area), with capacity for 500 students in the Stage 1 of the development, and a further 500 students in Stage 2. The study area will incorporate part of Lot 4, DP 1208329, and part of Lot 121, DP 1203646 (Figure 1, Figure 2). The project involves the following elements:

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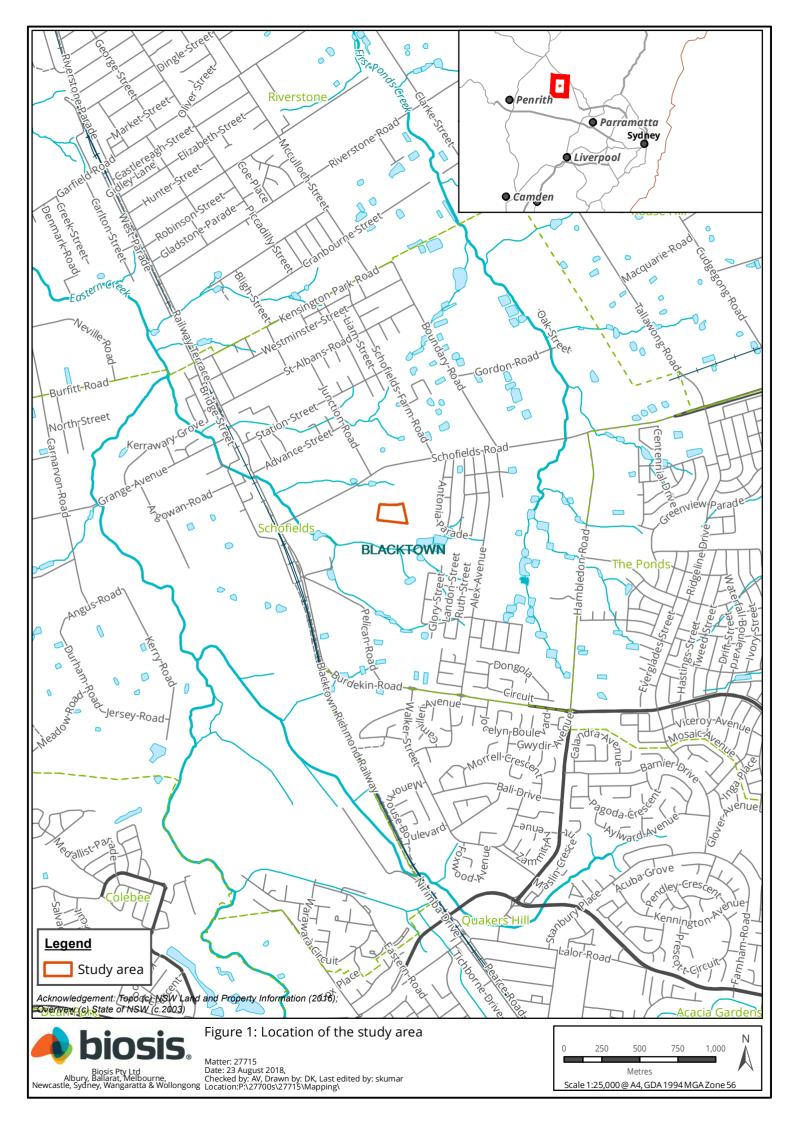
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Yours sincerely,







Office of the Registrar, Aboriginal Land Rights Act 1983 PO Box 5068 Parramatta NSW 2124

Dear Sir or Madam,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment - Notification to Agencies

Our Ref: Matter 27715

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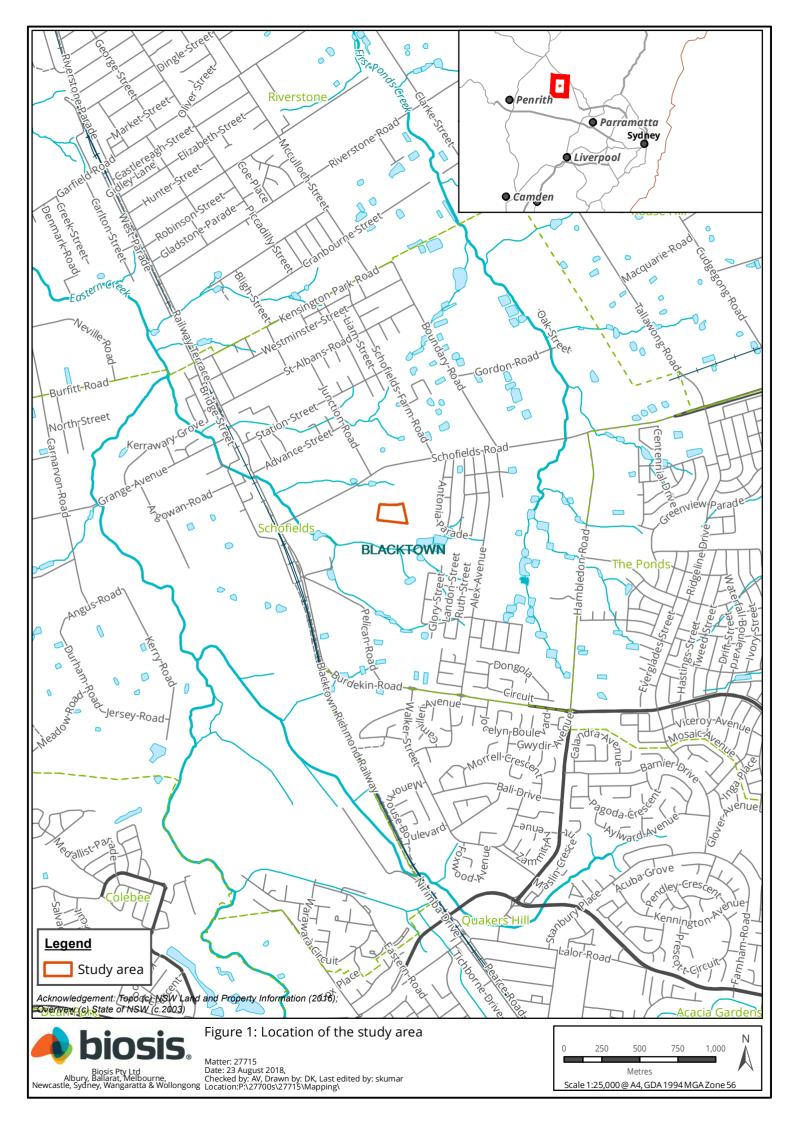
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Yours sincerely,





REQUEST FOR SEARCH OF LAND CLAIM REGISTER

OFFICE OF THE REGISTRAR ABORIGINAL LAND RIGHTS ACT 1983 (NSW)

-

Level 3, 2-10 Wentworth Street Parramatta, 2124 02 8633 1266

PO Box 5068 Parramatta, 2124

Please send the completed form via e-mail to : Adminofficer@oralra.nsw.gov.au

Please print all details clearly using block letters

Full name of person requesting search: (name for correspondence)

Charlotte Allen	
Name of company:	Biosis Pty Ltd
Postal address:	Unit 14, 17–27 Power Avenue
	Alexandria NSW 2015
E mail address:	callen@biosis:com:au
and the second second second	attended by the second second
Office phone number:	02 9101 8712 0437 641 267
Land identifiers: (lot, DF reserve number - not C	
plan number or vol fol id	
Parish name:	Gidley
County name:	
County name.	Cumberland

To assist the office in assigning priorities, please answer the following:

1) Purpose for which information is required:

Consultation under NPW Act 1974, as part of an Aboriginal Cultural Heritage Assessment

2) If urgent consideration is required, reason for urgency:

Signature, position and date:



Field Archaeologist

17/09/2018

Please note:

- 1: The register covers only Crown land.
- 2: All information is required, including a name for correspondence before the search will be completed.
- 3: The person to whom correspondence is addressed must sign the form.
- 4: Searches are completed within 10 working days and returned by e-mail
- 5: Please be aware, it may take longer than 10 working days to respond to search requests that contain more than 10 parcels or identifiers



Greater Sydney Local Land Services PO Box 4515 Westfield Penrith NSW 2750

Dear Sir or Madam,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Notification to Agencies

Our Ref: Matter 27715

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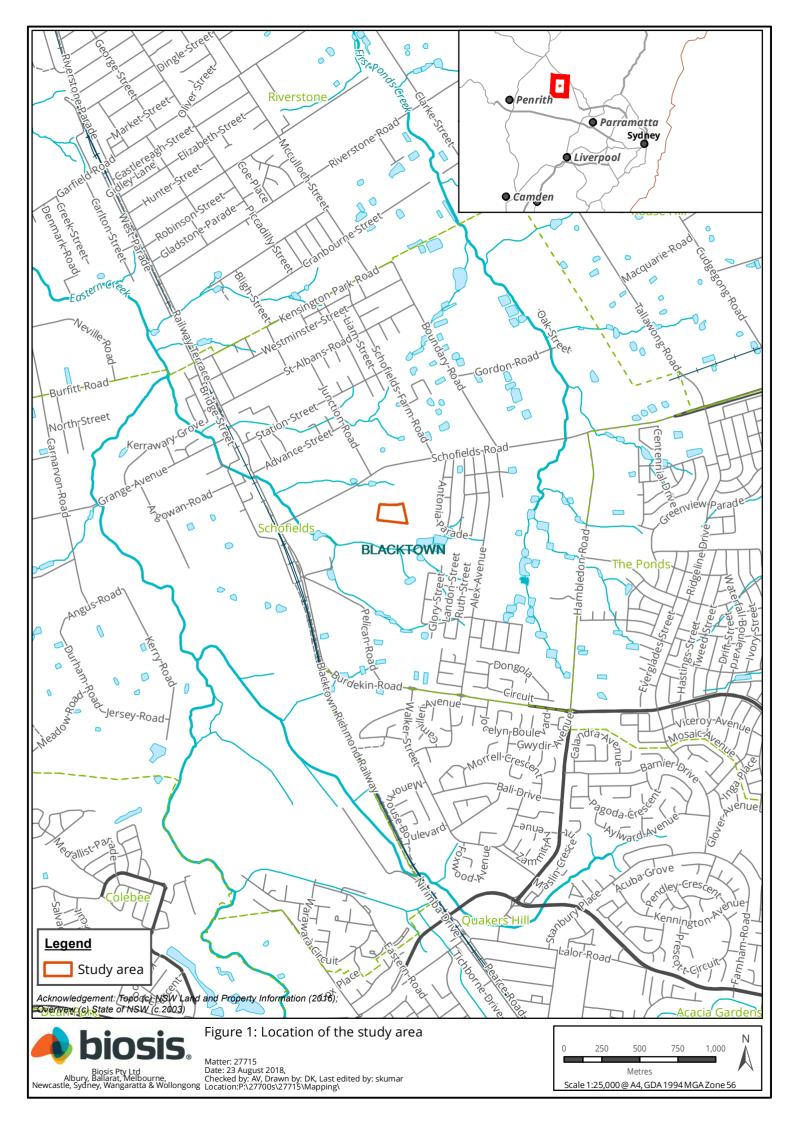
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Yours sincerely,







Overlap Analysis Report

Disclaimer

This information product has been created to assist in understanding the spatial characteristics and relationships of this native title matter and is intended as a guide only. Spatial data used has been sourced from the relevant custodians in (Tribunal, and is referenced to the GDA94 datum.

While the National Native Title Tribunal (NNTT) and the Native Title Registrar (Registrar) have exercised due care in ensuring the accuracy of the information provided, it is provided for general information only and on the understanding tha Registrar nor the Commonwealth of Australia is providing professional advice. Appropriate professional advice relevant to your circumstances should be sought rather than relying on the information provided. In addition, you must exercise y carefully evaluate the information provided for accuracy, currency, completeness and relevance for the purpose for which it is to be used.

The information provided is often supplied by, or based on, data and information from external sources, therefore the NNTT and Registrar cannot guarantee that the information is accurate or up-to-date.

The NNTT and Registrar expressly disclaim any liability arising from the use of this information.

This information should not be relied upon in relation to any matters associated with cultural heritage.

Please note:

- Calculated areas may not be the same as the legal area of a parcel.
- Where shown, NNTT Tenure Class for a non freehold parcel refers to a tenure grouping derived for the purposes of the Tribunal, and does not necessarily represent the jurisdictional tenure type.
- Overlap results are returned only for the currently active jurisdiction.

Selected feature

Name	Blacktown
Full name	Blacktown City Council
As at	6/08/2018
Calculated area SqKm	240.2000



Overlap details

Schedule of Native Title Determination Applications

No overlap found

Register of Native Title Claims

No overlap found

Native Title Determinations

No overlap found

Native Title Determination Outcomes

No overlap found

Indigenous Land Use Agreements

No overlap found

RATSIB areas

Name	Organisation	RATSIB Status	Area sq km(calculated)
New South Wales	NTSCORP Limited	NTSP	1,723,577.6107

each jurisdiction, and/or the

t neither the NNTT, the our own judgment and



Overlap Area sq km (calculated) 240.2000

To Charlotte Allen,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment - Notification to Agencies

Thank you for your letter dated 17 September 2018, requesting assistance with identifying Aboriginal stakeholder groups or persons who may have an interest in your project area.

Greater Sydney Local Land Services (GS LLS) acknowledges that Local Land Services have been listed in *Section 4.1.2 (g)* of the *Aboriginal cultural heritage consultation requirements for proponents 2010,* under *Part 6, National Parks and Wildlife Act 1974* as a source of information to obtain the "names of Aboriginal people who may hold cultural knowledge relevant to determining the significance of Aboriginal *objects* and/or *places*". GS LLS is a partner with many Aboriginal communities in the region on many natural resource management (NRM) projects. However, GS LLS is not the primary source for contacting or managing contact lists for Aboriginal communities or persons that may inform or provide comment on planning issues. GS LLS considers cultural heritage issues that relate to land-use planning in general and only considers culture and heritage issues in the context of NRM.

We strongly recommend that you make contact with the Office of Environment and Heritage (OEH), Cultural Heritage Division, for all-inclusive contact lists of persons and organisations that may assist with your investigation.

Note: Hawkesbury Nepean Catchment Management Authority (HNCMA) no longer exists. All work previously carried out by HNCMA in now delivered by Greater Sydney Local Land Services (GS LLS).

Regards,

Margaret Bottrell Senior Strategic Land Services Officer (Aboriginal Communities) Greater Sydney Local Land Service Level 4, 2-6 Station Street Penrith PO Box 4515 Penrith Westfields NSW 2750 T: 02 47242111 E:margaret.bottrell@lls.nsw.gov.au W: http://www.lls.nsw.gov.au





This message is intended for the addressee named and may contain confidential information. If you are not the intended recipient, please delete it and notify the sender. Views expressed in this message are those of the individual sender, and are not necessarily the views of their organisation.



Charlotte Allen Biosis Pty Ltd 14, 17 -17 Power Avenue ALEXANDRIA NSW 2015

Dear Charlotte

Re: Request - Search for Registered Aboriginal Owners

I refer to your letter dated 17 September 2018 regarding an Aboriginal Cultural Heritage Assessment for the proposed development of a new school on a greenfields site located at 34-38 Schofields Road, Schofields NSW.

I have searched the Register of Aboriginal Owners and the project area described does not have Registered Aboriginal Owners pursuant to Division 3 of the *Aboriginal Land Rights Act 1983*.

I suggest that you contact Deerubbin Local Aboriginal Land Council on 02 4724 5600 regarding the project. They may also be able to assist you in identifying other Aboriginal stakeholders that wish to participate.

Yours sincerely

Jodie Rikiti Administration Officer Office of the Registrar, ALRA

From:Jodie RikitiTo:Charlotte AllenSubject:Biosis - Alex Avenue Public School SchofieldsDate:Wednesday, 26 September 2018 8:20:27 AMAttachments:Biosis - Alex Avenue Public School Schofields.docx

Dear Charlotte Please see attached search as requested. Regards

Jodie Rikiti Administrative Support Officer, Governance Office of The Registrar ALRA 1983 Phone: 02 8633 1266 Email: jodie.rikiti2@oralra.nsw.gov.au P.O Box 5068 PARRAMATTA NSW 2124 Website: www.oralra.nsw.gov.au

 Hi Charlotte,

Please find attached Expressions of Interest letter for Alex Avenue Public School, 34-38 Schofields Road, in Schofields.

Look forward to working with you on this project.

Kind Regards,

Anna



Our reference: SF

SF18/7188

Charlotte Allen Biosis Pty Ltd Email: callen@biosis.com.au

Dear Ms Allen,

Thank you for your letter dated 17 September 2018 to the Office of Environment and Heritage (OEH) regarding obtaining a list of the Aboriginal stakeholders that may have an interest in the proposed new school at 34-38 Schofields Road, Schofields (part Lot 4 DP 1208329 and part Lot 121 DP 1203646).

Please find attached the list of Aboriginal stakeholders known to OEH that may have an interest in the project.

As the Department of Planning and Environment is the approval authority for this project, the consultation process should be in accordance with the relevant guidelines as stipulated by the Department of Planning and Environment.

If you wish to discuss the above matter further, please email gs.ach@environment.nsw.gov.au.

Yours sincerely,

S. Hannoom 18/09/18

Susan Harrison Senior Team Leader Planning Greater Sydney Branch <u>Regional Operations</u>

PO Box 644 Parramatta NSW 2124 Level 2, 10 Valentine Avenue Parramatta NSW 2150 Tel: (02) 9995 5477 ABN 30 841 387 271 www.environment.nsw.gov.au

LIST OF ABORIGINAL STAKEHOLDERS FOR THE <u>GREATER SYDNEY BRANCH</u> HELD BY OEH FOR THE PURPOSES OF THE ABORIGINAL CULTURAL HERITAGE CONSULTATION REQUIREMENTS FOR PROPONENTS 2010

These lists are provided to proponents in accordance with section 4.1.2 of the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (the "Consultation Requirements") which commenced on 12 April 2010.

The consultation process involves getting the views of, and information from, Aboriginal people and reporting on these. It is not to be confused with other field assessment processes involved in preparing a proposal and an application. Consultation does not include the employment of Aboriginal people to assist in field assessment and/or site monitoring. Aboriginal people may provide services to proponents through a contractual arrangement however, this is separate from consultation. The proponent is not obliged to employ those Aboriginal people registered for consultation. Consultation as per these requirements will continue irrespective of potential or actual employment opportunities for Aboriginal people.

A copy of the Consultation Requirements can be found on the OEH website at: http://www.environment.nsw.gov.au/resources/cultureheritage/commconsultation/09781ACHconsultreq.pdf.

Under the Consultation Requirements; a proponent is required to provide Aboriginal people who hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and/or places as relevant to the proposed project area, with an opportunity to be involved in consultation. Section 3.3.1 of the Consultation Requirements states that Aboriginal people who can provide this information are, based on Aboriginal lore and custom, the traditional owners or custodians of the land that is the subject of the proposed project.

The Consultation Requirements also state that:

Traditional owners or custodians with appropriate cultural heritage knowledge to inform decision making who seek to register their interest as an Aboriginal party are those people who:

- continue to maintain a deep respect for their ancestral belief system, traditional lore and custom
- recognise their responsibilities and obligations to protect and conserve their culture and heritage and care for their traditional lands or Country
- have the trust of their community, knowledge and understanding of their culture, and permission to speak about it.

Please note: the placement of an organisation's name on any OEH Aboriginal stakeholder list for the Consultation Requirements does not override a proponent's requirement to also advertise in the local newspaper and to seek from other sources the names of any other Aboriginal people who may hold cultural knowledge as required under clause 80C of the <u>National Parks and</u> <u>Wildlife Regulation 2009</u>.

How to use this list

- 1. Determine which Local Government Area/s (LGA/s) your project area falls into
- 2. Identify which organisations and individuals on the list have an interest in the LGA/s relevant to your project identified in column 6 of the list
- 3. Contact the organisations/individuals who have indicated an interest in the relevant LGA/s and invite them to register an interest in your project

Do not reproduce the attached list in publicly available reports and other documents. Your report should only contain the names of the organisations and individuals who you have invited to register an interest in your project and those who have registered as stakeholders for your project.

<u>PLEASE NOTE: THE STAKEHOLDER LIST HAS NOT BEEN UPDATED TO INCLUDE THE RECENT</u> <u>COUNCIL MERGERS AND NAME CHANGES. PLEASE CONSIDER THE PRE-MERGER COUNCIL</u> <u>BOUNDARIES WHEN DETERMINING WHO SHOULD BE INVITED TO REGISTER FOR YOUR</u> PROJECT.

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
Deerubbin Local Aboriginal Land Council	Kevin Cavanagh	(02) 4724 5600	Not provided	2/9 Tindale St, Penrith NSW 2750	Hawkesbury Blacktown Penrith Fairfield	Holroyd Blue Mountains The Hills Shire Parramatta	
Tharawal Local Aboriginal Land Council	Rebecca Ede (CEO)	(02) 46810059	ceo@tharawal.com.au reception@tharawal.com.au	PO Box 245 Thirlmere NSW 2572	Camden Campbelltown Wollondilly	Sutherland Liverpool	
Metropolitan Local Aboriginal Land Council	Nathan Moran	(02) 83949666	Not provided	PO Box 1103 Strawberry Hills NSW 2016	The Hills Shire Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield Burwood	Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay	
		24			Ashfield Auburn Canada Bay	Ryde Warringah Willoughby	
Gandangara Local Aboriginal Land Council	Not provided	(02) 96025280	Not provided	PO Box 1038 Liverpool NSW 2170	Liverpool Fairfield Holroyd Parramatta	Auburn Bankstown Sutherland	
La Perouse Local Aboriginal Land Council	Chris Ingrey	(02) 9311 4282	Not provided	PO Box 365 Matraville NSW 2036	Sutherland Randwick Botany Bay Waverly	Woollahra Sydney Rockdale	
Parramatta City Council Aboriginal Advisory Committee	Parramatta City Council	(02)9806 5050	Not provided	PO Box 32, Parramatta, NSW, 2124.	Parramatta		
Holroyd City Council Advisory Committee	Holroyd City Council	(02) 9840 9840	Not provided	P.O. Box 42, Merrylands, NSW 2160	Holroyd		
Darug Custodian Aboriginal Corporation	Justine Coplin	0414 962 766	<u>justinecoplin@optusnet.com.a</u> <u>u</u>	PO Box 81, Windsor NSW 2756	Hawkesbury Blacktown Penrith Fairfield Holroyd Blue Mountains	Camden Campbelltown The Hills Shire Liverpool Parramatta	
Darug Tribal Aboriginal Corporation	Not provided	02 9622 4081	Not provided	PO Box 441, Blacktown NSW 2148	Hawkesbury Blacktown Penrith Fairfield Holroyd Blue Mountains	Camden Campbelltown The Hills Shire Liverpool Parramatta	
Darug Aboriginal Cultural Heritage Assessments	Gordon Morton	02 9410 3665 or 0422 865 831	Not provided	Unit 9, 6 Chapman Avenue, Chatswood, NSW 2067	Hawkesbury Blacktown Penrith Fairfield Holroyd Blue Mountains Camden Campbelltown The Hills Shire	Strathfield Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney	

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
					Liverpool Parramatta Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown	Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	
Darug Land Observations	Jamie Workman and Anna Workman	0418 494 951 0413 687 279	daruglandobservations@gmail. com	PO Box 173, Ulladulla, NSW 2539	Ashfield Auburn Bankstown Blacktown	Leichhardt Liverpool Manly Marrickville	
					Blue Mountains Botany Bay Burwood Camden Campbelltown Canada Bay Canterbury Fairfield Hawkesbury The Hills Holroyd Hornsby	Mosman North Sydney Parramatta Penrith Pittwater Randwick Rockdale Ryde Strathfield Sutherland Sydney Warringah	
					Hunter's Hill Hurstville Kogarah Ku-ring-gai Lane Cove	Waverley Willoughby Woollahra Wollondilly	attaches and A 25 Julie - An Antonity - Antoni
Des Dyer		0408 360 814	Not provided	18a Perigee Close, Doonside 2767	Hawkesbury Blacktown Penrith Fairfield Holroyd	Camden Campbelltown The Hills Shire Liverpool Parramatta	
Ken Foster		0411 818 091	Not provided	68 Australia St Matraville	Sutherland		
La Perouse Botany Bay Corporation	Yvonne Simms	04660 94491	Fax (02) 9311 3440	10 Murrong Place, La Perouse NSW 2036	Sutherland		
Norma Simms		04660 94491	Not provided	10 Murrong Place, La Perouse NSW 2036	Sutherland		
Matthew and Andrew Coe		(08)83442196	Not provided	37 Derlanger Avenue, Collingswood, South Australia 5081	Sutherland		
Gundungurra Aboriginal Heritage Association Inc	Merl Williams	02 4757 3223	Not provided	PO Box 31, Lawson NSW 2783	Blue Mountains	*	
Gundungurra Tribal Council Aboriginal Corporation	Sharon Brown	02 4729 3713	Not provided	PO Box 7244, Leura NSW 2780	Blue Mountains		
Trevor Robinson		Not provided	Not provided	PO Box 73, Peak Hill, NSW 2869	Blue Mountains	52	
Tania Matthews		0409 193 612/ (02) 67924038	aboriginalhistoryhunter@gmail. com	U2 11 Walowa Street, Narrabri, NSW 2390	Blue Mountains	the	
A1 Indigenous Services	Carolyn Hickey	0411 650 057	cazadirect@live.com	73 Russell Street, Emu Plains, NSW 2750.	Blue Mountains	a Managadad ad 10 100au 10000 0000	Carolyn is Wonnarua

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
Cubbitch Barta	Glenda Chalker	0427 218 425	Not provided	55 Nightingale Rd, Pheasants Nest	Camden Liverpool		
	Rebecca Chalker	Not Provided	Not provided	NSW 2574 99 Menangle street, Picton 2571	Campbelltown	Wollondilly	
Eric Keidge		04311 66423	Not provided	11 Olsson Close Hornsby Heights NSW 2077	The Hills Shire Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield Burwood Ashfield Auburn Canada Bay	Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	-
Gunjeewong Cultural Heritage Aboriginal Corporation	Cherie Carroll Turrise Contact details have changed as the above contact details have been hacked as of January 2018	(02) 6355 4110 0456 116 408 0438 428 805 or 0409 558 846	cheriecarroll68@yahoo.com Gunjeewong53@hotmail.com	1 Bellvue Place, Portland NSW, 2847	Hawkesbury Blacktown Penrith Fairfield	Holroyd Camden Campbelltown Parramatta	Cherie is a Ngunnawal Elder however lived in the Western Sydney area during her childhood. She recognises she is not from the area but has associations
Merrigarn Indigenous Corporation	Shaun Carroll	0435 040 842	Not provided	GPO Box 158, Canberra City, ACT, 2601	Hawkesbury Blacktown Penrith Fairfield	Holroyd Camden Campbelltown Parramatta	Shaun is Ngunnawal and is Cherie's brother. NOTE: It has been reported to OEH that the contact details for this group are incorrect; however, OEH has not been provided with revised contact details.
Corroboree Aboriginal Corporation	Steve Johnson	0406 991 221	Not provided	PO Box 3340, Rouse Hill, NSW 2155	Western Sydney Camden	Campbelltown Parramatta	Ngunnawal and lives in Western Sydney
Murra Bidgee Mullangari Aboriginal Corporation	Darleen Johnson	0490 051 102	Not provided	PO Box 246, Seven Hills, NSW, 2147	Hawkesbury Blacktown Penrith Fairfield	Holroyd Camden Campbelltown Parramatta	Ngunnawal and lives in Western Sydney
Muragadi Heritage Indigenous Corporation	Jesse Johnson	0447 970 049	Not provided	5 Hession Road, Nelson, NSW 2765	Western Sydney Camden	Campbelltown Parramatta	Ngunnawal and lives in Western Sydney
Bidjawong Aboriginal Corporation	James Carroll	0433 224 324	Not provided	PO Box 124, Round Corner, NSW 2158	Hawkesbury Blacktown Penrith Fairfield	Holroyd Camden Campbelltown Parramatta	
Phil Kahn		0434 545 982	Not provided	78 Forbes Street, Emu Plains, NSW 2750	Hawkesbury Blacktown Penrith	Camden Campbelltown Liverpool	

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
42 					Fairfield Holroyd	Parramatta	
Wurrumay Consultancy	Kerrie Slater	0423 935 556	wurrumay@hotmail.com; Vicki.slater@hotmail.com	89 Pyramid street, Emu Plains NSW	Hawkesbury Blacktown Penrith Fairfield Holroyd	Camden Campbelltown Liverpool Parramatta Wollondilly	
Warragil Cultural Services	Aaron Slater (Manager)	0481 280 067	Warragil c.s@hotmail.com		Hawkesbury Blacktown Penrith Fairfield	Holroyd Camden Campbelltown Liverpool Parramatta	
Kawul Cultural Services	Vicky Slater (Manager)	0431 720 887	Vicki.slater@hotmail.com	89 Pyramid Street, Emu Plains NSW 2750	Hawkesbury Blacktown Penrith Fairfield Holroyd Blue Mountains Sutherland Liverpool	Camden Campbelltown Parramatta Wollondilly The Hills Shire Auburn Bankstown	
Tocomwall	Scott Franks	0404 171 544	Not provided	PO Box 76, Caringbah NSW 1495	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown The Hills Shire	Strathfield Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman	
	3 8 8	2			Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown	North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	
D'harawal Mens Aboriginal Corporation	Elwyn Brown	0401920982	Not provided	187 Riverside Drive, Airds NSW 2560	Camden Campbelltown	Wollondilly	
Amanda Hickey Cultural Services	Amanda Hickey	0434 480 588	Not provided	41 Dempsey Street, Emu Heights, NSW 2750	Hawkesbury Blacktown Penrith Blue Mountains	Fairfield Holroyd Parramatta	Amanda is Wonnarua
Widescope Indigenous Group	Steven Hickey and Donna Hickey	0425 230 693 (Steven) 0425 232 056 (Donna)	Not provided	73 Russell Street, Emu Plains, NSW 2750	Hawkesbury Blacktown Penrith	Fairfield Holroyd Parramatta Blue Mountains	
HSB Consultants	Patricia Hampton	0424 142 216	Not provided	62 Ropes Crossing Boulevard, Ropes Crossing 2760	Hawkesbury Blacktown Penrith	Fairfield Holroyd Parramatta	

Organisation/ Individual		Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
Rane Consulting		Tony Williams	02 88246991	ajw1901@bigpond.com	1 Pyrenees Way Beaumont Hills NSW 2155	Hawkesbury Blacktown Penrith	Fairfield Holroyd Parramatta	
Anthony Williams			0456 399 687	Not provided	Unit 2 / 24 Goodwin Street Narrabeen NSW 2101	Hawkesbury Blacktown Penrith	Fairfield Holroyd Parramatta	
Dhinawan-Dhigaraa C Heritage Pty Ltd	ulture &	Ricky Fields	0402 942 572	dhinawan.fields@gmail.com	Not provided	Hawkesbury Blacktown	Fairfield Holroyd	(9)
		Athol Smith	0449 665 715	Not provided	16 Yantara Place, Woodcroft, NSW, 2767	Penrith	Parramatta	
Gunyuu	2 1 1 2	Kylie Ann Bell	Not provided	gunyuuchts@gmail.com	Not provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield	Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River.
Walbunja		Hika Te Kowhai	0402 730 612	<u>walbunja@gmail.com</u>	Not provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield	Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River
Badu		Karia Lea Bond	0476 381 207	Not provided	11 Jeffery Place, Moruya, NSW 2537	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown	Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River

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	s an an b Mar and b Mar an an b Mar an an an an an an M				Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield	North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	
Goobah Developments	Basil Smith	0405 995 725	Not provided	66 Grantham Road, Batehaven NSW, 2536	Hawkesbury Blacktown Penrith Fairfield	Burwood Ashfield Auburn Canada Bay	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to
	6 ×			а ж	Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney	Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby	the Snowy River
		*			Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown	Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	· · · · · · · · · · · · · · · · · · ·
Wullung .	Lee-Roy James Boota	0403 703 942	Not provided	54 Blackwood Street, Gerringong, NSW, 2534	Strathfield Hawkesbury Blacktown Penrith	Burwood Ashfield Auburn	This group states that their boundaries (Murrir Peoples) extend from
		~	- 149 - 5		Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland	Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill	the Hawkesbury River to the Snowy River
		2 			Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield	Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	
Yerramurra	Robert Parson	Not provided	yerramurra@gmail.com	Not provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown	Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River

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š	4.	τ		а.	Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield	North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	
Nundagurri	Newton Carriage	Not Provided	nundagurri@gmail.com	Not Provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield	Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River
Murrumbul	Mark Henry	Not provided	<u>murrumbul@gmail.com</u>	Not provided	Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville	Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River.
Jerringong	Joanne Anne Stewart	0422 800 184	jerringong@gmail.com	Not provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden	Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
	n.				Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield	North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	
Pemulwuy CHTS	Pemulwuy Johnson	0425 066 100	pemulwuyd@gmail.com	14 Top Place, Mt Annan	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown The Hills Shire Liverpool Parramatta	Strathfield Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River
				2 2	Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown	Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	
Bilinga	Simalene Carriage	Not provided	bilingachts@gmail.com	Not provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney	Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River.
					Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield	Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	
Munyunga	Kaya Dawn Bell	Not provided	munyungachts@gmail.com	Not provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown	Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River.

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
÷					Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield	North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	
Wingikara	Hayley Bell	Not provided	wingikarachts@gmail.com	Not provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield	Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River.
Minnamunnung	Aaron Broad	0402 526 888	Not provided	1 Waratah Avenue, Albion Park Rail NSW 2527	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield	Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	
Walgalu	Ronald Stewart	Not provided	walgaluchts@gmail.com	Not provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown	Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River

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Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's	2	Additional information
		- 6	5		Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury	Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah	B
					Marrickville Bankstown Strathfield Randwick Woollahra	Willoughby Blue Mountains Burwood The Hills Waverly Wollondilly	
Thauaira	Shane Carriage	Not provided	thauairachts@gmail.com	Not provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool	Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River
		r "s.		e 5	Parramatta Sutherland Sydney Kogarah Hurstville Rockdale	Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde	
	×				Canterbury Marrickville Bankstown Strathfield Randwick Woollahra	Warringah Willoughby Blue Mountains Burwood The Hills Waverly Wollondilly	
Dharug	Andrew Bond	Not provided	dharugchts@gmail.com	Not provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden	Ashfield Auburn Canada Bay Leichhardt Manly Mosman	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River
					Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale	North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde	
					Canterbury Marrickville Bankstown Strathfield Randwick	Warringah Willoughby Blue Mountains Burwood The Hills	

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
					Woollahra	Waverly Wollondilly	
Bilinga Cultural Heritage Technical Services	Robert Brown	Not Provided	<u>bilinga@mirramajah.com</u>	Not Provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield Randwick Woollahra	Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby Blue Mountains Burwood The Hills Waverly Wollondilly	This group is a member of the Mirramajah Group of RAPs
Gunyuu Cultural Heritage Technical Services	Darlene Hoskins- McKenzie	Not Provided	gunyuu@mirramajah.com management@mirramajah.co m (management & administrative email address for the Mirramajah Group of RAPs).	Not Provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield Randwick Woollahra	Vollondilly Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby Blue Mountains Burwood The Hills Waverly Wollondilly	This group is a member of the Mirramajah Group of RAPs
Munyunga Cultural Heritage Technical Services	Suzannah McKenzie	Not Provided	munyunga@mirrmajah.com	Not Provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland	Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby	This group is a member of the Mirramajah Group of RAPs

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's	Additional information
				54	SydneyKu-Ring-GaKogarahPittwaterHurstvilleBotany BayRockdaleRydeCanterburyWarringahMarrickvilleWilloughbyBankstownBlue MountaStrathfieldBurwoodRandwickThe HillsWoollahraWaverly	
Murrumbul Cultural Heritage Technical Services	Levi McKenzie- Kirkbright	Not Provided	murrumbul@mirramajah.com	Not Provided	HawkesburyAshfieldBlacktownAuburnPenrithCanada BayFairfieldLeichhardtHolroydManlyCamdenMosmanCampbelltownNorth SydneLiverpoolLane CoveParramattaHunters HillSutherlandHornsbySydneyKu-Ring-GaKogarahPittwaterHurstvilleBotany BayRockdaleRydeCanterburyWarringahMarrickvilleBlue MountaStrathfieldBurwoodRandwickThe HillsWoollahraWaverlyWollondilly	∍y
Wingikara Cultural Heritage Technical Services	Wandai Kirkbright	Not Provided	wingikara@mirramajah.com	Not Provided	HawkesburyAshfieldBlacktownAuburnPenrithCanada BayFairfieldLeichhardtHolroydManlyCamdenMosmanCampbelltownNorth SydneLiverpoolLane CoveParramattaHunters HillSutherlandHornsbySydneyKu-Ring-GaKogarahPittwaterHurstvilleBotany BayRockdaleRydeCanterburyWarringahMarrickvilleWilloughbyBankstownBlue MountaStrathfieldBurwoodRandwickThe HillsWoollahraWaverlyWollondilly	∍y i

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
Gulaga	Wendy Smith	Not Provided	gulagachts@gmail.com	Not Provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield Randwick Woollahra	Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby Blue Mountains Burwood The Hills Waverly	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River
Biamanga	Seli Storer	Not Provided	biamangachts@gmail.com	Not Provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield Randwick Woollahra	Wollondilly Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby Blue Mountains Burwood The Hills Waverly Wollondilly	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River
Callendulla	Corey Smith	Not Provided	cullendullachts@gmail.com	Not Provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah	Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's	Additional information
				* *	HurstvilleBotany BaRockdaleRydeCanterburyWarringalMarrickvilleWilloughbBankstownBlue MouStrathfieldBurwoodRandwickThe HillsWoollahraWaverlyWollondill	n y ntains
Murramarang	Roxanne Smith	Not Provided	murramarangchts@gmail.com	Not Provided	HawkesburyAshfieldBlacktownAuburnPenrithCanada EFairfieldLeichhardHolroydManlyCamdenMosmanCampbelltownNorth SycLiverpoolLane CovParramattaHunters HSutherlandHornsbySydneyKu-Ring-CKogarahPittwaterHurstvilleBotany BaRockdaleRydeCanterburyWarringalMarrickvilleWilloughbBankstownBlue MouStrathfieldBurwoodRandwickThe HillsWoollahraWaverlyWollondill	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River
DJMD Consultancy	Darren Duncan	0410 510 397	darrenjohnduncan@gmail.com	Not Provided	HawkesburyAshfieldBlacktownAuburnPenrithCanada EParramattaLeichhardSydneyManlyMarrickvilleMosmanStrathfieldNorth SydWarringahLane CovWilloughbyHunters FBlue MountainsHornsbyBurwoodKu-Ring-OThe HillsPittwaterRydeItala	Darren is associated with Metro and Deerubbin LALCs t Iney e lill
Butucarbin Aboriginal Corporation	Jennifer Beale	(02)9832 7167	koori@ozemail.com.au	PO Box E18, Emerton, NSW 2770	HawkesburyAshfieldBlacktownAuburnPenrithCanada BFairfieldLeichhardHolroydManlyCamdenMosmanCampbelltownNorth SydLiverpoolLane CovParramattaHunters H	lney e

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
				1	Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield Randwick Woollahra	Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby Blue Mountains Burwood The Hills Waverly Wollondilly	
Didge Ngunawal Clan	Lillie Carroll Paul Boyd	0426 823 944	didgengunawalclan@yahoo.co m.au	7 Siskin St, Quakers Hill NSW 2763	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield Randwick Woollahra	Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby Blue Mountains Burwood The Hills Waverly Wollondilly	2
Ginninderra Aboriginal Corporation	Steven Johnson and Krystle Carroll	0406991221	<u>Ginninderra.corp@gmail.com</u>	PO BOX 3143 Grose Vale NSW 2754	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield Randwick Woollahra	Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby Blue Mountains Burwood The Hills Waverly Wollondilly	

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's	Additional information
Garrara Aboriginal Corporation	Raymond Ingrey	2	raymond@bariyu.org.au		Sutherland Liverpool Camden Campbelltown Wollondilly	
Nerrigundah	Newton Carriage	0421 253 677	nerrigundachts@gmail.com	B	HawkesburyAshfieldBlacktownAuburnPenrithCanada BayFairfieldLeichhardtHolroydManlyCamdenMosmanCampbelltownNorth SydneyLiverpoolLane Cove	с 11
					ParramattaHunters HillSutherlandHornsbySydneyKu-Ring-GaiKogarahPittwaterHurstvilleBotany BayRockdaleRydeCanterburyWarringahMarrickvilleWilloughby	
					Bankstown Blue Mountains Strathfield Burwood Randwick The Hills Woollahra Waverly	
Duncan Falk Consultancy	Duncan Falk	0406 610 644	duncanfalk@hotmail.com	34 Robinia Drive, Bowral NSW 2576	Camden Campbelltown	
Sharon Hodgetts	-	0405288814	sharonhodgetts@hotmail.com	21/29 Central Coast Hwy West Gosford 2250	Hawkesbury	
Wailwan Aboriginal Group	Philip Boney	0436 483 210	waarlan12@outlook.com		HawkesburyAshfieldBlacktownAuburnPenrithCanada BayFairfieldLeichhardtHolroydManlyCamdenMosmanCampbelltownNorth SydneyLiverpoolLane CoveParramattaHunters HillSutherlandHornsbySydneyKu-Ring-GaiKogarahPittwaterHurstvilleBotany Bay	
Guntawang Aboriginal Resources Incorporated	Wendy Morgan	0414 964 657 9601 7183	Wenlissa01@hotmail.com	113 Reservoir Road Mt Pritchard NSW 2170	RockdaleRydeCanterburyWarringahMarrickvilleWilloughbyBankstownBlue MountainsStrathfieldBurwoodRandwickThe HillsWoollahraWaverlyCamdenCampbelltownLiverpoolLiverpool	

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's	Additional information
and an internal					Holroyd Wollondilly Blue Mountains	
Barking Owl Aboriginal Corporation	Mrs Jody Kulakowski (Director)	0426 242 015	<u>barkingowlcorp@gmail.com</u>	2-65/69 Wehlow St. Mt Druitt	HawkesburyAshfieldBlacktownAuburnPenrithCanada BayFairfieldLeichhardtHolroydManlyCamdenMosmanCampbelltownNorth SydneyLiverpoolLane CoveParramattaHunters HillSutherlandHornsbySydneyKu-Ring-GaiKogarahPittwaterHurstvilleBotany BayRockdaleRydeCanterburyWarringahMarrickvilleBlue MountainsStrathfieldBurwoodRandwickThe HillsWoollahraWaverlyWollondilly	
Yulay Cultural Services	Arika Jalomaki (Manager)	0411 048 794	yulayculturalservices@gmail.c om	15 Rowley Place, Airds NSW 2560	Deerubbin LALC Tharawal LALC Gandangarra LALC	LGAs of interest not specified, rather, LALC boundaries within which the organisation wish to be consulted
Thoorga Nura	John Carriage (Chief Executive Officer)	0401 641 299	thoorganura@gmail.com	50B Hilltop Crescent, Surf Beach, 2536, NSW	AshfieldLeichhardtAuburnLiverpoolBankstownManlyBlacktownMarrickvilleBlue MountainsMosmanBotany BayNorth SydneyBurwoodParramattaCamdenPenrithCamdenPenrithCandeaBayRandwickCanterburyCanterburyRockdaleFairfieldRydeHawkesburyStrathfieldThe HillsSutherlandHolroydSydneyHunter's HillWaverleyHurstvilleWilloughbyKogarahWoollahraKu-ring-gaiWollondillyLane CoveSutherland	
Barraby Cultural Services	Lee Field (Manager)	0423 906 606	barrabyculturalservices@gmail .com	6 Macgibbon Parade, Old Erowal Bay, NSW 2540	Tharawal LALC	LGAs of interest not specified, rather, LALC

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
					Gandagarra LALC	и	boundaries within which the organisation wish to be consulted
Yurrandaali Cultural Services	Bo Field (Manager)	0457 546 643	yurrandaali cs@hotmail.com	3 Sheeran Street, Old Erowal Bay NSW 2540	Tharawal LALC Gandagarra LALC		LGAs of interest not specified, rather, LALC boundaries within which the organisation wish to be consulted
Darug Boorooberongal Elders Aboriginal Corporation	Gordon Workman	0415 663 763	fax 02 9831 8868 boorooberongal@outlook.com	73 Judith Anderson Drive, Doonside NSW 2767	Ashfield Auburn Bankstown Blacktown Blacktown Blue Mountains Botany Bay Burwood Camden Campbelltown Canada Bay Canterbury Fairfield Hawkesbury The Hills Holroyd Hornsby Hunter's Hill Hurstville Kogarah Ku-ring-gai Lane Cove	Leichhardt Liverpool Manly Marrickville Mosman North Sydney Parramatta Penrith Pittwater Randwick Rockdale Ryde Strathfield Sutherland Sydney Warringah Waverley Willoughby Woollahra Wollondilly	

From:	Geospatial Search Requests
To:	Charlotte Allen
Subject:	RE: SR4871 27715 Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment - SR4871
Date:	Thursday, 20 September 2018 5:55:22 PM
Attachments:	image001.png
	20180920 SR4871 NSW Blacktown City Council LGA Overlap Report xlsx

UNCLASSIFIED

Native title search – NSW - Parcels within Blacktown City Council LGA Your ref: 27715 - Our ref: SR4871 Change of e-mail address for Geospatial Searches

Please ensure that from 14th August 2018 your search requests are forwarded to <u>GeospatialSearch@NNTT.gov.au</u> with a *completed search request form*. The form is available from the Tribunal's website at this address: <u>http://www.nntt.gov.au/News-and-Publications/Pages/Forms.aspx</u>

Dear Charlotte Allen,

Thank you for your search request received on 17 September 2018 in relation to the above area. Based on the records held by the National Native Title Tribunal as at 20 September 2018 it would appear that there are no Native Title Determination Applications, Determinations of Native Title, or Indigenous Land Use Agreements over the identified area.

Please note: Where the area identified to be searched is indistinct, generalised, or is for a freehold parcel, the results provided may relate to the Local Government Area (LGA) or Local Aboriginal Land Council (ALC).

Search Results

The results provided are based on the information you supplied and are derived from a search of the following Tribunal databases:

- Schedule of Native Title Determination Applications
- Register of Native Title Claims
- National Native Title Register
- Register of Indigenous Land Use Agreements
- Notified Indigenous Land Use Agreements

At the time this search was carried out, there were **no relevant entries** in the above databases. **Please note**: There may be a delay between a native title determination application being lodged in the Federal Court and its transfer to the Tribunal. As a result, some native title determination applications recently filed with the Federal Court may not appear on the Tribunal's databases.

The Tribunal accepts no liability for reliance placed on enclosed information

The enclosed information has been provided in good faith. Use of this information is at your sole risk. The National Native Title Tribunal makes no representation, either express or implied, as to the accuracy or suitability of the information enclosed for any particular purpose and accepts no liability for use of the information or reliance placed on it.

If you have any further queries, please do not hesitate to contact us on the free call number 1800 640 501.

Regards,

Geospatial Searches

National Native Title Tribunal | Perth

Email: <u>GeospatialSearch@nntt.gov.au</u> | <u>www.nntt.gov.au</u> Shared country, shared future From: Charlotte Allen

Sent: Monday, 17 September 2018 1:53 PM

To: Geospatial Search Requests

Subject: SR4871 27715 Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment

Good afternoon,

School Infrastructure NSW are proposing to develop a new school on a greenfields site at 34-38 Schofields Road, Schofields (the study area), with capacity for 500 students in the Stage 1 of the development, and a further 500 students in Stage 2. The study area will incorporate part of Lot 4, DP 1208329, and part of Lot 121, DP 1203646. Biosis have been engaged by School Infrastructure NSW to undertake an Aboriginal Cultural Heritage Assessment (ACHA) under *the Code of practice for archaeological investigation of Aboriginal objects in NSW* (DECCW 2010) for the project.

Biosis wishes to identify Aboriginal people who may have an interest in the proposed study area and hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and/or places in the Schofields area. If you could please provide contact details for any such Aboriginal people or organisations of which you are aware it would be greatly appreciated. Please provide these details by **4pm on 1 October 2018**.

All correspondence regarding provision of names and contact details of Aboriginal people who may hold cultural knowledge relevant to the study area should be provided in writing to: Charlotte Allen

Biosis Pty Ltd

14, 17-17 Power Avenue

Alexandria NSW 2015

callen@biosis.com.au

If you have any queries regarding the Project please don't hesitate to contact me on the details below.

Yours sincerely,

Charlotte

Charlotte Allen

Field Archaeologist M: 0437 641 267 D: (02) 9101 8712

E: <u>callen@biosis.com.au</u>

Biosis Logo

Leaders in Ecology and Heritage Consulting

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From:	Sue Galt
To:	Charlotte Allen
Subject:	Request for Relevant Aboriginal Stakeholders Information for Alex Avenue Public School, Schofields
Date:	Thursday, 18 October 2018 10:54:36 AM
Attachments:	image003.png
	standard advice on stakeholders pdf



Sue Galt BTP (Hons), M.Herit.Cons 9839 6216 Sue.Galt@blacktown.nsw.gov.au PO Box 63 Blacktown NSW 2148 blacktown.nsw.gov.au

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Our file no:145-537-1 C18/47764

18 October 2018

Charlotte Allen Biosis Pty Ltd

callen@biosis.com.au

Dear Madam,

Request for Relevant Aboriginal Stakeholders Information for Alex Avenue Public School, Schofields

Thank you for your letter dated 17 September 2018 regarding Aboriginal stakeholders contact details relevant to the above.

The NSW Office of Environment and Heritage (OEH) has advised us that their consultation list for this purpose is confidential and may only be obtained on a project by project basis from officers of the OEH.

Please contact Fran Scully of the Office of Environment and Heritage Regulatory Group on 9995 6830 for further assistance.

Yours faithfully,

Trevor Taylor Manager Development Policy and Regulation

Council Chambers • 62 Flushcombe Road • Blacktown NSW 2148 Telephone: (02) 9839 6000 • Facsimile: (02) 9831-1961 • DX 8117 Blacktown Email: council@blacktown.nsw.gov.au • Website: www.blacktown.nsw.gov.au All correspondence to: The General Manager • PO Box 63 • Blacktown NSW 2148 G:\Dept\DPD\Let\October 2018\10DPDJR0517.docx



Amanda Hickey Amanda Hickey Cultural Services 41 Dempsey Street Emu Heights NSW 2750

Dear Amanda Hickey,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

Our Ref: Matter 27715

School Infrastructure NSW are proposing to develop a new school on a greenfields site at 34-38 Schofields Road, Schofields (the study area), with capacity for 500 students in the Stage 1 of the development, and a further 500 students in Stage 2. The study area will incorporate part of Lot 4, DP 1208329, and part of Lot 121, DP 1203646 (Figure 1, Figure 2). The project involves the following elements:

- a two storey Home Base building (stage 1)
- a two storey admin and staff building (stage 1)
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Biosis have been engaged by School Infrastructure NSW to undertake an Aboriginal Cultural Heritage Assessment (ACHA) under the *Code of practice for archaeological investigation of Aboriginal objects in NSW* (DECCW 2010a) for the project.

In accordance with the NSW Office of Environment and Heritage's *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010b) (consultation requirements), Part 6 *National Parks and Wildlife Act 1974*, individuals or groups are invited to register their interest in writing to participate in the ACHA and consultation process for the proposal.



Biosis Pty Ltd is assisting with consultation with the Aboriginal community in accordance with the consultation requirements. The purpose of the Aboriginal community consultation will be to assist with the preparation of an Environmental Impact Statement and to provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development application.

Biosis wishes to identify Aboriginal people who may have an interest in the proposed study area and hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and/or places in the Schofields area. If you would like to register your interest to be consulted for this assessment, please respond by **4pm on Wednesday 17 October 2018**.

In accordance with the consultation requirements, please note that the relevant client contact for this project is:

Sam Werner School Infrastructure NSW – Program Manager sam.werner1@det.nsw.edu.au

All correspondence regarding provision of names and contact details of Aboriginal people who may hold cultural knowledge relevant to the study area should be provided in writing to:

Charlotte Allen Biosis Pty Ltd 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

If you have any queries regarding the Project please don't hesitate to contact me on the details below.

Yours sincerely,











Darug Tribal Aboriginal Corporation PO Box 441 Blacktown NSW 2148

Dear Sir or Madam,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

Our Ref: Matter 27715

School Infrastructure NSW are proposing to develop a new school on a greenfields site at 34-38 Schofields Road, Schofields (the study area), with capacity for 500 students in the Stage 1 of the development, and a further 500 students in Stage 2. The study area will incorporate part of Lot 4, DP 1208329, and part of Lot 121, DP 1203646 (Figure 1, Figure 2). The project involves the following elements:

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Charlotte Allen Biosis Pty Ltd 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

If you have any queries regarding the Project please don't hesitate to contact me on the details below.

Yours sincerely,











Gordon Morton Darug Aboriginal Cultural Heritage Assessments Unit 9, 6 Chapman Avenue Chatswood NSW 2067

Dear Gordon Morton,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

Our Ref: Matter 27715

School Infrastructure NSW are proposing to develop a new school on a greenfields site at 34-38 Schofields Road, Schofields (the study area), with capacity for 500 students in the Stage 1 of the development, and a further 500 students in Stage 2. The study area will incorporate part of Lot 4, DP 1208329, and part of Lot 121, DP 1203646 (Figure 1, Figure 2). The project involves the following elements:

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Charlotte Allen Biosis Pty Ltd 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

If you have any queries regarding the Project please don't hesitate to contact me on the details below.

Yours sincerely,











Des Dyer 18A Perigree Close Doonside NSW 2767

Dear Des Dyer,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

Our Ref: Matter 27715

School Infrastructure NSW are proposing to develop a new school on a greenfields site at 34-38 Schofields Road, Schofields (the study area), with capacity for 500 students in the Stage 1 of the development, and a further 500 students in Stage 2. The study area will incorporate part of Lot 4, DP 1208329, and part of Lot 121, DP 1203646 (Figure 1, Figure 2). The project involves the following elements:

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Charlotte Allen Biosis Pty Ltd 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

If you have any queries regarding the Project please don't hesitate to contact me on the details below.

Yours sincerely,











Shaun Carroll Merrigarn Indigenous Corporation GPO Box 158 Canberra City ACT 2601

Dear Shaun Carroll,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

Our Ref: Matter 27715

School Infrastructure NSW are proposing to develop a new school on a greenfields site at 34-38 Schofields Road, Schofields (the study area), with capacity for 500 students in the Stage 1 of the development, and a further 500 students in Stage 2. The study area will incorporate part of Lot 4, DP 1208329, and part of Lot 121, DP 1203646 (Figure 1, Figure 2). The project involves the following elements:

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Charlotte Allen Biosis Pty Ltd 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

If you have any queries regarding the Project please don't hesitate to contact me on the details below.

Yours sincerely,











Darleen Johnson Murra Bidgee Mullangari Aboriginal Corporation PO Box 246 Seven Hills NSW 2147

Dear Darleen Johnson,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

Our Ref: Matter 27715

School Infrastructure NSW are proposing to develop a new school on a greenfields site at 34-38 Schofields Road, Schofields (the study area), with capacity for 500 students in the Stage 1 of the development, and a further 500 students in Stage 2. The study area will incorporate part of Lot 4, DP 1208329, and part of Lot 121, DP 1203646 (Figure 1, Figure 2). The project involves the following elements:

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Charlotte Allen Biosis Pty Ltd 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

If you have any queries regarding the Project please don't hesitate to contact me on the details below.

Yours sincerely,











James Carroll Bidjawong Aboriginal Corporation PO Box 124 Round Corner NSW 2158

Dear James Carroll,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

Our Ref: Matter 27715

School Infrastructure NSW are proposing to develop a new school on a greenfields site at 34-38 Schofields Road, Schofields (the study area), with capacity for 500 students in the Stage 1 of the development, and a further 500 students in Stage 2. The study area will incorporate part of Lot 4, DP 1208329, and part of Lot 121, DP 1203646 (Figure 1, Figure 2). The project involves the following elements:

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Yours sincerely,











Kevin Cavanagh Deerubbin Local Aboriginal Land Council 2/9 Tindale St Penrith NSW 2750

Dear Kevin Cavanagh,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

Our Ref: Matter 27715

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Scott Franks Tocomwall PO Box 76 Caringbah NSW 1495

Dear Scott Franks,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

Our Ref: Matter 27715

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Yours sincerely,











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

Dear Lee-Roy James Boota,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

Our Ref: Matter 27715

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Steven and Donna Hickey Widescope Indigenous Group 73 Russell Street Emu Plains NSW 2750

Dear Steven and Donna Hickey,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

Our Ref: Matter 27715

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Yours sincerely,











Patricia Hampton HSB Consultants 62 Ropes Crossing Boulevard Ropes Crossing NSW 2760

Dear Patricia Hampton,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

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Yours sincerely,











Karia Lea Bond Badu 11 Jeffrey Place Moruya NSW 2537

Dear Karia Lea Bond,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

Our Ref: Matter 27715

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Yours sincerely,











Athol Smith Dhinawan-Dhigaraa Culture & Heritage Pty Ltd 16 Yantara Place Woodcroft NSW 2767

Dear Athol Smith,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

Our Ref: Matter 27715

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Yours sincerely,











Basil Smith Goobah Developments 66 Grantham Road Batehaven NSW 2536

Dear Basil Smith,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

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Aaron Broad Minnamunnung 1 Waratah Avenue Albion Park Rail NSW 2527

Dear Aaron Broad,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

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Phil Khan 78 Forbes Street Emu Plains NSW 2750

Dear Phil Khan,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

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Amanda Hickey Amanda Hickey Cultural Services 41 Dempsey Street Emu Heights NSW 2750

Dear Amanda Hickey,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

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Darug Tribal Aboriginal Corporation PO Box 441 Blacktown NSW 2148

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RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

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Gordon Morton Darug Aboriginal Cultural Heritage Assessments Unit 9, 6 Chapman Avenue Chatswood NSW 2067

Dear Gordon Morton,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

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Yours sincerely,











Des Dyer 18A Perigree Close Doonside NSW 2767

Dear Des Dyer,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

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Yours sincerely,











Shaun Carroll Merrigarn Indigenous Corporation GPO Box 158 Canberra City ACT 2601

Dear Shaun Carroll,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

Our Ref: Matter 27715

School Infrastructure NSW are proposing to develop a new school on a greenfields site at 34-38 Schofields Road, Schofields (the study area), with capacity for 500 students in the Stage 1 of the development, and a further 500 students in Stage 2. The study area will incorporate part of Lot 4, DP 1208329, and part of Lot 121, DP 1203646 (Figure 1, Figure 2). The project involves the following elements:

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Biosis wishes to identify Aboriginal people who may have an interest in the proposed study area and hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and/or places in the Schofields area. If you would like to register your interest to be consulted for this assessment, please respond by **4pm on Wednesday 17 October 2018**.

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Charlotte Allen Biosis Pty Ltd 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

If you have any queries regarding the Project please don't hesitate to contact me on the details below.

Yours sincerely,











Darleen Johnson Murra Bidgee Mullangari Aboriginal Corporation PO Box 246 Seven Hills NSW 2147

Dear Darleen Johnson,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

Our Ref: Matter 27715

School Infrastructure NSW are proposing to develop a new school on a greenfields site at 34-38 Schofields Road, Schofields (the study area), with capacity for 500 students in the Stage 1 of the development, and a further 500 students in Stage 2. The study area will incorporate part of Lot 4, DP 1208329, and part of Lot 121, DP 1203646 (Figure 1, Figure 2). The project involves the following elements:

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Yours sincerely,











James Carroll Bidjawong Aboriginal Corporation PO Box 124 Round Corner NSW 2158

Dear James Carroll,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

Our Ref: Matter 27715

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Yours sincerely,











Kevin Cavanagh Deerubbin Local Aboriginal Land Council 2/9 Tindale St Penrith NSW 2750

Dear Kevin Cavanagh,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

Our Ref: Matter 27715

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Yours sincerely,











Scott Franks Tocomwall PO Box 76 Caringbah NSW 1495

Dear Scott Franks,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

Our Ref: Matter 27715

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Yours sincerely,











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

Dear Lee-Roy James Boota,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

Our Ref: Matter 27715

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Yours sincerely,











Steven and Donna Hickey Widescope Indigenous Group 73 Russell Street Emu Plains NSW 2750

Dear Steven and Donna Hickey,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

Our Ref: Matter 27715

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Yours sincerely,











Patricia Hampton HSB Consultants 62 Ropes Crossing Boulevard Ropes Crossing NSW 2760

Dear Patricia Hampton,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

Our Ref: Matter 27715

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Yours sincerely,











Karia Lea Bond Badu 11 Jeffrey Place Moruya NSW 2537

Dear Karia Lea Bond,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

Our Ref: Matter 27715

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Yours sincerely,











Athol Smith Dhinawan-Dhigaraa Culture & Heritage Pty Ltd 16 Yantara Place Woodcroft NSW 2767

Dear Athol Smith,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

Our Ref: Matter 27715

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Yours sincerely,











Basil Smith Goobah Developments 66 Grantham Road Batehaven NSW 2536

Dear Basil Smith,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

Our Ref: Matter 27715

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Yours sincerely,

Charlotte Allen Field Archaeologist 02 9101 8712 0437 641 267 callen@biosis.com.au











03 October 2018

Aaron Broad Minnamunnung 1 Waratah Avenue Albion Park Rail NSW 2527

Dear Aaron Broad,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

Our Ref: Matter 27715

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In accordance with the NSW Office of Environment and Heritage's *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010b) (consultation requirements), Part 6 *National Parks and Wildlife Act 1974*, individuals or groups are invited to register their interest in writing to participate in the ACHA and consultation process for the proposal.



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Charlotte Allen Field Archaeologist 02 9101 8712 0437 641 267 callen@biosis.com.au











03 October 2018

Phil Khan 78 Forbes Street Emu Plains NSW 2750

Dear Phil Khan,

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Registration of Interested Parties

Our Ref: Matter 27715

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Charlotte Allen Field Archaeologist 02 9101 8712 0437 641 267 callen@biosis.com.au









Darug Tribal Aboriginal Corporation aims to Protect and Preserve Darug Places and Sites as well as to Promote and Educate the wider community about Darug Heritage and Culture

Archaeological Project - Expression of Interest

Darug Research & Information Centre 71 Seven Hills Rd South, Seven Hills, NSW, 2147 Ph (02) 9622-4081



Darug Tribal Aboriginal Corporation ICN: 2734 PO Box 441 Blacktown, NSW, 2148 Ph | 02 9622 4081 Email: darug_tribal@live.com.au

10/10/2018

Charlotte Allen Biosis Pty Ltd 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

RE – Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment - Registration of Interested Parties

Dear Charlotte,

On behalf of the Board of Darug Tribal Aboriginal Corporation, I would like to thank you for the invitation to participate in the above-mentioned project.

The Darug Tribal Aboriginal Corporation, on behalf the Board and its Members, do hereby request to be included in all activities regarding this project, including any future correspondence there from arising.

Correspondence arising should be addressed to the Archaeological Coordinator, Mr. John Reilly and may be provided by post to the above PO Box address, or via e-mail to the above e-mail address. John may be contacted directly via Mobile at: (04) 0233-4123 or a message may be left on the answering machine in the DTAC Office via (02) 9622-4081.

On site consulting, and other services can be provided as required. The standard rate for such services is \$100 excluding GST per hour (\$110 per hour including GST).

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 any project, goes toward supporting our Members, being the Traditional Owners of Darug land, the protection and preservation of Darug places and sites, the education of the wider community about the Darug people, their history, heritage and culture, and the functioning of the Corporation and its' services.

Sincerely,

Dirk Schmitt Accountant to Darug Tribal Aboriginal Corporation

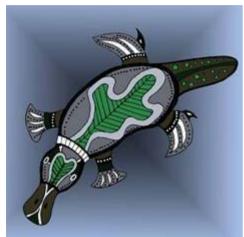
From:	Ryan Johnson
То:	Charlotte Allen
Subject:	Alex avenue public school Schofields NSW
Date:	Saturday, 13 October 2018 5:37:18 PM

Dear Charlotte,

I would like to register our organisation for the Alex Avenue public school project, my family have a long history in the project area. Our members and family hold the cultural knowledge relevant to identifying aboriginal objects and or places in the project area.

Thanks

Ryan Johnson | Murra Bidgee Mullangari



Aboriginal Corporation Cultural Heritage

A: PO Box 246, Seven Hills, NSW, 2147 E: <u>murrabidgeemullangari@yahoo.com.au</u> ICN: 8112

Note: Privileged/Confidential information may be contained in this message and may be subject to legal privilege. Access to this e-mail by anyone other than the intended is unauthorised. If you are not the intended recipient (or responsible for delivery of the message to such person), you may not use, copy, distribute or deliver to anyone this message (or any part of its contents) or take any action in reliance on it. In such case, you should destroy this message, and notify us immediately. If you have received this email in error, please notify us immediately by e-mail or telephone and delete the e-mail from any computer. If you or your employer does not consent to internet e-mail messages of this kind, please notify us immediately. All reasonable precautions have been taken to ensure no viruses are present in this e-mail. As our company cannot accept responsibility for any loss or damage arising from the use of this e-mail or attachments we recommend that you subject these to your virus checking procedures prior to use. The views, opinions, conclusions and other informations expressed in this electronic mail are not given or endorsed by the company unless otherwise indicated by an authorized representative independent of this message.

Aboriginal Archaeology Service INC: 1400988 2/24 Goodwin Street Narrabeen <u>Mobile</u>: 0456 399 687 Email: aas.info@bigpond.com



9th October 2018

Biosis Pty Ltd

Attention: Charlotte Allen

Ref: 27715

Registration for consultation for Alex Avenue Public School, Schofields

Aboriginal Archaeology Service is seeking *involvement* in all consultation meetings and fieldwork for the above-mentioned project, as we are registered traditional owners of the area. AAS immediate family has lived in the area from 1897 and retains local and oral history on behalf of its first nation people. We have no objection to our information being provided to the Office of Environment and Heritage and the Local Aboriginal Land Council.

AAS can assist with input that can be incorporated into a written assessment of cultural values of the area. We are also able to provide fit staff to assist with work that may involve physical labour. We can provide our schedule of rates and copies of relevant certificates of currency for business insurances on request.

All correspondence should be emailed to <u>AAS.info@bigpond.com</u> and. The area is an important part of our culture and valued by our family.

Yours truly

Lew alle

Andrew Williams

Dear Charlotte,

Please register me for the above project, our family have a long history in the schofields, Riverstone and surrounding areas. Please contact me if you require further information. Kind regards Shaun Carroll 0400637554 Dear Charlotte,

Please register our orangisation for the above project, our family and members hold the cultural knowledge that is relevant to identifying aboriginal objects and/or places in the project area. My mother was born in Westminister street, Schofields and my uncle and aunties went to Schofields public school, I look forward to hearing from you.

Thanks

Jesse

Heilsan Charlotte,

Please find attached.

Cheers

Dirk Schmitt Accountant to Darug Tribal Aboriginal Corporation



EMAIL: DARUGLANDOBSERVATIONS@GMAIL.COM PO BOX 173 ULLADULLA NSW 2539 MOBILE: 0413 687 279

15th October, 2018

Matter 27715

Charlotte Allan BIOSIS Pty Ltd Unit 14, 17-27 Power Avenue ALEXANDRIA NSW 2015

Notification and Registration of ALL Aboriginal Interests

RE: LOT 4 DP 1208329 & PART OF LOT 121 DP 1203646 –ALEX AVENUE PUBLIC SCHOOL, 34-38 SCHOFIELDS ROAD, SCHOFIELDS Aboriginal Archaeological & Cultural Heritage Assessment

Dear Charlotte,

Please be advised that Darug Land Observations Pty Ltd is seeking to be involved in any and all consultation meetings and fieldwork.

This office specialises in Aboriginal and community consultations, and has a membership that comprises of Traditional owners from the area in question. Those retain strong story, song lines, oral history and continued contact.

We would also like to state that we do not accept or support any person or organisation that are NOT from the DARUG Nation that comments regarding the said area.

Please also be advised that this Aboriginal organisation does not do volunteer work or attend unpaid meetings. I hope that you advise your client of this so that, 'This Group', will not be discriminated against and refused paid fieldwork. DLO's rate is \$440 half day (less than 4 hours) and \$880 per day (flat rate), including GST.

All correspondence should be emailed to: <u>daruglandobservations@gmail.com</u> and any further consultation during this project can be directed to Anna or Jamie Workman.

Yours sincerely,

Gavil Wotzuan

Jamie Workman Darug Land Observations Pty Ltd

Uncle Gordon Workman Darug Elder

From:	Lynette Marlow
То:	Charlotte Allen
Subject:	Fw: 27715 – Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Identification of Interested Aboriginal Parties
Date:	Thursday, 4 October 2018 8:01:45 AM
Attachments:	image4c69a9.PNG 27715.RegistrationInvitation.FIN01.20181003pdf ICN.doc

Please let me no if you are getting to many of these thank you

From: Ashley Bridge
Sent: Wednesday, 3 October 2018 7:28 AM
To: 'boorooberongal@outlook.com'
Subject: 27715 – Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment – Identification of Interested Aboriginal Parties
Dear Sir/Madam,

Biosis Pty Ltd, on behalf of School Infrastructure NSW, is undertaking an Aboriginal Cultural Heritage Assessment (ACHA) for the proposed public school development at 34-38 Schofields Road, Schofields (Lot 4, DP 1208329 and part of Lot 121, DP 1203646).

Biosis is assisting School Infrastructure NSW with consultation with the Aboriginal community in accordance with the consultation requirements. Biosis wishes to identify Aboriginal people who may have an interest in the proposed study area and hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and/or Places in the Schofields area. If you would like to register your interest to be consulted for this assessment, please respond by 4pm on Wednesday 17 October 2018.

All correspondence regarding provision of names and contact details of Aboriginal people who may hold cultural knowledge relevant to the study area should be provided in writing to:

Charlotte Allen Biosis Pty Ltd 14, 17-27 Power Avenue Alexandria NSW 2015 02 9101 8712 callen@biosis.com.au

Thank you, Kind regards, Ashley

Ashley Bridge Research Assistant - Heritage M: 0437 689 734 D: (02) 9101 8721 E: abridge@biosis.com.au

Biosis Logo			

Leaders in Ecology and Heritage Consulting

The information transmitted including attachments is intended only for the person or entity to which it is addressed and may contain copyright material, or information that is confidential or is exempt from disclosure by law. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon this information by persons or entities other than the intended recipient is strictly prohibited. If you received this in error, please contact the sender and delete the material from your computer. The views expressed in this email are those of the sender except where the sender expressly and with authority states them to be the views of Biosis Pty Ltd. Biosis Pty Ltd does not represent that this email is free of errors, viruses or interference. When using email to communicate with Biosis Pty Ltd, access to that information by Biosis Pty Ltd personnel is strictly limited and controlled.





ICN: 8890 ABN: 76 170 262 247 E-MAIL: <u>BOOROOBERONGAL@OUTLOOK.COM</u> ADDRESS: PO BOX 14 DOONSIDE NSW 2767 PHONE: 0415 663 763



04/10/2018

TO: Charlotte Allen

Field Archaeologist

RE: Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment

Notification and Registration of ALL Darug Aboriginal Interests Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment

Please be advice that Darug Boorooberongal Elders Aboriginal Corporation (DBEAC) is seeking to be involved in any and all consultation meetings and field work.

This office specialises in Darug Aboriginal and community consultation. The membership comprises of traditional owners from the area in question who retain strong story, song lines, oral history and continued contact. We have a continued spiritual connection to Darug nation territories. We would also like to state, that we do not except or support any person or organisation that are NOT from the DARUG Nation to have input on the project area.

Please also be advised that this Aboriginal organisation does not do volunteer work or attend unpaid meetings. I hope that you advise your client of this, so that, this group will not be discriminated against and refused paid field work.

We will be delighted to discuss this project with you in the near future. Please do not hesitate to send all correspondence should be emailed to our email <u>boorooberongal@outlook.com</u>.

Yours faithfully

Uncle Gordon Workman Darug Elder

Sites Officer

Pollowan Phillip Khan 78 Forbes Street Emu Plains NSW 2750 Email <u>philipkhan.acn@live.com.au</u> mobile: 0434545982

Charlotte Allen Biosis Pty Ltd Unit 14, 17-27 Power Avenue Alexandria NSW 2015



your ref27715 6/10/18

Dear Charlotte

Thank you for your letter informing me that Biosis Pty Ltd has been engaged by School Infrastructure NSW, to undertake archaeological work at 34-38 Schofields Road Schofields, to undertake an Aboriginal Cultural heritage Assessment and (AHIP) will be obtained from (OEH) in order to undertake test excavation and that you are inviting Aboriginal organisations to register, if they wish to be involved in the community consultation process.

As Senior Aboriginal person who has for the past forty of so years (40) actively participated in the Protection Aboriginal Cultural Heritage throughout the Sydney Basin , and particularly throughout Western Sydney, I, on behalf of the Kamilaroi Yankuntjatjara Working Group, wish to provide to you my organisations' registration of interest.

Information in my registration of Interest:

Mobile 043 4545 982

- 1. I am a Senior Aboriginal and Principal of the Kamilaroi -Yankuntjatjara Working Group, and all Aboriginal entity (ABN33979702507).
- I prefer communicating by, Mail, Telephone, and; and I am, the Principal, person to contact, and; My contact details are: Phillip Khan 78 Forbes Street, Emu Plains NSW 2750
- 3. I wish to be involved and participate in all levels of consultation/project involvement. I wish to attend all meetings, and, participate in available field work; and would receive a copy of the report.
- 4. I attach to this letter a copy of Kamilaroi- Yankuntjatjara Working Group's; GIO Public Liability Insurance; GIO Workers Compensation Certificate.

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

Yours Sincerely,

Pollowan Phillip Khan

Environme nt & Heritage

Darug Aboriginal Land Care

(Uncle Des Dyer)

18a Perigee Close Doonside 2767NSW ABN 71 301 006 047

Charlotte Allen Archaeologist Biosis Pty Ltd 14, 17-27 Power Avenue Alexandria 2015 NSW

Re: Alex Public School Schofields .

Dear Charlotte,

Darug Aboriginal Land care / Uncle Des Dyer. Have no objections to the planned development.

The Darug Aboriginal Land care would like to **register** for this project and be consulted and take part in survey and test excavations. This project falls within the Darug land.

We are Traditional Owner, our members have lived on Darug land for most of their lives and worked in the area. We have responsibility to look after the plants, creeks and rivers on Darug land. We have been doing Cultural Heritage Assessments for over 20 year and still do today.

Our members are family and have lived in the area, we consult with them by Email and phone.

We would like to take part in any field survey and test excavations. Attend any meetings.

We have over 20years experience and all our works have White cards Our preferred method of communication is by Email.

Our Site Officer Ricky Fields

Mobile 0402942572. Email fields.r@outlook.com

For all Survey test excavation and salvage works please contact him for all work matters. please contact him

We agree and understand you can give our contacted details to others.

The area is an important part of our culture and valued by the community as most of the people that lived there were Darug. We can provide cultural knowledge during the survey.

Our preferred option to receive the project information is by E-mail.

Thank you Kind regards Des Dyer. Manager. Darug Elder Email desmond4552@hotmail.com Mobile 0408360814 Hi Charlotte,

This is the Darug Aboriginal Land care letter to register for this project

kind regards Des

From:	Andrew Williams
To:	Charlotte Allen
Cc:	Dad Williams
Subject:	Registration for Alex Avenue Public School Schofields
Date:	Wednesday, 10 October 2018 3:39:30 PM
Attachments:	Alex avenue Schofield registration.pdf

Please see attached AAS registration for Alex Avenue Public School, Schofields

Regards

Andrew Williams aas.info@bigpond.com Dear Charlotte

Please find attached expression of interest to participate in community consultation Aboriginal Cultural Heritage Assessment for 34-38 Schofields Rd Schofields NSW

Kind regards

Jody Kulakowski

Director 0426 242 015 Barking Owl Aboriginal Corporation Barking Owl Aboriginal Corporation ICN 8822 barkingowlcorp@gmail.com



13 October 2018

Dear Charlotte

<u>RE: 34-38 SCHOFIELDS RD SCHOFIELDS NSW</u> ABORIGINAL CULTURAL HERITAGE ASSESSMENT

We would like to register interest for full consultation and involvement in the study area.

Registering Aboriginal Party:	Barking Owl Aboriginal Corporation
Contact Person:	Jody Kulakowski
Phone:	0426 242 015
Email:	<pre>barkingowlcorp@gmail.com (preferred contact method)</pre>

We are able to provide fit and hardworking site officers to assist with work that may involve physical labour with current white cards and all PPE equipment.

We can provide copies of relevant certificates of currency for business insurances on request.

Members put forward have experience in a variety of community consultation projects through other Registered Corporations.

Please feel free to contact by email <u>barkingowlcorp@gmail.com</u> if you require any further information.

kind regards

Jody Kulakowski Director Barking Owl Aboriginal Corporation 0426 242 015

School Infrastructure NSW NOTIFICATION AND REGISTRATION OF ABORIGINAL INTERESTS

School Infrastructure NSW are proposing to develop a new school at 34-38 Schofields Road, Schofields, within the Blacktown City Council Local Government Area.

An Aboriginal Cultural Heritage Assessment will be undertaken which will support a State Significant Development (SSD) application and possible sub-surface investigations.

Biosis Pty Ltd invites Aboriginal people who hold cultural knowledge in determining the significance of Aboriginal object(s) and/or places in the vicinity of the above area to register their interest in a process of community consultation.

The purpose of the Aboriginal community consultation will be to assist with the preparation of an Environmental Impact Statement and to provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the SSD application.

For more information please contact: Sam Werner

School Infrastructure NSW – Program Manager sam.werner1@det.nsw.edu.au

To register in writing please contact: Charlotte Allen

Biosis Pty. Ltd. Unit 14, 17-27 Power Avenue Alexandria NSW 2015 Tel: (02) 9101 8700 Email: callen@biosis.com.au

Please note that the name of each group that registers for consultation on this project will be provided to OEH and the LALC unless the group specifies that they do not want their details released.

REGISTRATIONS MUST BE RECEIVED BEFORE 4.00 pm, 11 December 2018



20 December 2018

Steven Randall Aboriginal Cultural Heritage Officer Deerubbin Local Aboriginal Land Council PO Box 40 Penrith NSW 2751

Dear Steven Randall

RE: Alex Avenue Public School Aboriginal Cultural Heritage Assessment – Registered Aboriginal parties

Our Ref: Matter 27715

In accordance with Stage 1 of the *Aboriginal cultural heritage consultation requirements for proponents* (DECCW 2010), this letter is to notify you that the following parties have registered an interest in this project:

Group / Individual	Contact
Aboriginal Archaeology Serivice	Andrew Williams
Barking Owl Aboriginal Corporation	Jody Kulakowski
Butucarbin Aboriginal Corporation	Jennifer Beale
Darug Aboriginal Land Care	Des Dyer
Darug Boorooberongal Elders Aboriginal Corporation	Gordon Workman
Darug Land Observations	Jamie and Anna Workman
Darug Tribal Aboriginal Corporation	Dirk Schmitt
Deerubbin Local Aboriginal Land Council	Steven Randall
Didge Ngunawal Clan	Lillie Carrol and Paul Boyd
Merrigarn Indigenous Corporation	Shaun Carroll
Muragadi	Jesse
Murra Bidgee Mullangari Aboriginal Corporation	Darleen Johnson
-	Phil Khan

Please find enclosed a copy of the advertisement placed in the *Rouse Hill Times* on 28 November 2018.



In accordance with the consultation requirements, please note that the relevant client contact for this project is:

Sam Werner School Infrastructure NSW – Program Manager sam.werner1@det.nsw.edu.au

Yours sincerely,

Charlotte Allen Archaeologist 02 9101 8712 0437 641 267 callen@biosis.com.au

School Infrastructure NSW NOTIFICATION AND REGISTRATION OF ABORIGINAL INTERESTS

School Infrastructure NSW are proposing to develop a new school at 34-38 Schofields Road, Schofields, within the Blacktown City Council Local Government Area.

An Aboriginal Cultural Heritage Assessment will be undertaken which will support a State Significant Development (SSD) application and possible sub-surface investigations.

Biosis Pty Ltd invites Aboriginal people who hold cultural knowledge in determining the significance of Aboriginal object(s) and/or places in the vicinity of the above area to register their interest in a process of community consultation.

The purpose of the Aboriginal community consultation will be to assist with the preparation of an Environmental Impact Statement and to provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the SSD application.

For more information please contact: Sam Werner

School Infrastructure NSW – Program Manager sam.werner1@det.nsw.edu.au

To register in writing please contact: Charlotte Allen

Biosis Pty. Ltd. Unit 14, 17-27 Power Avenue Alexandria NSW 2015 Tel: (02) 9101 8700 Email: callen@biosis.com.au

Please note that the name of each group that registers for consultation on this project will be provided to OEH and the LALC unless the group specifies that they do not want their details released.

REGISTRATIONS MUST BE RECEIVED BEFORE 4.00 pm, 11 December 2018



20 December 2018

Office of Environment and Heritage Susan Harrison Senior Team Leader – Planning PO Box 644 Parramatta NSW 2124

Dear Susan Harrison

RE: Alex Avenue Public School Aboriginal Cultural Heritage Assessment - Registered Aboriginal Parties

Our Ref: Matter 27715

In accordance with Stage 1 of the Aboriginal cultural heritage consultation requirements for proponents (DECCW 2010), this letter is to notify you that the following parties have registered an interest in this project (Table 1).

Table 1 Registered Aboriginal Parties

Group / Individual	Contact
Aboriginal Archaeology Service	Andrew Williams
Barking Owl Aboriginal Corporation	Jody Kulakowski
Butucarbin Aboriginal Corporation	Jennifer Beale
Darug Aboriginal Land Care	Des Dyer
Darug Boorooberongal Elders Aboriginal Corporation	Gordon Workman
Darug Land Observations	Jamie and Anna Workman
Darug Tribal Aboriginal Corporation	Dirk Schmitt
Deerubbin Local Aboriginal Land Council	Steven Randall
Didge Ngunawal Clan	Lillie Carrol and Paul Boyd
Merrigarn Indigenous Corporation	Shaun Carroll
Muragadi	Jesse
Murra Bidgee Mullangari Aboriginal Corporation	Darleen Johnson
-	Phil Khan

Please find enclosed a copy of the advertisement placed in the *Rouse Hill Times* on 28 November 2018.

Biosis Pty Ltd Sydney Resource Group



In accordance with the consultation requirements, please note that the relevant client contact for this project is:

Sam Werner School Infrastructure NSW – Program Manager sam.werner1@det.nsw.edu.au

Yours sincerely,

Charlotte Allen Archaeologist 02 9101 8712 0437 641 267 callen@biosis.com.au

School Infrastructure NSW NOTIFICATION AND REGISTRATION OF ABORIGINAL INTERESTS

School Infrastructure NSW are proposing to develop a new school at 34-38 Schofields Road, Schofields, within the Blacktown City Council Local Government Area.

An Aboriginal Cultural Heritage Assessment will be undertaken which will support a State Significant Development (SSD) application and possible sub-surface investigations.

Biosis Pty Ltd invites Aboriginal people who hold cultural knowledge in determining the significance of Aboriginal object(s) and/or places in the vicinity of the above area to register their interest in a process of community consultation.

The purpose of the Aboriginal community consultation will be to assist with the preparation of an Environmental Impact Statement and to provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the SSD application.

For more information please contact: Sam Werner

School Infrastructure NSW – Program Manager sam.werner1@det.nsw.edu.au

To register in writing please contact: Charlotte Allen

Biosis Pty. Ltd. Unit 14, 17-27 Power Avenue Alexandria NSW 2015 Tel: (02) 9101 8700 Email: callen@biosis.com.au

Please note that the name of each group that registers for consultation on this project will be provided to OEH and the LALC unless the group specifies that they do not want their details released.

REGISTRATIONS MUST BE RECEIVED BEFORE 4.00 pm, 11 December 2018



Appendix 3 Stage 2 and 3: Presentation of information about the proposed project, and Gathering information about cultural significance



Gordon Workman Darug Boorooberongal Elders Aboriginal Corporation 73 Judith Anderson Drive Doonside NSW 2767

Dear Gordon,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – project information Our Ref: Matter 27715

Thank you for your registration of interest in this project. We are writing to you in order to provide you with the project information and methodology packs for the proposed development of a new public school at 34-38 Schofields Road, Schofields, NSW. This information has been provided in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements).

In this letter you will find the project information pack, and attached to this mailout is the document *Alex Avenue Public School Aboriginal Cultural Heritage Assessment – Project Methodology.*

The purpose of the methodology document is to provide you with further information on the background of this assessment, as well as the methodology for how it will be conducted, including any test excavations should they be required.

Please note that comments on the project methodology pack should be received before **4 pm Monday 3** December 2018.

As this project will involve a field investigation and potentially test excavations, the purpose of the second letter is to invite your feedback on the proposed project information and methodology packs, and to assist the proponent in the programing of groups for participation in the test excavations should they be carried out within the study area.

If you have any queries regarding the project or the information in this letter, please don't hesitate to contact us.

Yours sincerely,

Charlotte Allen

Archaeologist callen@biosis.com.au



Project information

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with information about the proposed project and the scope of the Aboriginal archaeology and cultural heritage investigations and assessment.

Study area

The study area is located within the Blacktown Local Government Area (LGA), Parish of Gidley, County of Cumberland. It encompasses Lot 4, DP 1208329, and part of Lot 121, DP 1203646 at 34-38 Schofields Road, Schofields, NSW (Figure 1 and Figure 2).

Project

School Infrastructure NSW are proposing to develop a new school at 34-38 Schofields Road, Schofields NSW, which consists of the following elements:

- a two storey Home Base building (stage 1)
- a two storey admin and staff building (stage 1)
- a two storey library (stage 1)
- a hall and out of school hours care facilities
- three learning courtyards and sports court
- covered outdoor learning area and walkway
- interconnected external area
- parking facilities
- two storey home base building (stage 2).

Biosis Pty Ltd is assisting School Infrastructure NSW with consultation with the Aboriginal community and the Aboriginal Cultural Heritage Assessment. Consultation with the Aboriginal community will follow the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a). The purpose of the Aboriginal community consultation will be to provide sufficient information for the assessment of Aboriginal cultural heritage values and to inform the Aboriginal cultural heritage assessment (ACHA).

The ACHA will support an Environmental Impact Statement and provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application. The project will be undertaken in accordance with the *National Parks and Wildlife Act 1974*. The development of the school will be assessed as a SSD under Section 89(c) of the *Environmental Planning and Assessment Act 1979* and Schedule 1 of the State Environmental Planning Policy (State and Regional Development) 2011(SSD 9368).

Aboriginal Cultural Heritage Assessment process

The assessment process includes the following steps:

Background research

Background research has been undertaken in order to identify known Aboriginal sites, areas of potential archaeological sensitivity and previous disturbance, and inform the predictive modelling for the assessment



area. Background research will be conducted in line with the requirements of the *Code of practice for the investigation of Aboriginal objects in New South Wales* (DECCW 2010b) ('the code'). Background research for the project included the following tasks:

- Conduct heritage register searches to identify previously recorded cultural heritage sites in or within the vicinity of the proposed study area. Searches will include the Aboriginal Heritage Information Management System (AHIMS), the National Heritage List, Commonwealth Heritage List, Register of the National Estate, State Heritage Register, Local Environmental Plan and National Trust heritage lists.
- Conduct additional background research in order to recognise any identifiable regional trends in site distribution and location and provide a site prediction model for the study area.
- Undertake a comprehensive survey of the study area, identifying any previously recorded sites (on AHIMS).
- Record and assess sites identified during the survey in compliance with the guidelines issued by OEH.
- Assess the scientific significance of all identified Aboriginal cultural heritage sites and places.
- Identify impacts to all identified Aboriginal cultural heritage sites and places based on potential ground disturbance from the proposed realignment of the road.
- Make recommendations to minimise or mitigate potential impacts of the proposed realignment upon cultural heritage values within the study area.

Consultation with the Aboriginal community

This task will allow the Aboriginal community the opportunity to participate in decisions regarding the management of their cultural heritage by providing proponents information regarding cultural significance and input into management options.

Consultation with Aboriginal stakeholders under the DECCW 2010a consultation guidelines is being undertaken to assist School Infrastructure NSW by:

- Providing relevant information about the cultural significance and values of the Aboriginal object(s) and/or place(s) within the study area.
- Influencing the design of the method to assess cultural and scientific significance of Aboriginal objects(s) and/or place(s) within the study area.
- Actively contributing to the development of cultural heritage management plan options and recommendations for any Aboriginal object(s) and/or place(s) within the proposed study area.
- Commenting on the draft assessment reports before they are submitted by the proponent to the determining authority of the proposed realignment.

Aboriginal community consultation will be undertaken in accordance with the consultation requirements, which includes:

• **COMPLETED.** Ascertaining the names of Aboriginal people or groups who may hold cultural knowledge relevant to determining the significance of Aboriginal objects and/ or places within the proposed study area. This would include writing to the following:



- OEH
- Local Aboriginal Land Council (LALC)
- Office of the Registrar (Aboriginal Land Rights Act 1983)
- National Native Title Tribunal (NNTT)
- Native Title Services Corporation Limited (NTSCORP Limited)
- Relevant Local Councils
- Relevant Catchment Management Authorities
- **COMPLETED.** Biosis will undertake the 'Placement of Notification' (Public Notice) in the *Rouse Hill Times*, on behalf of School Infrastructure NSW, that must include details of the proponent, the project, the exact location, and statement of the purpose of the community consultation in preparation for possible test excavations. The Public Notice is also an invitation for Aboriginal people who hold relevant cultural knowledge about the study area. A closing date for the registration must be included and be no less than **14 days**. **Registrations closed on 31 October 2018**.
- **COMPLETED.** Aboriginal people or groups identified were provided with notification of the proposed project via Biosis and given the opportunity to be involved in consultation. **Registrations of interest closed on 17 October 2018**.
- A list of Aboriginal people or groups who registered an interest in the project will be forwarded to the OEH and Deerubbin LALC by Biosis no later than **28 days** following close of registration. This list will not include those people or groups who specified that they did not want their details shared with OEH or the LALC.
- Biosis will provide details of the project and methodology for the archaeological assessment to the registered parties. The RAPs must be given an opportunity to review and provide feedback to the proponent within a minimum of **28 days** of the Biosis providing the methodology document.
- Selected representatives of the RAPs will be given the opportunity to participate in test excavations within the study area, should they be required.
- The DRAFT ACHA report and Archaeological Report will be provided to all RAPs for comment the proponent must allow **28 days** for comment. All comments and correspondence sent and received regarding the project will be included in the final report in an Appendix.

Field Survey

An Aboriginal archaeological survey of the study area will be undertaken in accordance with the guidelines outlined in the code in order to identify any previously unknown Aboriginal objects, sites or places. If identified, these will be recorded to the required standard. Should any sites of significance be identified the location and extent shall be recorded on MGA coordinates to enable overlay with the site plans.

There are several registered Aboriginal sites in the vicinity of the study area. The field survey will attempt to relocate and inspect these sites. This task will assist in the assessment of disturbance and with the predictive modelling for areas of potential archaeological deposit. It will also assist with the assessment of whether the proposed works are likely to impact on undiscovered Aboriginal objects and /or places.

The results of the survey and background research will be analysed to determine whether there are any areas of archaeological potential within the study area.



Test excavations

Should the results of the field survey indicate that there is an area of archaeological potential within the study area, Biosis will conduct test excavations to in accordance with the requirements of the code. Further information on the methodology for test excavation is available in the project methodology.

Reporting

A draft ACHA report and archaeological report will be prepared in accordance with the code and will include:

- background and project description
- a summary and analysis of the findings of the archaeological survey and test excavations (if applicable) including the presence and location of registered or undiscovered Aboriginal artefacts or heritage items within proximity of the study area
- a summary of any other relevant studies or surveys which have relevance to the assessment area
- a summary of the landscape features of the site which may indicate a history of Aboriginal activity
- a summary of previous land use that may have affected the retention of intact Aboriginal archaeology in the landscape
- the potential or likelihood for the proposed works to uncover or expose potential undiscovered Aboriginal objects
- Survey results and, if undertaken, test excavation results
- legislative implications of the proposed works
- recommendations and justification for further assessment (if required)
- mitigation measures (if any) required for the works to proceed
- mapping to show the location of registered and newly located (if any) Aboriginal sites in relation to the proposed works.

RAPs will be provided with the draft report for comment and allowed **28 days** for review.

Project schedule

The proposed schedule and time allocations for the consultation stages are summarised below.

Action	Timeframe	Potential constraints
Commencement of Aboriginal community consultation – advertising of project and notification to stakeholders	Completed	Project advertised in the <i>Rouse Hill Times</i> 9 October 2018. Notices sent to identified Aboriginal parties on 3 October 2018.
Aboriginal stakeholder registration period	Completed	Registration period ran from 3 October to 31 October 2018.
Field survey	Completed	ТВС
Archaeological test excavations with selected representatives of RAPs	ТВС	ТВС
Information gathering	Continuous	Until finalisation of report.



Action	Timeframe	Potential constraints
Review of draft report	ТВС	28 days review time allowed under OEH Aboriginal Community Consultation Guidelines.
Final report	ТВС	ТВС

Responsibilities and roles

As part of the consultation process, RAPs are expected to respond to requests for cultural information and comment on draft reporting, as appropriate in accordance with their role specified in the guidelines (DECCW 2010a, p. 16). Biosis and the proponent, in accordance with their role under the guidelines, will consult with the Aboriginal community by supplying suitable project information and providing the opportunity for Aboriginal stakeholders to provide input into the heritage management process (DECCW 2010a, pp. 16-17).

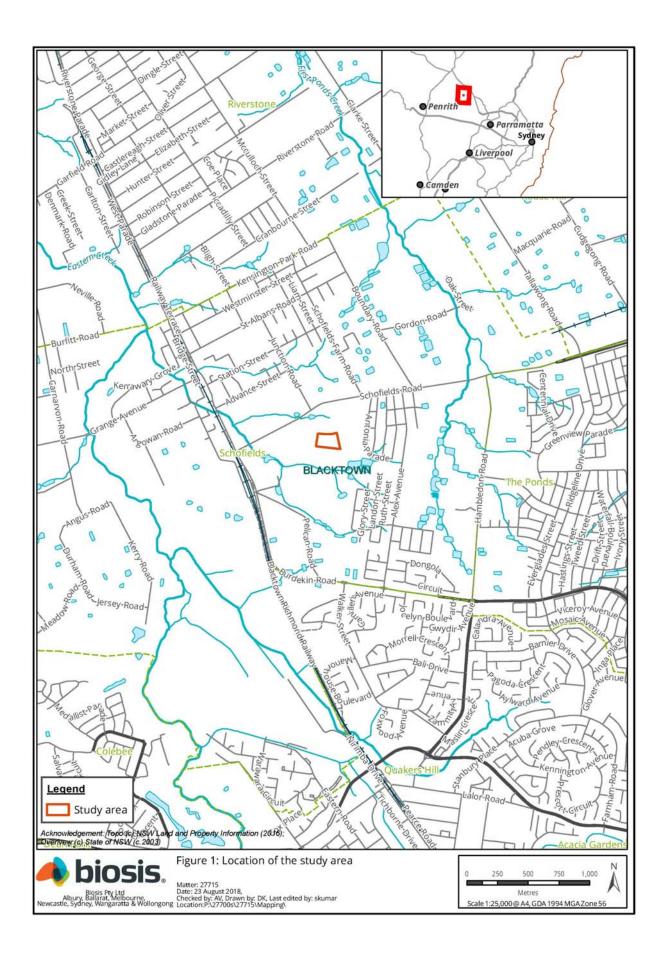
Each section of the methodology will be undertaken in consultation with the Aboriginal stakeholders. Biosis invites Aboriginal stakeholders to provide culturally appropriate information via mail, email or phone with regards to this project.

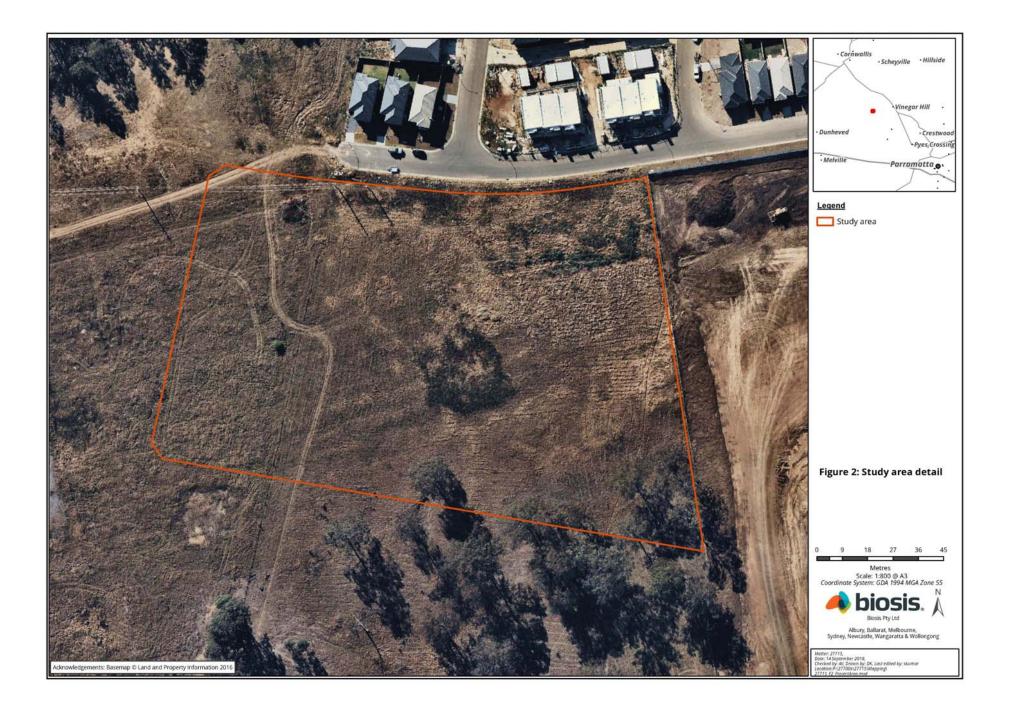
Cultural information provided will be recorded in the Aboriginal consultation log and discussed in the report. If the information is regarded as too sensitive to be made public then the Aboriginal stakeholder should advise Biosis and identify the nature of the sensitivity. Biosis will then arrange for the recording of the information in accordance with its sensitivity. Documents which hold sensitive information will clearly list, on the front cover, who can have access to the document. These documents will be stored securely.

References

DECCW 2010a, Aboriginal cultural heritage consultation requirements for proponents, Department of Environment and Climate Change, Sydney NSW.

DECCW 2010b, Code of practice for archaeological investigation of Aboriginal objects in New South Wales, Department of Environment and Climate Change, Sydney NSW.





Gordon Workman Darug Boorooberongal Elders Aboriginal Corporation 73 Judith Anderson Drive Doonside NSW 2767

Dear Gordon Workman,

RE: Alex Avenue Public School, Aboriginal cultural heritage assessment – Project Methodology

Our Ref: 27715

This letter is being provided to all the Registered Aboriginal Parties (RAPs) who registered their interest in the consultation process for the Alex Avenue Public School development being undertaken by School Infrastructure NSW (Figure 1, Figure 2).

In accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements), we provide the proposed methodology for the Aboriginal Cultural Heritage Assessment (ACHA) for your review and feedback.

It would be appreciated if you could provide feedback on the methodology to Biosis Pty Ltd by **5pm on Monday 3 December 2018**, either by email or return mail.

Please address methodology feedback to:

Charlotte Allen Biosis Pty Ltd Unit 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

Please do not hesitate to contact me if you require additional information or have any queries about the methodology or information provided.

Kind regards,

Charlotte Allen Archaeologist

Biosis Pty Ltd Sydney Resource Group





Stage 3: Alex Avenue Public School Aboriginal Cultural Heritage Assessment: Methodology for field survey and test excavations (if required)

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with the proposed methodology for the cultural heritage and archaeological assessment.

Biosis has been engaged by School Infrastructure NSW to conduct an Aboriginal Cultural Heritage Assessment (ACHA), as part of an Environmental Impact Statement and to provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application.

Assessment methodology

Aims of the survey

The principle aims of the survey are to:

- undertake a systematic archaeological survey of the study area in accordance with the code, while targeting areas with the potential for Aboriginal heritage
- identify and record Aboriginal archaeological sites visible on the ground surface
- identify and record areas of potential archaeological deposit (PAD).

Survey methodology

The survey methods are intended to assess and understand the landforms and to determine whether any archaeological material from Aboriginal occupation or land use exists within the study area. Identification of natural soil deposits within the study area will be undertaken if possible. Photographs and recording techniques will be incorporated into the survey including representative photographs of survey units, landforms, vegetation coverage, ground surface visibility and the recording of soil information for each survey unit. Any Aboriginal objects observed during the survey will be documented and photographed. No artefacts discovered during the survey component are to be removed from the site.

The archaeological survey will occur concurrently with the test excavations. Recording during the survey will follow the guidelines of the OEH, in particular the *Code of practice for archaeological investigation of Aboriginal objects in New South Wales* (DECCW 2010b).

Specific information that will be recorded during the survey includes:

- Aboriginal objects or sites present in the study area
- survey coverage
- survey effectiveness
- any resources that may have potentially been exploited by Aboriginal people
- landforms and general soil information
- photographs of the site indicating landforms



- evidence of disturbance
- Aboriginal artefacts, culturally modified trees, shell middens or any other Aboriginal sites.

Distinguishing landform elements and their association with Aboriginal cultural heritage will assist with the identification of site patterning, though with the awareness of the following limitations:

- The degree of ground surface visibility (GSV) and amount of exposed areas can significantly bias the discovery of surface artefacts.
- Cultural material exposed on the surface is not necessarily representative of the potential extent of the site (either horizontally or vertically).

Information about the presence of potentially exploitable resources helps contribute to predictions of the Aboriginal sites that may occur within the study area. Information about GSV, DV and areas of exposures help to provide a general indication of the effectiveness of the survey for identifying Aboriginal cultural heritage exposed to the surface. Observable disturbances are also considered when assessing the integrity of known or potential sites in an area. The location of Aboriginal cultural heritage and points marking the boundary of the landform elements will be recorded using a hand-held Global Positioning System and the Map Grid of Australia (94) coordinate system.

Test excavation methodology

Should areas of archaeological potential or cultural values be identified during the field survey, test excavations will be conducted in accordance with the requirements of the code.

Aims of the sub-surface test excavations

The principle objectives of the subsurface test excavations would be to identify and understand the nature, extent and significance of any archaeological sites located within areas of archaeological potential.

The aims of the testing program would be to:

- Determine whether sub-surface archaeological deposits exist which may be impacted by the development.
- If so, to determine the extent and nature of such deposits.
- Identify if the archaeological material occurs in an intact, undisturbed context, by examining the soil profile and stratigraphy.
- Analyse and interpret any archaeological finds (such as stone artefacts, shell midden deposits, etc.) recovered during the testing program.
- Inform current knowledge of Aboriginal occupation and land use models of the region.
- Provide management and mitigation measures for Aboriginal archaeological objects located during the subsurface testing program.

Test excavation sampling strategy

Test excavations across the study area would conform to the following methodology:



- Test excavations will be undertaken in areas identified as having the potential to contain Aboriginal cultural material.
- Test excavations will be conducted in 50 x 50 centimetre units.
- The test excavation units will be excavated by hand (inclusive of trowels, spades and other hand tools) along transects at intervals of between 10 20 metres or other justifiable and regular spacing (being no smaller than five metres).
- The first test pit within a site or PAD area will be excavated in five centimetre spits; the subsequent test pits conducted within the site or PAD area can then be excavated in either 10 centimetre spits or stratigraphic units (whichever is smaller) to the base of Aboriginal object-bearing units being the removal of the A-horizon soil deposit down to the sterile clay or bedrock layer (B-horizon).
- If the depth of deposit prevents reaching sterile deposits within the 50 x 50 centimetre test pit, additional 50 x 50 centimetre test pits may be excavated adjacent to the original test pit (for example expanding the test pit to 50 x 100 centimetres) to reach the sterile deposits.
- Test pits may be combined and excavated as necessary in 50 x 50 centimetre units for the purposes of further understanding site characteristics. Note that under the Code, the maximum area that can be excavated in any one continuous area is three metres squared (3 m²).
- The Code dictates that the maximum surface area of all test excavation units must be no greater than 0.5% of the PAD or area being investigated.
- All excavated soil will be sieved in 5mm sieves. Dry sieving will be attempted in the first instance, however wet sieving may be used if deposits cannot be dry sieved.
- All cultural material will be collected, bagged and clearly labelled. They will be temporarily stored in the Biosis office for analysis (at Unit 14, 17-27 Power Avenue, Alexandria).
- The following documentation will be taken for the test pit:
 - Unique test pit identification number
 - GPS coordinate
 - Munsell soil colour, texture and pH
 - Amount and location of cultural material within the deposit
 - Nature of disturbance where present
 - Stratigraphy
 - Archaeological features (if present)
 - Photographic records
 - Spit records.



- The test excavation unit must be backfilled as soon as practicable due to safety issues.
- An AHIMS Site Impact Recording form will be completed and submitted to the AHIMS Registrar for any sites impacted during test excavations.
- In the event that suspected human remains are identified works will immediately cease and the NSW Police and OEH will be notified.
- Test excavations will cease when enough information* has been recovered to adequately characterise the objects present with regard to their nature and significance.

*Enough information is defined by OEH as meaning "the sample of excavated material clearly and selfevidently demonstrates the deposit's nature and significance. This may include things like locally or regionally high object density: presence of rare or representative objects: presence of archaeological features: or locally or regionally significant deposits stratified or not." (DECCW 2010b).

Storage of cultural material

Any cultural material identified during test excavations will be temporarily stored in the Biosis, Sydney office for analysis (Unit 14, 17-27 Power Avenue, Alexandria).

Once the cultural material has been analysed, the cultural material can be managed in the following manners:

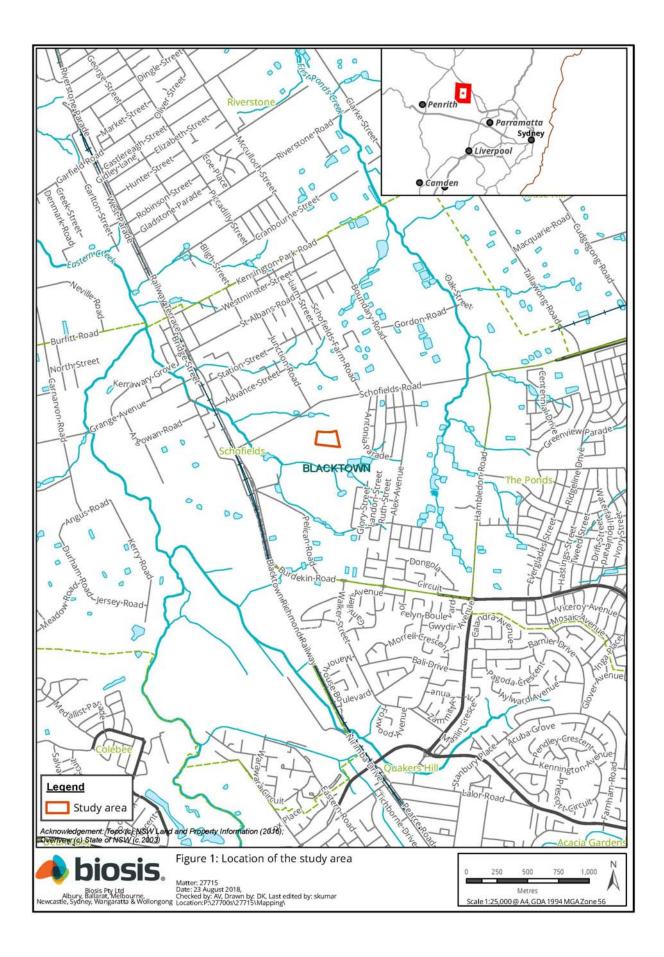
- Cultural material can be held by the Aboriginal community under a care and control agreement.
- Cultural material can be returned to country and reburied as soon as practicable in a secure location in accordance with Requirements 16b and 26 of the code.

Biosis requests any comments regarding the care and control of any cultural material be included as part of the review of this assessment methodology.

References

Department of Environment, Climate Change and Water. 2010a. Aboriginal cultural heritage consultation requirements for proponents 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.

Department of Environment, Climate Change and Water. 2010b. Code of practice for Archaeological Investigation of Aboriginal Objects in New South Wales 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.







Des Dyer Darug Aboriginal Land Care 18A Perigree Close Doonside NSW 2767

Dear Des,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – project information Our Ref: Matter 27715

Thank you for your registration of interest in this project. We are writing to you in order to provide you with the project information and methodology packs for the proposed development of a new public school at 34-38 Schofields Road, Schofields, NSW. This information has been provided in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements).

In this letter you will find the project information pack, and attached to this mailout is the document *Alex Avenue Public School Aboriginal Cultural Heritage Assessment – Project Methodology.*

The purpose of the methodology document is to provide you with further information on the background of this assessment, as well as the methodology for how it will be conducted, including any test excavations should they be required.

Please note that comments on the project methodology pack should be received before **4 pm Monday 3** December 2018.

As this project will involve a field investigation and potentially test excavations, the purpose of the second letter is to invite your feedback on the proposed project information and methodology packs, and to assist the proponent in the programing of groups for participation in the test excavations should they be carried out within the study area.

If you have any queries regarding the project or the information in this letter, please don't hesitate to contact us.

Yours sincerely,

Charlotte Allen

Archaeologist callen@biosis.com.au



Project information

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with information about the proposed project and the scope of the Aboriginal archaeology and cultural heritage investigations and assessment.

Study area

The study area is located within the Blacktown Local Government Area (LGA), Parish of Gidley, County of Cumberland. It encompasses Lot 4, DP 1208329, and part of Lot 121, DP 1203646 at 34-38 Schofields Road, Schofields, NSW (Figure 1 and Figure 2).

Project

School Infrastructure NSW are proposing to develop a new school at 34-38 Schofields Road, Schofields NSW, which consists of the following elements:

- a two storey Home Base building (stage 1)
- a two storey admin and staff building (stage 1)
- a two storey library (stage 1)
- a hall and out of school hours care facilities
- three learning courtyards and sports court
- covered outdoor learning area and walkway
- interconnected external area
- parking facilities
- two storey home base building (stage 2).

Biosis Pty Ltd is assisting School Infrastructure NSW with consultation with the Aboriginal community and the Aboriginal Cultural Heritage Assessment. Consultation with the Aboriginal community will follow the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a). The purpose of the Aboriginal community consultation will be to provide sufficient information for the assessment of Aboriginal cultural heritage values and to inform the Aboriginal cultural heritage assessment (ACHA).

The ACHA will support an Environmental Impact Statement and provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application. The project will be undertaken in accordance with the *National Parks and Wildlife Act 1974*. The development of the school will be assessed as a SSD under Section 89(c) of the *Environmental Planning and Assessment Act 1979* and Schedule 1 of the State Environmental Planning Policy (State and Regional Development) 2011(SSD 9368).

Aboriginal Cultural Heritage Assessment process

The assessment process includes the following steps:

Background research

Background research has been undertaken in order to identify known Aboriginal sites, areas of potential archaeological sensitivity and previous disturbance, and inform the predictive modelling for the assessment



area. Background research will be conducted in line with the requirements of the *Code of practice for the investigation of Aboriginal objects in New South Wales* (DECCW 2010b) ('the code'). Background research for the project included the following tasks:

- Conduct heritage register searches to identify previously recorded cultural heritage sites in or within the vicinity of the proposed study area. Searches will include the Aboriginal Heritage Information Management System (AHIMS), the National Heritage List, Commonwealth Heritage List, Register of the National Estate, State Heritage Register, Local Environmental Plan and National Trust heritage lists.
- Conduct additional background research in order to recognise any identifiable regional trends in site distribution and location and provide a site prediction model for the study area.
- Undertake a comprehensive survey of the study area, identifying any previously recorded sites (on AHIMS).
- Record and assess sites identified during the survey in compliance with the guidelines issued by OEH.
- Assess the scientific significance of all identified Aboriginal cultural heritage sites and places.
- Identify impacts to all identified Aboriginal cultural heritage sites and places based on potential ground disturbance from the proposed realignment of the road.
- Make recommendations to minimise or mitigate potential impacts of the proposed realignment upon cultural heritage values within the study area.

Consultation with the Aboriginal community

This task will allow the Aboriginal community the opportunity to participate in decisions regarding the management of their cultural heritage by providing proponents information regarding cultural significance and input into management options.

Consultation with Aboriginal stakeholders under the DECCW 2010a consultation guidelines is being undertaken to assist School Infrastructure NSW by:

- Providing relevant information about the cultural significance and values of the Aboriginal object(s) and/or place(s) within the study area.
- Influencing the design of the method to assess cultural and scientific significance of Aboriginal objects(s) and/or place(s) within the study area.
- Actively contributing to the development of cultural heritage management plan options and recommendations for any Aboriginal object(s) and/or place(s) within the proposed study area.
- Commenting on the draft assessment reports before they are submitted by the proponent to the determining authority of the proposed realignment.

Aboriginal community consultation will be undertaken in accordance with the consultation requirements, which includes:

• **COMPLETED.** Ascertaining the names of Aboriginal people or groups who may hold cultural knowledge relevant to determining the significance of Aboriginal objects and/ or places within the proposed study area. This would include writing to the following:



- OEH
- Local Aboriginal Land Council (LALC)
- Office of the Registrar (Aboriginal Land Rights Act 1983)
- National Native Title Tribunal (NNTT)
- Native Title Services Corporation Limited (NTSCORP Limited)
- Relevant Local Councils
- Relevant Catchment Management Authorities
- **COMPLETED.** Biosis will undertake the 'Placement of Notification' (Public Notice) in the *Rouse Hill Times*, on behalf of School Infrastructure NSW, that must include details of the proponent, the project, the exact location, and statement of the purpose of the community consultation in preparation for possible test excavations. The Public Notice is also an invitation for Aboriginal people who hold relevant cultural knowledge about the study area. A closing date for the registration must be included and be no less than **14 days**. **Registrations closed on 31 October 2018**.
- **COMPLETED.** Aboriginal people or groups identified were provided with notification of the proposed project via Biosis and given the opportunity to be involved in consultation. **Registrations of interest closed on 17 October 2018**.
- A list of Aboriginal people or groups who registered an interest in the project will be forwarded to the OEH and Deerubbin LALC by Biosis no later than **28 days** following close of registration. This list will not include those people or groups who specified that they did not want their details shared with OEH or the LALC.
- Biosis will provide details of the project and methodology for the archaeological assessment to the registered parties. The RAPs must be given an opportunity to review and provide feedback to the proponent within a minimum of **28 days** of the Biosis providing the methodology document.
- Selected representatives of the RAPs will be given the opportunity to participate in test excavations within the study area, should they be required.
- The DRAFT ACHA report and Archaeological Report will be provided to all RAPs for comment the proponent must allow **28 days** for comment. All comments and correspondence sent and received regarding the project will be included in the final report in an Appendix.

Field Survey

An Aboriginal archaeological survey of the study area will be undertaken in accordance with the guidelines outlined in the code in order to identify any previously unknown Aboriginal objects, sites or places. If identified, these will be recorded to the required standard. Should any sites of significance be identified the location and extent shall be recorded on MGA coordinates to enable overlay with the site plans.

There are several registered Aboriginal sites in the vicinity of the study area. The field survey will attempt to relocate and inspect these sites. This task will assist in the assessment of disturbance and with the predictive modelling for areas of potential archaeological deposit. It will also assist with the assessment of whether the proposed works are likely to impact on undiscovered Aboriginal objects and /or places.

The results of the survey and background research will be analysed to determine whether there are any areas of archaeological potential within the study area.



Test excavations

Should the results of the field survey indicate that there is an area of archaeological potential within the study area, Biosis will conduct test excavations to in accordance with the requirements of the code. Further information on the methodology for test excavation is available in the project methodology.

Reporting

A draft ACHA report and archaeological report will be prepared in accordance with the code and will include:

- background and project description
- a summary and analysis of the findings of the archaeological survey and test excavations (if applicable) including the presence and location of registered or undiscovered Aboriginal artefacts or heritage items within proximity of the study area
- a summary of any other relevant studies or surveys which have relevance to the assessment area
- a summary of the landscape features of the site which may indicate a history of Aboriginal activity
- a summary of previous land use that may have affected the retention of intact Aboriginal archaeology in the landscape
- the potential or likelihood for the proposed works to uncover or expose potential undiscovered Aboriginal objects
- Survey results and, if undertaken, test excavation results
- legislative implications of the proposed works
- recommendations and justification for further assessment (if required)
- mitigation measures (if any) required for the works to proceed
- mapping to show the location of registered and newly located (if any) Aboriginal sites in relation to the proposed works.

RAPs will be provided with the draft report for comment and allowed **28 days** for review.

Project schedule

The proposed schedule and time allocations for the consultation stages are summarised below.

Action	Timeframe	Potential constraints
Commencement of Aboriginal community consultation – advertising of project and notification to stakeholders	Completed	Project advertised in the <i>Rouse Hill Times</i> 9 October 2018. Notices sent to identified Aboriginal parties on 3 October 2018.
Aboriginal stakeholder registration period	Completed	Registration period ran from 3 October to 31 October 2018.
Field survey	Completed	ТВС
Archaeological test excavations with selected representatives of RAPs	ТВС	ТВС
Information gathering	Continuous	Until finalisation of report.



Action	Timeframe	Potential constraints
Review of draft report	ТВС	28 days review time allowed under OEH Aboriginal Community Consultation Guidelines.
Final report	ТВС	ТВС

Responsibilities and roles

As part of the consultation process, RAPs are expected to respond to requests for cultural information and comment on draft reporting, as appropriate in accordance with their role specified in the guidelines (DECCW 2010a, p. 16). Biosis and the proponent, in accordance with their role under the guidelines, will consult with the Aboriginal community by supplying suitable project information and providing the opportunity for Aboriginal stakeholders to provide input into the heritage management process (DECCW 2010a, pp. 16-17).

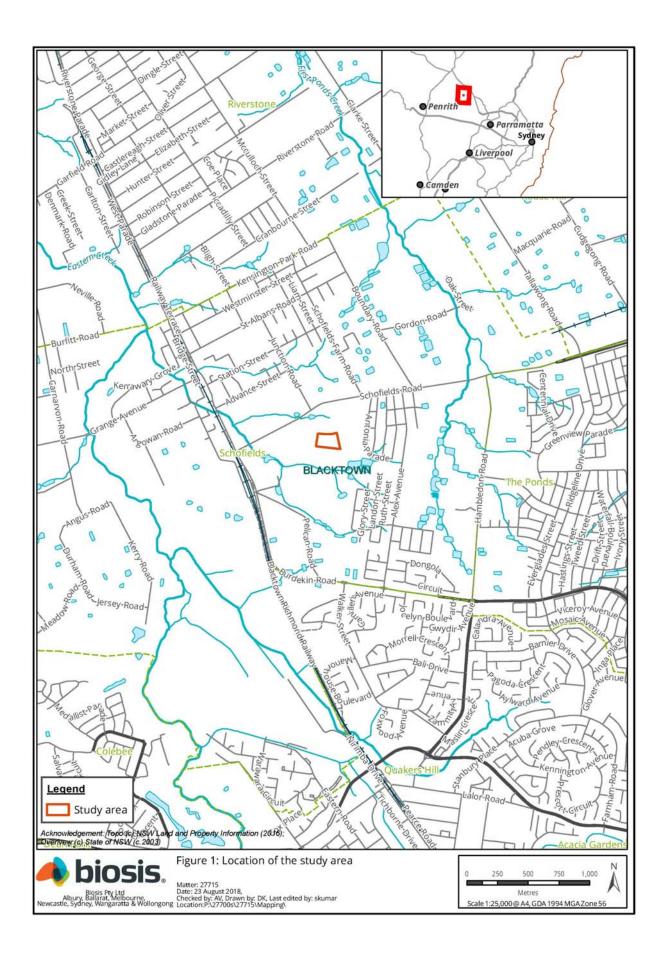
Each section of the methodology will be undertaken in consultation with the Aboriginal stakeholders. Biosis invites Aboriginal stakeholders to provide culturally appropriate information via mail, email or phone with regards to this project.

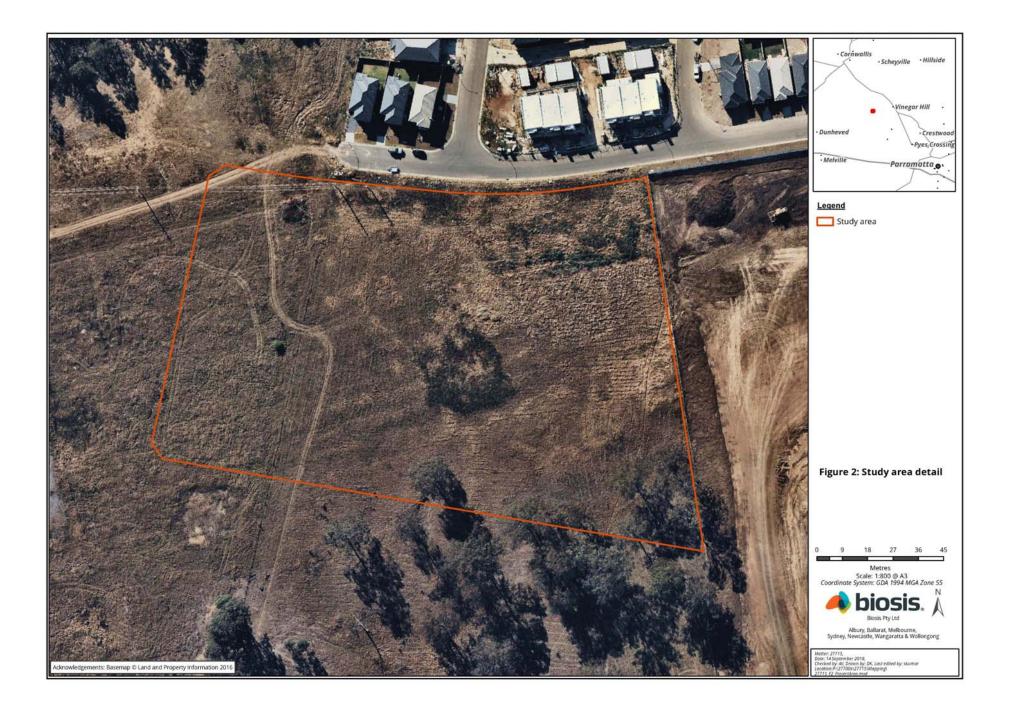
Cultural information provided will be recorded in the Aboriginal consultation log and discussed in the report. If the information is regarded as too sensitive to be made public then the Aboriginal stakeholder should advise Biosis and identify the nature of the sensitivity. Biosis will then arrange for the recording of the information in accordance with its sensitivity. Documents which hold sensitive information will clearly list, on the front cover, who can have access to the document. These documents will be stored securely.

References

DECCW 2010a, Aboriginal cultural heritage consultation requirements for proponents, Department of Environment and Climate Change, Sydney NSW.

DECCW 2010b, Code of practice for archaeological investigation of Aboriginal objects in New South Wales, Department of Environment and Climate Change, Sydney NSW.





Des Dyer Darug Aboriginal Land Care 18A Perigree Close Doonside NSW 2767

Dear Des Dyer,

RE: Alex Avenue Public School, Aboriginal cultural heritage assessment – Project Methodology

Our Ref: 27715

This letter is being provided to all the Registered Aboriginal Parties (RAPs) who registered their interest in the consultation process for the Alex Avenue Public School development being undertaken by School Infrastructure NSW (Figure 1, Figure 2).

In accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements), we provide the proposed methodology for the Aboriginal Cultural Heritage Assessment (ACHA) for your review and feedback.

It would be appreciated if you could provide feedback on the methodology to Biosis Pty Ltd by **5pm on Monday 3 December 2018**, either by email or return mail.

Please address methodology feedback to:

Charlotte Allen Biosis Pty Ltd Unit 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

Please do not hesitate to contact me if you require additional information or have any queries about the methodology or information provided.

Kind regards,

Charlotte Allen Archaeologist

Biosis Pty Ltd
Sydney Resource Group





Stage 3: Alex Avenue Public School Aboriginal Cultural Heritage Assessment: Methodology for field survey and test excavations (if required)

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with the proposed methodology for the cultural heritage and archaeological assessment.

Biosis has been engaged by School Infrastructure NSW to conduct an Aboriginal Cultural Heritage Assessment (ACHA), as part of an Environmental Impact Statement and to provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application.

Assessment methodology

Aims of the survey

The principle aims of the survey are to:

- undertake a systematic archaeological survey of the study area in accordance with the code, while targeting areas with the potential for Aboriginal heritage
- identify and record Aboriginal archaeological sites visible on the ground surface
- identify and record areas of potential archaeological deposit (PAD).

Survey methodology

The survey methods are intended to assess and understand the landforms and to determine whether any archaeological material from Aboriginal occupation or land use exists within the study area. Identification of natural soil deposits within the study area will be undertaken if possible. Photographs and recording techniques will be incorporated into the survey including representative photographs of survey units, landforms, vegetation coverage, ground surface visibility and the recording of soil information for each survey unit. Any Aboriginal objects observed during the survey will be documented and photographed. No artefacts discovered during the survey component are to be removed from the site.

The archaeological survey will occur concurrently with the test excavations. Recording during the survey will follow the guidelines of the OEH, in particular the *Code of practice for archaeological investigation of Aboriginal objects in New South Wales* (DECCW 2010b).

Specific information that will be recorded during the survey includes:

- Aboriginal objects or sites present in the study area
- survey coverage
- survey effectiveness
- any resources that may have potentially been exploited by Aboriginal people
- landforms and general soil information
- photographs of the site indicating landforms



- evidence of disturbance
- Aboriginal artefacts, culturally modified trees, shell middens or any other Aboriginal sites.

Distinguishing landform elements and their association with Aboriginal cultural heritage will assist with the identification of site patterning, though with the awareness of the following limitations:

- The degree of ground surface visibility (GSV) and amount of exposed areas can significantly bias the discovery of surface artefacts.
- Cultural material exposed on the surface is not necessarily representative of the potential extent of the site (either horizontally or vertically).

Information about the presence of potentially exploitable resources helps contribute to predictions of the Aboriginal sites that may occur within the study area. Information about GSV, DV and areas of exposures help to provide a general indication of the effectiveness of the survey for identifying Aboriginal cultural heritage exposed to the surface. Observable disturbances are also considered when assessing the integrity of known or potential sites in an area. The location of Aboriginal cultural heritage and points marking the boundary of the landform elements will be recorded using a hand-held Global Positioning System and the Map Grid of Australia (94) coordinate system.

Test excavation methodology

Should areas of archaeological potential or cultural values be identified during the field survey, test excavations will be conducted in accordance with the requirements of the code.

Aims of the sub-surface test excavations

The principle objectives of the subsurface test excavations would be to identify and understand the nature, extent and significance of any archaeological sites located within areas of archaeological potential.

The aims of the testing program would be to:

- Determine whether sub-surface archaeological deposits exist which may be impacted by the development.
- If so, to determine the extent and nature of such deposits.
- Identify if the archaeological material occurs in an intact, undisturbed context, by examining the soil profile and stratigraphy.
- Analyse and interpret any archaeological finds (such as stone artefacts, shell midden deposits, etc.) recovered during the testing program.
- Inform current knowledge of Aboriginal occupation and land use models of the region.
- Provide management and mitigation measures for Aboriginal archaeological objects located during the subsurface testing program.

Test excavation sampling strategy

Test excavations across the study area would conform to the following methodology:



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- The test excavation unit must be backfilled as soon as practicable due to safety issues.
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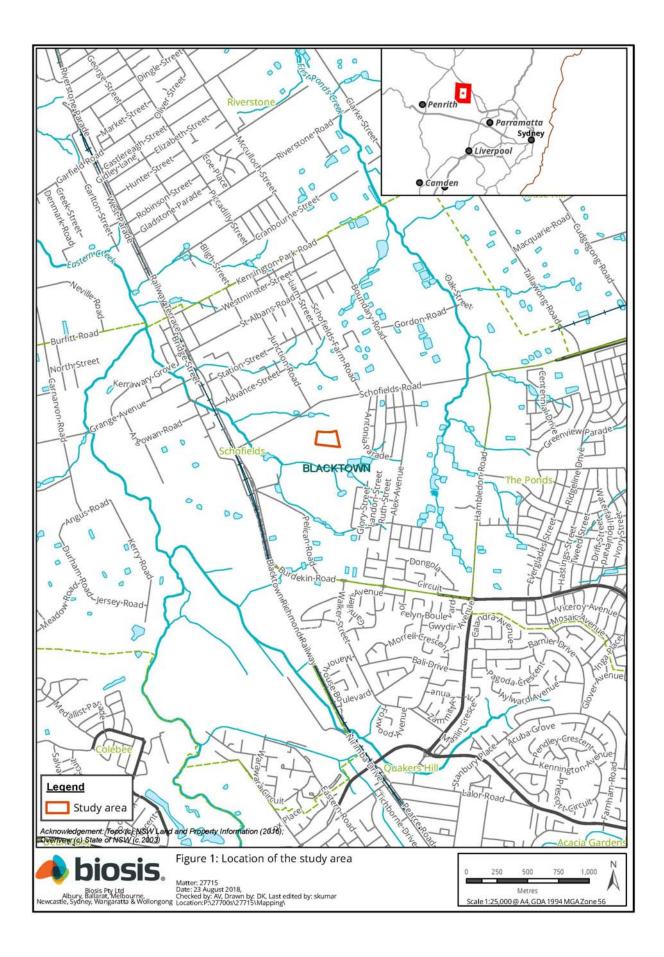
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- Cultural material can be returned to country and reburied as soon as practicable in a secure location in accordance with Requirements 16b and 26 of the code.

Biosis requests any comments regarding the care and control of any cultural material be included as part of the review of this assessment methodology.

References

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Department of Environment, Climate Change and Water. 2010b. Code of practice for Archaeological Investigation of Aboriginal Objects in New South Wales 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.







Lillie Carrol and Paul Boyd Didge Ngunawal Clan 7 Siskin Street Quakers Hill NSW 2763

Dear Lillie Carrol and Paul Boyd,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – project information

Our Ref: Matter 27715

Thank you for your registration of interest in this project. We are writing to you in order to provide you with the project information and methodology packs for the proposed development of a new public school at 34-38 Schofields Road, Schofields, NSW. This information has been provided in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements).

In this letter you will find the project information pack, and attached to this mailout is the document *Alex Avenue Public School Aboriginal Cultural Heritage Assessment – Project Methodology.*

The purpose of the methodology document is to provide you with further information on the background of this assessment, as well as the methodology for how it will be conducted, including any test excavations should they be required.

Please note that comments on the project methodology pack should be received before **4 pm Monday 3** December 2018.

As this project will involve a field investigation and potentially test excavations, the purpose of the second letter is to invite your feedback on the proposed project information and methodology packs, and to assist the proponent in the programing of groups for participation in the test excavations should they be carried out within the study area.

If you have any queries regarding the project or the information in this letter, please don't hesitate to contact us.

Yours sincerely,

Charlotte Allen

Archaeologist callen@biosis.com.au



Project information

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with information about the proposed project and the scope of the Aboriginal archaeology and cultural heritage investigations and assessment.

Study area

The study area is located within the Blacktown Local Government Area (LGA), Parish of Gidley, County of Cumberland. It encompasses Lot 4, DP 1208329, and part of Lot 121, DP 1203646 at 34-38 Schofields Road, Schofields, NSW (Figure 1 and Figure 2).

Project

School Infrastructure NSW are proposing to develop a new school at 34-38 Schofields Road, Schofields NSW, which consists of the following elements:

- a two storey Home Base building (stage 1)
- a two storey admin and staff building (stage 1)
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Biosis Pty Ltd is assisting School Infrastructure NSW with consultation with the Aboriginal community and the Aboriginal Cultural Heritage Assessment. Consultation with the Aboriginal community will follow the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a). The purpose of the Aboriginal community consultation will be to provide sufficient information for the assessment of Aboriginal cultural heritage values and to inform the Aboriginal cultural heritage assessment (ACHA).

The ACHA will support an Environmental Impact Statement and provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application. The project will be undertaken in accordance with the *National Parks and Wildlife Act 1974*. The development of the school will be assessed as a SSD under Section 89(c) of the *Environmental Planning and Assessment Act 1979* and Schedule 1 of the State Environmental Planning Policy (State and Regional Development) 2011(SSD 9368).

Aboriginal Cultural Heritage Assessment process

The assessment process includes the following steps:

Background research

Background research has been undertaken in order to identify known Aboriginal sites, areas of potential archaeological sensitivity and previous disturbance, and inform the predictive modelling for the assessment



area. Background research will be conducted in line with the requirements of the *Code of practice for the investigation of Aboriginal objects in New South Wales* (DECCW 2010b) ('the code'). Background research for the project included the following tasks:

- Conduct heritage register searches to identify previously recorded cultural heritage sites in or within the vicinity of the proposed study area. Searches will include the Aboriginal Heritage Information Management System (AHIMS), the National Heritage List, Commonwealth Heritage List, Register of the National Estate, State Heritage Register, Local Environmental Plan and National Trust heritage lists.
- Conduct additional background research in order to recognise any identifiable regional trends in site distribution and location and provide a site prediction model for the study area.
- Undertake a comprehensive survey of the study area, identifying any previously recorded sites (on AHIMS).
- Record and assess sites identified during the survey in compliance with the guidelines issued by OEH.
- Assess the scientific significance of all identified Aboriginal cultural heritage sites and places.
- Identify impacts to all identified Aboriginal cultural heritage sites and places based on potential ground disturbance from the proposed realignment of the road.
- Make recommendations to minimise or mitigate potential impacts of the proposed realignment upon cultural heritage values within the study area.

Consultation with the Aboriginal community

This task will allow the Aboriginal community the opportunity to participate in decisions regarding the management of their cultural heritage by providing proponents information regarding cultural significance and input into management options.

Consultation with Aboriginal stakeholders under the DECCW 2010a consultation guidelines is being undertaken to assist School Infrastructure NSW by:

- Providing relevant information about the cultural significance and values of the Aboriginal object(s) and/or place(s) within the study area.
- Influencing the design of the method to assess cultural and scientific significance of Aboriginal objects(s) and/or place(s) within the study area.
- Actively contributing to the development of cultural heritage management plan options and recommendations for any Aboriginal object(s) and/or place(s) within the proposed study area.
- Commenting on the draft assessment reports before they are submitted by the proponent to the determining authority of the proposed realignment.

Aboriginal community consultation will be undertaken in accordance with the consultation requirements, which includes:

• **COMPLETED.** Ascertaining the names of Aboriginal people or groups who may hold cultural knowledge relevant to determining the significance of Aboriginal objects and/ or places within the proposed study area. This would include writing to the following:



- OEH
- Local Aboriginal Land Council (LALC)
- Office of the Registrar (Aboriginal Land Rights Act 1983)
- National Native Title Tribunal (NNTT)
- Native Title Services Corporation Limited (NTSCORP Limited)
- Relevant Local Councils
- Relevant Catchment Management Authorities
- **COMPLETED.** Biosis will undertake the 'Placement of Notification' (Public Notice) in the *Rouse Hill Times*, on behalf of School Infrastructure NSW, that must include details of the proponent, the project, the exact location, and statement of the purpose of the community consultation in preparation for possible test excavations. The Public Notice is also an invitation for Aboriginal people who hold relevant cultural knowledge about the study area. A closing date for the registration must be included and be no less than **14 days**. **Registrations closed on 31 October 2018**.
- **COMPLETED.** Aboriginal people or groups identified were provided with notification of the proposed project via Biosis and given the opportunity to be involved in consultation. **Registrations of interest closed on 17 October 2018**.
- A list of Aboriginal people or groups who registered an interest in the project will be forwarded to the OEH and Deerubbin LALC by Biosis no later than **28 days** following close of registration. This list will not include those people or groups who specified that they did not want their details shared with OEH or the LALC.
- Biosis will provide details of the project and methodology for the archaeological assessment to the registered parties. The RAPs must be given an opportunity to review and provide feedback to the proponent within a minimum of **28 days** of the Biosis providing the methodology document.
- Selected representatives of the RAPs will be given the opportunity to participate in test excavations within the study area, should they be required.
- The DRAFT ACHA report and Archaeological Report will be provided to all RAPs for comment the proponent must allow **28 days** for comment. All comments and correspondence sent and received regarding the project will be included in the final report in an Appendix.

Field Survey

An Aboriginal archaeological survey of the study area will be undertaken in accordance with the guidelines outlined in the code in order to identify any previously unknown Aboriginal objects, sites or places. If identified, these will be recorded to the required standard. Should any sites of significance be identified the location and extent shall be recorded on MGA coordinates to enable overlay with the site plans.

There are several registered Aboriginal sites in the vicinity of the study area. The field survey will attempt to relocate and inspect these sites. This task will assist in the assessment of disturbance and with the predictive modelling for areas of potential archaeological deposit. It will also assist with the assessment of whether the proposed works are likely to impact on undiscovered Aboriginal objects and /or places.

The results of the survey and background research will be analysed to determine whether there are any areas of archaeological potential within the study area.



Test excavations

Should the results of the field survey indicate that there is an area of archaeological potential within the study area, Biosis will conduct test excavations to in accordance with the requirements of the code. Further information on the methodology for test excavation is available in the project methodology.

Reporting

A draft ACHA report and archaeological report will be prepared in accordance with the code and will include:

- background and project description
- a summary and analysis of the findings of the archaeological survey and test excavations (if applicable) including the presence and location of registered or undiscovered Aboriginal artefacts or heritage items within proximity of the study area
- a summary of any other relevant studies or surveys which have relevance to the assessment area
- a summary of the landscape features of the site which may indicate a history of Aboriginal activity
- a summary of previous land use that may have affected the retention of intact Aboriginal archaeology in the landscape
- the potential or likelihood for the proposed works to uncover or expose potential undiscovered Aboriginal objects
- Survey results and, if undertaken, test excavation results
- legislative implications of the proposed works
- recommendations and justification for further assessment (if required)
- mitigation measures (if any) required for the works to proceed
- mapping to show the location of registered and newly located (if any) Aboriginal sites in relation to the proposed works.

RAPs will be provided with the draft report for comment and allowed **28 days** for review.

Project schedule

The proposed schedule and time allocations for the consultation stages are summarised below.

Action	Timeframe	Potential constraints
Commencement of Aboriginal community consultation – advertising of project and notification to stakeholders	Completed	Project advertised in the <i>Rouse Hill Times</i> 9 October 2018. Notices sent to identified Aboriginal parties on 3 October 2018.
Aboriginal stakeholder registration period	Completed	Registration period ran from 3 October to 31 October 2018.
Field survey	Completed	ТВС
Archaeological test excavations with selected representatives of RAPs	ТВС	ТВС
Information gathering	Continuous	Until finalisation of report.



Action	Timeframe	Potential constraints
Review of draft report	ТВС	28 days review time allowed under OEH Aboriginal Community Consultation Guidelines.
Final report	ТВС	ТВС

Responsibilities and roles

As part of the consultation process, RAPs are expected to respond to requests for cultural information and comment on draft reporting, as appropriate in accordance with their role specified in the guidelines (DECCW 2010a, p. 16). Biosis and the proponent, in accordance with their role under the guidelines, will consult with the Aboriginal community by supplying suitable project information and providing the opportunity for Aboriginal stakeholders to provide input into the heritage management process (DECCW 2010a, pp. 16-17).

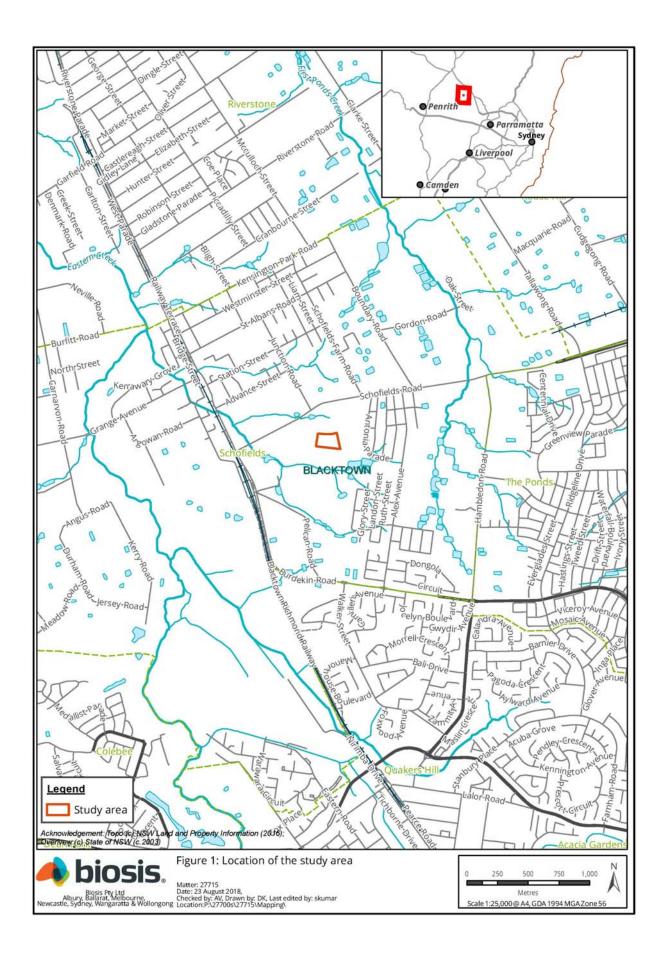
Each section of the methodology will be undertaken in consultation with the Aboriginal stakeholders. Biosis invites Aboriginal stakeholders to provide culturally appropriate information via mail, email or phone with regards to this project.

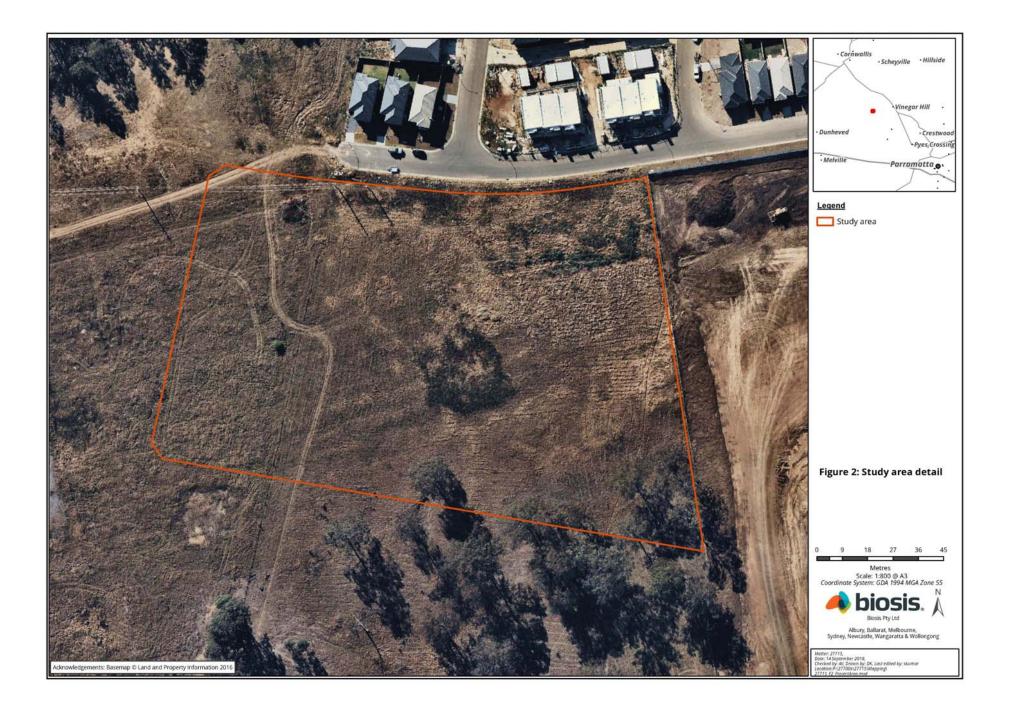
Cultural information provided will be recorded in the Aboriginal consultation log and discussed in the report. If the information is regarded as too sensitive to be made public then the Aboriginal stakeholder should advise Biosis and identify the nature of the sensitivity. Biosis will then arrange for the recording of the information in accordance with its sensitivity. Documents which hold sensitive information will clearly list, on the front cover, who can have access to the document. These documents will be stored securely.

References

DECCW 2010a, Aboriginal cultural heritage consultation requirements for proponents, Department of Environment and Climate Change, Sydney NSW.

DECCW 2010b, Code of practice for archaeological investigation of Aboriginal objects in New South Wales, Department of Environment and Climate Change, Sydney NSW.





5 November 2018

Lillie Carrol and Paul Boyd Didge Ngunawal Clan 7 Siskin Street Quakers Hill NSW 2763

Dear Lillie Carrol and Paul Boyd,

RE: Alex Avenue Public School, Aboriginal cultural heritage assessment - Project Methodology

Our Ref: 27715

This letter is being provided to all the Registered Aboriginal Parties (RAPs) who registered their interest in the consultation process for the Alex Avenue Public School development being undertaken by School Infrastructure NSW (Figure 1, Figure 2).

In accordance with the Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW 2010a) (consultation requirements), we provide the proposed methodology for the Aboriginal Cultural Heritage Assessment (ACHA) for your review and feedback.

It would be appreciated if you could provide feedback on the methodology to Biosis Pty Ltd by **5pm on** Monday 3 December 2018, either by email or return mail.

Please address methodology feedback to:

Charlotte Allen Biosis Pty Ltd Unit 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

Please do not hesitate to contact me if you require additional information or have any queries about the methodology or information provided.

Kind regards,

Charlotte Allen Archaeologist

Biosis Pty Ltd Sydney Resource Group





Stage 3: Alex Avenue Public School Aboriginal Cultural Heritage Assessment: Methodology for field survey and test excavations (if required)

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with the proposed methodology for the cultural heritage and archaeological assessment.

Biosis has been engaged by School Infrastructure NSW to conduct an Aboriginal Cultural Heritage Assessment (ACHA), as part of an Environmental Impact Statement and to provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application.

Assessment methodology

Aims of the survey

The principle aims of the survey are to:

- undertake a systematic archaeological survey of the study area in accordance with the code, while targeting areas with the potential for Aboriginal heritage
- identify and record Aboriginal archaeological sites visible on the ground surface
- identify and record areas of potential archaeological deposit (PAD).

Survey methodology

The survey methods are intended to assess and understand the landforms and to determine whether any archaeological material from Aboriginal occupation or land use exists within the study area. Identification of natural soil deposits within the study area will be undertaken if possible. Photographs and recording techniques will be incorporated into the survey including representative photographs of survey units, landforms, vegetation coverage, ground surface visibility and the recording of soil information for each survey unit. Any Aboriginal objects observed during the survey will be documented and photographed. No artefacts discovered during the survey component are to be removed from the site.

The archaeological survey will occur concurrently with the test excavations. Recording during the survey will follow the guidelines of the OEH, in particular the *Code of practice for archaeological investigation of Aboriginal objects in New South Wales* (DECCW 2010b).

Specific information that will be recorded during the survey includes:

- Aboriginal objects or sites present in the study area
- survey coverage
- survey effectiveness
- any resources that may have potentially been exploited by Aboriginal people
- landforms and general soil information
- photographs of the site indicating landforms



- evidence of disturbance
- Aboriginal artefacts, culturally modified trees, shell middens or any other Aboriginal sites.

Distinguishing landform elements and their association with Aboriginal cultural heritage will assist with the identification of site patterning, though with the awareness of the following limitations:

- The degree of ground surface visibility (GSV) and amount of exposed areas can significantly bias the discovery of surface artefacts.
- Cultural material exposed on the surface is not necessarily representative of the potential extent of the site (either horizontally or vertically).

Information about the presence of potentially exploitable resources helps contribute to predictions of the Aboriginal sites that may occur within the study area. Information about GSV, DV and areas of exposures help to provide a general indication of the effectiveness of the survey for identifying Aboriginal cultural heritage exposed to the surface. Observable disturbances are also considered when assessing the integrity of known or potential sites in an area. The location of Aboriginal cultural heritage and points marking the boundary of the landform elements will be recorded using a hand-held Global Positioning System and the Map Grid of Australia (94) coordinate system.

Test excavation methodology

Should areas of archaeological potential or cultural values be identified during the field survey, test excavations will be conducted in accordance with the requirements of the code.

Aims of the sub-surface test excavations

The principle objectives of the subsurface test excavations would be to identify and understand the nature, extent and significance of any archaeological sites located within areas of archaeological potential.

The aims of the testing program would be to:

- Determine whether sub-surface archaeological deposits exist which may be impacted by the development.
- If so, to determine the extent and nature of such deposits.
- Identify if the archaeological material occurs in an intact, undisturbed context, by examining the soil profile and stratigraphy.
- Analyse and interpret any archaeological finds (such as stone artefacts, shell midden deposits, etc.) recovered during the testing program.
- Inform current knowledge of Aboriginal occupation and land use models of the region.
- Provide management and mitigation measures for Aboriginal archaeological objects located during the subsurface testing program.

Test excavation sampling strategy

Test excavations across the study area would conform to the following methodology:



- Test excavations will be undertaken in areas identified as having the potential to contain Aboriginal cultural material.
- Test excavations will be conducted in 50 x 50 centimetre units.
- The test excavation units will be excavated by hand (inclusive of trowels, spades and other hand tools) along transects at intervals of between 10 20 metres or other justifiable and regular spacing (being no smaller than five metres).
- The first test pit within a site or PAD area will be excavated in five centimetre spits; the subsequent test pits conducted within the site or PAD area can then be excavated in either 10 centimetre spits or stratigraphic units (whichever is smaller) to the base of Aboriginal object-bearing units being the removal of the A-horizon soil deposit down to the sterile clay or bedrock layer (B-horizon).
- If the depth of deposit prevents reaching sterile deposits within the 50 x 50 centimetre test pit, additional 50 x 50 centimetre test pits may be excavated adjacent to the original test pit (for example expanding the test pit to 50 x 100 centimetres) to reach the sterile deposits.
- Test pits may be combined and excavated as necessary in 50 x 50 centimetre units for the purposes of further understanding site characteristics. Note that under the Code, the maximum area that can be excavated in any one continuous area is three metres squared (3 m²).
- The Code dictates that the maximum surface area of all test excavation units must be no greater than 0.5% of the PAD or area being investigated.
- All excavated soil will be sieved in 5mm sieves. Dry sieving will be attempted in the first instance, however wet sieving may be used if deposits cannot be dry sieved.
- All cultural material will be collected, bagged and clearly labelled. They will be temporarily stored in the Biosis office for analysis (at Unit 14, 17-27 Power Avenue, Alexandria).
- The following documentation will be taken for the test pit:
 - Unique test pit identification number
 - GPS coordinate
 - Munsell soil colour, texture and pH
 - Amount and location of cultural material within the deposit
 - Nature of disturbance where present
 - Stratigraphy
 - Archaeological features (if present)
 - Photographic records
 - Spit records.



- The test excavation unit must be backfilled as soon as practicable due to safety issues.
- An AHIMS Site Impact Recording form will be completed and submitted to the AHIMS Registrar for any sites impacted during test excavations.
- In the event that suspected human remains are identified works will immediately cease and the NSW Police and OEH will be notified.
- Test excavations will cease when enough information* has been recovered to adequately characterise the objects present with regard to their nature and significance.

*Enough information is defined by OEH as meaning "the sample of excavated material clearly and selfevidently demonstrates the deposit's nature and significance. This may include things like locally or regionally high object density: presence of rare or representative objects: presence of archaeological features: or locally or regionally significant deposits stratified or not." (DECCW 2010b).

Storage of cultural material

Any cultural material identified during test excavations will be temporarily stored in the Biosis, Sydney office for analysis (Unit 14, 17-27 Power Avenue, Alexandria).

Once the cultural material has been analysed, the cultural material can be managed in the following manners:

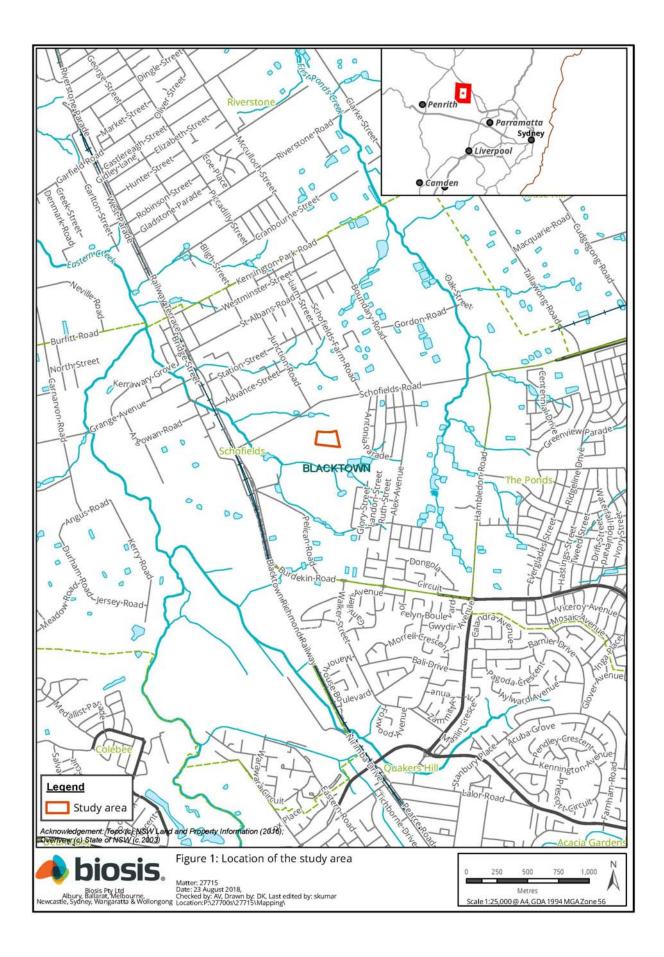
- Cultural material can be held by the Aboriginal community under a care and control agreement.
- Cultural material can be returned to country and reburied as soon as practicable in a secure location in accordance with Requirements 16b and 26 of the code.

Biosis requests any comments regarding the care and control of any cultural material be included as part of the review of this assessment methodology.

References

Department of Environment, Climate Change and Water. 2010a. Aboriginal cultural heritage consultation requirements for proponents 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.

Department of Environment, Climate Change and Water. 2010b. Code of practice for Archaeological Investigation of Aboriginal Objects in New South Wales 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.







5 November 2018

Dirk Schmitt Darug Tribal Aboriginal Corporation 71 Seven Hills Rd South Seven Hills NSW 2147

Dear Dirk,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – project information Our Ref: Matter 27715

Thank you for your registration of interest in this project. We are writing to you in order to provide you with the project information and methodology packs for the proposed development of a new public school at 34-38 Schofields Road, Schofields, NSW. This information has been provided in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements).

In this letter you will find the project information pack, and attached to this mailout is the document *Alex Avenue Public School Aboriginal Cultural Heritage Assessment – Project Methodology.*

The purpose of the methodology document is to provide you with further information on the background of this assessment, as well as the methodology for how it will be conducted, including any test excavations should they be required.

Please note that comments on the project methodology pack should be received before **4 pm Monday 3** December 2018.

As this project will involve a field investigation and potentially test excavations, the purpose of the second letter is to invite your feedback on the proposed project information and methodology packs, and to assist the proponent in the programing of groups for participation in the test excavations should they be carried out within the study area.

If you have any queries regarding the project or the information in this letter, please don't hesitate to contact us.

Yours sincerely,

Charlotte Allen

Archaeologist callen@biosis.com.au



Project information

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with information about the proposed project and the scope of the Aboriginal archaeology and cultural heritage investigations and assessment.

Study area

The study area is located within the Blacktown Local Government Area (LGA), Parish of Gidley, County of Cumberland. It encompasses Lot 4, DP 1208329, and part of Lot 121, DP 1203646 at 34-38 Schofields Road, Schofields, NSW (Figure 1 and Figure 2).

Project

School Infrastructure NSW are proposing to develop a new school at 34-38 Schofields Road, Schofields NSW, which consists of the following elements:

- a two storey Home Base building (stage 1)
- a two storey admin and staff building (stage 1)
- a two storey library (stage 1)
- a hall and out of school hours care facilities
- three learning courtyards and sports court
- covered outdoor learning area and walkway
- interconnected external area
- parking facilities
- two storey home base building (stage 2).

Biosis Pty Ltd is assisting School Infrastructure NSW with consultation with the Aboriginal community and the Aboriginal Cultural Heritage Assessment. Consultation with the Aboriginal community will follow the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a). The purpose of the Aboriginal community consultation will be to provide sufficient information for the assessment of Aboriginal cultural heritage values and to inform the Aboriginal cultural heritage assessment (ACHA).

The ACHA will support an Environmental Impact Statement and provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application. The project will be undertaken in accordance with the *National Parks and Wildlife Act 1974*. The development of the school will be assessed as a SSD under Section 89(c) of the *Environmental Planning and Assessment Act 1979* and Schedule 1 of the State Environmental Planning Policy (State and Regional Development) 2011(SSD 9368).

Aboriginal Cultural Heritage Assessment process

The assessment process includes the following steps:

Background research

Background research has been undertaken in order to identify known Aboriginal sites, areas of potential archaeological sensitivity and previous disturbance, and inform the predictive modelling for the assessment



area. Background research will be conducted in line with the requirements of the *Code of practice for the investigation of Aboriginal objects in New South Wales* (DECCW 2010b) ('the code'). Background research for the project included the following tasks:

- Conduct heritage register searches to identify previously recorded cultural heritage sites in or within the vicinity of the proposed study area. Searches will include the Aboriginal Heritage Information Management System (AHIMS), the National Heritage List, Commonwealth Heritage List, Register of the National Estate, State Heritage Register, Local Environmental Plan and National Trust heritage lists.
- Conduct additional background research in order to recognise any identifiable regional trends in site distribution and location and provide a site prediction model for the study area.
- Undertake a comprehensive survey of the study area, identifying any previously recorded sites (on AHIMS).
- Record and assess sites identified during the survey in compliance with the guidelines issued by OEH.
- Assess the scientific significance of all identified Aboriginal cultural heritage sites and places.
- Identify impacts to all identified Aboriginal cultural heritage sites and places based on potential ground disturbance from the proposed realignment of the road.
- Make recommendations to minimise or mitigate potential impacts of the proposed realignment upon cultural heritage values within the study area.

Consultation with the Aboriginal community

This task will allow the Aboriginal community the opportunity to participate in decisions regarding the management of their cultural heritage by providing proponents information regarding cultural significance and input into management options.

Consultation with Aboriginal stakeholders under the DECCW 2010a consultation guidelines is being undertaken to assist School Infrastructure NSW by:

- Providing relevant information about the cultural significance and values of the Aboriginal object(s) and/or place(s) within the study area.
- Influencing the design of the method to assess cultural and scientific significance of Aboriginal objects(s) and/or place(s) within the study area.
- Actively contributing to the development of cultural heritage management plan options and recommendations for any Aboriginal object(s) and/or place(s) within the proposed study area.
- Commenting on the draft assessment reports before they are submitted by the proponent to the determining authority of the proposed realignment.

Aboriginal community consultation will be undertaken in accordance with the consultation requirements, which includes:

• **COMPLETED.** Ascertaining the names of Aboriginal people or groups who may hold cultural knowledge relevant to determining the significance of Aboriginal objects and/ or places within the proposed study area. This would include writing to the following:



- OEH
- Local Aboriginal Land Council (LALC)
- Office of the Registrar (Aboriginal Land Rights Act 1983)
- National Native Title Tribunal (NNTT)
- Native Title Services Corporation Limited (NTSCORP Limited)
- Relevant Local Councils
- Relevant Catchment Management Authorities
- **COMPLETED.** Biosis will undertake the 'Placement of Notification' (Public Notice) in the *Rouse Hill Times*, on behalf of School Infrastructure NSW, that must include details of the proponent, the project, the exact location, and statement of the purpose of the community consultation in preparation for possible test excavations. The Public Notice is also an invitation for Aboriginal people who hold relevant cultural knowledge about the study area. A closing date for the registration must be included and be no less than **14 days**. **Registrations closed on 31 October 2018**.
- **COMPLETED.** Aboriginal people or groups identified were provided with notification of the proposed project via Biosis and given the opportunity to be involved in consultation. **Registrations of interest closed on 17 October 2018**.
- A list of Aboriginal people or groups who registered an interest in the project will be forwarded to the OEH and Deerubbin LALC by Biosis no later than **28 days** following close of registration. This list will not include those people or groups who specified that they did not want their details shared with OEH or the LALC.
- Biosis will provide details of the project and methodology for the archaeological assessment to the registered parties. The RAPs must be given an opportunity to review and provide feedback to the proponent within a minimum of **28 days** of the Biosis providing the methodology document.
- Selected representatives of the RAPs will be given the opportunity to participate in test excavations within the study area, should they be required.
- The DRAFT ACHA report and Archaeological Report will be provided to all RAPs for comment the proponent must allow **28 days** for comment. All comments and correspondence sent and received regarding the project will be included in the final report in an Appendix.

Field Survey

An Aboriginal archaeological survey of the study area will be undertaken in accordance with the guidelines outlined in the code in order to identify any previously unknown Aboriginal objects, sites or places. If identified, these will be recorded to the required standard. Should any sites of significance be identified the location and extent shall be recorded on MGA coordinates to enable overlay with the site plans.

There are several registered Aboriginal sites in the vicinity of the study area. The field survey will attempt to relocate and inspect these sites. This task will assist in the assessment of disturbance and with the predictive modelling for areas of potential archaeological deposit. It will also assist with the assessment of whether the proposed works are likely to impact on undiscovered Aboriginal objects and /or places.

The results of the survey and background research will be analysed to determine whether there are any areas of archaeological potential within the study area.



Test excavations

Should the results of the field survey indicate that there is an area of archaeological potential within the study area, Biosis will conduct test excavations to in accordance with the requirements of the code. Further information on the methodology for test excavation is available in the project methodology.

Reporting

A draft ACHA report and archaeological report will be prepared in accordance with the code and will include:

- background and project description
- a summary and analysis of the findings of the archaeological survey and test excavations (if applicable) including the presence and location of registered or undiscovered Aboriginal artefacts or heritage items within proximity of the study area
- a summary of any other relevant studies or surveys which have relevance to the assessment area
- a summary of the landscape features of the site which may indicate a history of Aboriginal activity
- a summary of previous land use that may have affected the retention of intact Aboriginal archaeology in the landscape
- the potential or likelihood for the proposed works to uncover or expose potential undiscovered Aboriginal objects
- Survey results and, if undertaken, test excavation results
- legislative implications of the proposed works
- recommendations and justification for further assessment (if required)
- mitigation measures (if any) required for the works to proceed
- mapping to show the location of registered and newly located (if any) Aboriginal sites in relation to the proposed works.

RAPs will be provided with the draft report for comment and allowed **28 days** for review.

Project schedule

The proposed schedule and time allocations for the consultation stages are summarised below.

Action	Timeframe	Potential constraints
Commencement of Aboriginal community consultation – advertising of project and notification to stakeholders	Completed	Project advertised in the <i>Rouse Hill Times</i> 9 October 2018. Notices sent to identified Aboriginal parties on 3 October 2018.
Aboriginal stakeholder registration period	Completed	Registration period ran from 3 October to 31 October 2018.
Field survey	Completed	ТВС
Archaeological test excavations with selected representatives of RAPs	ТВС	ТВС
Information gathering	Continuous	Until finalisation of report.



Action	Timeframe	Potential constraints
Review of draft report	ТВС	28 days review time allowed under OEH Aboriginal Community Consultation Guidelines.
Final report	ТВС	ТВС

Responsibilities and roles

As part of the consultation process, RAPs are expected to respond to requests for cultural information and comment on draft reporting, as appropriate in accordance with their role specified in the guidelines (DECCW 2010a, p. 16). Biosis and the proponent, in accordance with their role under the guidelines, will consult with the Aboriginal community by supplying suitable project information and providing the opportunity for Aboriginal stakeholders to provide input into the heritage management process (DECCW 2010a, pp. 16-17).

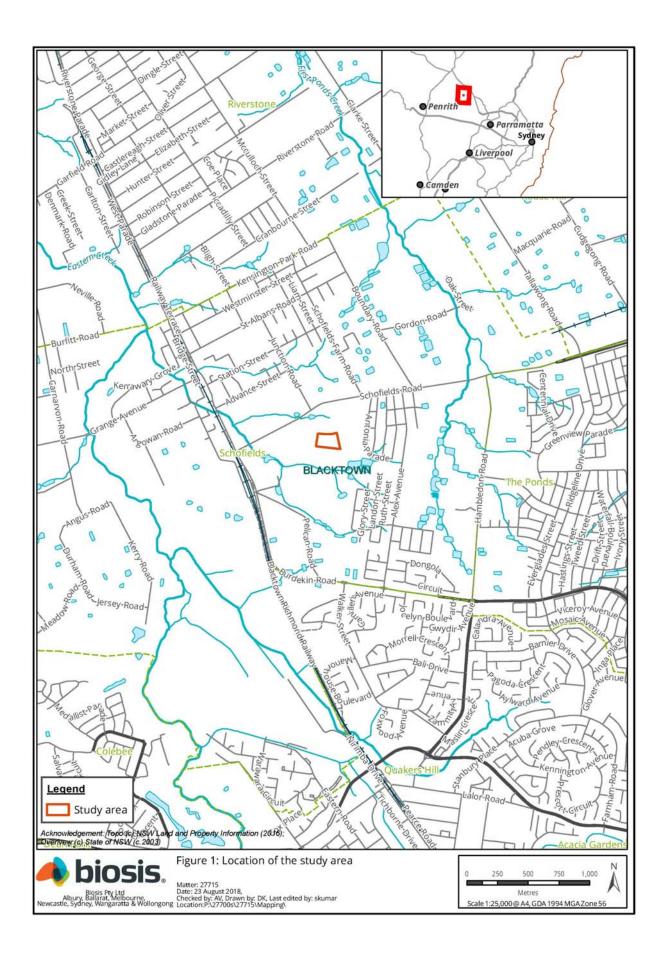
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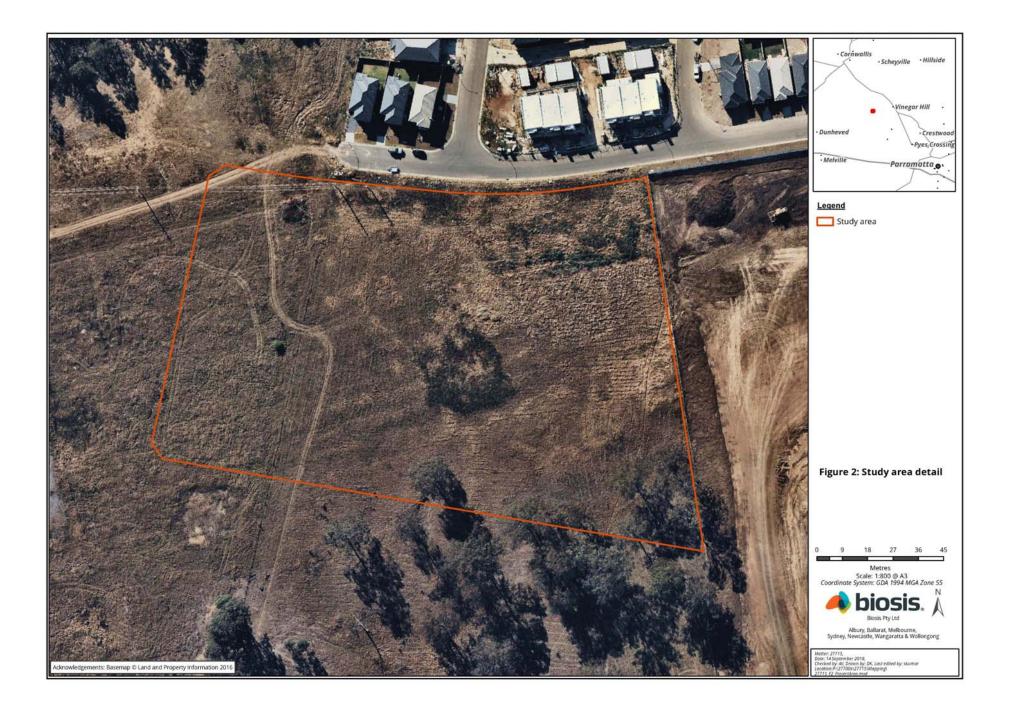
Cultural information provided will be recorded in the Aboriginal consultation log and discussed in the report. If the information is regarded as too sensitive to be made public then the Aboriginal stakeholder should advise Biosis and identify the nature of the sensitivity. Biosis will then arrange for the recording of the information in accordance with its sensitivity. Documents which hold sensitive information will clearly list, on the front cover, who can have access to the document. These documents will be stored securely.

References

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DECCW 2010b, Code of practice for archaeological investigation of Aboriginal objects in New South Wales, Department of Environment and Climate Change, Sydney NSW.





5 November 2018

Dirk Schmitt Darug Tribal Aboriginal Corporation 71 Seven Hills Rd South Seven Hills NSW 2147

Dear Dirk Schmitt,

RE: Alex Avenue Public School, Aboriginal cultural heritage assessment – Project Methodology

Our Ref: 27715

This letter is being provided to all the Registered Aboriginal Parties (RAPs) who registered their interest in the consultation process for the Alex Avenue Public School development being undertaken by School Infrastructure NSW (Figure 1, Figure 2).

In accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements), we provide the proposed methodology for the Aboriginal Cultural Heritage Assessment (ACHA) for your review and feedback.

It would be appreciated if you could provide feedback on the methodology to Biosis Pty Ltd by **5pm on Monday 3 December 2018**, either by email or return mail.

Please address methodology feedback to:

Charlotte Allen Biosis Pty Ltd Unit 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

Please do not hesitate to contact me if you require additional information or have any queries about the methodology or information provided.

Kind regards,

Charlotte Allen Archaeologist

Biosis Pty Ltd Sydney Resource Group





Stage 3: Alex Avenue Public School Aboriginal Cultural Heritage Assessment: Methodology for field survey and test excavations (if required)

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with the proposed methodology for the cultural heritage and archaeological assessment.

Biosis has been engaged by School Infrastructure NSW to conduct an Aboriginal Cultural Heritage Assessment (ACHA), as part of an Environmental Impact Statement and to provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application.

Assessment methodology

Aims of the survey

The principle aims of the survey are to:

- undertake a systematic archaeological survey of the study area in accordance with the code, while targeting areas with the potential for Aboriginal heritage
- identify and record Aboriginal archaeological sites visible on the ground surface
- identify and record areas of potential archaeological deposit (PAD).

Survey methodology

The survey methods are intended to assess and understand the landforms and to determine whether any archaeological material from Aboriginal occupation or land use exists within the study area. Identification of natural soil deposits within the study area will be undertaken if possible. Photographs and recording techniques will be incorporated into the survey including representative photographs of survey units, landforms, vegetation coverage, ground surface visibility and the recording of soil information for each survey unit. Any Aboriginal objects observed during the survey will be documented and photographed. No artefacts discovered during the survey component are to be removed from the site.

The archaeological survey will occur concurrently with the test excavations. Recording during the survey will follow the guidelines of the OEH, in particular the *Code of practice for archaeological investigation of Aboriginal objects in New South Wales* (DECCW 2010b).

Specific information that will be recorded during the survey includes:

- Aboriginal objects or sites present in the study area
- survey coverage
- survey effectiveness
- any resources that may have potentially been exploited by Aboriginal people
- landforms and general soil information
- photographs of the site indicating landforms



- evidence of disturbance
- Aboriginal artefacts, culturally modified trees, shell middens or any other Aboriginal sites.

Distinguishing landform elements and their association with Aboriginal cultural heritage will assist with the identification of site patterning, though with the awareness of the following limitations:

- The degree of ground surface visibility (GSV) and amount of exposed areas can significantly bias the discovery of surface artefacts.
- Cultural material exposed on the surface is not necessarily representative of the potential extent of the site (either horizontally or vertically).

Information about the presence of potentially exploitable resources helps contribute to predictions of the Aboriginal sites that may occur within the study area. Information about GSV, DV and areas of exposures help to provide a general indication of the effectiveness of the survey for identifying Aboriginal cultural heritage exposed to the surface. Observable disturbances are also considered when assessing the integrity of known or potential sites in an area. The location of Aboriginal cultural heritage and points marking the boundary of the landform elements will be recorded using a hand-held Global Positioning System and the Map Grid of Australia (94) coordinate system.

Test excavation methodology

Should areas of archaeological potential or cultural values be identified during the field survey, test excavations will be conducted in accordance with the requirements of the code.

Aims of the sub-surface test excavations

The principle objectives of the subsurface test excavations would be to identify and understand the nature, extent and significance of any archaeological sites located within areas of archaeological potential.

The aims of the testing program would be to:

- Determine whether sub-surface archaeological deposits exist which may be impacted by the development.
- If so, to determine the extent and nature of such deposits.
- Identify if the archaeological material occurs in an intact, undisturbed context, by examining the soil profile and stratigraphy.
- Analyse and interpret any archaeological finds (such as stone artefacts, shell midden deposits, etc.) recovered during the testing program.
- Inform current knowledge of Aboriginal occupation and land use models of the region.
- Provide management and mitigation measures for Aboriginal archaeological objects located during the subsurface testing program.

Test excavation sampling strategy

Test excavations across the study area would conform to the following methodology:



- Test excavations will be undertaken in areas identified as having the potential to contain Aboriginal cultural material.
- Test excavations will be conducted in 50 x 50 centimetre units.
- The test excavation units will be excavated by hand (inclusive of trowels, spades and other hand tools) along transects at intervals of between 10 20 metres or other justifiable and regular spacing (being no smaller than five metres).
- The first test pit within a site or PAD area will be excavated in five centimetre spits; the subsequent test pits conducted within the site or PAD area can then be excavated in either 10 centimetre spits or stratigraphic units (whichever is smaller) to the base of Aboriginal object-bearing units being the removal of the A-horizon soil deposit down to the sterile clay or bedrock layer (B-horizon).
- If the depth of deposit prevents reaching sterile deposits within the 50 x 50 centimetre test pit, additional 50 x 50 centimetre test pits may be excavated adjacent to the original test pit (for example expanding the test pit to 50 x 100 centimetres) to reach the sterile deposits.
- Test pits may be combined and excavated as necessary in 50 x 50 centimetre units for the purposes of further understanding site characteristics. Note that under the Code, the maximum area that can be excavated in any one continuous area is three metres squared (3 m²).
- The Code dictates that the maximum surface area of all test excavation units must be no greater than 0.5% of the PAD or area being investigated.
- All excavated soil will be sieved in 5mm sieves. Dry sieving will be attempted in the first instance, however wet sieving may be used if deposits cannot be dry sieved.
- All cultural material will be collected, bagged and clearly labelled. They will be temporarily stored in the Biosis office for analysis (at Unit 14, 17-27 Power Avenue, Alexandria).
- The following documentation will be taken for the test pit:
 - Unique test pit identification number
 - GPS coordinate
 - Munsell soil colour, texture and pH
 - Amount and location of cultural material within the deposit
 - Nature of disturbance where present
 - Stratigraphy
 - Archaeological features (if present)
 - Photographic records
 - Spit records.



- The test excavation unit must be backfilled as soon as practicable due to safety issues.
- An AHIMS Site Impact Recording form will be completed and submitted to the AHIMS Registrar for any sites impacted during test excavations.
- In the event that suspected human remains are identified works will immediately cease and the NSW Police and OEH will be notified.
- Test excavations will cease when enough information* has been recovered to adequately characterise the objects present with regard to their nature and significance.

*Enough information is defined by OEH as meaning "the sample of excavated material clearly and selfevidently demonstrates the deposit's nature and significance. This may include things like locally or regionally high object density: presence of rare or representative objects: presence of archaeological features: or locally or regionally significant deposits stratified or not." (DECCW 2010b).

Storage of cultural material

Any cultural material identified during test excavations will be temporarily stored in the Biosis, Sydney office for analysis (Unit 14, 17-27 Power Avenue, Alexandria).

Once the cultural material has been analysed, the cultural material can be managed in the following manners:

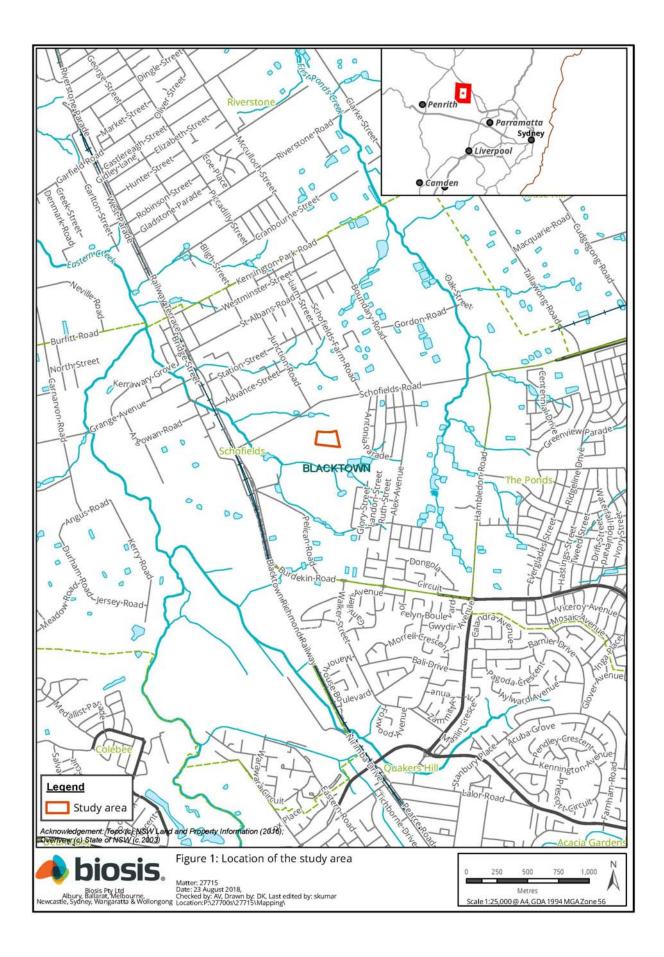
- Cultural material can be held by the Aboriginal community under a care and control agreement.
- Cultural material can be returned to country and reburied as soon as practicable in a secure location in accordance with Requirements 16b and 26 of the code.

Biosis requests any comments regarding the care and control of any cultural material be included as part of the review of this assessment methodology.

References

Department of Environment, Climate Change and Water. 2010a. Aboriginal cultural heritage consultation requirements for proponents 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.

Department of Environment, Climate Change and Water. 2010b. Code of practice for Archaeological Investigation of Aboriginal Objects in New South Wales 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.







5 November 2018

Andrew Williams Aboriginal Archaeology Serivice 2/24 Goodwin Street Narrabeen NSW 2101

Dear Andrew,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – project information

Our Ref: Matter 27715

Thank you for your registration of interest in this project. We are writing to you in order to provide you with the project information and methodology packs for the proposed development of a new public school at 34-38 Schofields Road, Schofields, NSW. This information has been provided in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements).

In this letter you will find the project information pack, and attached to this mailout is the document *Alex Avenue Public School Aboriginal Cultural Heritage Assessment – Project Methodology.*

The purpose of the methodology document is to provide you with further information on the background of this assessment, as well as the methodology for how it will be conducted, including any test excavations should they be required.

Please note that comments on the project methodology pack should be received before **4 pm Monday 3** December 2018.

As this project will involve a field investigation and potentially test excavations, the purpose of the second letter is to invite your feedback on the proposed project information and methodology packs, and to assist the proponent in the programing of groups for participation in the test excavations should they be carried out within the study area.

If you have any queries regarding the project or the information in this letter, please don't hesitate to contact us.

Yours sincerely,

Charlotte Allen

Archaeologist callen@biosis.com.au



Project information

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with information about the proposed project and the scope of the Aboriginal archaeology and cultural heritage investigations and assessment.

Study area

The study area is located within the Blacktown Local Government Area (LGA), Parish of Gidley, County of Cumberland. It encompasses Lot 4, DP 1208329, and part of Lot 121, DP 1203646 at 34-38 Schofields Road, Schofields, NSW (Figure 1 and Figure 2).

Project

School Infrastructure NSW are proposing to develop a new school at 34-38 Schofields Road, Schofields NSW, which consists of the following elements:

- a two storey Home Base building (stage 1)
- a two storey admin and staff building (stage 1)
- a two storey library (stage 1)
- a hall and out of school hours care facilities
- three learning courtyards and sports court
- covered outdoor learning area and walkway
- interconnected external area
- parking facilities
- two storey home base building (stage 2).

Biosis Pty Ltd is assisting School Infrastructure NSW with consultation with the Aboriginal community and the Aboriginal Cultural Heritage Assessment. Consultation with the Aboriginal community will follow the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a). The purpose of the Aboriginal community consultation will be to provide sufficient information for the assessment of Aboriginal cultural heritage values and to inform the Aboriginal cultural heritage assessment (ACHA).

The ACHA will support an Environmental Impact Statement and provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application. The project will be undertaken in accordance with the *National Parks and Wildlife Act 1974*. The development of the school will be assessed as a SSD under Section 89(c) of the *Environmental Planning and Assessment Act 1979* and Schedule 1 of the State Environmental Planning Policy (State and Regional Development) 2011(SSD 9368).

Aboriginal Cultural Heritage Assessment process

The assessment process includes the following steps:

Background research

Background research has been undertaken in order to identify known Aboriginal sites, areas of potential archaeological sensitivity and previous disturbance, and inform the predictive modelling for the assessment



area. Background research will be conducted in line with the requirements of the *Code of practice for the investigation of Aboriginal objects in New South Wales* (DECCW 2010b) ('the code'). Background research for the project included the following tasks:

- Conduct heritage register searches to identify previously recorded cultural heritage sites in or within the vicinity of the proposed study area. Searches will include the Aboriginal Heritage Information Management System (AHIMS), the National Heritage List, Commonwealth Heritage List, Register of the National Estate, State Heritage Register, Local Environmental Plan and National Trust heritage lists.
- Conduct additional background research in order to recognise any identifiable regional trends in site distribution and location and provide a site prediction model for the study area.
- Undertake a comprehensive survey of the study area, identifying any previously recorded sites (on AHIMS).
- Record and assess sites identified during the survey in compliance with the guidelines issued by OEH.
- Assess the scientific significance of all identified Aboriginal cultural heritage sites and places.
- Identify impacts to all identified Aboriginal cultural heritage sites and places based on potential ground disturbance from the proposed realignment of the road.
- Make recommendations to minimise or mitigate potential impacts of the proposed realignment upon cultural heritage values within the study area.

Consultation with the Aboriginal community

This task will allow the Aboriginal community the opportunity to participate in decisions regarding the management of their cultural heritage by providing proponents information regarding cultural significance and input into management options.

Consultation with Aboriginal stakeholders under the DECCW 2010a consultation guidelines is being undertaken to assist School Infrastructure NSW by:

- Providing relevant information about the cultural significance and values of the Aboriginal object(s) and/or place(s) within the study area.
- Influencing the design of the method to assess cultural and scientific significance of Aboriginal objects(s) and/or place(s) within the study area.
- Actively contributing to the development of cultural heritage management plan options and recommendations for any Aboriginal object(s) and/or place(s) within the proposed study area.
- Commenting on the draft assessment reports before they are submitted by the proponent to the determining authority of the proposed realignment.

Aboriginal community consultation will be undertaken in accordance with the consultation requirements, which includes:

• **COMPLETED.** Ascertaining the names of Aboriginal people or groups who may hold cultural knowledge relevant to determining the significance of Aboriginal objects and/ or places within the proposed study area. This would include writing to the following:



- OEH
- Local Aboriginal Land Council (LALC)
- Office of the Registrar (Aboriginal Land Rights Act 1983)
- National Native Title Tribunal (NNTT)
- Native Title Services Corporation Limited (NTSCORP Limited)
- Relevant Local Councils
- Relevant Catchment Management Authorities
- **COMPLETED.** Biosis will undertake the 'Placement of Notification' (Public Notice) in the *Rouse Hill Times*, on behalf of School Infrastructure NSW, that must include details of the proponent, the project, the exact location, and statement of the purpose of the community consultation in preparation for possible test excavations. The Public Notice is also an invitation for Aboriginal people who hold relevant cultural knowledge about the study area. A closing date for the registration must be included and be no less than **14 days**. **Registrations closed on 31 October 2018**.
- **COMPLETED.** Aboriginal people or groups identified were provided with notification of the proposed project via Biosis and given the opportunity to be involved in consultation. **Registrations of interest closed on 17 October 2018**.
- A list of Aboriginal people or groups who registered an interest in the project will be forwarded to the OEH and Deerubbin LALC by Biosis no later than **28 days** following close of registration. This list will not include those people or groups who specified that they did not want their details shared with OEH or the LALC.
- Biosis will provide details of the project and methodology for the archaeological assessment to the registered parties. The RAPs must be given an opportunity to review and provide feedback to the proponent within a minimum of **28 days** of the Biosis providing the methodology document.
- Selected representatives of the RAPs will be given the opportunity to participate in test excavations within the study area, should they be required.
- The DRAFT ACHA report and Archaeological Report will be provided to all RAPs for comment the proponent must allow **28 days** for comment. All comments and correspondence sent and received regarding the project will be included in the final report in an Appendix.

Field Survey

An Aboriginal archaeological survey of the study area will be undertaken in accordance with the guidelines outlined in the code in order to identify any previously unknown Aboriginal objects, sites or places. If identified, these will be recorded to the required standard. Should any sites of significance be identified the location and extent shall be recorded on MGA coordinates to enable overlay with the site plans.

There are several registered Aboriginal sites in the vicinity of the study area. The field survey will attempt to relocate and inspect these sites. This task will assist in the assessment of disturbance and with the predictive modelling for areas of potential archaeological deposit. It will also assist with the assessment of whether the proposed works are likely to impact on undiscovered Aboriginal objects and /or places.

The results of the survey and background research will be analysed to determine whether there are any areas of archaeological potential within the study area.



Test excavations

Should the results of the field survey indicate that there is an area of archaeological potential within the study area, Biosis will conduct test excavations to in accordance with the requirements of the code. Further information on the methodology for test excavation is available in the project methodology.

Reporting

A draft ACHA report and archaeological report will be prepared in accordance with the code and will include:

- background and project description
- a summary and analysis of the findings of the archaeological survey and test excavations (if applicable) including the presence and location of registered or undiscovered Aboriginal artefacts or heritage items within proximity of the study area
- a summary of any other relevant studies or surveys which have relevance to the assessment area
- a summary of the landscape features of the site which may indicate a history of Aboriginal activity
- a summary of previous land use that may have affected the retention of intact Aboriginal archaeology in the landscape
- the potential or likelihood for the proposed works to uncover or expose potential undiscovered Aboriginal objects
- Survey results and, if undertaken, test excavation results
- legislative implications of the proposed works
- recommendations and justification for further assessment (if required)
- mitigation measures (if any) required for the works to proceed
- mapping to show the location of registered and newly located (if any) Aboriginal sites in relation to the proposed works.

RAPs will be provided with the draft report for comment and allowed **28 days** for review.

Project schedule

The proposed schedule and time allocations for the consultation stages are summarised below.

Action	Timeframe	Potential constraints
Commencement of Aboriginal community consultation – advertising of project and notification to stakeholders	Completed	Project advertised in the <i>Rouse Hill Times</i> 9 October 2018. Notices sent to identified Aboriginal parties on 3 October 2018.
Aboriginal stakeholder registration period	Completed	Registration period ran from 3 October to 31 October 2018.
Field survey	Completed	ТВС
Archaeological test excavations with selected representatives of RAPs	ТВС	ТВС
Information gathering	Continuous	Until finalisation of report.



Action	Timeframe	Potential constraints
Review of draft report	ТВС	28 days review time allowed under OEH Aboriginal Community Consultation Guidelines.
Final report	ТВС	ТВС

Responsibilities and roles

As part of the consultation process, RAPs are expected to respond to requests for cultural information and comment on draft reporting, as appropriate in accordance with their role specified in the guidelines (DECCW 2010a, p. 16). Biosis and the proponent, in accordance with their role under the guidelines, will consult with the Aboriginal community by supplying suitable project information and providing the opportunity for Aboriginal stakeholders to provide input into the heritage management process (DECCW 2010a, pp. 16-17).

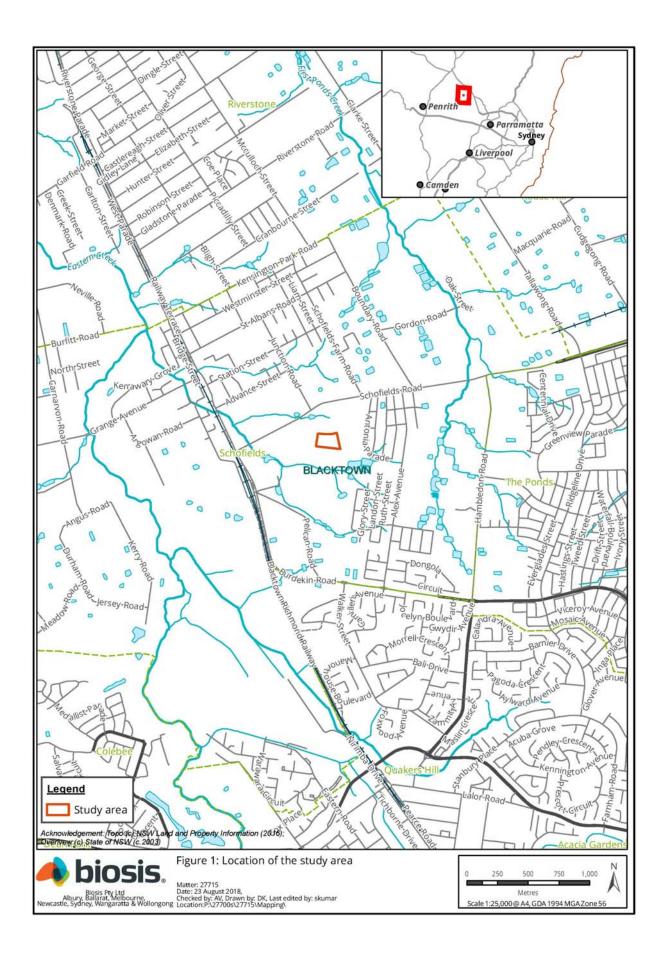
Each section of the methodology will be undertaken in consultation with the Aboriginal stakeholders. Biosis invites Aboriginal stakeholders to provide culturally appropriate information via mail, email or phone with regards to this project.

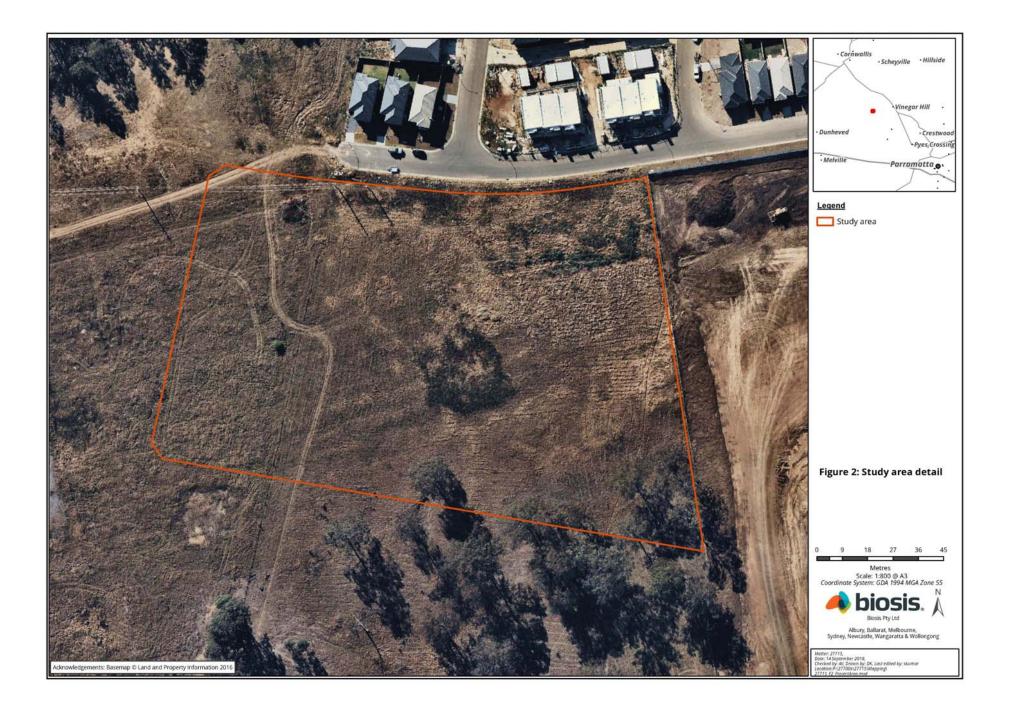
Cultural information provided will be recorded in the Aboriginal consultation log and discussed in the report. If the information is regarded as too sensitive to be made public then the Aboriginal stakeholder should advise Biosis and identify the nature of the sensitivity. Biosis will then arrange for the recording of the information in accordance with its sensitivity. Documents which hold sensitive information will clearly list, on the front cover, who can have access to the document. These documents will be stored securely.

References

DECCW 2010a, Aboriginal cultural heritage consultation requirements for proponents, Department of Environment and Climate Change, Sydney NSW.

DECCW 2010b, Code of practice for archaeological investigation of Aboriginal objects in New South Wales, Department of Environment and Climate Change, Sydney NSW.





Andrew Williams Aboriginal Archaeology Serivice 2/24 Goodwin Street Narrabeen NSW 2101

Dear Andrew Williams,

RE: Alex Avenue Public School, Aboriginal cultural heritage assessment – Project Methodology

Our Ref: 27715

This letter is being provided to all the Registered Aboriginal Parties (RAPs) who registered their interest in the consultation process for the Alex Avenue Public School development being undertaken by School Infrastructure NSW (Figure 1, Figure 2).

In accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements), we provide the proposed methodology for the Aboriginal Cultural Heritage Assessment (ACHA) for your review and feedback.

It would be appreciated if you could provide feedback on the methodology to Biosis Pty Ltd by **5pm on Monday 3 December 2018**, either by email or return mail.

Please address methodology feedback to:

Charlotte Allen Biosis Pty Ltd Unit 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

Please do not hesitate to contact me if you require additional information or have any queries about the methodology or information provided.

Kind regards,

Charlotte Allen Archaeologist

Biosis Pty Ltd Sydney Resource Group





Stage 3: Alex Avenue Public School Aboriginal Cultural Heritage Assessment: Methodology for field survey and test excavations (if required)

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with the proposed methodology for the cultural heritage and archaeological assessment.

Biosis has been engaged by School Infrastructure NSW to conduct an Aboriginal Cultural Heritage Assessment (ACHA), as part of an Environmental Impact Statement and to provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application.

Assessment methodology

Aims of the survey

The principle aims of the survey are to:

- undertake a systematic archaeological survey of the study area in accordance with the code, while targeting areas with the potential for Aboriginal heritage
- identify and record Aboriginal archaeological sites visible on the ground surface
- identify and record areas of potential archaeological deposit (PAD).

Survey methodology

The survey methods are intended to assess and understand the landforms and to determine whether any archaeological material from Aboriginal occupation or land use exists within the study area. Identification of natural soil deposits within the study area will be undertaken if possible. Photographs and recording techniques will be incorporated into the survey including representative photographs of survey units, landforms, vegetation coverage, ground surface visibility and the recording of soil information for each survey unit. Any Aboriginal objects observed during the survey will be documented and photographed. No artefacts discovered during the survey component are to be removed from the site.

The archaeological survey will occur concurrently with the test excavations. Recording during the survey will follow the guidelines of the OEH, in particular the *Code of practice for archaeological investigation of Aboriginal objects in New South Wales* (DECCW 2010b).

Specific information that will be recorded during the survey includes:

- Aboriginal objects or sites present in the study area
- survey coverage
- survey effectiveness
- any resources that may have potentially been exploited by Aboriginal people
- landforms and general soil information
- photographs of the site indicating landforms



- evidence of disturbance
- Aboriginal artefacts, culturally modified trees, shell middens or any other Aboriginal sites.

Distinguishing landform elements and their association with Aboriginal cultural heritage will assist with the identification of site patterning, though with the awareness of the following limitations:

- The degree of ground surface visibility (GSV) and amount of exposed areas can significantly bias the discovery of surface artefacts.
- Cultural material exposed on the surface is not necessarily representative of the potential extent of the site (either horizontally or vertically).

Information about the presence of potentially exploitable resources helps contribute to predictions of the Aboriginal sites that may occur within the study area. Information about GSV, DV and areas of exposures help to provide a general indication of the effectiveness of the survey for identifying Aboriginal cultural heritage exposed to the surface. Observable disturbances are also considered when assessing the integrity of known or potential sites in an area. The location of Aboriginal cultural heritage and points marking the boundary of the landform elements will be recorded using a hand-held Global Positioning System and the Map Grid of Australia (94) coordinate system.

Test excavation methodology

Should areas of archaeological potential or cultural values be identified during the field survey, test excavations will be conducted in accordance with the requirements of the code.

Aims of the sub-surface test excavations

The principle objectives of the subsurface test excavations would be to identify and understand the nature, extent and significance of any archaeological sites located within areas of archaeological potential.

The aims of the testing program would be to:

- Determine whether sub-surface archaeological deposits exist which may be impacted by the development.
- If so, to determine the extent and nature of such deposits.
- Identify if the archaeological material occurs in an intact, undisturbed context, by examining the soil profile and stratigraphy.
- Analyse and interpret any archaeological finds (such as stone artefacts, shell midden deposits, etc.) recovered during the testing program.
- Inform current knowledge of Aboriginal occupation and land use models of the region.
- Provide management and mitigation measures for Aboriginal archaeological objects located during the subsurface testing program.

Test excavation sampling strategy

Test excavations across the study area would conform to the following methodology:



- Test excavations will be undertaken in areas identified as having the potential to contain Aboriginal cultural material.
- Test excavations will be conducted in 50 x 50 centimetre units.
- The test excavation units will be excavated by hand (inclusive of trowels, spades and other hand tools) along transects at intervals of between 10 20 metres or other justifiable and regular spacing (being no smaller than five metres).
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- If the depth of deposit prevents reaching sterile deposits within the 50 x 50 centimetre test pit, additional 50 x 50 centimetre test pits may be excavated adjacent to the original test pit (for example expanding the test pit to 50 x 100 centimetres) to reach the sterile deposits.
- Test pits may be combined and excavated as necessary in 50 x 50 centimetre units for the purposes of further understanding site characteristics. Note that under the Code, the maximum area that can be excavated in any one continuous area is three metres squared (3 m²).
- The Code dictates that the maximum surface area of all test excavation units must be no greater than 0.5% of the PAD or area being investigated.
- All excavated soil will be sieved in 5mm sieves. Dry sieving will be attempted in the first instance, however wet sieving may be used if deposits cannot be dry sieved.
- All cultural material will be collected, bagged and clearly labelled. They will be temporarily stored in the Biosis office for analysis (at Unit 14, 17-27 Power Avenue, Alexandria).
- The following documentation will be taken for the test pit:
 - Unique test pit identification number
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 - Munsell soil colour, texture and pH
 - Amount and location of cultural material within the deposit
 - Nature of disturbance where present
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 - Archaeological features (if present)
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- The test excavation unit must be backfilled as soon as practicable due to safety issues.
- An AHIMS Site Impact Recording form will be completed and submitted to the AHIMS Registrar for any sites impacted during test excavations.
- In the event that suspected human remains are identified works will immediately cease and the NSW Police and OEH will be notified.
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Any cultural material identified during test excavations will be temporarily stored in the Biosis, Sydney office for analysis (Unit 14, 17-27 Power Avenue, Alexandria).

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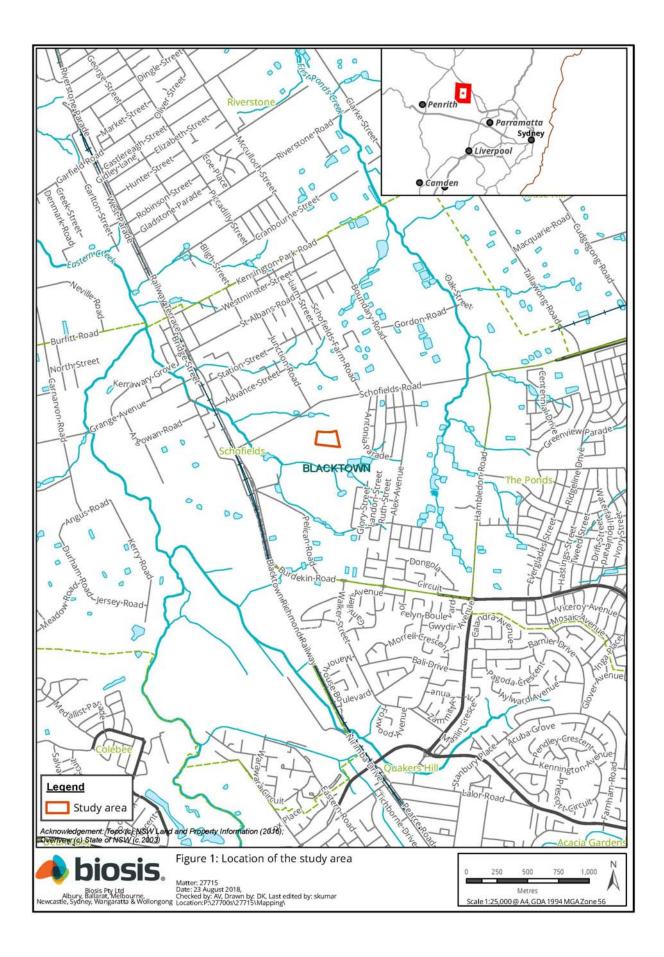
- Cultural material can be held by the Aboriginal community under a care and control agreement.
- Cultural material can be returned to country and reburied as soon as practicable in a secure location in accordance with Requirements 16b and 26 of the code.

Biosis requests any comments regarding the care and control of any cultural material be included as part of the review of this assessment methodology.

References

Department of Environment, Climate Change and Water. 2010a. Aboriginal cultural heritage consultation requirements for proponents 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.

Department of Environment, Climate Change and Water. 2010b. Code of practice for Archaeological Investigation of Aboriginal Objects in New South Wales 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.







Jody Kulakowski Barking Owl Aboriginal Corporation 2-65/69 Wehlow Street Mt Druitt NSW 2770

Dear Jody,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – project information Our Ref: Matter 27715

Thank you for your registration of interest in this project. We are writing to you in order to provide you with the project information and methodology packs for the proposed development of a new public school at 34-38 Schofields Road, Schofields, NSW. This information has been provided in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements).

In this letter you will find the project information pack, and attached to this mailout is the document *Alex Avenue Public School Aboriginal Cultural Heritage Assessment – Project Methodology.*

The purpose of the methodology document is to provide you with further information on the background of this assessment, as well as the methodology for how it will be conducted, including any test excavations should they be required.

Please note that comments on the project methodology pack should be received before **4 pm Monday 3** December 2018.

As this project will involve a field investigation and potentially test excavations, the purpose of the second letter is to invite your feedback on the proposed project information and methodology packs, and to assist the proponent in the programing of groups for participation in the test excavations should they be carried out within the study area.

If you have any queries regarding the project or the information in this letter, please don't hesitate to contact us.

Yours sincerely,

Charlotte Allen

Archaeologist callen@biosis.com.au



Project information

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with information about the proposed project and the scope of the Aboriginal archaeology and cultural heritage investigations and assessment.

Study area

The study area is located within the Blacktown Local Government Area (LGA), Parish of Gidley, County of Cumberland. It encompasses Lot 4, DP 1208329, and part of Lot 121, DP 1203646 at 34-38 Schofields Road, Schofields, NSW (Figure 1 and Figure 2).

Project

School Infrastructure NSW are proposing to develop a new school at 34-38 Schofields Road, Schofields NSW, which consists of the following elements:

- a two storey Home Base building (stage 1)
- a two storey admin and staff building (stage 1)
- a two storey library (stage 1)
- a hall and out of school hours care facilities
- three learning courtyards and sports court
- covered outdoor learning area and walkway
- interconnected external area
- parking facilities
- two storey home base building (stage 2).

Biosis Pty Ltd is assisting School Infrastructure NSW with consultation with the Aboriginal community and the Aboriginal Cultural Heritage Assessment. Consultation with the Aboriginal community will follow the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a). The purpose of the Aboriginal community consultation will be to provide sufficient information for the assessment of Aboriginal cultural heritage values and to inform the Aboriginal cultural heritage assessment (ACHA).

The ACHA will support an Environmental Impact Statement and provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application. The project will be undertaken in accordance with the *National Parks and Wildlife Act 1974*. The development of the school will be assessed as a SSD under Section 89(c) of the *Environmental Planning and Assessment Act 1979* and Schedule 1 of the State Environmental Planning Policy (State and Regional Development) 2011(SSD 9368).

Aboriginal Cultural Heritage Assessment process

The assessment process includes the following steps:

Background research

Background research has been undertaken in order to identify known Aboriginal sites, areas of potential archaeological sensitivity and previous disturbance, and inform the predictive modelling for the assessment



area. Background research will be conducted in line with the requirements of the *Code of practice for the investigation of Aboriginal objects in New South Wales* (DECCW 2010b) ('the code'). Background research for the project included the following tasks:

- Conduct heritage register searches to identify previously recorded cultural heritage sites in or within the vicinity of the proposed study area. Searches will include the Aboriginal Heritage Information Management System (AHIMS), the National Heritage List, Commonwealth Heritage List, Register of the National Estate, State Heritage Register, Local Environmental Plan and National Trust heritage lists.
- Conduct additional background research in order to recognise any identifiable regional trends in site distribution and location and provide a site prediction model for the study area.
- Undertake a comprehensive survey of the study area, identifying any previously recorded sites (on AHIMS).
- Record and assess sites identified during the survey in compliance with the guidelines issued by OEH.
- Assess the scientific significance of all identified Aboriginal cultural heritage sites and places.
- Identify impacts to all identified Aboriginal cultural heritage sites and places based on potential ground disturbance from the proposed realignment of the road.
- Make recommendations to minimise or mitigate potential impacts of the proposed realignment upon cultural heritage values within the study area.

Consultation with the Aboriginal community

This task will allow the Aboriginal community the opportunity to participate in decisions regarding the management of their cultural heritage by providing proponents information regarding cultural significance and input into management options.

Consultation with Aboriginal stakeholders under the DECCW 2010a consultation guidelines is being undertaken to assist School Infrastructure NSW by:

- Providing relevant information about the cultural significance and values of the Aboriginal object(s) and/or place(s) within the study area.
- Influencing the design of the method to assess cultural and scientific significance of Aboriginal objects(s) and/or place(s) within the study area.
- Actively contributing to the development of cultural heritage management plan options and recommendations for any Aboriginal object(s) and/or place(s) within the proposed study area.
- Commenting on the draft assessment reports before they are submitted by the proponent to the determining authority of the proposed realignment.

Aboriginal community consultation will be undertaken in accordance with the consultation requirements, which includes:

• **COMPLETED.** Ascertaining the names of Aboriginal people or groups who may hold cultural knowledge relevant to determining the significance of Aboriginal objects and/ or places within the proposed study area. This would include writing to the following:



- OEH
- Local Aboriginal Land Council (LALC)
- Office of the Registrar (Aboriginal Land Rights Act 1983)
- National Native Title Tribunal (NNTT)
- Native Title Services Corporation Limited (NTSCORP Limited)
- Relevant Local Councils
- Relevant Catchment Management Authorities
- **COMPLETED.** Biosis will undertake the 'Placement of Notification' (Public Notice) in the *Rouse Hill Times*, on behalf of School Infrastructure NSW, that must include details of the proponent, the project, the exact location, and statement of the purpose of the community consultation in preparation for possible test excavations. The Public Notice is also an invitation for Aboriginal people who hold relevant cultural knowledge about the study area. A closing date for the registration must be included and be no less than **14 days**. **Registrations closed on 31 October 2018**.
- **COMPLETED.** Aboriginal people or groups identified were provided with notification of the proposed project via Biosis and given the opportunity to be involved in consultation. **Registrations of interest closed on 17 October 2018**.
- A list of Aboriginal people or groups who registered an interest in the project will be forwarded to the OEH and Deerubbin LALC by Biosis no later than **28 days** following close of registration. This list will not include those people or groups who specified that they did not want their details shared with OEH or the LALC.
- Biosis will provide details of the project and methodology for the archaeological assessment to the registered parties. The RAPs must be given an opportunity to review and provide feedback to the proponent within a minimum of **28 days** of the Biosis providing the methodology document.
- Selected representatives of the RAPs will be given the opportunity to participate in test excavations within the study area, should they be required.
- The DRAFT ACHA report and Archaeological Report will be provided to all RAPs for comment the proponent must allow **28 days** for comment. All comments and correspondence sent and received regarding the project will be included in the final report in an Appendix.

Field Survey

An Aboriginal archaeological survey of the study area will be undertaken in accordance with the guidelines outlined in the code in order to identify any previously unknown Aboriginal objects, sites or places. If identified, these will be recorded to the required standard. Should any sites of significance be identified the location and extent shall be recorded on MGA coordinates to enable overlay with the site plans.

There are several registered Aboriginal sites in the vicinity of the study area. The field survey will attempt to relocate and inspect these sites. This task will assist in the assessment of disturbance and with the predictive modelling for areas of potential archaeological deposit. It will also assist with the assessment of whether the proposed works are likely to impact on undiscovered Aboriginal objects and /or places.

The results of the survey and background research will be analysed to determine whether there are any areas of archaeological potential within the study area.



Test excavations

Should the results of the field survey indicate that there is an area of archaeological potential within the study area, Biosis will conduct test excavations to in accordance with the requirements of the code. Further information on the methodology for test excavation is available in the project methodology.

Reporting

A draft ACHA report and archaeological report will be prepared in accordance with the code and will include:

- background and project description
- a summary and analysis of the findings of the archaeological survey and test excavations (if applicable) including the presence and location of registered or undiscovered Aboriginal artefacts or heritage items within proximity of the study area
- a summary of any other relevant studies or surveys which have relevance to the assessment area
- a summary of the landscape features of the site which may indicate a history of Aboriginal activity
- a summary of previous land use that may have affected the retention of intact Aboriginal archaeology in the landscape
- the potential or likelihood for the proposed works to uncover or expose potential undiscovered Aboriginal objects
- Survey results and, if undertaken, test excavation results
- legislative implications of the proposed works
- recommendations and justification for further assessment (if required)
- mitigation measures (if any) required for the works to proceed
- mapping to show the location of registered and newly located (if any) Aboriginal sites in relation to the proposed works.

RAPs will be provided with the draft report for comment and allowed **28 days** for review.

Project schedule

The proposed schedule and time allocations for the consultation stages are summarised below.

Action	Timeframe	Potential constraints
Commencement of Aboriginal community consultation – advertising of project and notification to stakeholders	Completed	Project advertised in the <i>Rouse Hill Times</i> 9 October 2018. Notices sent to identified Aboriginal parties on 3 October 2018.
Aboriginal stakeholder registration period	Completed	Registration period ran from 3 October to 31 October 2018.
Field survey	Completed	ТВС
Archaeological test excavations with selected representatives of RAPs	ТВС	ТВС
Information gathering	Continuous	Until finalisation of report.



Action	Timeframe	Potential constraints
Review of draft report	ТВС	28 days review time allowed under OEH Aboriginal Community Consultation Guidelines.
Final report	ТВС	ТВС

Responsibilities and roles

As part of the consultation process, RAPs are expected to respond to requests for cultural information and comment on draft reporting, as appropriate in accordance with their role specified in the guidelines (DECCW 2010a, p. 16). Biosis and the proponent, in accordance with their role under the guidelines, will consult with the Aboriginal community by supplying suitable project information and providing the opportunity for Aboriginal stakeholders to provide input into the heritage management process (DECCW 2010a, pp. 16-17).

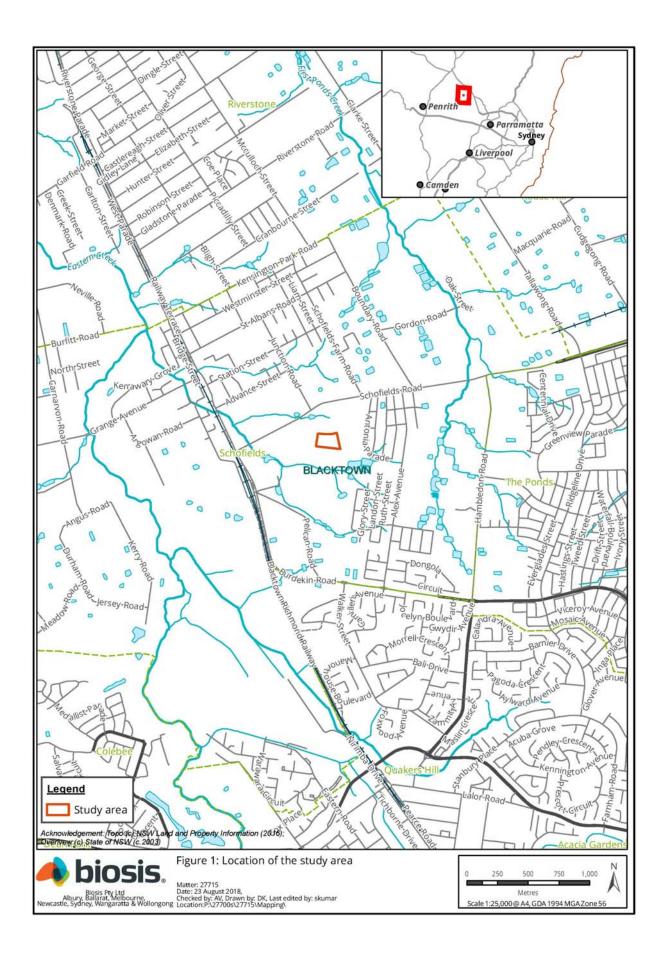
Each section of the methodology will be undertaken in consultation with the Aboriginal stakeholders. Biosis invites Aboriginal stakeholders to provide culturally appropriate information via mail, email or phone with regards to this project.

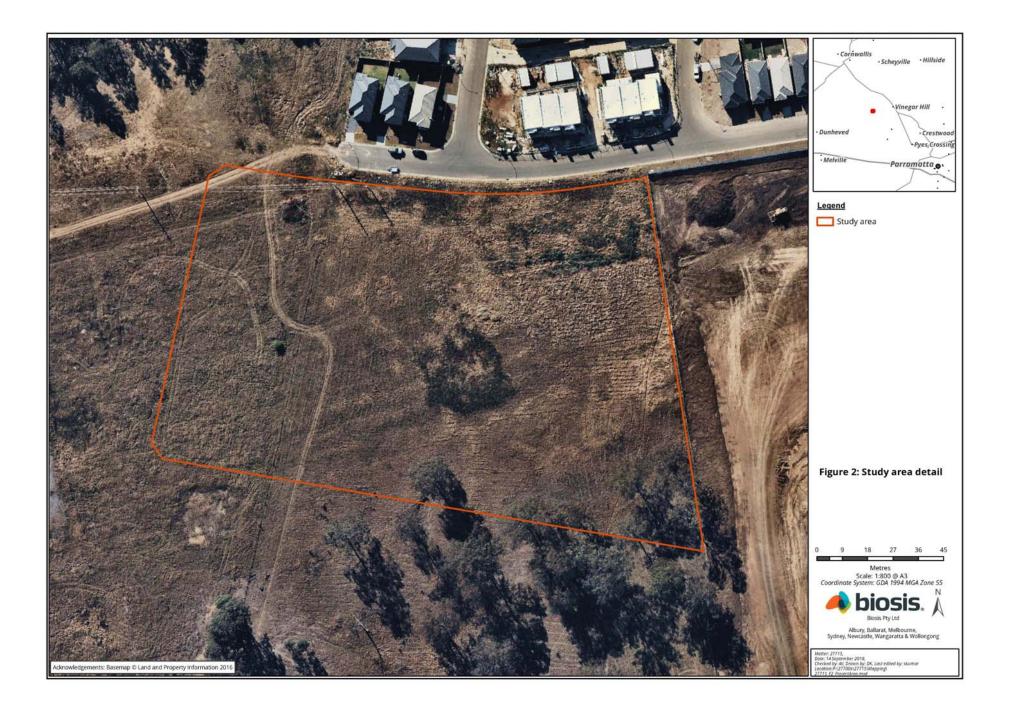
Cultural information provided will be recorded in the Aboriginal consultation log and discussed in the report. If the information is regarded as too sensitive to be made public then the Aboriginal stakeholder should advise Biosis and identify the nature of the sensitivity. Biosis will then arrange for the recording of the information in accordance with its sensitivity. Documents which hold sensitive information will clearly list, on the front cover, who can have access to the document. These documents will be stored securely.

References

DECCW 2010a, Aboriginal cultural heritage consultation requirements for proponents, Department of Environment and Climate Change, Sydney NSW.

DECCW 2010b, Code of practice for archaeological investigation of Aboriginal objects in New South Wales, Department of Environment and Climate Change, Sydney NSW.





Jody Kulakowski Barking Owl Aboriginal Corporation 2-65/69 Wehlow Street Mt Druitt NSW 2770

Dear Jody Kulakowski,

RE: Alex Avenue Public School, Aboriginal cultural heritage assessment – Project Methodology

Our Ref: 27715

This letter is being provided to all the Registered Aboriginal Parties (RAPs) who registered their interest in the consultation process for the Alex Avenue Public School development being undertaken by School Infrastructure NSW (Figure 1, Figure 2).

In accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements), we provide the proposed methodology for the Aboriginal Cultural Heritage Assessment (ACHA) for your review and feedback.

It would be appreciated if you could provide feedback on the methodology to Biosis Pty Ltd by **5pm on Monday 3 December 2018**, either by email or return mail.

Please address methodology feedback to:

Charlotte Allen Biosis Pty Ltd Unit 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

Please do not hesitate to contact me if you require additional information or have any queries about the methodology or information provided.

Kind regards,

Charlotte Allen Archaeologist

Biosis Pty Ltd Sydney Resource Group





Stage 3: Alex Avenue Public School Aboriginal Cultural Heritage Assessment: Methodology for field survey and test excavations (if required)

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with the proposed methodology for the cultural heritage and archaeological assessment.

Biosis has been engaged by School Infrastructure NSW to conduct an Aboriginal Cultural Heritage Assessment (ACHA), as part of an Environmental Impact Statement and to provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application.

Assessment methodology

Aims of the survey

The principle aims of the survey are to:

- undertake a systematic archaeological survey of the study area in accordance with the code, while targeting areas with the potential for Aboriginal heritage
- identify and record Aboriginal archaeological sites visible on the ground surface
- identify and record areas of potential archaeological deposit (PAD).

Survey methodology

The survey methods are intended to assess and understand the landforms and to determine whether any archaeological material from Aboriginal occupation or land use exists within the study area. Identification of natural soil deposits within the study area will be undertaken if possible. Photographs and recording techniques will be incorporated into the survey including representative photographs of survey units, landforms, vegetation coverage, ground surface visibility and the recording of soil information for each survey unit. Any Aboriginal objects observed during the survey will be documented and photographed. No artefacts discovered during the survey component are to be removed from the site.

The archaeological survey will occur concurrently with the test excavations. Recording during the survey will follow the guidelines of the OEH, in particular the *Code of practice for archaeological investigation of Aboriginal objects in New South Wales* (DECCW 2010b).

Specific information that will be recorded during the survey includes:

- Aboriginal objects or sites present in the study area
- survey coverage
- survey effectiveness
- any resources that may have potentially been exploited by Aboriginal people
- landforms and general soil information
- photographs of the site indicating landforms



- evidence of disturbance
- Aboriginal artefacts, culturally modified trees, shell middens or any other Aboriginal sites.

Distinguishing landform elements and their association with Aboriginal cultural heritage will assist with the identification of site patterning, though with the awareness of the following limitations:

- The degree of ground surface visibility (GSV) and amount of exposed areas can significantly bias the discovery of surface artefacts.
- Cultural material exposed on the surface is not necessarily representative of the potential extent of the site (either horizontally or vertically).

Information about the presence of potentially exploitable resources helps contribute to predictions of the Aboriginal sites that may occur within the study area. Information about GSV, DV and areas of exposures help to provide a general indication of the effectiveness of the survey for identifying Aboriginal cultural heritage exposed to the surface. Observable disturbances are also considered when assessing the integrity of known or potential sites in an area. The location of Aboriginal cultural heritage and points marking the boundary of the landform elements will be recorded using a hand-held Global Positioning System and the Map Grid of Australia (94) coordinate system.

Test excavation methodology

Should areas of archaeological potential or cultural values be identified during the field survey, test excavations will be conducted in accordance with the requirements of the code.

Aims of the sub-surface test excavations

The principle objectives of the subsurface test excavations would be to identify and understand the nature, extent and significance of any archaeological sites located within areas of archaeological potential.

The aims of the testing program would be to:

- Determine whether sub-surface archaeological deposits exist which may be impacted by the development.
- If so, to determine the extent and nature of such deposits.
- Identify if the archaeological material occurs in an intact, undisturbed context, by examining the soil profile and stratigraphy.
- Analyse and interpret any archaeological finds (such as stone artefacts, shell midden deposits, etc.) recovered during the testing program.
- Inform current knowledge of Aboriginal occupation and land use models of the region.
- Provide management and mitigation measures for Aboriginal archaeological objects located during the subsurface testing program.

Test excavation sampling strategy

Test excavations across the study area would conform to the following methodology:



- Test excavations will be undertaken in areas identified as having the potential to contain Aboriginal cultural material.
- Test excavations will be conducted in 50 x 50 centimetre units.
- The test excavation units will be excavated by hand (inclusive of trowels, spades and other hand tools) along transects at intervals of between 10 20 metres or other justifiable and regular spacing (being no smaller than five metres).
- The first test pit within a site or PAD area will be excavated in five centimetre spits; the subsequent test pits conducted within the site or PAD area can then be excavated in either 10 centimetre spits or stratigraphic units (whichever is smaller) to the base of Aboriginal object-bearing units being the removal of the A-horizon soil deposit down to the sterile clay or bedrock layer (B-horizon).
- If the depth of deposit prevents reaching sterile deposits within the 50 x 50 centimetre test pit, additional 50 x 50 centimetre test pits may be excavated adjacent to the original test pit (for example expanding the test pit to 50 x 100 centimetres) to reach the sterile deposits.
- Test pits may be combined and excavated as necessary in 50 x 50 centimetre units for the purposes of further understanding site characteristics. Note that under the Code, the maximum area that can be excavated in any one continuous area is three metres squared (3 m²).
- The Code dictates that the maximum surface area of all test excavation units must be no greater than 0.5% of the PAD or area being investigated.
- All excavated soil will be sieved in 5mm sieves. Dry sieving will be attempted in the first instance, however wet sieving may be used if deposits cannot be dry sieved.
- All cultural material will be collected, bagged and clearly labelled. They will be temporarily stored in the Biosis office for analysis (at Unit 14, 17-27 Power Avenue, Alexandria).
- The following documentation will be taken for the test pit:
 - Unique test pit identification number
 - GPS coordinate
 - Munsell soil colour, texture and pH
 - Amount and location of cultural material within the deposit
 - Nature of disturbance where present
 - Stratigraphy
 - Archaeological features (if present)
 - Photographic records
 - Spit records.



- The test excavation unit must be backfilled as soon as practicable due to safety issues.
- An AHIMS Site Impact Recording form will be completed and submitted to the AHIMS Registrar for any sites impacted during test excavations.
- In the event that suspected human remains are identified works will immediately cease and the NSW Police and OEH will be notified.
- Test excavations will cease when enough information* has been recovered to adequately characterise the objects present with regard to their nature and significance.

*Enough information is defined by OEH as meaning "the sample of excavated material clearly and selfevidently demonstrates the deposit's nature and significance. This may include things like locally or regionally high object density: presence of rare or representative objects: presence of archaeological features: or locally or regionally significant deposits stratified or not." (DECCW 2010b).

Storage of cultural material

Any cultural material identified during test excavations will be temporarily stored in the Biosis, Sydney office for analysis (Unit 14, 17-27 Power Avenue, Alexandria).

Once the cultural material has been analysed, the cultural material can be managed in the following manners:

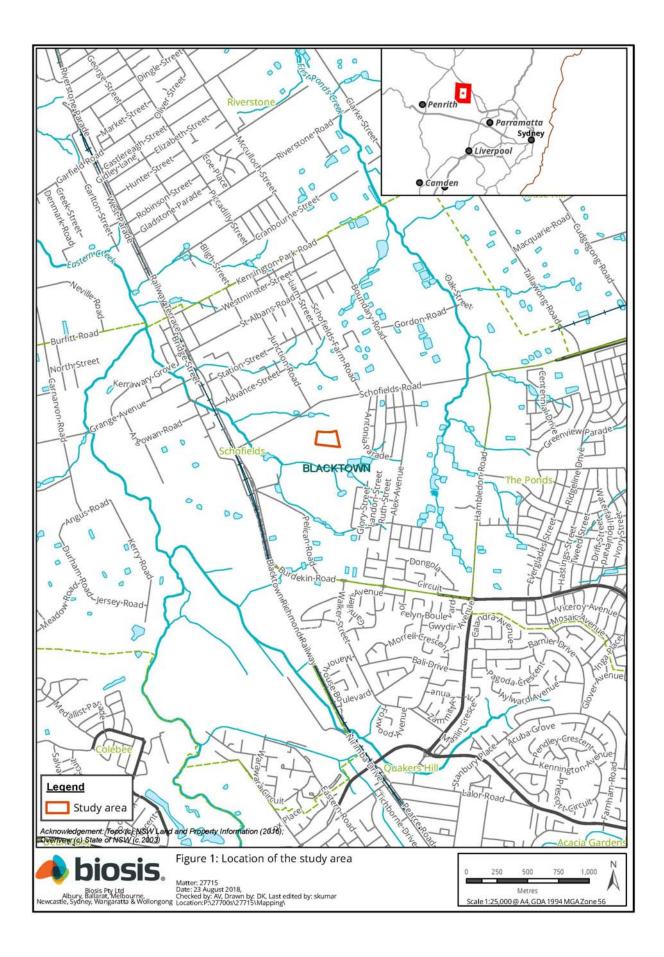
- Cultural material can be held by the Aboriginal community under a care and control agreement.
- Cultural material can be returned to country and reburied as soon as practicable in a secure location in accordance with Requirements 16b and 26 of the code.

Biosis requests any comments regarding the care and control of any cultural material be included as part of the review of this assessment methodology.

References

Department of Environment, Climate Change and Water. 2010a. Aboriginal cultural heritage consultation requirements for proponents 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.

Department of Environment, Climate Change and Water. 2010b. Code of practice for Archaeological Investigation of Aboriginal Objects in New South Wales 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.







Jesse Muragadi

Dear Jesse,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – project information

Our Ref: Matter 27715

Thank you for your registration of interest in this project. We are writing to you in order to provide you with the project information and methodology packs for the proposed development of a new public school at 34-38 Schofields Road, Schofields, NSW. This information has been provided in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements).

In this letter you will find the project information pack, and attached to this mailout is the document *Alex Avenue Public School Aboriginal Cultural Heritage Assessment – Project Methodology.*

The purpose of the methodology document is to provide you with further information on the background of this assessment, as well as the methodology for how it will be conducted, including any test excavations should they be required.

Please note that comments on the project methodology pack should be received before **4 pm Monday 3** December 2018.

As this project will involve a field investigation and potentially test excavations, the purpose of the second letter is to invite your feedback on the proposed project information and methodology packs, and to assist the proponent in the programing of groups for participation in the test excavations should they be carried out within the study area.

If you have any queries regarding the project or the information in this letter, please don't hesitate to contact us.

Yours sincerely,

Charlotte Allen

Archaeologist callen@biosis.com.au



Project information

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with information about the proposed project and the scope of the Aboriginal archaeology and cultural heritage investigations and assessment.

Study area

The study area is located within the Blacktown Local Government Area (LGA), Parish of Gidley, County of Cumberland. It encompasses Lot 4, DP 1208329, and part of Lot 121, DP 1203646 at 34-38 Schofields Road, Schofields, NSW (Figure 1 and Figure 2).

Project

School Infrastructure NSW are proposing to develop a new school at 34-38 Schofields Road, Schofields NSW, which consists of the following elements:

- a two storey Home Base building (stage 1)
- a two storey admin and staff building (stage 1)
- a two storey library (stage 1)
- a hall and out of school hours care facilities
- three learning courtyards and sports court
- covered outdoor learning area and walkway
- interconnected external area
- parking facilities
- two storey home base building (stage 2).

Biosis Pty Ltd is assisting School Infrastructure NSW with consultation with the Aboriginal community and the Aboriginal Cultural Heritage Assessment. Consultation with the Aboriginal community will follow the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a). The purpose of the Aboriginal community consultation will be to provide sufficient information for the assessment of Aboriginal cultural heritage values and to inform the Aboriginal cultural heritage assessment (ACHA).

The ACHA will support an Environmental Impact Statement and provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application. The project will be undertaken in accordance with the *National Parks and Wildlife Act 1974*. The development of the school will be assessed as a SSD under Section 89(c) of the *Environmental Planning and Assessment Act 1979* and Schedule 1 of the State Environmental Planning Policy (State and Regional Development) 2011(SSD 9368).

Aboriginal Cultural Heritage Assessment process

The assessment process includes the following steps:

Background research

Background research has been undertaken in order to identify known Aboriginal sites, areas of potential archaeological sensitivity and previous disturbance, and inform the predictive modelling for the assessment



area. Background research will be conducted in line with the requirements of the *Code of practice for the investigation of Aboriginal objects in New South Wales* (DECCW 2010b) ('the code'). Background research for the project included the following tasks:

- Conduct heritage register searches to identify previously recorded cultural heritage sites in or within the vicinity of the proposed study area. Searches will include the Aboriginal Heritage Information Management System (AHIMS), the National Heritage List, Commonwealth Heritage List, Register of the National Estate, State Heritage Register, Local Environmental Plan and National Trust heritage lists.
- Conduct additional background research in order to recognise any identifiable regional trends in site distribution and location and provide a site prediction model for the study area.
- Undertake a comprehensive survey of the study area, identifying any previously recorded sites (on AHIMS).
- Record and assess sites identified during the survey in compliance with the guidelines issued by OEH.
- Assess the scientific significance of all identified Aboriginal cultural heritage sites and places.
- Identify impacts to all identified Aboriginal cultural heritage sites and places based on potential ground disturbance from the proposed realignment of the road.
- Make recommendations to minimise or mitigate potential impacts of the proposed realignment upon cultural heritage values within the study area.

Consultation with the Aboriginal community

This task will allow the Aboriginal community the opportunity to participate in decisions regarding the management of their cultural heritage by providing proponents information regarding cultural significance and input into management options.

Consultation with Aboriginal stakeholders under the DECCW 2010a consultation guidelines is being undertaken to assist School Infrastructure NSW by:

- Providing relevant information about the cultural significance and values of the Aboriginal object(s) and/or place(s) within the study area.
- Influencing the design of the method to assess cultural and scientific significance of Aboriginal objects(s) and/or place(s) within the study area.
- Actively contributing to the development of cultural heritage management plan options and recommendations for any Aboriginal object(s) and/or place(s) within the proposed study area.
- Commenting on the draft assessment reports before they are submitted by the proponent to the determining authority of the proposed realignment.

Aboriginal community consultation will be undertaken in accordance with the consultation requirements, which includes:

• **COMPLETED.** Ascertaining the names of Aboriginal people or groups who may hold cultural knowledge relevant to determining the significance of Aboriginal objects and/ or places within the proposed study area. This would include writing to the following:



- OEH
- Local Aboriginal Land Council (LALC)
- Office of the Registrar (Aboriginal Land Rights Act 1983)
- National Native Title Tribunal (NNTT)
- Native Title Services Corporation Limited (NTSCORP Limited)
- Relevant Local Councils
- Relevant Catchment Management Authorities
- **COMPLETED.** Biosis will undertake the 'Placement of Notification' (Public Notice) in the *Rouse Hill Times*, on behalf of School Infrastructure NSW, that must include details of the proponent, the project, the exact location, and statement of the purpose of the community consultation in preparation for possible test excavations. The Public Notice is also an invitation for Aboriginal people who hold relevant cultural knowledge about the study area. A closing date for the registration must be included and be no less than **14 days**. **Registrations closed on 31 October 2018**.
- **COMPLETED.** Aboriginal people or groups identified were provided with notification of the proposed project via Biosis and given the opportunity to be involved in consultation. **Registrations of interest closed on 17 October 2018**.
- A list of Aboriginal people or groups who registered an interest in the project will be forwarded to the OEH and Deerubbin LALC by Biosis no later than **28 days** following close of registration. This list will not include those people or groups who specified that they did not want their details shared with OEH or the LALC.
- Biosis will provide details of the project and methodology for the archaeological assessment to the registered parties. The RAPs must be given an opportunity to review and provide feedback to the proponent within a minimum of **28 days** of the Biosis providing the methodology document.
- Selected representatives of the RAPs will be given the opportunity to participate in test excavations within the study area, should they be required.
- The DRAFT ACHA report and Archaeological Report will be provided to all RAPs for comment the proponent must allow **28 days** for comment. All comments and correspondence sent and received regarding the project will be included in the final report in an Appendix.

Field Survey

An Aboriginal archaeological survey of the study area will be undertaken in accordance with the guidelines outlined in the code in order to identify any previously unknown Aboriginal objects, sites or places. If identified, these will be recorded to the required standard. Should any sites of significance be identified the location and extent shall be recorded on MGA coordinates to enable overlay with the site plans.

There are several registered Aboriginal sites in the vicinity of the study area. The field survey will attempt to relocate and inspect these sites. This task will assist in the assessment of disturbance and with the predictive modelling for areas of potential archaeological deposit. It will also assist with the assessment of whether the proposed works are likely to impact on undiscovered Aboriginal objects and /or places.

The results of the survey and background research will be analysed to determine whether there are any areas of archaeological potential within the study area.



Test excavations

Should the results of the field survey indicate that there is an area of archaeological potential within the study area, Biosis will conduct test excavations to in accordance with the requirements of the code. Further information on the methodology for test excavation is available in the project methodology.

Reporting

A draft ACHA report and archaeological report will be prepared in accordance with the code and will include:

- background and project description
- a summary and analysis of the findings of the archaeological survey and test excavations (if applicable) including the presence and location of registered or undiscovered Aboriginal artefacts or heritage items within proximity of the study area
- a summary of any other relevant studies or surveys which have relevance to the assessment area
- a summary of the landscape features of the site which may indicate a history of Aboriginal activity
- a summary of previous land use that may have affected the retention of intact Aboriginal archaeology in the landscape
- the potential or likelihood for the proposed works to uncover or expose potential undiscovered Aboriginal objects
- Survey results and, if undertaken, test excavation results
- legislative implications of the proposed works
- recommendations and justification for further assessment (if required)
- mitigation measures (if any) required for the works to proceed
- mapping to show the location of registered and newly located (if any) Aboriginal sites in relation to the proposed works.

RAPs will be provided with the draft report for comment and allowed **28 days** for review.

Project schedule

The proposed schedule and time allocations for the consultation stages are summarised below.

Action	Timeframe	Potential constraints
Commencement of Aboriginal community consultation – advertising of project and notification to stakeholders	Completed	Project advertised in the <i>Rouse Hill Times</i> 9 October 2018. Notices sent to identified Aboriginal parties on 3 October 2018.
Aboriginal stakeholder registration period	Completed	Registration period ran from 3 October to 31 October 2018.
Field survey	Completed	ТВС
Archaeological test excavations with selected representatives of RAPs	ТВС	ТВС
Information gathering	Continuous	Until finalisation of report.



Action	Timeframe	Potential constraints
Review of draft report	ТВС	28 days review time allowed under OEH Aboriginal Community Consultation Guidelines.
Final report	ТВС	ТВС

Responsibilities and roles

As part of the consultation process, RAPs are expected to respond to requests for cultural information and comment on draft reporting, as appropriate in accordance with their role specified in the guidelines (DECCW 2010a, p. 16). Biosis and the proponent, in accordance with their role under the guidelines, will consult with the Aboriginal community by supplying suitable project information and providing the opportunity for Aboriginal stakeholders to provide input into the heritage management process (DECCW 2010a, pp. 16-17).

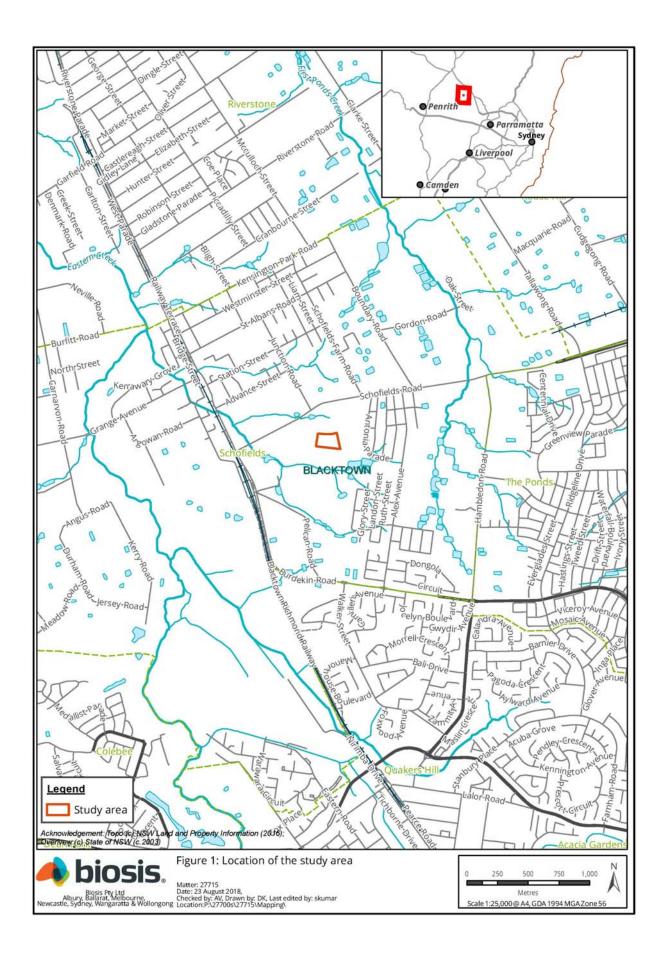
Each section of the methodology will be undertaken in consultation with the Aboriginal stakeholders. Biosis invites Aboriginal stakeholders to provide culturally appropriate information via mail, email or phone with regards to this project.

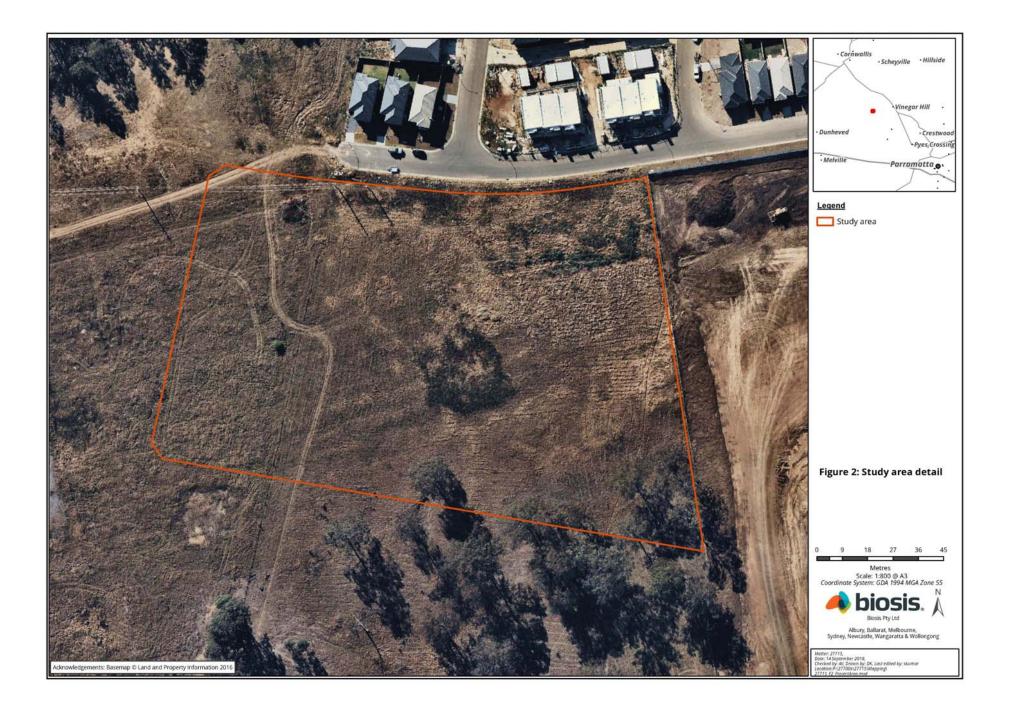
Cultural information provided will be recorded in the Aboriginal consultation log and discussed in the report. If the information is regarded as too sensitive to be made public then the Aboriginal stakeholder should advise Biosis and identify the nature of the sensitivity. Biosis will then arrange for the recording of the information in accordance with its sensitivity. Documents which hold sensitive information will clearly list, on the front cover, who can have access to the document. These documents will be stored securely.

References

DECCW 2010a, Aboriginal cultural heritage consultation requirements for proponents, Department of Environment and Climate Change, Sydney NSW.

DECCW 2010b, Code of practice for archaeological investigation of Aboriginal objects in New South Wales, Department of Environment and Climate Change, Sydney NSW.





Jesse Muragadi

Dear Jesse,

RE: Alex Avenue Public School, Aboriginal cultural heritage assessment - Project Methodology

Our Ref: 27715

This letter is being provided to all the Registered Aboriginal Parties (RAPs) who registered their interest in the consultation process for the Alex Avenue Public School development being undertaken by School Infrastructure NSW (Figure 1, Figure 2).

In accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements), we provide the proposed methodology for the Aboriginal Cultural Heritage Assessment (ACHA) for your review and feedback.

It would be appreciated if you could provide feedback on the methodology to Biosis Pty Ltd by **5pm on Monday 3 December 2018**, either by email or return mail.

Please address methodology feedback to:

Charlotte Allen Biosis Pty Ltd Unit 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

Please do not hesitate to contact me if you require additional information or have any queries about the methodology or information provided.

Kind regards,

Charlotte Allen Archaeologist

Biosis Pty Ltd Sydney Resource Group





Stage 3: Alex Avenue Public School Aboriginal Cultural Heritage Assessment: Methodology for field survey and test excavations (if required)

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with the proposed methodology for the cultural heritage and archaeological assessment.

Biosis has been engaged by School Infrastructure NSW to conduct an Aboriginal Cultural Heritage Assessment (ACHA), as part of an Environmental Impact Statement and to provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application.

Assessment methodology

Aims of the survey

The principle aims of the survey are to:

- undertake a systematic archaeological survey of the study area in accordance with the code, while targeting areas with the potential for Aboriginal heritage
- identify and record Aboriginal archaeological sites visible on the ground surface
- identify and record areas of potential archaeological deposit (PAD).

Survey methodology

The survey methods are intended to assess and understand the landforms and to determine whether any archaeological material from Aboriginal occupation or land use exists within the study area. Identification of natural soil deposits within the study area will be undertaken if possible. Photographs and recording techniques will be incorporated into the survey including representative photographs of survey units, landforms, vegetation coverage, ground surface visibility and the recording of soil information for each survey unit. Any Aboriginal objects observed during the survey will be documented and photographed. No artefacts discovered during the survey component are to be removed from the site.

The archaeological survey will occur concurrently with the test excavations. Recording during the survey will follow the guidelines of the OEH, in particular the *Code of practice for archaeological investigation of Aboriginal objects in New South Wales* (DECCW 2010b).

Specific information that will be recorded during the survey includes:

- Aboriginal objects or sites present in the study area
- survey coverage
- survey effectiveness
- any resources that may have potentially been exploited by Aboriginal people
- landforms and general soil information
- photographs of the site indicating landforms



- evidence of disturbance
- Aboriginal artefacts, culturally modified trees, shell middens or any other Aboriginal sites.

Distinguishing landform elements and their association with Aboriginal cultural heritage will assist with the identification of site patterning, though with the awareness of the following limitations:

- The degree of ground surface visibility (GSV) and amount of exposed areas can significantly bias the discovery of surface artefacts.
- Cultural material exposed on the surface is not necessarily representative of the potential extent of the site (either horizontally or vertically).

Information about the presence of potentially exploitable resources helps contribute to predictions of the Aboriginal sites that may occur within the study area. Information about GSV, DV and areas of exposures help to provide a general indication of the effectiveness of the survey for identifying Aboriginal cultural heritage exposed to the surface. Observable disturbances are also considered when assessing the integrity of known or potential sites in an area. The location of Aboriginal cultural heritage and points marking the boundary of the landform elements will be recorded using a hand-held Global Positioning System and the Map Grid of Australia (94) coordinate system.

Test excavation methodology

Should areas of archaeological potential or cultural values be identified during the field survey, test excavations will be conducted in accordance with the requirements of the code.

Aims of the sub-surface test excavations

The principle objectives of the subsurface test excavations would be to identify and understand the nature, extent and significance of any archaeological sites located within areas of archaeological potential.

The aims of the testing program would be to:

- Determine whether sub-surface archaeological deposits exist which may be impacted by the development.
- If so, to determine the extent and nature of such deposits.
- Identify if the archaeological material occurs in an intact, undisturbed context, by examining the soil profile and stratigraphy.
- Analyse and interpret any archaeological finds (such as stone artefacts, shell midden deposits, etc.) recovered during the testing program.
- Inform current knowledge of Aboriginal occupation and land use models of the region.
- Provide management and mitigation measures for Aboriginal archaeological objects located during the subsurface testing program.

Test excavation sampling strategy

Test excavations across the study area would conform to the following methodology:



- Test excavations will be undertaken in areas identified as having the potential to contain Aboriginal cultural material.
- Test excavations will be conducted in 50 x 50 centimetre units.
- The test excavation units will be excavated by hand (inclusive of trowels, spades and other hand tools) along transects at intervals of between 10 20 metres or other justifiable and regular spacing (being no smaller than five metres).
- The first test pit within a site or PAD area will be excavated in five centimetre spits; the subsequent test pits conducted within the site or PAD area can then be excavated in either 10 centimetre spits or stratigraphic units (whichever is smaller) to the base of Aboriginal object-bearing units being the removal of the A-horizon soil deposit down to the sterile clay or bedrock layer (B-horizon).
- If the depth of deposit prevents reaching sterile deposits within the 50 x 50 centimetre test pit, additional 50 x 50 centimetre test pits may be excavated adjacent to the original test pit (for example expanding the test pit to 50 x 100 centimetres) to reach the sterile deposits.
- Test pits may be combined and excavated as necessary in 50 x 50 centimetre units for the purposes of further understanding site characteristics. Note that under the Code, the maximum area that can be excavated in any one continuous area is three metres squared (3 m²).
- The Code dictates that the maximum surface area of all test excavation units must be no greater than 0.5% of the PAD or area being investigated.
- All excavated soil will be sieved in 5mm sieves. Dry sieving will be attempted in the first instance, however wet sieving may be used if deposits cannot be dry sieved.
- All cultural material will be collected, bagged and clearly labelled. They will be temporarily stored in the Biosis office for analysis (at Unit 14, 17-27 Power Avenue, Alexandria).
- The following documentation will be taken for the test pit:
 - Unique test pit identification number
 - GPS coordinate
 - Munsell soil colour, texture and pH
 - Amount and location of cultural material within the deposit
 - Nature of disturbance where present
 - Stratigraphy
 - Archaeological features (if present)
 - Photographic records
 - Spit records.



- The test excavation unit must be backfilled as soon as practicable due to safety issues.
- An AHIMS Site Impact Recording form will be completed and submitted to the AHIMS Registrar for any sites impacted during test excavations.
- In the event that suspected human remains are identified works will immediately cease and the NSW Police and OEH will be notified.
- Test excavations will cease when enough information* has been recovered to adequately characterise the objects present with regard to their nature and significance.

*Enough information is defined by OEH as meaning "the sample of excavated material clearly and selfevidently demonstrates the deposit's nature and significance. This may include things like locally or regionally high object density: presence of rare or representative objects: presence of archaeological features: or locally or regionally significant deposits stratified or not." (DECCW 2010b).

Storage of cultural material

Any cultural material identified during test excavations will be temporarily stored in the Biosis, Sydney office for analysis (Unit 14, 17-27 Power Avenue, Alexandria).

Once the cultural material has been analysed, the cultural material can be managed in the following manners:

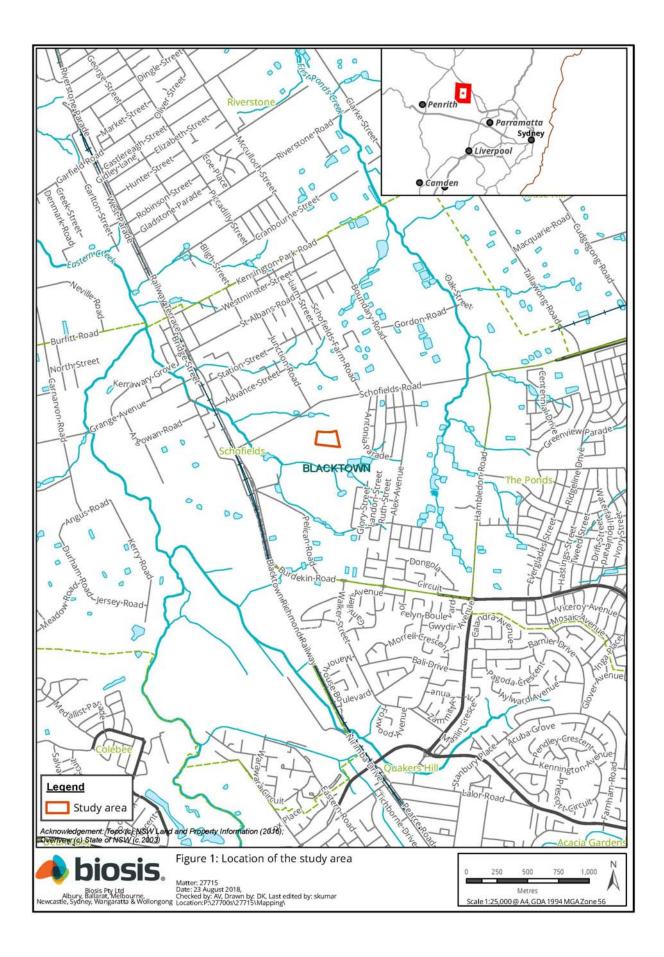
- Cultural material can be held by the Aboriginal community under a care and control agreement.
- Cultural material can be returned to country and reburied as soon as practicable in a secure location in accordance with Requirements 16b and 26 of the code.

Biosis requests any comments regarding the care and control of any cultural material be included as part of the review of this assessment methodology.

References

Department of Environment, Climate Change and Water. 2010a. Aboriginal cultural heritage consultation requirements for proponents 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.

Department of Environment, Climate Change and Water. 2010b. Code of practice for Archaeological Investigation of Aboriginal Objects in New South Wales 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.







5 November 2018

Darleen Johnson Murra Bidgee Mullangari Aboriginal Corporation PO Box 246 Seven Hills NSW 2147

Dear Darleen,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – project information

Our Ref: Matter 27715

Thank you for your registration of interest in this project. We are writing to you in order to provide you with the project information and methodology packs for the proposed development of a new public school at 34-38 Schofields Road, Schofields, NSW. This information has been provided in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements).

In this letter you will find the project information pack, and attached to this mailout is the document *Alex Avenue Public School Aboriginal Cultural Heritage Assessment – Project Methodology.*

The purpose of the methodology document is to provide you with further information on the background of this assessment, as well as the methodology for how it will be conducted, including any test excavations should they be required.

Please note that comments on the project methodology pack should be received before **4 pm Monday 3** December 2018.

As this project will involve a field investigation and potentially test excavations, the purpose of the second letter is to invite your feedback on the proposed project information and methodology packs, and to assist the proponent in the programing of groups for participation in the test excavations should they be carried out within the study area.

If you have any queries regarding the project or the information in this letter, please don't hesitate to contact us.

Yours sincerely,

Charlotte Allen

Archaeologist callen@biosis.com.au



Project information

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with information about the proposed project and the scope of the Aboriginal archaeology and cultural heritage investigations and assessment.

Study area

The study area is located within the Blacktown Local Government Area (LGA), Parish of Gidley, County of Cumberland. It encompasses Lot 4, DP 1208329, and part of Lot 121, DP 1203646 at 34-38 Schofields Road, Schofields, NSW (Figure 1 and Figure 2).

Project

School Infrastructure NSW are proposing to develop a new school at 34-38 Schofields Road, Schofields NSW, which consists of the following elements:

- a two storey Home Base building (stage 1)
- a two storey admin and staff building (stage 1)
- a two storey library (stage 1)
- a hall and out of school hours care facilities
- three learning courtyards and sports court
- covered outdoor learning area and walkway
- interconnected external area
- parking facilities
- two storey home base building (stage 2).

Biosis Pty Ltd is assisting School Infrastructure NSW with consultation with the Aboriginal community and the Aboriginal Cultural Heritage Assessment. Consultation with the Aboriginal community will follow the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a). The purpose of the Aboriginal community consultation will be to provide sufficient information for the assessment of Aboriginal cultural heritage values and to inform the Aboriginal cultural heritage assessment (ACHA).

The ACHA will support an Environmental Impact Statement and provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application. The project will be undertaken in accordance with the *National Parks and Wildlife Act 1974*. The development of the school will be assessed as a SSD under Section 89(c) of the *Environmental Planning and Assessment Act 1979* and Schedule 1 of the State Environmental Planning Policy (State and Regional Development) 2011(SSD 9368).

Aboriginal Cultural Heritage Assessment process

The assessment process includes the following steps:

Background research

Background research has been undertaken in order to identify known Aboriginal sites, areas of potential archaeological sensitivity and previous disturbance, and inform the predictive modelling for the assessment



area. Background research will be conducted in line with the requirements of the *Code of practice for the investigation of Aboriginal objects in New South Wales* (DECCW 2010b) ('the code'). Background research for the project included the following tasks:

- Conduct heritage register searches to identify previously recorded cultural heritage sites in or within the vicinity of the proposed study area. Searches will include the Aboriginal Heritage Information Management System (AHIMS), the National Heritage List, Commonwealth Heritage List, Register of the National Estate, State Heritage Register, Local Environmental Plan and National Trust heritage lists.
- Conduct additional background research in order to recognise any identifiable regional trends in site distribution and location and provide a site prediction model for the study area.
- Undertake a comprehensive survey of the study area, identifying any previously recorded sites (on AHIMS).
- Record and assess sites identified during the survey in compliance with the guidelines issued by OEH.
- Assess the scientific significance of all identified Aboriginal cultural heritage sites and places.
- Identify impacts to all identified Aboriginal cultural heritage sites and places based on potential ground disturbance from the proposed realignment of the road.
- Make recommendations to minimise or mitigate potential impacts of the proposed realignment upon cultural heritage values within the study area.

Consultation with the Aboriginal community

This task will allow the Aboriginal community the opportunity to participate in decisions regarding the management of their cultural heritage by providing proponents information regarding cultural significance and input into management options.

Consultation with Aboriginal stakeholders under the DECCW 2010a consultation guidelines is being undertaken to assist School Infrastructure NSW by:

- Providing relevant information about the cultural significance and values of the Aboriginal object(s) and/or place(s) within the study area.
- Influencing the design of the method to assess cultural and scientific significance of Aboriginal objects(s) and/or place(s) within the study area.
- Actively contributing to the development of cultural heritage management plan options and recommendations for any Aboriginal object(s) and/or place(s) within the proposed study area.
- Commenting on the draft assessment reports before they are submitted by the proponent to the determining authority of the proposed realignment.

Aboriginal community consultation will be undertaken in accordance with the consultation requirements, which includes:

• **COMPLETED.** Ascertaining the names of Aboriginal people or groups who may hold cultural knowledge relevant to determining the significance of Aboriginal objects and/ or places within the proposed study area. This would include writing to the following:



- OEH
- Local Aboriginal Land Council (LALC)
- Office of the Registrar (Aboriginal Land Rights Act 1983)
- National Native Title Tribunal (NNTT)
- Native Title Services Corporation Limited (NTSCORP Limited)
- Relevant Local Councils
- Relevant Catchment Management Authorities
- **COMPLETED.** Biosis will undertake the 'Placement of Notification' (Public Notice) in the *Rouse Hill Times*, on behalf of School Infrastructure NSW, that must include details of the proponent, the project, the exact location, and statement of the purpose of the community consultation in preparation for possible test excavations. The Public Notice is also an invitation for Aboriginal people who hold relevant cultural knowledge about the study area. A closing date for the registration must be included and be no less than **14 days**. **Registrations closed on 31 October 2018**.
- **COMPLETED.** Aboriginal people or groups identified were provided with notification of the proposed project via Biosis and given the opportunity to be involved in consultation. **Registrations of interest closed on 17 October 2018**.
- A list of Aboriginal people or groups who registered an interest in the project will be forwarded to the OEH and Deerubbin LALC by Biosis no later than **28 days** following close of registration. This list will not include those people or groups who specified that they did not want their details shared with OEH or the LALC.
- Biosis will provide details of the project and methodology for the archaeological assessment to the registered parties. The RAPs must be given an opportunity to review and provide feedback to the proponent within a minimum of **28 days** of the Biosis providing the methodology document.
- Selected representatives of the RAPs will be given the opportunity to participate in test excavations within the study area, should they be required.
- The DRAFT ACHA report and Archaeological Report will be provided to all RAPs for comment the proponent must allow **28 days** for comment. All comments and correspondence sent and received regarding the project will be included in the final report in an Appendix.

Field Survey

An Aboriginal archaeological survey of the study area will be undertaken in accordance with the guidelines outlined in the code in order to identify any previously unknown Aboriginal objects, sites or places. If identified, these will be recorded to the required standard. Should any sites of significance be identified the location and extent shall be recorded on MGA coordinates to enable overlay with the site plans.

There are several registered Aboriginal sites in the vicinity of the study area. The field survey will attempt to relocate and inspect these sites. This task will assist in the assessment of disturbance and with the predictive modelling for areas of potential archaeological deposit. It will also assist with the assessment of whether the proposed works are likely to impact on undiscovered Aboriginal objects and /or places.

The results of the survey and background research will be analysed to determine whether there are any areas of archaeological potential within the study area.



Test excavations

Should the results of the field survey indicate that there is an area of archaeological potential within the study area, Biosis will conduct test excavations to in accordance with the requirements of the code. Further information on the methodology for test excavation is available in the project methodology.

Reporting

A draft ACHA report and archaeological report will be prepared in accordance with the code and will include:

- background and project description
- a summary and analysis of the findings of the archaeological survey and test excavations (if applicable) including the presence and location of registered or undiscovered Aboriginal artefacts or heritage items within proximity of the study area
- a summary of any other relevant studies or surveys which have relevance to the assessment area
- a summary of the landscape features of the site which may indicate a history of Aboriginal activity
- a summary of previous land use that may have affected the retention of intact Aboriginal archaeology in the landscape
- the potential or likelihood for the proposed works to uncover or expose potential undiscovered Aboriginal objects
- Survey results and, if undertaken, test excavation results
- legislative implications of the proposed works
- recommendations and justification for further assessment (if required)
- mitigation measures (if any) required for the works to proceed
- mapping to show the location of registered and newly located (if any) Aboriginal sites in relation to the proposed works.

RAPs will be provided with the draft report for comment and allowed **28 days** for review.

Project schedule

The proposed schedule and time allocations for the consultation stages are summarised below.

Action	Timeframe	Potential constraints
Commencement of Aboriginal community consultation – advertising of project and notification to stakeholders	Completed	Project advertised in the <i>Rouse Hill Times</i> 9 October 2018. Notices sent to identified Aboriginal parties on 3 October 2018.
Aboriginal stakeholder registration period	Completed	Registration period ran from 3 October to 31 October 2018.
Field survey	Completed	ТВС
Archaeological test excavations with selected representatives of RAPs	ТВС	ТВС
Information gathering	Continuous	Until finalisation of report.



Action	Timeframe	Potential constraints
Review of draft report	ТВС	28 days review time allowed under OEH Aboriginal Community Consultation Guidelines.
Final report	ТВС	ТВС

Responsibilities and roles

As part of the consultation process, RAPs are expected to respond to requests for cultural information and comment on draft reporting, as appropriate in accordance with their role specified in the guidelines (DECCW 2010a, p. 16). Biosis and the proponent, in accordance with their role under the guidelines, will consult with the Aboriginal community by supplying suitable project information and providing the opportunity for Aboriginal stakeholders to provide input into the heritage management process (DECCW 2010a, pp. 16-17).

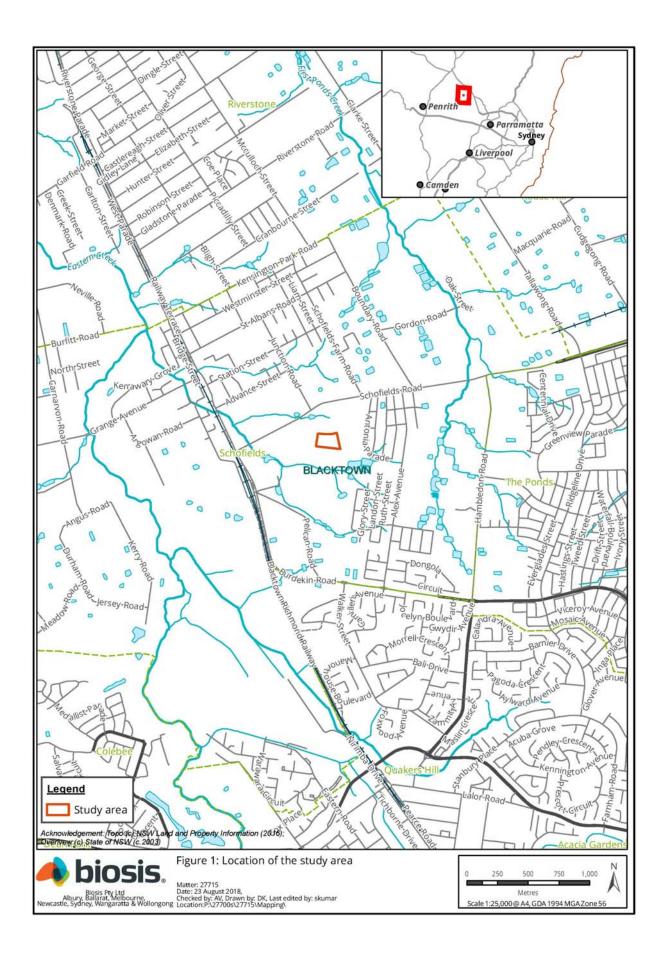
Each section of the methodology will be undertaken in consultation with the Aboriginal stakeholders. Biosis invites Aboriginal stakeholders to provide culturally appropriate information via mail, email or phone with regards to this project.

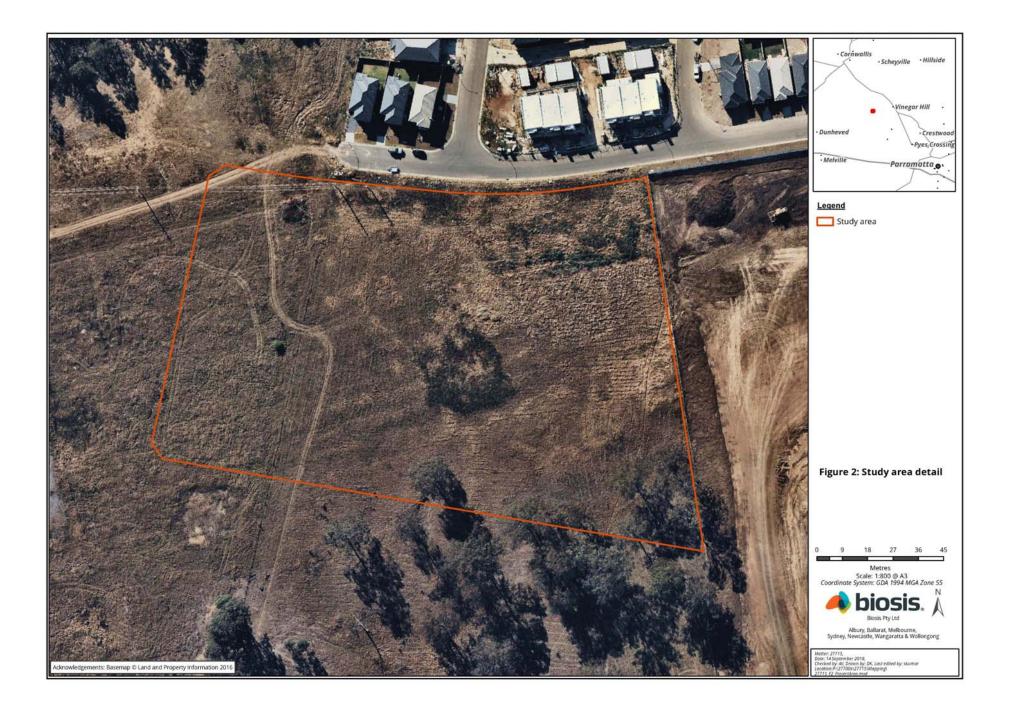
Cultural information provided will be recorded in the Aboriginal consultation log and discussed in the report. If the information is regarded as too sensitive to be made public then the Aboriginal stakeholder should advise Biosis and identify the nature of the sensitivity. Biosis will then arrange for the recording of the information in accordance with its sensitivity. Documents which hold sensitive information will clearly list, on the front cover, who can have access to the document. These documents will be stored securely.

References

DECCW 2010a, Aboriginal cultural heritage consultation requirements for proponents, Department of Environment and Climate Change, Sydney NSW.

DECCW 2010b, Code of practice for archaeological investigation of Aboriginal objects in New South Wales, Department of Environment and Climate Change, Sydney NSW.





5 November 2018

Darleen Johnson Murra Bidgee Mullangari Aboriginal Corporation PO Box 246 Seven Hills NSW 2147

Dear Darleen Johnson,

RE: Alex Avenue Public School, Aboriginal cultural heritage assessment – Project Methodology

Our Ref: 27715

This letter is being provided to all the Registered Aboriginal Parties (RAPs) who registered their interest in the consultation process for the Alex Avenue Public School development being undertaken by School Infrastructure NSW (Figure 1, Figure 2).

In accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements), we provide the proposed methodology for the Aboriginal Cultural Heritage Assessment (ACHA) for your review and feedback.

It would be appreciated if you could provide feedback on the methodology to Biosis Pty Ltd by **5pm on Monday 3 December 2018**, either by email or return mail.

Please address methodology feedback to:

Charlotte Allen Biosis Pty Ltd Unit 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

Please do not hesitate to contact me if you require additional information or have any queries about the methodology or information provided.

Kind regards,

Charlotte Allen Archaeologist

Biosis Pty Ltd
Sydney Resource Group





Stage 3: Alex Avenue Public School Aboriginal Cultural Heritage Assessment: Methodology for field survey and test excavations (if required)

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with the proposed methodology for the cultural heritage and archaeological assessment.

Biosis has been engaged by School Infrastructure NSW to conduct an Aboriginal Cultural Heritage Assessment (ACHA), as part of an Environmental Impact Statement and to provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application.

Assessment methodology

Aims of the survey

The principle aims of the survey are to:

- undertake a systematic archaeological survey of the study area in accordance with the code, while targeting areas with the potential for Aboriginal heritage
- identify and record Aboriginal archaeological sites visible on the ground surface
- identify and record areas of potential archaeological deposit (PAD).

Survey methodology

The survey methods are intended to assess and understand the landforms and to determine whether any archaeological material from Aboriginal occupation or land use exists within the study area. Identification of natural soil deposits within the study area will be undertaken if possible. Photographs and recording techniques will be incorporated into the survey including representative photographs of survey units, landforms, vegetation coverage, ground surface visibility and the recording of soil information for each survey unit. Any Aboriginal objects observed during the survey will be documented and photographed. No artefacts discovered during the survey component are to be removed from the site.

The archaeological survey will occur concurrently with the test excavations. Recording during the survey will follow the guidelines of the OEH, in particular the *Code of practice for archaeological investigation of Aboriginal objects in New South Wales* (DECCW 2010b).

Specific information that will be recorded during the survey includes:

- Aboriginal objects or sites present in the study area
- survey coverage
- survey effectiveness
- any resources that may have potentially been exploited by Aboriginal people
- landforms and general soil information
- photographs of the site indicating landforms



- evidence of disturbance
- Aboriginal artefacts, culturally modified trees, shell middens or any other Aboriginal sites.

Distinguishing landform elements and their association with Aboriginal cultural heritage will assist with the identification of site patterning, though with the awareness of the following limitations:

- The degree of ground surface visibility (GSV) and amount of exposed areas can significantly bias the discovery of surface artefacts.
- Cultural material exposed on the surface is not necessarily representative of the potential extent of the site (either horizontally or vertically).

Information about the presence of potentially exploitable resources helps contribute to predictions of the Aboriginal sites that may occur within the study area. Information about GSV, DV and areas of exposures help to provide a general indication of the effectiveness of the survey for identifying Aboriginal cultural heritage exposed to the surface. Observable disturbances are also considered when assessing the integrity of known or potential sites in an area. The location of Aboriginal cultural heritage and points marking the boundary of the landform elements will be recorded using a hand-held Global Positioning System and the Map Grid of Australia (94) coordinate system.

Test excavation methodology

Should areas of archaeological potential or cultural values be identified during the field survey, test excavations will be conducted in accordance with the requirements of the code.

Aims of the sub-surface test excavations

The principle objectives of the subsurface test excavations would be to identify and understand the nature, extent and significance of any archaeological sites located within areas of archaeological potential.

The aims of the testing program would be to:

- Determine whether sub-surface archaeological deposits exist which may be impacted by the development.
- If so, to determine the extent and nature of such deposits.
- Identify if the archaeological material occurs in an intact, undisturbed context, by examining the soil profile and stratigraphy.
- Analyse and interpret any archaeological finds (such as stone artefacts, shell midden deposits, etc.) recovered during the testing program.
- Inform current knowledge of Aboriginal occupation and land use models of the region.
- Provide management and mitigation measures for Aboriginal archaeological objects located during the subsurface testing program.

Test excavation sampling strategy

Test excavations across the study area would conform to the following methodology:



- Test excavations will be undertaken in areas identified as having the potential to contain Aboriginal cultural material.
- Test excavations will be conducted in 50 x 50 centimetre units.
- The test excavation units will be excavated by hand (inclusive of trowels, spades and other hand tools) along transects at intervals of between 10 20 metres or other justifiable and regular spacing (being no smaller than five metres).
- The first test pit within a site or PAD area will be excavated in five centimetre spits; the subsequent test pits conducted within the site or PAD area can then be excavated in either 10 centimetre spits or stratigraphic units (whichever is smaller) to the base of Aboriginal object-bearing units being the removal of the A-horizon soil deposit down to the sterile clay or bedrock layer (B-horizon).
- If the depth of deposit prevents reaching sterile deposits within the 50 x 50 centimetre test pit, additional 50 x 50 centimetre test pits may be excavated adjacent to the original test pit (for example expanding the test pit to 50 x 100 centimetres) to reach the sterile deposits.
- Test pits may be combined and excavated as necessary in 50 x 50 centimetre units for the purposes of further understanding site characteristics. Note that under the Code, the maximum area that can be excavated in any one continuous area is three metres squared (3 m²).
- The Code dictates that the maximum surface area of all test excavation units must be no greater than 0.5% of the PAD or area being investigated.
- All excavated soil will be sieved in 5mm sieves. Dry sieving will be attempted in the first instance, however wet sieving may be used if deposits cannot be dry sieved.
- All cultural material will be collected, bagged and clearly labelled. They will be temporarily stored in the Biosis office for analysis (at Unit 14, 17-27 Power Avenue, Alexandria).
- The following documentation will be taken for the test pit:
 - Unique test pit identification number
 - GPS coordinate
 - Munsell soil colour, texture and pH
 - Amount and location of cultural material within the deposit
 - Nature of disturbance where present
 - Stratigraphy
 - Archaeological features (if present)
 - Photographic records
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- The test excavation unit must be backfilled as soon as practicable due to safety issues.
- An AHIMS Site Impact Recording form will be completed and submitted to the AHIMS Registrar for any sites impacted during test excavations.
- In the event that suspected human remains are identified works will immediately cease and the NSW Police and OEH will be notified.
- Test excavations will cease when enough information* has been recovered to adequately characterise the objects present with regard to their nature and significance.

*Enough information is defined by OEH as meaning "the sample of excavated material clearly and selfevidently demonstrates the deposit's nature and significance. This may include things like locally or regionally high object density: presence of rare or representative objects: presence of archaeological features: or locally or regionally significant deposits stratified or not." (DECCW 2010b).

Storage of cultural material

Any cultural material identified during test excavations will be temporarily stored in the Biosis, Sydney office for analysis (Unit 14, 17-27 Power Avenue, Alexandria).

Once the cultural material has been analysed, the cultural material can be managed in the following manners:

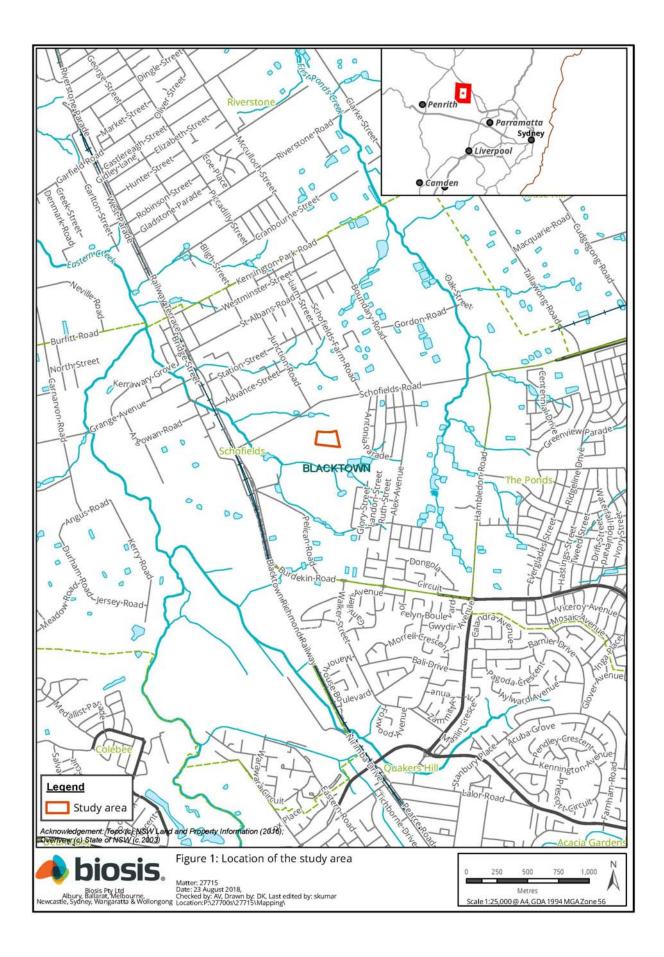
- Cultural material can be held by the Aboriginal community under a care and control agreement.
- Cultural material can be returned to country and reburied as soon as practicable in a secure location in accordance with Requirements 16b and 26 of the code.

Biosis requests any comments regarding the care and control of any cultural material be included as part of the review of this assessment methodology.

References

Department of Environment, Climate Change and Water. 2010a. Aboriginal cultural heritage consultation requirements for proponents 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.

Department of Environment, Climate Change and Water. 2010b. Code of practice for Archaeological Investigation of Aboriginal Objects in New South Wales 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.







5 November 2018

Darleen Johnson Murra Bidgee Mullangari Aboriginal Corporation PO Box 246 Seven Hills NSW 2147

Dear Darleen,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – project information

Our Ref: Matter 27715

Thank you for your registration of interest in this project. We are writing to you in order to provide you with the project information and methodology packs for the proposed development of a new public school at 34-38 Schofields Road, Schofields, NSW. This information has been provided in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements).

In this letter you will find the project information pack, and attached to this mailout is the document *Alex Avenue Public School Aboriginal Cultural Heritage Assessment – Project Methodology.*

The purpose of the methodology document is to provide you with further information on the background of this assessment, as well as the methodology for how it will be conducted, including any test excavations should they be required.

Please note that comments on the project methodology pack should be received before **4 pm Monday 3** December 2018.

As this project will involve a field investigation and potentially test excavations, the purpose of the second letter is to invite your feedback on the proposed project information and methodology packs, and to assist the proponent in the programing of groups for participation in the test excavations should they be carried out within the study area.

If you have any queries regarding the project or the information in this letter, please don't hesitate to contact us.

Yours sincerely,

Charlotte Allen

Archaeologist callen@biosis.com.au



Project information

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with information about the proposed project and the scope of the Aboriginal archaeology and cultural heritage investigations and assessment.

Study area

The study area is located within the Blacktown Local Government Area (LGA), Parish of Gidley, County of Cumberland. It encompasses Lot 4, DP 1208329, and part of Lot 121, DP 1203646 at 34-38 Schofields Road, Schofields, NSW (Figure 1 and Figure 2).

Project

School Infrastructure NSW are proposing to develop a new school at 34-38 Schofields Road, Schofields NSW, which consists of the following elements:

- a two storey Home Base building (stage 1)
- a two storey admin and staff building (stage 1)
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- covered outdoor learning area and walkway
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Biosis Pty Ltd is assisting School Infrastructure NSW with consultation with the Aboriginal community and the Aboriginal Cultural Heritage Assessment. Consultation with the Aboriginal community will follow the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a). The purpose of the Aboriginal community consultation will be to provide sufficient information for the assessment of Aboriginal cultural heritage values and to inform the Aboriginal cultural heritage assessment (ACHA).

The ACHA will support an Environmental Impact Statement and provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application. The project will be undertaken in accordance with the *National Parks and Wildlife Act 1974*. The development of the school will be assessed as a SSD under Section 89(c) of the *Environmental Planning and Assessment Act 1979* and Schedule 1 of the State Environmental Planning Policy (State and Regional Development) 2011(SSD 9368).

Aboriginal Cultural Heritage Assessment process

The assessment process includes the following steps:

Background research

Background research has been undertaken in order to identify known Aboriginal sites, areas of potential archaeological sensitivity and previous disturbance, and inform the predictive modelling for the assessment



area. Background research will be conducted in line with the requirements of the *Code of practice for the investigation of Aboriginal objects in New South Wales* (DECCW 2010b) ('the code'). Background research for the project included the following tasks:

- Conduct heritage register searches to identify previously recorded cultural heritage sites in or within the vicinity of the proposed study area. Searches will include the Aboriginal Heritage Information Management System (AHIMS), the National Heritage List, Commonwealth Heritage List, Register of the National Estate, State Heritage Register, Local Environmental Plan and National Trust heritage lists.
- Conduct additional background research in order to recognise any identifiable regional trends in site distribution and location and provide a site prediction model for the study area.
- Undertake a comprehensive survey of the study area, identifying any previously recorded sites (on AHIMS).
- Record and assess sites identified during the survey in compliance with the guidelines issued by OEH.
- Assess the scientific significance of all identified Aboriginal cultural heritage sites and places.
- Identify impacts to all identified Aboriginal cultural heritage sites and places based on potential ground disturbance from the proposed realignment of the road.
- Make recommendations to minimise or mitigate potential impacts of the proposed realignment upon cultural heritage values within the study area.

Consultation with the Aboriginal community

This task will allow the Aboriginal community the opportunity to participate in decisions regarding the management of their cultural heritage by providing proponents information regarding cultural significance and input into management options.

Consultation with Aboriginal stakeholders under the DECCW 2010a consultation guidelines is being undertaken to assist School Infrastructure NSW by:

- Providing relevant information about the cultural significance and values of the Aboriginal object(s) and/or place(s) within the study area.
- Influencing the design of the method to assess cultural and scientific significance of Aboriginal objects(s) and/or place(s) within the study area.
- Actively contributing to the development of cultural heritage management plan options and recommendations for any Aboriginal object(s) and/or place(s) within the proposed study area.
- Commenting on the draft assessment reports before they are submitted by the proponent to the determining authority of the proposed realignment.

Aboriginal community consultation will be undertaken in accordance with the consultation requirements, which includes:

• **COMPLETED.** Ascertaining the names of Aboriginal people or groups who may hold cultural knowledge relevant to determining the significance of Aboriginal objects and/ or places within the proposed study area. This would include writing to the following:



- OEH
- Local Aboriginal Land Council (LALC)
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- **COMPLETED.** Biosis will undertake the 'Placement of Notification' (Public Notice) in the *Rouse Hill Times*, on behalf of School Infrastructure NSW, that must include details of the proponent, the project, the exact location, and statement of the purpose of the community consultation in preparation for possible test excavations. The Public Notice is also an invitation for Aboriginal people who hold relevant cultural knowledge about the study area. A closing date for the registration must be included and be no less than **14 days**. **Registrations closed on 31 October 2018**.
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- Biosis will provide details of the project and methodology for the archaeological assessment to the registered parties. The RAPs must be given an opportunity to review and provide feedback to the proponent within a minimum of **28 days** of the Biosis providing the methodology document.
- Selected representatives of the RAPs will be given the opportunity to participate in test excavations within the study area, should they be required.
- The DRAFT ACHA report and Archaeological Report will be provided to all RAPs for comment the proponent must allow **28 days** for comment. All comments and correspondence sent and received regarding the project will be included in the final report in an Appendix.

Field Survey

An Aboriginal archaeological survey of the study area will be undertaken in accordance with the guidelines outlined in the code in order to identify any previously unknown Aboriginal objects, sites or places. If identified, these will be recorded to the required standard. Should any sites of significance be identified the location and extent shall be recorded on MGA coordinates to enable overlay with the site plans.

There are several registered Aboriginal sites in the vicinity of the study area. The field survey will attempt to relocate and inspect these sites. This task will assist in the assessment of disturbance and with the predictive modelling for areas of potential archaeological deposit. It will also assist with the assessment of whether the proposed works are likely to impact on undiscovered Aboriginal objects and /or places.

The results of the survey and background research will be analysed to determine whether there are any areas of archaeological potential within the study area.



Test excavations

Should the results of the field survey indicate that there is an area of archaeological potential within the study area, Biosis will conduct test excavations to in accordance with the requirements of the code. Further information on the methodology for test excavation is available in the project methodology.

Reporting

A draft ACHA report and archaeological report will be prepared in accordance with the code and will include:

- background and project description
- a summary and analysis of the findings of the archaeological survey and test excavations (if applicable) including the presence and location of registered or undiscovered Aboriginal artefacts or heritage items within proximity of the study area
- a summary of any other relevant studies or surveys which have relevance to the assessment area
- a summary of the landscape features of the site which may indicate a history of Aboriginal activity
- a summary of previous land use that may have affected the retention of intact Aboriginal archaeology in the landscape
- the potential or likelihood for the proposed works to uncover or expose potential undiscovered Aboriginal objects
- Survey results and, if undertaken, test excavation results
- legislative implications of the proposed works
- recommendations and justification for further assessment (if required)
- mitigation measures (if any) required for the works to proceed
- mapping to show the location of registered and newly located (if any) Aboriginal sites in relation to the proposed works.

RAPs will be provided with the draft report for comment and allowed **28 days** for review.

Project schedule

The proposed schedule and time allocations for the consultation stages are summarised below.

Action	Timeframe	Potential constraints
Commencement of Aboriginal community consultation – advertising of project and notification to stakeholders	Completed	Project advertised in the <i>Rouse Hill Times</i> 9 October 2018. Notices sent to identified Aboriginal parties on 3 October 2018.
Aboriginal stakeholder registration period	Completed	Registration period ran from 3 October to 31 October 2018.
Field survey	Completed	ТВС
Archaeological test excavations with selected representatives of RAPs	ТВС	ТВС
Information gathering	Continuous	Until finalisation of report.



Action	Timeframe	Potential constraints
Review of draft report	ТВС	28 days review time allowed under OEH Aboriginal Community Consultation Guidelines.
Final report	ТВС	ТВС

Responsibilities and roles

As part of the consultation process, RAPs are expected to respond to requests for cultural information and comment on draft reporting, as appropriate in accordance with their role specified in the guidelines (DECCW 2010a, p. 16). Biosis and the proponent, in accordance with their role under the guidelines, will consult with the Aboriginal community by supplying suitable project information and providing the opportunity for Aboriginal stakeholders to provide input into the heritage management process (DECCW 2010a, pp. 16-17).

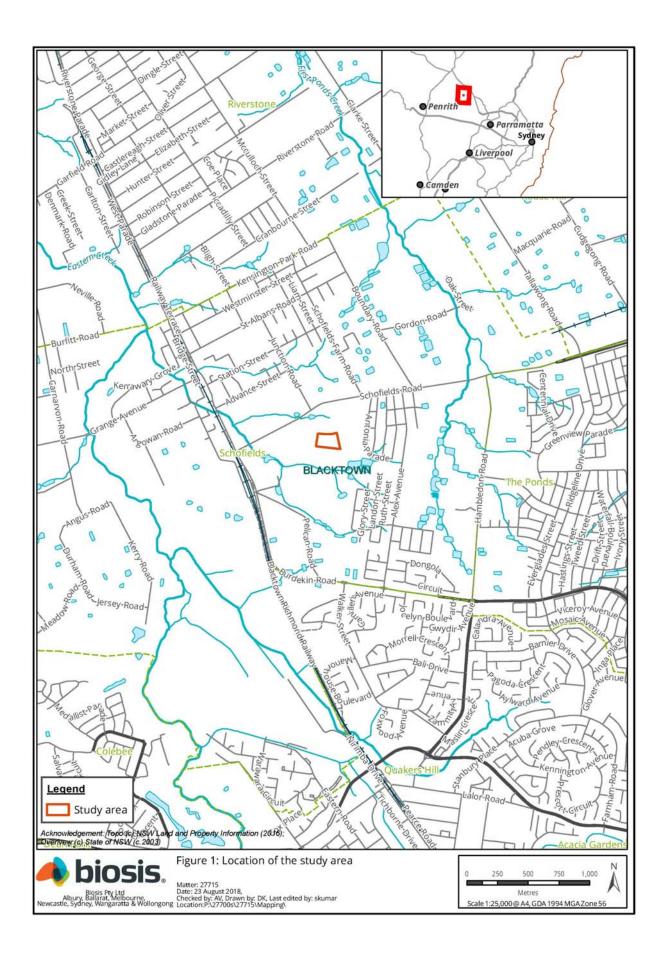
Each section of the methodology will be undertaken in consultation with the Aboriginal stakeholders. Biosis invites Aboriginal stakeholders to provide culturally appropriate information via mail, email or phone with regards to this project.

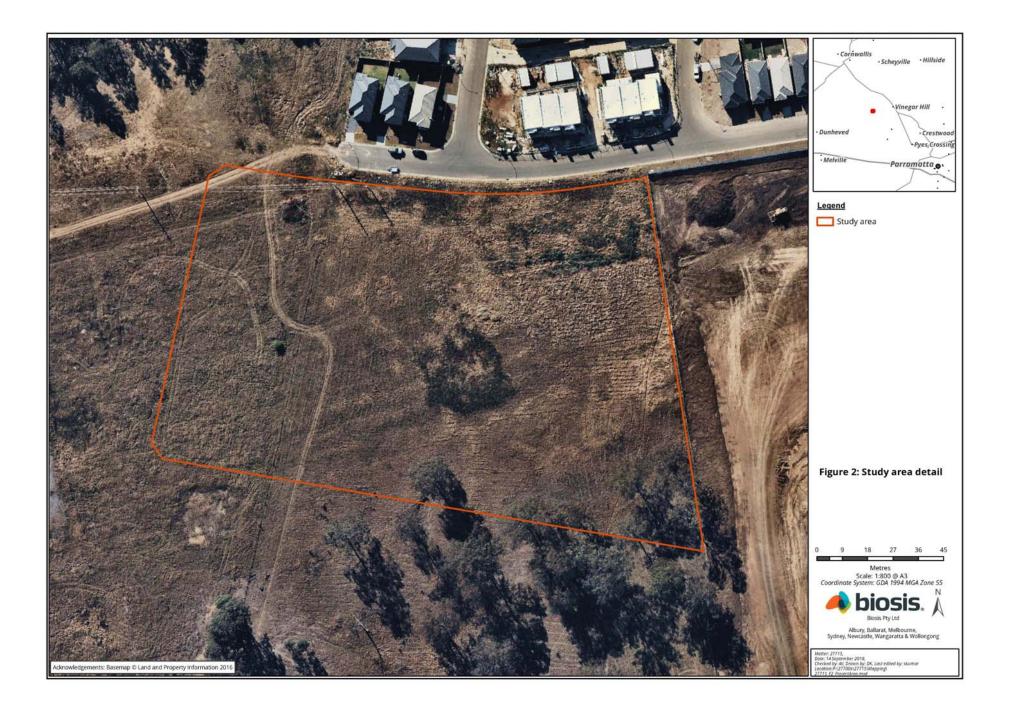
Cultural information provided will be recorded in the Aboriginal consultation log and discussed in the report. If the information is regarded as too sensitive to be made public then the Aboriginal stakeholder should advise Biosis and identify the nature of the sensitivity. Biosis will then arrange for the recording of the information in accordance with its sensitivity. Documents which hold sensitive information will clearly list, on the front cover, who can have access to the document. These documents will be stored securely.

References

DECCW 2010a, Aboriginal cultural heritage consultation requirements for proponents, Department of Environment and Climate Change, Sydney NSW.

DECCW 2010b, Code of practice for archaeological investigation of Aboriginal objects in New South Wales, Department of Environment and Climate Change, Sydney NSW.





5 November 2018

Darleen Johnson Murra Bidgee Mullangari Aboriginal Corporation PO Box 246 Seven Hills NSW 2147

Dear Darleen Johnson,

RE: Alex Avenue Public School, Aboriginal cultural heritage assessment – Project Methodology

Our Ref: 27715

This letter is being provided to all the Registered Aboriginal Parties (RAPs) who registered their interest in the consultation process for the Alex Avenue Public School development being undertaken by School Infrastructure NSW (Figure 1, Figure 2).

In accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements), we provide the proposed methodology for the Aboriginal Cultural Heritage Assessment (ACHA) for your review and feedback.

It would be appreciated if you could provide feedback on the methodology to Biosis Pty Ltd by **5pm on Monday 3 December 2018**, either by email or return mail.

Please address methodology feedback to:

Charlotte Allen Biosis Pty Ltd Unit 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

Please do not hesitate to contact me if you require additional information or have any queries about the methodology or information provided.

Kind regards,

Charlotte Allen Archaeologist

Biosis Pty Ltd
Sydney Resource Group





Stage 3: Alex Avenue Public School Aboriginal Cultural Heritage Assessment: Methodology for field survey and test excavations (if required)

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with the proposed methodology for the cultural heritage and archaeological assessment.

Biosis has been engaged by School Infrastructure NSW to conduct an Aboriginal Cultural Heritage Assessment (ACHA), as part of an Environmental Impact Statement and to provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application.

Assessment methodology

Aims of the survey

The principle aims of the survey are to:

- undertake a systematic archaeological survey of the study area in accordance with the code, while targeting areas with the potential for Aboriginal heritage
- identify and record Aboriginal archaeological sites visible on the ground surface
- identify and record areas of potential archaeological deposit (PAD).

Survey methodology

The survey methods are intended to assess and understand the landforms and to determine whether any archaeological material from Aboriginal occupation or land use exists within the study area. Identification of natural soil deposits within the study area will be undertaken if possible. Photographs and recording techniques will be incorporated into the survey including representative photographs of survey units, landforms, vegetation coverage, ground surface visibility and the recording of soil information for each survey unit. Any Aboriginal objects observed during the survey will be documented and photographed. No artefacts discovered during the survey component are to be removed from the site.

The archaeological survey will occur concurrently with the test excavations. Recording during the survey will follow the guidelines of the OEH, in particular the *Code of practice for archaeological investigation of Aboriginal objects in New South Wales* (DECCW 2010b).

Specific information that will be recorded during the survey includes:

- Aboriginal objects or sites present in the study area
- survey coverage
- survey effectiveness
- any resources that may have potentially been exploited by Aboriginal people
- landforms and general soil information
- photographs of the site indicating landforms



- evidence of disturbance
- Aboriginal artefacts, culturally modified trees, shell middens or any other Aboriginal sites.

Distinguishing landform elements and their association with Aboriginal cultural heritage will assist with the identification of site patterning, though with the awareness of the following limitations:

- The degree of ground surface visibility (GSV) and amount of exposed areas can significantly bias the discovery of surface artefacts.
- Cultural material exposed on the surface is not necessarily representative of the potential extent of the site (either horizontally or vertically).

Information about the presence of potentially exploitable resources helps contribute to predictions of the Aboriginal sites that may occur within the study area. Information about GSV, DV and areas of exposures help to provide a general indication of the effectiveness of the survey for identifying Aboriginal cultural heritage exposed to the surface. Observable disturbances are also considered when assessing the integrity of known or potential sites in an area. The location of Aboriginal cultural heritage and points marking the boundary of the landform elements will be recorded using a hand-held Global Positioning System and the Map Grid of Australia (94) coordinate system.

Test excavation methodology

Should areas of archaeological potential or cultural values be identified during the field survey, test excavations will be conducted in accordance with the requirements of the code.

Aims of the sub-surface test excavations

The principle objectives of the subsurface test excavations would be to identify and understand the nature, extent and significance of any archaeological sites located within areas of archaeological potential.

The aims of the testing program would be to:

- Determine whether sub-surface archaeological deposits exist which may be impacted by the development.
- If so, to determine the extent and nature of such deposits.
- Identify if the archaeological material occurs in an intact, undisturbed context, by examining the soil profile and stratigraphy.
- Analyse and interpret any archaeological finds (such as stone artefacts, shell midden deposits, etc.) recovered during the testing program.
- Inform current knowledge of Aboriginal occupation and land use models of the region.
- Provide management and mitigation measures for Aboriginal archaeological objects located during the subsurface testing program.

Test excavation sampling strategy

Test excavations across the study area would conform to the following methodology:



- Test excavations will be undertaken in areas identified as having the potential to contain Aboriginal cultural material.
- Test excavations will be conducted in 50 x 50 centimetre units.
- The test excavation units will be excavated by hand (inclusive of trowels, spades and other hand tools) along transects at intervals of between 10 20 metres or other justifiable and regular spacing (being no smaller than five metres).
- The first test pit within a site or PAD area will be excavated in five centimetre spits; the subsequent test pits conducted within the site or PAD area can then be excavated in either 10 centimetre spits or stratigraphic units (whichever is smaller) to the base of Aboriginal object-bearing units being the removal of the A-horizon soil deposit down to the sterile clay or bedrock layer (B-horizon).
- If the depth of deposit prevents reaching sterile deposits within the 50 x 50 centimetre test pit, additional 50 x 50 centimetre test pits may be excavated adjacent to the original test pit (for example expanding the test pit to 50 x 100 centimetres) to reach the sterile deposits.
- Test pits may be combined and excavated as necessary in 50 x 50 centimetre units for the purposes of further understanding site characteristics. Note that under the Code, the maximum area that can be excavated in any one continuous area is three metres squared (3 m²).
- The Code dictates that the maximum surface area of all test excavation units must be no greater than 0.5% of the PAD or area being investigated.
- All excavated soil will be sieved in 5mm sieves. Dry sieving will be attempted in the first instance, however wet sieving may be used if deposits cannot be dry sieved.
- All cultural material will be collected, bagged and clearly labelled. They will be temporarily stored in the Biosis office for analysis (at Unit 14, 17-27 Power Avenue, Alexandria).
- The following documentation will be taken for the test pit:
 - Unique test pit identification number
 - GPS coordinate
 - Munsell soil colour, texture and pH
 - Amount and location of cultural material within the deposit
 - Nature of disturbance where present
 - Stratigraphy
 - Archaeological features (if present)
 - Photographic records
 - Spit records.



- The test excavation unit must be backfilled as soon as practicable due to safety issues.
- An AHIMS Site Impact Recording form will be completed and submitted to the AHIMS Registrar for any sites impacted during test excavations.
- In the event that suspected human remains are identified works will immediately cease and the NSW Police and OEH will be notified.
- Test excavations will cease when enough information* has been recovered to adequately characterise the objects present with regard to their nature and significance.

*Enough information is defined by OEH as meaning "the sample of excavated material clearly and selfevidently demonstrates the deposit's nature and significance. This may include things like locally or regionally high object density: presence of rare or representative objects: presence of archaeological features: or locally or regionally significant deposits stratified or not." (DECCW 2010b).

Storage of cultural material

Any cultural material identified during test excavations will be temporarily stored in the Biosis, Sydney office for analysis (Unit 14, 17-27 Power Avenue, Alexandria).

Once the cultural material has been analysed, the cultural material can be managed in the following manners:

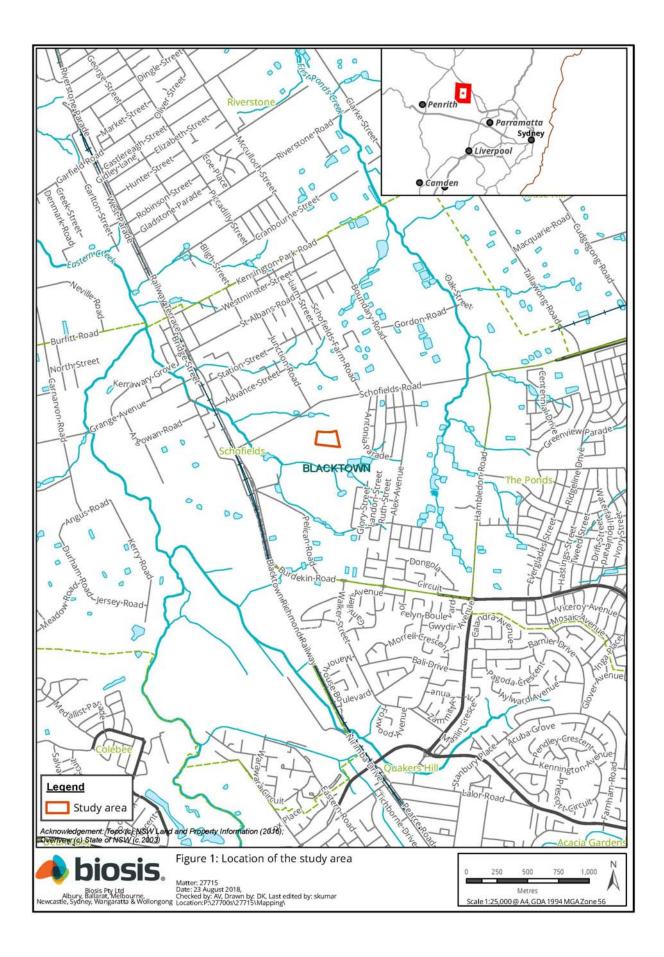
- Cultural material can be held by the Aboriginal community under a care and control agreement.
- Cultural material can be returned to country and reburied as soon as practicable in a secure location in accordance with Requirements 16b and 26 of the code.

Biosis requests any comments regarding the care and control of any cultural material be included as part of the review of this assessment methodology.

References

Department of Environment, Climate Change and Water. 2010a. Aboriginal cultural heritage consultation requirements for proponents 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.

Department of Environment, Climate Change and Water. 2010b. Code of practice for Archaeological Investigation of Aboriginal Objects in New South Wales 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.







Jennifer Beale Butucarbin Aboriginal Corporation PO Box E18 Emerton NSW 2770

Dear Jennifer,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – project information

Our Ref: Matter 27715

Thank you for your registration of interest in this project. We are writing to you in order to provide you with the project information and methodology packs for the proposed development of a new public school at 34-38 Schofields Road, Schofields, NSW. This information has been provided in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements).

In this letter you will find the project information pack, and attached to this mailout is the document *Alex Avenue Public School Aboriginal Cultural Heritage Assessment – Project Methodology.*

The purpose of the methodology document is to provide you with further information on the background of this assessment, as well as the methodology for how it will be conducted, including any test excavations should they be required.

Please note that comments on the project methodology pack should be received before **4 pm Monday 3** December 2018.

As this project will involve a field investigation and potentially test excavations, the purpose of the second letter is to invite your feedback on the proposed project information and methodology packs, and to assist the proponent in the programing of groups for participation in the test excavations should they be carried out within the study area.

If you have any queries regarding the project or the information in this letter, please don't hesitate to contact us.

Yours sincerely,

Charlotte Allen

Archaeologist callen@biosis.com.au



Project information

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with information about the proposed project and the scope of the Aboriginal archaeology and cultural heritage investigations and assessment.

Study area

The study area is located within the Blacktown Local Government Area (LGA), Parish of Gidley, County of Cumberland. It encompasses Lot 4, DP 1208329, and part of Lot 121, DP 1203646 at 34-38 Schofields Road, Schofields, NSW (Figure 1 and Figure 2).

Project

School Infrastructure NSW are proposing to develop a new school at 34-38 Schofields Road, Schofields NSW, which consists of the following elements:

- a two storey Home Base building (stage 1)
- a two storey admin and staff building (stage 1)
- a two storey library (stage 1)
- a hall and out of school hours care facilities
- three learning courtyards and sports court
- covered outdoor learning area and walkway
- interconnected external area
- parking facilities
- two storey home base building (stage 2).

Biosis Pty Ltd is assisting School Infrastructure NSW with consultation with the Aboriginal community and the Aboriginal Cultural Heritage Assessment. Consultation with the Aboriginal community will follow the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a). The purpose of the Aboriginal community consultation will be to provide sufficient information for the assessment of Aboriginal cultural heritage values and to inform the Aboriginal cultural heritage assessment (ACHA).

The ACHA will support an Environmental Impact Statement and provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application. The project will be undertaken in accordance with the *National Parks and Wildlife Act 1974*. The development of the school will be assessed as a SSD under Section 89(c) of the *Environmental Planning and Assessment Act 1979* and Schedule 1 of the State Environmental Planning Policy (State and Regional Development) 2011(SSD 9368).

Aboriginal Cultural Heritage Assessment process

The assessment process includes the following steps:

Background research

Background research has been undertaken in order to identify known Aboriginal sites, areas of potential archaeological sensitivity and previous disturbance, and inform the predictive modelling for the assessment



area. Background research will be conducted in line with the requirements of the *Code of practice for the investigation of Aboriginal objects in New South Wales* (DECCW 2010b) ('the code'). Background research for the project included the following tasks:

- Conduct heritage register searches to identify previously recorded cultural heritage sites in or within the vicinity of the proposed study area. Searches will include the Aboriginal Heritage Information Management System (AHIMS), the National Heritage List, Commonwealth Heritage List, Register of the National Estate, State Heritage Register, Local Environmental Plan and National Trust heritage lists.
- Conduct additional background research in order to recognise any identifiable regional trends in site distribution and location and provide a site prediction model for the study area.
- Undertake a comprehensive survey of the study area, identifying any previously recorded sites (on AHIMS).
- Record and assess sites identified during the survey in compliance with the guidelines issued by OEH.
- Assess the scientific significance of all identified Aboriginal cultural heritage sites and places.
- Identify impacts to all identified Aboriginal cultural heritage sites and places based on potential ground disturbance from the proposed realignment of the road.
- Make recommendations to minimise or mitigate potential impacts of the proposed realignment upon cultural heritage values within the study area.

Consultation with the Aboriginal community

This task will allow the Aboriginal community the opportunity to participate in decisions regarding the management of their cultural heritage by providing proponents information regarding cultural significance and input into management options.

Consultation with Aboriginal stakeholders under the DECCW 2010a consultation guidelines is being undertaken to assist School Infrastructure NSW by:

- Providing relevant information about the cultural significance and values of the Aboriginal object(s) and/or place(s) within the study area.
- Influencing the design of the method to assess cultural and scientific significance of Aboriginal objects(s) and/or place(s) within the study area.
- Actively contributing to the development of cultural heritage management plan options and recommendations for any Aboriginal object(s) and/or place(s) within the proposed study area.
- Commenting on the draft assessment reports before they are submitted by the proponent to the determining authority of the proposed realignment.

Aboriginal community consultation will be undertaken in accordance with the consultation requirements, which includes:

• **COMPLETED.** Ascertaining the names of Aboriginal people or groups who may hold cultural knowledge relevant to determining the significance of Aboriginal objects and/ or places within the proposed study area. This would include writing to the following:



- OEH
- Local Aboriginal Land Council (LALC)
- Office of the Registrar (Aboriginal Land Rights Act 1983)
- National Native Title Tribunal (NNTT)
- Native Title Services Corporation Limited (NTSCORP Limited)
- Relevant Local Councils
- Relevant Catchment Management Authorities
- **COMPLETED.** Biosis will undertake the 'Placement of Notification' (Public Notice) in the *Rouse Hill Times*, on behalf of School Infrastructure NSW, that must include details of the proponent, the project, the exact location, and statement of the purpose of the community consultation in preparation for possible test excavations. The Public Notice is also an invitation for Aboriginal people who hold relevant cultural knowledge about the study area. A closing date for the registration must be included and be no less than **14 days**. **Registrations closed on 31 October 2018**.
- **COMPLETED.** Aboriginal people or groups identified were provided with notification of the proposed project via Biosis and given the opportunity to be involved in consultation. **Registrations of interest closed on 17 October 2018**.
- A list of Aboriginal people or groups who registered an interest in the project will be forwarded to the OEH and Deerubbin LALC by Biosis no later than **28 days** following close of registration. This list will not include those people or groups who specified that they did not want their details shared with OEH or the LALC.
- Biosis will provide details of the project and methodology for the archaeological assessment to the registered parties. The RAPs must be given an opportunity to review and provide feedback to the proponent within a minimum of **28 days** of the Biosis providing the methodology document.
- Selected representatives of the RAPs will be given the opportunity to participate in test excavations within the study area, should they be required.
- The DRAFT ACHA report and Archaeological Report will be provided to all RAPs for comment the proponent must allow **28 days** for comment. All comments and correspondence sent and received regarding the project will be included in the final report in an Appendix.

Field Survey

An Aboriginal archaeological survey of the study area will be undertaken in accordance with the guidelines outlined in the code in order to identify any previously unknown Aboriginal objects, sites or places. If identified, these will be recorded to the required standard. Should any sites of significance be identified the location and extent shall be recorded on MGA coordinates to enable overlay with the site plans.

There are several registered Aboriginal sites in the vicinity of the study area. The field survey will attempt to relocate and inspect these sites. This task will assist in the assessment of disturbance and with the predictive modelling for areas of potential archaeological deposit. It will also assist with the assessment of whether the proposed works are likely to impact on undiscovered Aboriginal objects and /or places.

The results of the survey and background research will be analysed to determine whether there are any areas of archaeological potential within the study area.



Test excavations

Should the results of the field survey indicate that there is an area of archaeological potential within the study area, Biosis will conduct test excavations to in accordance with the requirements of the code. Further information on the methodology for test excavation is available in the project methodology.

Reporting

A draft ACHA report and archaeological report will be prepared in accordance with the code and will include:

- background and project description
- a summary and analysis of the findings of the archaeological survey and test excavations (if applicable) including the presence and location of registered or undiscovered Aboriginal artefacts or heritage items within proximity of the study area
- a summary of any other relevant studies or surveys which have relevance to the assessment area
- a summary of the landscape features of the site which may indicate a history of Aboriginal activity
- a summary of previous land use that may have affected the retention of intact Aboriginal archaeology in the landscape
- the potential or likelihood for the proposed works to uncover or expose potential undiscovered Aboriginal objects
- Survey results and, if undertaken, test excavation results
- legislative implications of the proposed works
- recommendations and justification for further assessment (if required)
- mitigation measures (if any) required for the works to proceed
- mapping to show the location of registered and newly located (if any) Aboriginal sites in relation to the proposed works.

RAPs will be provided with the draft report for comment and allowed **28 days** for review.

Project schedule

The proposed schedule and time allocations for the consultation stages are summarised below.

Action	Timeframe	Potential constraints
Commencement of Aboriginal community consultation – advertising of project and notification to stakeholders	Completed	Project advertised in the <i>Rouse Hill Times</i> 9 October 2018. Notices sent to identified Aboriginal parties on 3 October 2018.
Aboriginal stakeholder registration period	Completed	Registration period ran from 3 October to 31 October 2018.
Field survey	Completed	ТВС
Archaeological test excavations with selected representatives of RAPs	ТВС	ТВС
Information gathering	Continuous	Until finalisation of report.



Action	Timeframe	Potential constraints
Review of draft report	ТВС	28 days review time allowed under OEH Aboriginal Community Consultation Guidelines.
Final report	ТВС	ТВС

Responsibilities and roles

As part of the consultation process, RAPs are expected to respond to requests for cultural information and comment on draft reporting, as appropriate in accordance with their role specified in the guidelines (DECCW 2010a, p. 16). Biosis and the proponent, in accordance with their role under the guidelines, will consult with the Aboriginal community by supplying suitable project information and providing the opportunity for Aboriginal stakeholders to provide input into the heritage management process (DECCW 2010a, pp. 16-17).

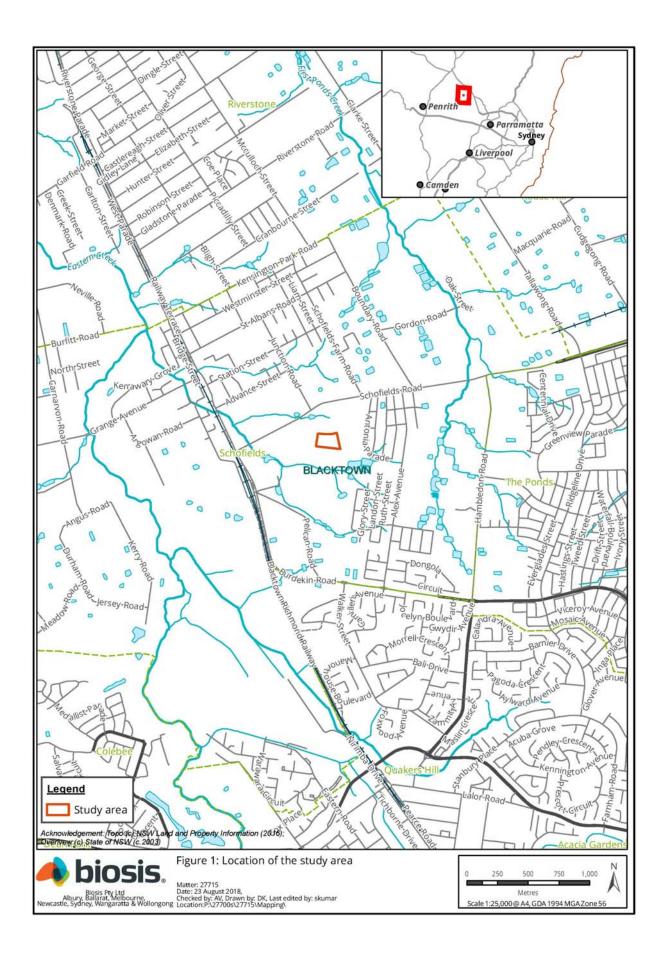
Each section of the methodology will be undertaken in consultation with the Aboriginal stakeholders. Biosis invites Aboriginal stakeholders to provide culturally appropriate information via mail, email or phone with regards to this project.

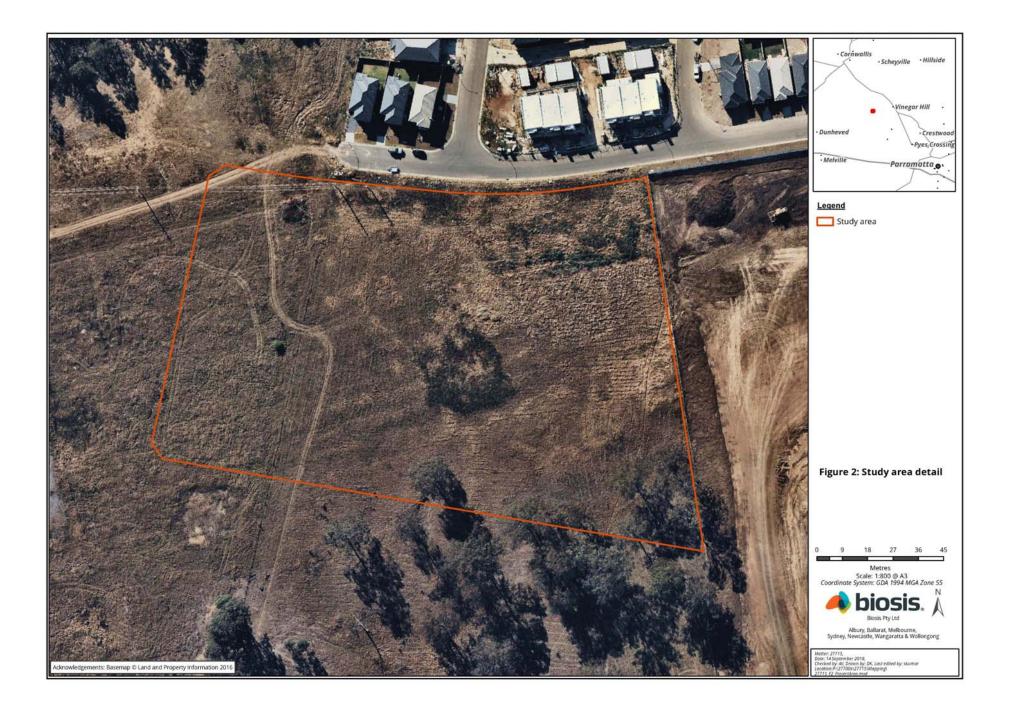
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DECCW 2010b, Code of practice for archaeological investigation of Aboriginal objects in New South Wales, Department of Environment and Climate Change, Sydney NSW.





Jennifer Beale Butucarbin Aboriginal Corporation PO Box E18 Emerton NSW 2770

Dear Jennifer Beale,

RE: Alex Avenue Public School, Aboriginal cultural heritage assessment – Project Methodology

Our Ref: 27715

This letter is being provided to all the Registered Aboriginal Parties (RAPs) who registered their interest in the consultation process for the Alex Avenue Public School development being undertaken by School Infrastructure NSW (Figure 1, Figure 2).

In accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements), we provide the proposed methodology for the Aboriginal Cultural Heritage Assessment (ACHA) for your review and feedback.

It would be appreciated if you could provide feedback on the methodology to Biosis Pty Ltd by **5pm on Monday 3 December 2018**, either by email or return mail.

Please address methodology feedback to:

Charlotte Allen Biosis Pty Ltd Unit 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

Please do not hesitate to contact me if you require additional information or have any queries about the methodology or information provided.

Kind regards,

Charlotte Allen Archaeologist

Biosis Pty Ltd Sydney Resource Group





Stage 3: Alex Avenue Public School Aboriginal Cultural Heritage Assessment: Methodology for field survey and test excavations (if required)

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with the proposed methodology for the cultural heritage and archaeological assessment.

Biosis has been engaged by School Infrastructure NSW to conduct an Aboriginal Cultural Heritage Assessment (ACHA), as part of an Environmental Impact Statement and to provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application.

Assessment methodology

Aims of the survey

The principle aims of the survey are to:

- undertake a systematic archaeological survey of the study area in accordance with the code, while targeting areas with the potential for Aboriginal heritage
- identify and record Aboriginal archaeological sites visible on the ground surface
- identify and record areas of potential archaeological deposit (PAD).

Survey methodology

The survey methods are intended to assess and understand the landforms and to determine whether any archaeological material from Aboriginal occupation or land use exists within the study area. Identification of natural soil deposits within the study area will be undertaken if possible. Photographs and recording techniques will be incorporated into the survey including representative photographs of survey units, landforms, vegetation coverage, ground surface visibility and the recording of soil information for each survey unit. Any Aboriginal objects observed during the survey will be documented and photographed. No artefacts discovered during the survey component are to be removed from the site.

The archaeological survey will occur concurrently with the test excavations. Recording during the survey will follow the guidelines of the OEH, in particular the *Code of practice for archaeological investigation of Aboriginal objects in New South Wales* (DECCW 2010b).

Specific information that will be recorded during the survey includes:

- Aboriginal objects or sites present in the study area
- survey coverage
- survey effectiveness
- any resources that may have potentially been exploited by Aboriginal people
- landforms and general soil information
- photographs of the site indicating landforms



- evidence of disturbance
- Aboriginal artefacts, culturally modified trees, shell middens or any other Aboriginal sites.

Distinguishing landform elements and their association with Aboriginal cultural heritage will assist with the identification of site patterning, though with the awareness of the following limitations:

- The degree of ground surface visibility (GSV) and amount of exposed areas can significantly bias the discovery of surface artefacts.
- Cultural material exposed on the surface is not necessarily representative of the potential extent of the site (either horizontally or vertically).

Information about the presence of potentially exploitable resources helps contribute to predictions of the Aboriginal sites that may occur within the study area. Information about GSV, DV and areas of exposures help to provide a general indication of the effectiveness of the survey for identifying Aboriginal cultural heritage exposed to the surface. Observable disturbances are also considered when assessing the integrity of known or potential sites in an area. The location of Aboriginal cultural heritage and points marking the boundary of the landform elements will be recorded using a hand-held Global Positioning System and the Map Grid of Australia (94) coordinate system.

Test excavation methodology

Should areas of archaeological potential or cultural values be identified during the field survey, test excavations will be conducted in accordance with the requirements of the code.

Aims of the sub-surface test excavations

The principle objectives of the subsurface test excavations would be to identify and understand the nature, extent and significance of any archaeological sites located within areas of archaeological potential.

The aims of the testing program would be to:

- Determine whether sub-surface archaeological deposits exist which may be impacted by the development.
- If so, to determine the extent and nature of such deposits.
- Identify if the archaeological material occurs in an intact, undisturbed context, by examining the soil profile and stratigraphy.
- Analyse and interpret any archaeological finds (such as stone artefacts, shell midden deposits, etc.) recovered during the testing program.
- Inform current knowledge of Aboriginal occupation and land use models of the region.
- Provide management and mitigation measures for Aboriginal archaeological objects located during the subsurface testing program.

Test excavation sampling strategy

Test excavations across the study area would conform to the following methodology:



- Test excavations will be undertaken in areas identified as having the potential to contain Aboriginal cultural material.
- Test excavations will be conducted in 50 x 50 centimetre units.
- The test excavation units will be excavated by hand (inclusive of trowels, spades and other hand tools) along transects at intervals of between 10 20 metres or other justifiable and regular spacing (being no smaller than five metres).
- The first test pit within a site or PAD area will be excavated in five centimetre spits; the subsequent test pits conducted within the site or PAD area can then be excavated in either 10 centimetre spits or stratigraphic units (whichever is smaller) to the base of Aboriginal object-bearing units being the removal of the A-horizon soil deposit down to the sterile clay or bedrock layer (B-horizon).
- If the depth of deposit prevents reaching sterile deposits within the 50 x 50 centimetre test pit, additional 50 x 50 centimetre test pits may be excavated adjacent to the original test pit (for example expanding the test pit to 50 x 100 centimetres) to reach the sterile deposits.
- Test pits may be combined and excavated as necessary in 50 x 50 centimetre units for the purposes of further understanding site characteristics. Note that under the Code, the maximum area that can be excavated in any one continuous area is three metres squared (3 m²).
- The Code dictates that the maximum surface area of all test excavation units must be no greater than 0.5% of the PAD or area being investigated.
- All excavated soil will be sieved in 5mm sieves. Dry sieving will be attempted in the first instance, however wet sieving may be used if deposits cannot be dry sieved.
- All cultural material will be collected, bagged and clearly labelled. They will be temporarily stored in the Biosis office for analysis (at Unit 14, 17-27 Power Avenue, Alexandria).
- The following documentation will be taken for the test pit:
 - Unique test pit identification number
 - GPS coordinate
 - Munsell soil colour, texture and pH
 - Amount and location of cultural material within the deposit
 - Nature of disturbance where present
 - Stratigraphy
 - Archaeological features (if present)
 - Photographic records
 - Spit records.



- The test excavation unit must be backfilled as soon as practicable due to safety issues.
- An AHIMS Site Impact Recording form will be completed and submitted to the AHIMS Registrar for any sites impacted during test excavations.
- In the event that suspected human remains are identified works will immediately cease and the NSW Police and OEH will be notified.
- Test excavations will cease when enough information* has been recovered to adequately characterise the objects present with regard to their nature and significance.

*Enough information is defined by OEH as meaning "the sample of excavated material clearly and selfevidently demonstrates the deposit's nature and significance. This may include things like locally or regionally high object density: presence of rare or representative objects: presence of archaeological features: or locally or regionally significant deposits stratified or not." (DECCW 2010b).

Storage of cultural material

Any cultural material identified during test excavations will be temporarily stored in the Biosis, Sydney office for analysis (Unit 14, 17-27 Power Avenue, Alexandria).

Once the cultural material has been analysed, the cultural material can be managed in the following manners:

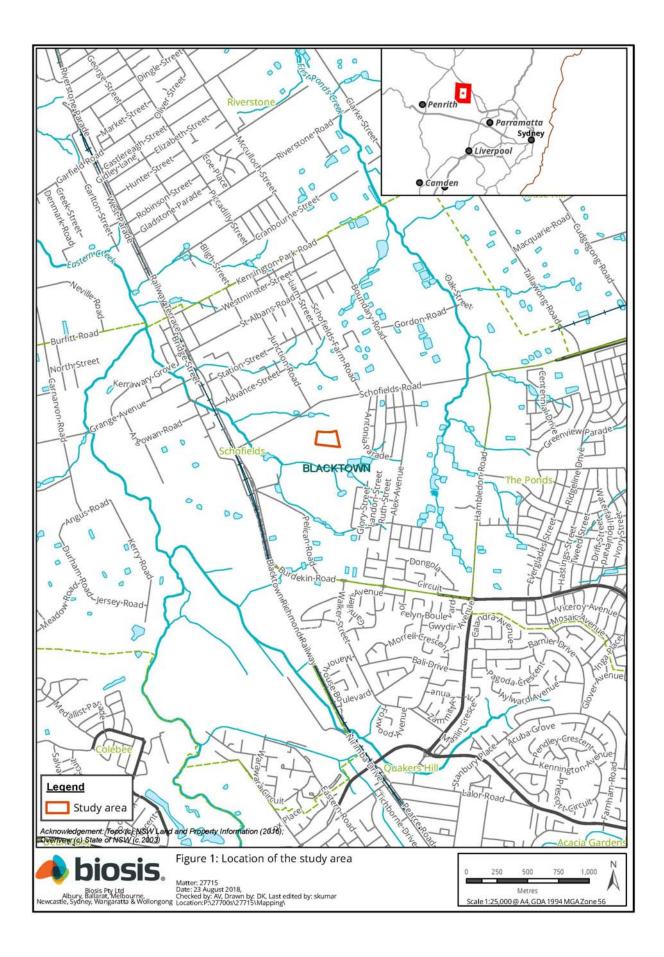
- Cultural material can be held by the Aboriginal community under a care and control agreement.
- Cultural material can be returned to country and reburied as soon as practicable in a secure location in accordance with Requirements 16b and 26 of the code.

Biosis requests any comments regarding the care and control of any cultural material be included as part of the review of this assessment methodology.

References

Department of Environment, Climate Change and Water. 2010a. Aboriginal cultural heritage consultation requirements for proponents 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.

Department of Environment, Climate Change and Water. 2010b. Code of practice for Archaeological Investigation of Aboriginal Objects in New South Wales 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.







Jamie and Anna Workman Darug Land Observations PO Box 173 Ulladulla NSW 2539

Dear Jamie and Anna,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – project information

Our Ref: Matter 27715

Thank you for your registration of interest in this project. We are writing to you in order to provide you with the project information and methodology packs for the proposed development of a new public school at 34-38 Schofields Road, Schofields, NSW. This information has been provided in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements).

In this letter you will find the project information pack, and attached to this mailout is the document *Alex Avenue Public School Aboriginal Cultural Heritage Assessment – Project Methodology.*

The purpose of the methodology document is to provide you with further information on the background of this assessment, as well as the methodology for how it will be conducted, including any test excavations should they be required.

Please note that comments on the project methodology pack should be received before **4 pm Monday 3** December 2018.

As this project will involve a field investigation and potentially test excavations, the purpose of the second letter is to invite your feedback on the proposed project information and methodology packs, and to assist the proponent in the programing of groups for participation in the test excavations should they be carried out within the study area.

If you have any queries regarding the project or the information in this letter, please don't hesitate to contact us.

Yours sincerely,

Charlotte Allen

Archaeologist callen@biosis.com.au



Project information

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with information about the proposed project and the scope of the Aboriginal archaeology and cultural heritage investigations and assessment.

Study area

The study area is located within the Blacktown Local Government Area (LGA), Parish of Gidley, County of Cumberland. It encompasses Lot 4, DP 1208329, and part of Lot 121, DP 1203646 at 34-38 Schofields Road, Schofields, NSW (Figure 1 and Figure 2).

Project

School Infrastructure NSW are proposing to develop a new school at 34-38 Schofields Road, Schofields NSW, which consists of the following elements:

- a two storey Home Base building (stage 1)
- a two storey admin and staff building (stage 1)
- a two storey library (stage 1)
- a hall and out of school hours care facilities
- three learning courtyards and sports court
- covered outdoor learning area and walkway
- interconnected external area
- parking facilities
- two storey home base building (stage 2).

Biosis Pty Ltd is assisting School Infrastructure NSW with consultation with the Aboriginal community and the Aboriginal Cultural Heritage Assessment. Consultation with the Aboriginal community will follow the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a). The purpose of the Aboriginal community consultation will be to provide sufficient information for the assessment of Aboriginal cultural heritage values and to inform the Aboriginal cultural heritage assessment (ACHA).

The ACHA will support an Environmental Impact Statement and provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application. The project will be undertaken in accordance with the *National Parks and Wildlife Act 1974*. The development of the school will be assessed as a SSD under Section 89(c) of the *Environmental Planning and Assessment Act 1979* and Schedule 1 of the State Environmental Planning Policy (State and Regional Development) 2011(SSD 9368).

Aboriginal Cultural Heritage Assessment process

The assessment process includes the following steps:

Background research

Background research has been undertaken in order to identify known Aboriginal sites, areas of potential archaeological sensitivity and previous disturbance, and inform the predictive modelling for the assessment



area. Background research will be conducted in line with the requirements of the *Code of practice for the investigation of Aboriginal objects in New South Wales* (DECCW 2010b) ('the code'). Background research for the project included the following tasks:

- Conduct heritage register searches to identify previously recorded cultural heritage sites in or within the vicinity of the proposed study area. Searches will include the Aboriginal Heritage Information Management System (AHIMS), the National Heritage List, Commonwealth Heritage List, Register of the National Estate, State Heritage Register, Local Environmental Plan and National Trust heritage lists.
- Conduct additional background research in order to recognise any identifiable regional trends in site distribution and location and provide a site prediction model for the study area.
- Undertake a comprehensive survey of the study area, identifying any previously recorded sites (on AHIMS).
- Record and assess sites identified during the survey in compliance with the guidelines issued by OEH.
- Assess the scientific significance of all identified Aboriginal cultural heritage sites and places.
- Identify impacts to all identified Aboriginal cultural heritage sites and places based on potential ground disturbance from the proposed realignment of the road.
- Make recommendations to minimise or mitigate potential impacts of the proposed realignment upon cultural heritage values within the study area.

Consultation with the Aboriginal community

This task will allow the Aboriginal community the opportunity to participate in decisions regarding the management of their cultural heritage by providing proponents information regarding cultural significance and input into management options.

Consultation with Aboriginal stakeholders under the DECCW 2010a consultation guidelines is being undertaken to assist School Infrastructure NSW by:

- Providing relevant information about the cultural significance and values of the Aboriginal object(s) and/or place(s) within the study area.
- Influencing the design of the method to assess cultural and scientific significance of Aboriginal objects(s) and/or place(s) within the study area.
- Actively contributing to the development of cultural heritage management plan options and recommendations for any Aboriginal object(s) and/or place(s) within the proposed study area.
- Commenting on the draft assessment reports before they are submitted by the proponent to the determining authority of the proposed realignment.

Aboriginal community consultation will be undertaken in accordance with the consultation requirements, which includes:

• **COMPLETED.** Ascertaining the names of Aboriginal people or groups who may hold cultural knowledge relevant to determining the significance of Aboriginal objects and/ or places within the proposed study area. This would include writing to the following:



- OEH
- Local Aboriginal Land Council (LALC)
- Office of the Registrar (Aboriginal Land Rights Act 1983)
- National Native Title Tribunal (NNTT)
- Native Title Services Corporation Limited (NTSCORP Limited)
- Relevant Local Councils
- Relevant Catchment Management Authorities
- **COMPLETED.** Biosis will undertake the 'Placement of Notification' (Public Notice) in the *Rouse Hill Times*, on behalf of School Infrastructure NSW, that must include details of the proponent, the project, the exact location, and statement of the purpose of the community consultation in preparation for possible test excavations. The Public Notice is also an invitation for Aboriginal people who hold relevant cultural knowledge about the study area. A closing date for the registration must be included and be no less than **14 days**. **Registrations closed on 31 October 2018**.
- **COMPLETED.** Aboriginal people or groups identified were provided with notification of the proposed project via Biosis and given the opportunity to be involved in consultation. **Registrations of interest closed on 17 October 2018**.
- A list of Aboriginal people or groups who registered an interest in the project will be forwarded to the OEH and Deerubbin LALC by Biosis no later than **28 days** following close of registration. This list will not include those people or groups who specified that they did not want their details shared with OEH or the LALC.
- Biosis will provide details of the project and methodology for the archaeological assessment to the registered parties. The RAPs must be given an opportunity to review and provide feedback to the proponent within a minimum of **28 days** of the Biosis providing the methodology document.
- Selected representatives of the RAPs will be given the opportunity to participate in test excavations within the study area, should they be required.
- The DRAFT ACHA report and Archaeological Report will be provided to all RAPs for comment the proponent must allow **28 days** for comment. All comments and correspondence sent and received regarding the project will be included in the final report in an Appendix.

Field Survey

An Aboriginal archaeological survey of the study area will be undertaken in accordance with the guidelines outlined in the code in order to identify any previously unknown Aboriginal objects, sites or places. If identified, these will be recorded to the required standard. Should any sites of significance be identified the location and extent shall be recorded on MGA coordinates to enable overlay with the site plans.

There are several registered Aboriginal sites in the vicinity of the study area. The field survey will attempt to relocate and inspect these sites. This task will assist in the assessment of disturbance and with the predictive modelling for areas of potential archaeological deposit. It will also assist with the assessment of whether the proposed works are likely to impact on undiscovered Aboriginal objects and /or places.

The results of the survey and background research will be analysed to determine whether there are any areas of archaeological potential within the study area.



Test excavations

Should the results of the field survey indicate that there is an area of archaeological potential within the study area, Biosis will conduct test excavations to in accordance with the requirements of the code. Further information on the methodology for test excavation is available in the project methodology.

Reporting

A draft ACHA report and archaeological report will be prepared in accordance with the code and will include:

- background and project description
- a summary and analysis of the findings of the archaeological survey and test excavations (if applicable) including the presence and location of registered or undiscovered Aboriginal artefacts or heritage items within proximity of the study area
- a summary of any other relevant studies or surveys which have relevance to the assessment area
- a summary of the landscape features of the site which may indicate a history of Aboriginal activity
- a summary of previous land use that may have affected the retention of intact Aboriginal archaeology in the landscape
- the potential or likelihood for the proposed works to uncover or expose potential undiscovered Aboriginal objects
- Survey results and, if undertaken, test excavation results
- legislative implications of the proposed works
- recommendations and justification for further assessment (if required)
- mitigation measures (if any) required for the works to proceed
- mapping to show the location of registered and newly located (if any) Aboriginal sites in relation to the proposed works.

RAPs will be provided with the draft report for comment and allowed **28 days** for review.

Project schedule

The proposed schedule and time allocations for the consultation stages are summarised below.

Action	Timeframe	Potential constraints
Commencement of Aboriginal community consultation – advertising of project and notification to stakeholders	Completed	Project advertised in the <i>Rouse Hill Times</i> 9 October 2018. Notices sent to identified Aboriginal parties on 3 October 2018.
Aboriginal stakeholder registration period	Completed	Registration period ran from 3 October to 31 October 2018.
Field survey	Completed	ТВС
Archaeological test excavations with selected representatives of RAPs	ТВС	ТВС
Information gathering	Continuous	Until finalisation of report.



Action	Timeframe	Potential constraints
Review of draft report	ТВС	28 days review time allowed under OEH Aboriginal Community Consultation Guidelines.
Final report	ТВС	ТВС

Responsibilities and roles

As part of the consultation process, RAPs are expected to respond to requests for cultural information and comment on draft reporting, as appropriate in accordance with their role specified in the guidelines (DECCW 2010a, p. 16). Biosis and the proponent, in accordance with their role under the guidelines, will consult with the Aboriginal community by supplying suitable project information and providing the opportunity for Aboriginal stakeholders to provide input into the heritage management process (DECCW 2010a, pp. 16-17).

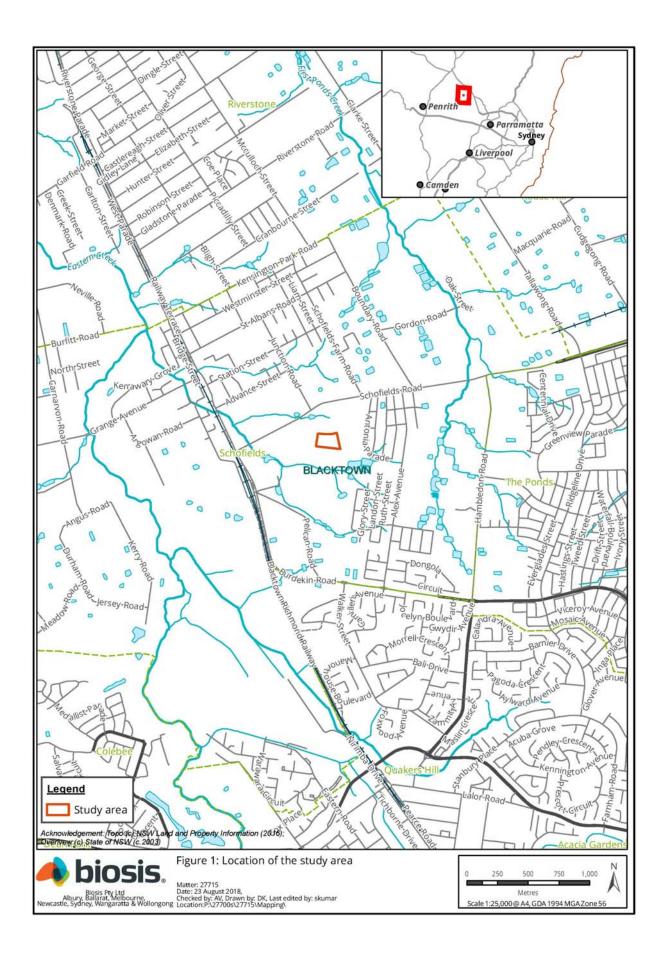
Each section of the methodology will be undertaken in consultation with the Aboriginal stakeholders. Biosis invites Aboriginal stakeholders to provide culturally appropriate information via mail, email or phone with regards to this project.

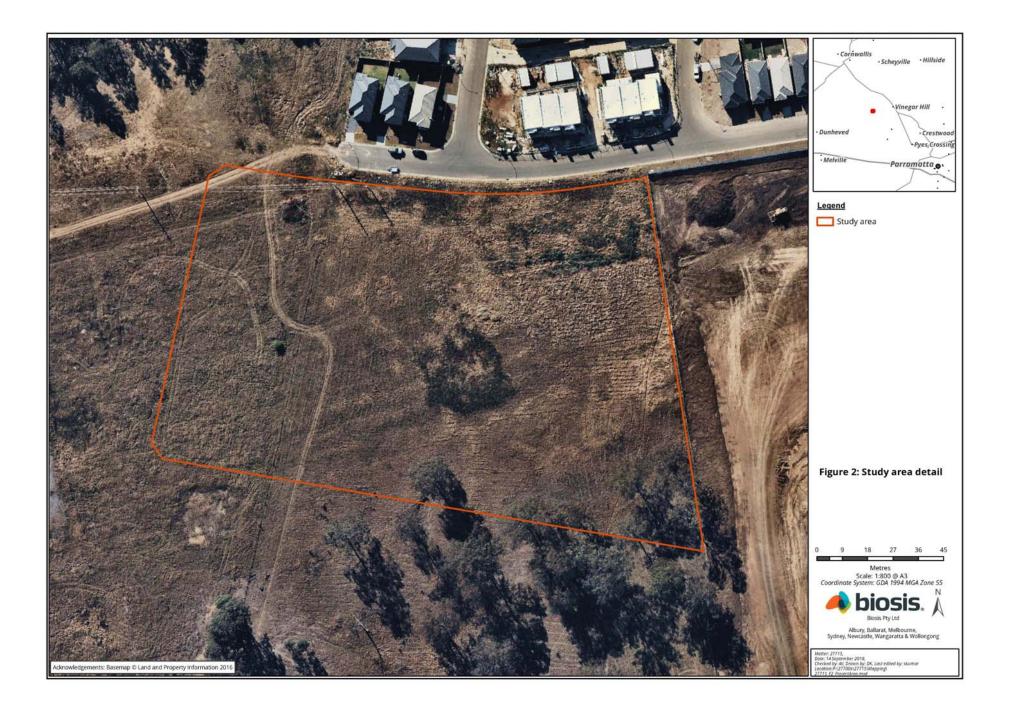
Cultural information provided will be recorded in the Aboriginal consultation log and discussed in the report. If the information is regarded as too sensitive to be made public then the Aboriginal stakeholder should advise Biosis and identify the nature of the sensitivity. Biosis will then arrange for the recording of the information in accordance with its sensitivity. Documents which hold sensitive information will clearly list, on the front cover, who can have access to the document. These documents will be stored securely.

References

DECCW 2010a, Aboriginal cultural heritage consultation requirements for proponents, Department of Environment and Climate Change, Sydney NSW.

DECCW 2010b, Code of practice for archaeological investigation of Aboriginal objects in New South Wales, Department of Environment and Climate Change, Sydney NSW.





Jamie and Anna Workman Darug Land Observations PO Box 173 Ulladulla NSW 2539

Dear Jamie and Anna Workman,

RE: Alex Avenue Public School, Aboriginal cultural heritage assessment – Project Methodology

Our Ref: 27715

This letter is being provided to all the Registered Aboriginal Parties (RAPs) who registered their interest in the consultation process for the Alex Avenue Public School development being undertaken by School Infrastructure NSW (Figure 1, Figure 2).

In accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements), we provide the proposed methodology for the Aboriginal Cultural Heritage Assessment (ACHA) for your review and feedback.

It would be appreciated if you could provide feedback on the methodology to Biosis Pty Ltd by **5pm on Monday 3 December 2018**, either by email or return mail.

Please address methodology feedback to:

Charlotte Allen Biosis Pty Ltd Unit 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

Please do not hesitate to contact me if you require additional information or have any queries about the methodology or information provided.

Kind regards,

Charlotte Allen Archaeologist

Biosis Pty Ltd Sydney Resource Group





Stage 3: Alex Avenue Public School Aboriginal Cultural Heritage Assessment: Methodology for field survey and test excavations (if required)

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with the proposed methodology for the cultural heritage and archaeological assessment.

Biosis has been engaged by School Infrastructure NSW to conduct an Aboriginal Cultural Heritage Assessment (ACHA), as part of an Environmental Impact Statement and to provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application.

Assessment methodology

Aims of the survey

The principle aims of the survey are to:

- undertake a systematic archaeological survey of the study area in accordance with the code, while targeting areas with the potential for Aboriginal heritage
- identify and record Aboriginal archaeological sites visible on the ground surface
- identify and record areas of potential archaeological deposit (PAD).

Survey methodology

The survey methods are intended to assess and understand the landforms and to determine whether any archaeological material from Aboriginal occupation or land use exists within the study area. Identification of natural soil deposits within the study area will be undertaken if possible. Photographs and recording techniques will be incorporated into the survey including representative photographs of survey units, landforms, vegetation coverage, ground surface visibility and the recording of soil information for each survey unit. Any Aboriginal objects observed during the survey will be documented and photographed. No artefacts discovered during the survey component are to be removed from the site.

The archaeological survey will occur concurrently with the test excavations. Recording during the survey will follow the guidelines of the OEH, in particular the *Code of practice for archaeological investigation of Aboriginal objects in New South Wales* (DECCW 2010b).

Specific information that will be recorded during the survey includes:

- Aboriginal objects or sites present in the study area
- survey coverage
- survey effectiveness
- any resources that may have potentially been exploited by Aboriginal people
- landforms and general soil information
- photographs of the site indicating landforms



- evidence of disturbance
- Aboriginal artefacts, culturally modified trees, shell middens or any other Aboriginal sites.

Distinguishing landform elements and their association with Aboriginal cultural heritage will assist with the identification of site patterning, though with the awareness of the following limitations:

- The degree of ground surface visibility (GSV) and amount of exposed areas can significantly bias the discovery of surface artefacts.
- Cultural material exposed on the surface is not necessarily representative of the potential extent of the site (either horizontally or vertically).

Information about the presence of potentially exploitable resources helps contribute to predictions of the Aboriginal sites that may occur within the study area. Information about GSV, DV and areas of exposures help to provide a general indication of the effectiveness of the survey for identifying Aboriginal cultural heritage exposed to the surface. Observable disturbances are also considered when assessing the integrity of known or potential sites in an area. The location of Aboriginal cultural heritage and points marking the boundary of the landform elements will be recorded using a hand-held Global Positioning System and the Map Grid of Australia (94) coordinate system.

Test excavation methodology

Should areas of archaeological potential or cultural values be identified during the field survey, test excavations will be conducted in accordance with the requirements of the code.

Aims of the sub-surface test excavations

The principle objectives of the subsurface test excavations would be to identify and understand the nature, extent and significance of any archaeological sites located within areas of archaeological potential.

The aims of the testing program would be to:

- Determine whether sub-surface archaeological deposits exist which may be impacted by the development.
- If so, to determine the extent and nature of such deposits.
- Identify if the archaeological material occurs in an intact, undisturbed context, by examining the soil profile and stratigraphy.
- Analyse and interpret any archaeological finds (such as stone artefacts, shell midden deposits, etc.) recovered during the testing program.
- Inform current knowledge of Aboriginal occupation and land use models of the region.
- Provide management and mitigation measures for Aboriginal archaeological objects located during the subsurface testing program.

Test excavation sampling strategy

Test excavations across the study area would conform to the following methodology:



- Test excavations will be undertaken in areas identified as having the potential to contain Aboriginal cultural material.
- Test excavations will be conducted in 50 x 50 centimetre units.
- The test excavation units will be excavated by hand (inclusive of trowels, spades and other hand tools) along transects at intervals of between 10 20 metres or other justifiable and regular spacing (being no smaller than five metres).
- The first test pit within a site or PAD area will be excavated in five centimetre spits; the subsequent test pits conducted within the site or PAD area can then be excavated in either 10 centimetre spits or stratigraphic units (whichever is smaller) to the base of Aboriginal object-bearing units being the removal of the A-horizon soil deposit down to the sterile clay or bedrock layer (B-horizon).
- If the depth of deposit prevents reaching sterile deposits within the 50 x 50 centimetre test pit, additional 50 x 50 centimetre test pits may be excavated adjacent to the original test pit (for example expanding the test pit to 50 x 100 centimetres) to reach the sterile deposits.
- Test pits may be combined and excavated as necessary in 50 x 50 centimetre units for the purposes of further understanding site characteristics. Note that under the Code, the maximum area that can be excavated in any one continuous area is three metres squared (3 m²).
- The Code dictates that the maximum surface area of all test excavation units must be no greater than 0.5% of the PAD or area being investigated.
- All excavated soil will be sieved in 5mm sieves. Dry sieving will be attempted in the first instance, however wet sieving may be used if deposits cannot be dry sieved.
- All cultural material will be collected, bagged and clearly labelled. They will be temporarily stored in the Biosis office for analysis (at Unit 14, 17-27 Power Avenue, Alexandria).
- The following documentation will be taken for the test pit:
 - Unique test pit identification number
 - GPS coordinate
 - Munsell soil colour, texture and pH
 - Amount and location of cultural material within the deposit
 - Nature of disturbance where present
 - Stratigraphy
 - Archaeological features (if present)
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- The test excavation unit must be backfilled as soon as practicable due to safety issues.
- An AHIMS Site Impact Recording form will be completed and submitted to the AHIMS Registrar for any sites impacted during test excavations.
- In the event that suspected human remains are identified works will immediately cease and the NSW Police and OEH will be notified.
- Test excavations will cease when enough information* has been recovered to adequately characterise the objects present with regard to their nature and significance.

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Storage of cultural material

Any cultural material identified during test excavations will be temporarily stored in the Biosis, Sydney office for analysis (Unit 14, 17-27 Power Avenue, Alexandria).

Once the cultural material has been analysed, the cultural material can be managed in the following manners:

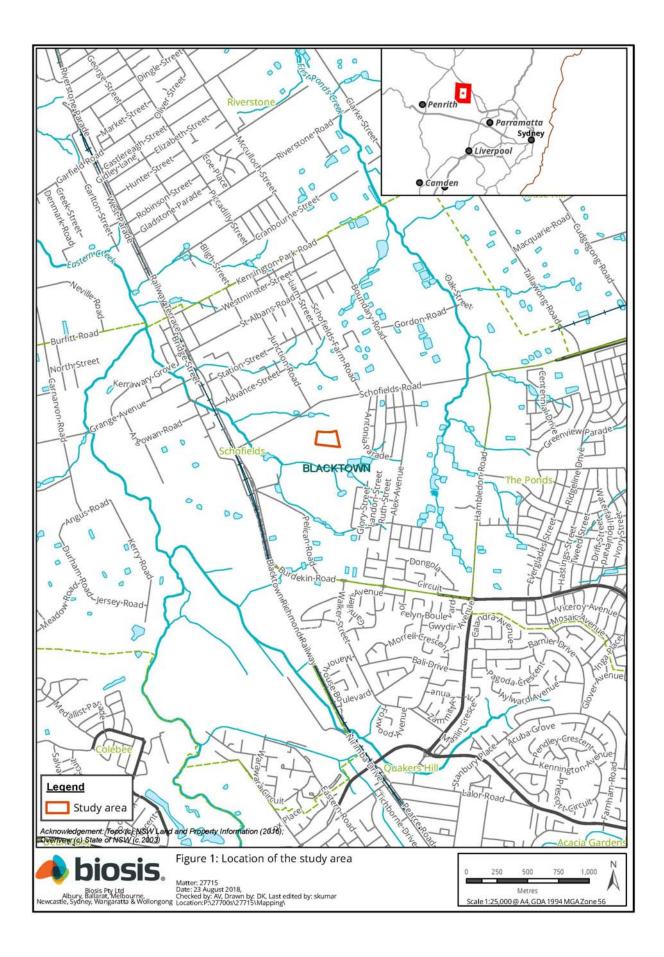
- Cultural material can be held by the Aboriginal community under a care and control agreement.
- Cultural material can be returned to country and reburied as soon as practicable in a secure location in accordance with Requirements 16b and 26 of the code.

Biosis requests any comments regarding the care and control of any cultural material be included as part of the review of this assessment methodology.

References

Department of Environment, Climate Change and Water. 2010a. Aboriginal cultural heritage consultation requirements for proponents 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.

Department of Environment, Climate Change and Water. 2010b. Code of practice for Archaeological Investigation of Aboriginal Objects in New South Wales 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.







Shaun Carroll Merrigarn Indigenous Corporation GPO Box 158 Canberra City ACT 2601

Dear Shaun,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – project information

Our Ref: Matter 27715

Thank you for your registration of interest in this project. We are writing to you in order to provide you with the project information and methodology packs for the proposed development of a new public school at 34-38 Schofields Road, Schofields, NSW. This information has been provided in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements).

In this letter you will find the project information pack, and attached to this mailout is the document *Alex Avenue Public School Aboriginal Cultural Heritage Assessment – Project Methodology.*

The purpose of the methodology document is to provide you with further information on the background of this assessment, as well as the methodology for how it will be conducted, including any test excavations should they be required.

Please note that comments on the project methodology pack should be received before **4 pm Monday 3** December 2018.

As this project will involve a field investigation and potentially test excavations, the purpose of the second letter is to invite your feedback on the proposed project information and methodology packs, and to assist the proponent in the programing of groups for participation in the test excavations should they be carried out within the study area.

If you have any queries regarding the project or the information in this letter, please don't hesitate to contact us.

Yours sincerely,

Charlotte Allen

Archaeologist callen@biosis.com.au



Project information

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with information about the proposed project and the scope of the Aboriginal archaeology and cultural heritage investigations and assessment.

Study area

The study area is located within the Blacktown Local Government Area (LGA), Parish of Gidley, County of Cumberland. It encompasses Lot 4, DP 1208329, and part of Lot 121, DP 1203646 at 34-38 Schofields Road, Schofields, NSW (Figure 1 and Figure 2).

Project

School Infrastructure NSW are proposing to develop a new school at 34-38 Schofields Road, Schofields NSW, which consists of the following elements:

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- a two storey admin and staff building (stage 1)
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Biosis Pty Ltd is assisting School Infrastructure NSW with consultation with the Aboriginal community and the Aboriginal Cultural Heritage Assessment. Consultation with the Aboriginal community will follow the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a). The purpose of the Aboriginal community consultation will be to provide sufficient information for the assessment of Aboriginal cultural heritage values and to inform the Aboriginal cultural heritage assessment (ACHA).

The ACHA will support an Environmental Impact Statement and provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application. The project will be undertaken in accordance with the *National Parks and Wildlife Act 1974*. The development of the school will be assessed as a SSD under Section 89(c) of the *Environmental Planning and Assessment Act 1979* and Schedule 1 of the State Environmental Planning Policy (State and Regional Development) 2011(SSD 9368).

Aboriginal Cultural Heritage Assessment process

The assessment process includes the following steps:

Background research

Background research has been undertaken in order to identify known Aboriginal sites, areas of potential archaeological sensitivity and previous disturbance, and inform the predictive modelling for the assessment



area. Background research will be conducted in line with the requirements of the *Code of practice for the investigation of Aboriginal objects in New South Wales* (DECCW 2010b) ('the code'). Background research for the project included the following tasks:

- Conduct heritage register searches to identify previously recorded cultural heritage sites in or within the vicinity of the proposed study area. Searches will include the Aboriginal Heritage Information Management System (AHIMS), the National Heritage List, Commonwealth Heritage List, Register of the National Estate, State Heritage Register, Local Environmental Plan and National Trust heritage lists.
- Conduct additional background research in order to recognise any identifiable regional trends in site distribution and location and provide a site prediction model for the study area.
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- Assess the scientific significance of all identified Aboriginal cultural heritage sites and places.
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- Make recommendations to minimise or mitigate potential impacts of the proposed realignment upon cultural heritage values within the study area.

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Consultation with Aboriginal stakeholders under the DECCW 2010a consultation guidelines is being undertaken to assist School Infrastructure NSW by:

- Providing relevant information about the cultural significance and values of the Aboriginal object(s) and/or place(s) within the study area.
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Aboriginal community consultation will be undertaken in accordance with the consultation requirements, which includes:

• **COMPLETED.** Ascertaining the names of Aboriginal people or groups who may hold cultural knowledge relevant to determining the significance of Aboriginal objects and/ or places within the proposed study area. This would include writing to the following:



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The results of the survey and background research will be analysed to determine whether there are any areas of archaeological potential within the study area.



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- background and project description
- a summary and analysis of the findings of the archaeological survey and test excavations (if applicable) including the presence and location of registered or undiscovered Aboriginal artefacts or heritage items within proximity of the study area
- a summary of any other relevant studies or surveys which have relevance to the assessment area
- a summary of the landscape features of the site which may indicate a history of Aboriginal activity
- a summary of previous land use that may have affected the retention of intact Aboriginal archaeology in the landscape
- the potential or likelihood for the proposed works to uncover or expose potential undiscovered Aboriginal objects
- Survey results and, if undertaken, test excavation results
- legislative implications of the proposed works
- recommendations and justification for further assessment (if required)
- mitigation measures (if any) required for the works to proceed
- mapping to show the location of registered and newly located (if any) Aboriginal sites in relation to the proposed works.

RAPs will be provided with the draft report for comment and allowed **28 days** for review.

Project schedule

The proposed schedule and time allocations for the consultation stages are summarised below.

Action	Timeframe	Potential constraints
Commencement of Aboriginal community consultation – advertising of project and notification to stakeholders	Completed	Project advertised in the <i>Rouse Hill Times</i> 9 October 2018. Notices sent to identified Aboriginal parties on 3 October 2018.
Aboriginal stakeholder registration period	Completed	Registration period ran from 3 October to 31 October 2018.
Field survey	Completed	ТВС
Archaeological test excavations with selected representatives of RAPs	ТВС	ТВС
Information gathering	Continuous	Until finalisation of report.



Action	Timeframe	Potential constraints
Review of draft report	ТВС	28 days review time allowed under OEH Aboriginal Community Consultation Guidelines.
Final report	ТВС	ТВС

Responsibilities and roles

As part of the consultation process, RAPs are expected to respond to requests for cultural information and comment on draft reporting, as appropriate in accordance with their role specified in the guidelines (DECCW 2010a, p. 16). Biosis and the proponent, in accordance with their role under the guidelines, will consult with the Aboriginal community by supplying suitable project information and providing the opportunity for Aboriginal stakeholders to provide input into the heritage management process (DECCW 2010a, pp. 16-17).

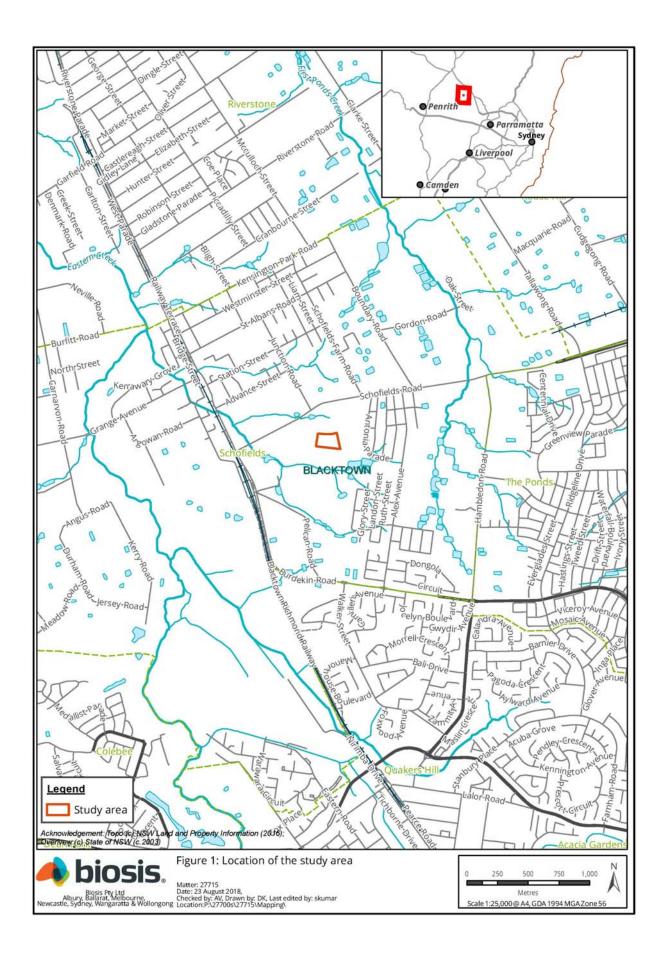
Each section of the methodology will be undertaken in consultation with the Aboriginal stakeholders. Biosis invites Aboriginal stakeholders to provide culturally appropriate information via mail, email or phone with regards to this project.

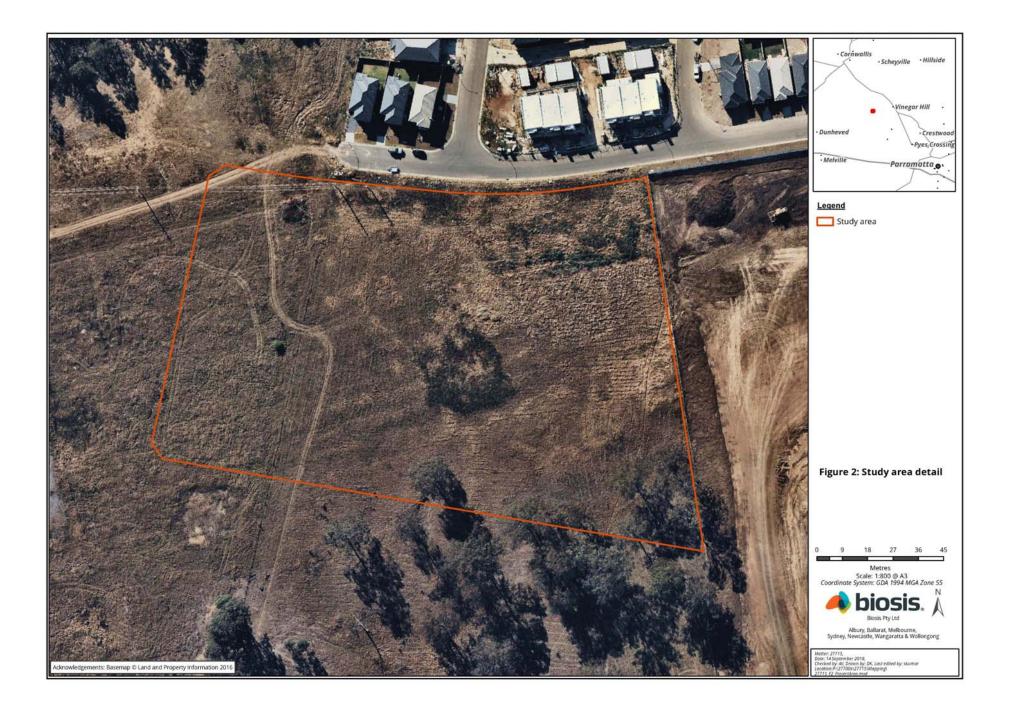
Cultural information provided will be recorded in the Aboriginal consultation log and discussed in the report. If the information is regarded as too sensitive to be made public then the Aboriginal stakeholder should advise Biosis and identify the nature of the sensitivity. Biosis will then arrange for the recording of the information in accordance with its sensitivity. Documents which hold sensitive information will clearly list, on the front cover, who can have access to the document. These documents will be stored securely.

References

DECCW 2010a, Aboriginal cultural heritage consultation requirements for proponents, Department of Environment and Climate Change, Sydney NSW.

DECCW 2010b, Code of practice for archaeological investigation of Aboriginal objects in New South Wales, Department of Environment and Climate Change, Sydney NSW.





5 November 2018

Shaun Carroll Merrigarn Indigenous Corporation GPO Box 158 Canberra City ACT 2601

Dear Shaun Carroll,

RE: Alex Avenue Public School, Aboriginal cultural heritage assessment – Project Methodology

Our Ref: 27715

This letter is being provided to all the Registered Aboriginal Parties (RAPs) who registered their interest in the consultation process for the Alex Avenue Public School development being undertaken by School Infrastructure NSW (Figure 1, Figure 2).

In accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements), we provide the proposed methodology for the Aboriginal Cultural Heritage Assessment (ACHA) for your review and feedback.

It would be appreciated if you could provide feedback on the methodology to Biosis Pty Ltd by **5pm on Monday 3 December 2018**, either by email or return mail.

Please address methodology feedback to:

Charlotte Allen Biosis Pty Ltd Unit 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

Please do not hesitate to contact me if you require additional information or have any queries about the methodology or information provided.

Kind regards,

Charlotte Allen Archaeologist

Biosis Pty Ltd Sydney Resource Group





Stage 3: Alex Avenue Public School Aboriginal Cultural Heritage Assessment: Methodology for field survey and test excavations (if required)

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with the proposed methodology for the cultural heritage and archaeological assessment.

Biosis has been engaged by School Infrastructure NSW to conduct an Aboriginal Cultural Heritage Assessment (ACHA), as part of an Environmental Impact Statement and to provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application.

Assessment methodology

Aims of the survey

The principle aims of the survey are to:

- undertake a systematic archaeological survey of the study area in accordance with the code, while targeting areas with the potential for Aboriginal heritage
- identify and record Aboriginal archaeological sites visible on the ground surface
- identify and record areas of potential archaeological deposit (PAD).

Survey methodology

The survey methods are intended to assess and understand the landforms and to determine whether any archaeological material from Aboriginal occupation or land use exists within the study area. Identification of natural soil deposits within the study area will be undertaken if possible. Photographs and recording techniques will be incorporated into the survey including representative photographs of survey units, landforms, vegetation coverage, ground surface visibility and the recording of soil information for each survey unit. Any Aboriginal objects observed during the survey will be documented and photographed. No artefacts discovered during the survey component are to be removed from the site.

The archaeological survey will occur concurrently with the test excavations. Recording during the survey will follow the guidelines of the OEH, in particular the *Code of practice for archaeological investigation of Aboriginal objects in New South Wales* (DECCW 2010b).

Specific information that will be recorded during the survey includes:

- Aboriginal objects or sites present in the study area
- survey coverage
- survey effectiveness
- any resources that may have potentially been exploited by Aboriginal people
- landforms and general soil information
- photographs of the site indicating landforms



- evidence of disturbance
- Aboriginal artefacts, culturally modified trees, shell middens or any other Aboriginal sites.

Distinguishing landform elements and their association with Aboriginal cultural heritage will assist with the identification of site patterning, though with the awareness of the following limitations:

- The degree of ground surface visibility (GSV) and amount of exposed areas can significantly bias the discovery of surface artefacts.
- Cultural material exposed on the surface is not necessarily representative of the potential extent of the site (either horizontally or vertically).

Information about the presence of potentially exploitable resources helps contribute to predictions of the Aboriginal sites that may occur within the study area. Information about GSV, DV and areas of exposures help to provide a general indication of the effectiveness of the survey for identifying Aboriginal cultural heritage exposed to the surface. Observable disturbances are also considered when assessing the integrity of known or potential sites in an area. The location of Aboriginal cultural heritage and points marking the boundary of the landform elements will be recorded using a hand-held Global Positioning System and the Map Grid of Australia (94) coordinate system.

Test excavation methodology

Should areas of archaeological potential or cultural values be identified during the field survey, test excavations will be conducted in accordance with the requirements of the code.

Aims of the sub-surface test excavations

The principle objectives of the subsurface test excavations would be to identify and understand the nature, extent and significance of any archaeological sites located within areas of archaeological potential.

The aims of the testing program would be to:

- Determine whether sub-surface archaeological deposits exist which may be impacted by the development.
- If so, to determine the extent and nature of such deposits.
- Identify if the archaeological material occurs in an intact, undisturbed context, by examining the soil profile and stratigraphy.
- Analyse and interpret any archaeological finds (such as stone artefacts, shell midden deposits, etc.) recovered during the testing program.
- Inform current knowledge of Aboriginal occupation and land use models of the region.
- Provide management and mitigation measures for Aboriginal archaeological objects located during the subsurface testing program.

Test excavation sampling strategy

Test excavations across the study area would conform to the following methodology:



- Test excavations will be undertaken in areas identified as having the potential to contain Aboriginal cultural material.
- Test excavations will be conducted in 50 x 50 centimetre units.
- The test excavation units will be excavated by hand (inclusive of trowels, spades and other hand tools) along transects at intervals of between 10 20 metres or other justifiable and regular spacing (being no smaller than five metres).
- The first test pit within a site or PAD area will be excavated in five centimetre spits; the subsequent test pits conducted within the site or PAD area can then be excavated in either 10 centimetre spits or stratigraphic units (whichever is smaller) to the base of Aboriginal object-bearing units being the removal of the A-horizon soil deposit down to the sterile clay or bedrock layer (B-horizon).
- If the depth of deposit prevents reaching sterile deposits within the 50 x 50 centimetre test pit, additional 50 x 50 centimetre test pits may be excavated adjacent to the original test pit (for example expanding the test pit to 50 x 100 centimetres) to reach the sterile deposits.
- Test pits may be combined and excavated as necessary in 50 x 50 centimetre units for the purposes of further understanding site characteristics. Note that under the Code, the maximum area that can be excavated in any one continuous area is three metres squared (3 m²).
- The Code dictates that the maximum surface area of all test excavation units must be no greater than 0.5% of the PAD or area being investigated.
- All excavated soil will be sieved in 5mm sieves. Dry sieving will be attempted in the first instance, however wet sieving may be used if deposits cannot be dry sieved.
- All cultural material will be collected, bagged and clearly labelled. They will be temporarily stored in the Biosis office for analysis (at Unit 14, 17-27 Power Avenue, Alexandria).
- The following documentation will be taken for the test pit:
 - Unique test pit identification number
 - GPS coordinate
 - Munsell soil colour, texture and pH
 - Amount and location of cultural material within the deposit
 - Nature of disturbance where present
 - Stratigraphy
 - Archaeological features (if present)
 - Photographic records
 - Spit records.



- The test excavation unit must be backfilled as soon as practicable due to safety issues.
- An AHIMS Site Impact Recording form will be completed and submitted to the AHIMS Registrar for any sites impacted during test excavations.
- In the event that suspected human remains are identified works will immediately cease and the NSW Police and OEH will be notified.
- Test excavations will cease when enough information* has been recovered to adequately characterise the objects present with regard to their nature and significance.

*Enough information is defined by OEH as meaning "the sample of excavated material clearly and selfevidently demonstrates the deposit's nature and significance. This may include things like locally or regionally high object density: presence of rare or representative objects: presence of archaeological features: or locally or regionally significant deposits stratified or not." (DECCW 2010b).

Storage of cultural material

Any cultural material identified during test excavations will be temporarily stored in the Biosis, Sydney office for analysis (Unit 14, 17-27 Power Avenue, Alexandria).

Once the cultural material has been analysed, the cultural material can be managed in the following manners:

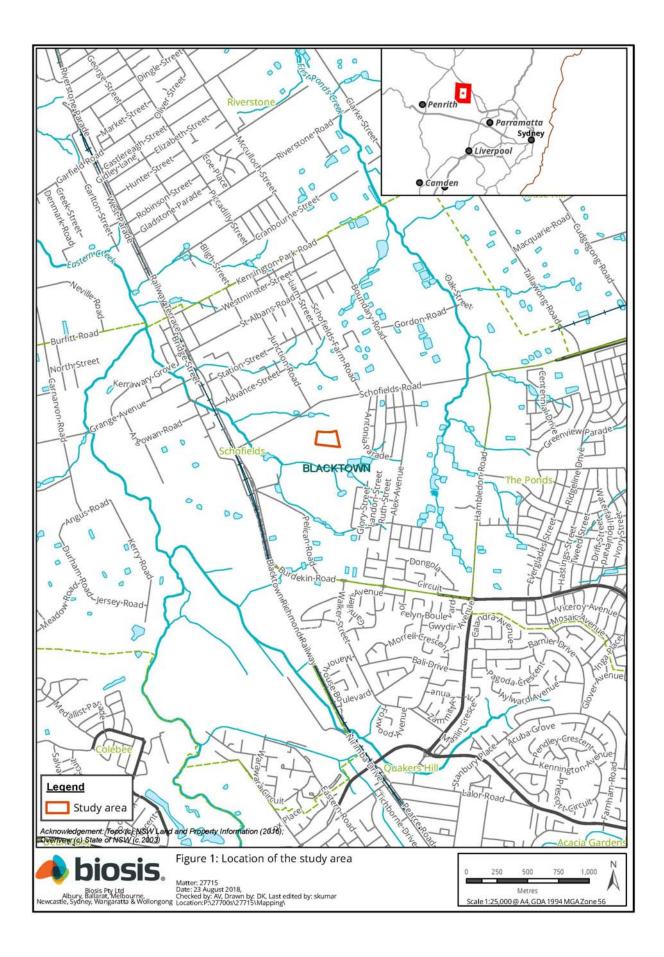
- Cultural material can be held by the Aboriginal community under a care and control agreement.
- Cultural material can be returned to country and reburied as soon as practicable in a secure location in accordance with Requirements 16b and 26 of the code.

Biosis requests any comments regarding the care and control of any cultural material be included as part of the review of this assessment methodology.

References

Department of Environment, Climate Change and Water. 2010a. Aboriginal cultural heritage consultation requirements for proponents 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.

Department of Environment, Climate Change and Water. 2010b. Code of practice for Archaeological Investigation of Aboriginal Objects in New South Wales 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.







5 November 2018

Steven Randall Deerubbin Local Aboriginal Land Council PO Box 40 Penrith NSW 2751

Dear Steven,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – project information

Our Ref: Matter 27715

Thank you for your registration of interest in this project. We are writing to you in order to provide you with the project information and methodology packs for the proposed development of a new public school at 34-38 Schofields Road, Schofields, NSW. This information has been provided in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements).

In this letter you will find the project information pack, and attached to this mailout is the document *Alex Avenue Public School Aboriginal Cultural Heritage Assessment – Project Methodology.*

The purpose of the methodology document is to provide you with further information on the background of this assessment, as well as the methodology for how it will be conducted, including any test excavations should they be required.

Please note that comments on the project methodology pack should be received before **4 pm Monday 3** December 2018.

As this project will involve a field investigation and potentially test excavations, the purpose of the second letter is to invite your feedback on the proposed project information and methodology packs, and to assist the proponent in the programing of groups for participation in the test excavations should they be carried out within the study area.

If you have any queries regarding the project or the information in this letter, please don't hesitate to contact us.

Yours sincerely,

Charlotte Allen

Archaeologist callen@biosis.com.au



Project information

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with information about the proposed project and the scope of the Aboriginal archaeology and cultural heritage investigations and assessment.

Study area

The study area is located within the Blacktown Local Government Area (LGA), Parish of Gidley, County of Cumberland. It encompasses Lot 4, DP 1208329, and part of Lot 121, DP 1203646 at 34-38 Schofields Road, Schofields, NSW (Figure 1 and Figure 2).

Project

School Infrastructure NSW are proposing to develop a new school at 34-38 Schofields Road, Schofields NSW, which consists of the following elements:

- a two storey Home Base building (stage 1)
- a two storey admin and staff building (stage 1)
- a two storey library (stage 1)
- a hall and out of school hours care facilities
- three learning courtyards and sports court
- covered outdoor learning area and walkway
- interconnected external area
- parking facilities
- two storey home base building (stage 2).

Biosis Pty Ltd is assisting School Infrastructure NSW with consultation with the Aboriginal community and the Aboriginal Cultural Heritage Assessment. Consultation with the Aboriginal community will follow the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a). The purpose of the Aboriginal community consultation will be to provide sufficient information for the assessment of Aboriginal cultural heritage values and to inform the Aboriginal cultural heritage assessment (ACHA).

The ACHA will support an Environmental Impact Statement and provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application. The project will be undertaken in accordance with the *National Parks and Wildlife Act 1974*. The development of the school will be assessed as a SSD under Section 89(c) of the *Environmental Planning and Assessment Act 1979* and Schedule 1 of the State Environmental Planning Policy (State and Regional Development) 2011(SSD 9368).

Aboriginal Cultural Heritage Assessment process

The assessment process includes the following steps:

Background research

Background research has been undertaken in order to identify known Aboriginal sites, areas of potential archaeological sensitivity and previous disturbance, and inform the predictive modelling for the assessment



area. Background research will be conducted in line with the requirements of the *Code of practice for the investigation of Aboriginal objects in New South Wales* (DECCW 2010b) ('the code'). Background research for the project included the following tasks:

- Conduct heritage register searches to identify previously recorded cultural heritage sites in or within the vicinity of the proposed study area. Searches will include the Aboriginal Heritage Information Management System (AHIMS), the National Heritage List, Commonwealth Heritage List, Register of the National Estate, State Heritage Register, Local Environmental Plan and National Trust heritage lists.
- Conduct additional background research in order to recognise any identifiable regional trends in site distribution and location and provide a site prediction model for the study area.
- Undertake a comprehensive survey of the study area, identifying any previously recorded sites (on AHIMS).
- Record and assess sites identified during the survey in compliance with the guidelines issued by OEH.
- Assess the scientific significance of all identified Aboriginal cultural heritage sites and places.
- Identify impacts to all identified Aboriginal cultural heritage sites and places based on potential ground disturbance from the proposed realignment of the road.
- Make recommendations to minimise or mitigate potential impacts of the proposed realignment upon cultural heritage values within the study area.

Consultation with the Aboriginal community

This task will allow the Aboriginal community the opportunity to participate in decisions regarding the management of their cultural heritage by providing proponents information regarding cultural significance and input into management options.

Consultation with Aboriginal stakeholders under the DECCW 2010a consultation guidelines is being undertaken to assist School Infrastructure NSW by:

- Providing relevant information about the cultural significance and values of the Aboriginal object(s) and/or place(s) within the study area.
- Influencing the design of the method to assess cultural and scientific significance of Aboriginal objects(s) and/or place(s) within the study area.
- Actively contributing to the development of cultural heritage management plan options and recommendations for any Aboriginal object(s) and/or place(s) within the proposed study area.
- Commenting on the draft assessment reports before they are submitted by the proponent to the determining authority of the proposed realignment.

Aboriginal community consultation will be undertaken in accordance with the consultation requirements, which includes:

• **COMPLETED.** Ascertaining the names of Aboriginal people or groups who may hold cultural knowledge relevant to determining the significance of Aboriginal objects and/ or places within the proposed study area. This would include writing to the following:



- OEH
- Local Aboriginal Land Council (LALC)
- Office of the Registrar (Aboriginal Land Rights Act 1983)
- National Native Title Tribunal (NNTT)
- Native Title Services Corporation Limited (NTSCORP Limited)
- Relevant Local Councils
- Relevant Catchment Management Authorities
- **COMPLETED.** Biosis will undertake the 'Placement of Notification' (Public Notice) in the *Rouse Hill Times*, on behalf of School Infrastructure NSW, that must include details of the proponent, the project, the exact location, and statement of the purpose of the community consultation in preparation for possible test excavations. The Public Notice is also an invitation for Aboriginal people who hold relevant cultural knowledge about the study area. A closing date for the registration must be included and be no less than **14 days**. **Registrations closed on 31 October 2018**.
- **COMPLETED.** Aboriginal people or groups identified were provided with notification of the proposed project via Biosis and given the opportunity to be involved in consultation. **Registrations of interest closed on 17 October 2018**.
- A list of Aboriginal people or groups who registered an interest in the project will be forwarded to the OEH and Deerubbin LALC by Biosis no later than **28 days** following close of registration. This list will not include those people or groups who specified that they did not want their details shared with OEH or the LALC.
- Biosis will provide details of the project and methodology for the archaeological assessment to the registered parties. The RAPs must be given an opportunity to review and provide feedback to the proponent within a minimum of **28 days** of the Biosis providing the methodology document.
- Selected representatives of the RAPs will be given the opportunity to participate in test excavations within the study area, should they be required.
- The DRAFT ACHA report and Archaeological Report will be provided to all RAPs for comment the proponent must allow **28 days** for comment. All comments and correspondence sent and received regarding the project will be included in the final report in an Appendix.

Field Survey

An Aboriginal archaeological survey of the study area will be undertaken in accordance with the guidelines outlined in the code in order to identify any previously unknown Aboriginal objects, sites or places. If identified, these will be recorded to the required standard. Should any sites of significance be identified the location and extent shall be recorded on MGA coordinates to enable overlay with the site plans.

There are several registered Aboriginal sites in the vicinity of the study area. The field survey will attempt to relocate and inspect these sites. This task will assist in the assessment of disturbance and with the predictive modelling for areas of potential archaeological deposit. It will also assist with the assessment of whether the proposed works are likely to impact on undiscovered Aboriginal objects and /or places.

The results of the survey and background research will be analysed to determine whether there are any areas of archaeological potential within the study area.



Test excavations

Should the results of the field survey indicate that there is an area of archaeological potential within the study area, Biosis will conduct test excavations to in accordance with the requirements of the code. Further information on the methodology for test excavation is available in the project methodology.

Reporting

A draft ACHA report and archaeological report will be prepared in accordance with the code and will include:

- background and project description
- a summary and analysis of the findings of the archaeological survey and test excavations (if applicable) including the presence and location of registered or undiscovered Aboriginal artefacts or heritage items within proximity of the study area
- a summary of any other relevant studies or surveys which have relevance to the assessment area
- a summary of the landscape features of the site which may indicate a history of Aboriginal activity
- a summary of previous land use that may have affected the retention of intact Aboriginal archaeology in the landscape
- the potential or likelihood for the proposed works to uncover or expose potential undiscovered Aboriginal objects
- Survey results and, if undertaken, test excavation results
- legislative implications of the proposed works
- recommendations and justification for further assessment (if required)
- mitigation measures (if any) required for the works to proceed
- mapping to show the location of registered and newly located (if any) Aboriginal sites in relation to the proposed works.

RAPs will be provided with the draft report for comment and allowed **28 days** for review.

Project schedule

The proposed schedule and time allocations for the consultation stages are summarised below.

Action	Timeframe	Potential constraints
Commencement of Aboriginal community consultation – advertising of project and notification to stakeholders	Completed	Project advertised in the <i>Rouse Hill Times</i> 9 October 2018. Notices sent to identified Aboriginal parties on 3 October 2018.
Aboriginal stakeholder registration period	Completed	Registration period ran from 3 October to 31 October 2018.
Field survey	Completed	ТВС
Archaeological test excavations with selected representatives of RAPs	ТВС	ТВС
Information gathering	Continuous	Until finalisation of report.



Action	Timeframe	Potential constraints
Review of draft report	ТВС	28 days review time allowed under OEH Aboriginal Community Consultation Guidelines.
Final report	ТВС	ТВС

Responsibilities and roles

As part of the consultation process, RAPs are expected to respond to requests for cultural information and comment on draft reporting, as appropriate in accordance with their role specified in the guidelines (DECCW 2010a, p. 16). Biosis and the proponent, in accordance with their role under the guidelines, will consult with the Aboriginal community by supplying suitable project information and providing the opportunity for Aboriginal stakeholders to provide input into the heritage management process (DECCW 2010a, pp. 16-17).

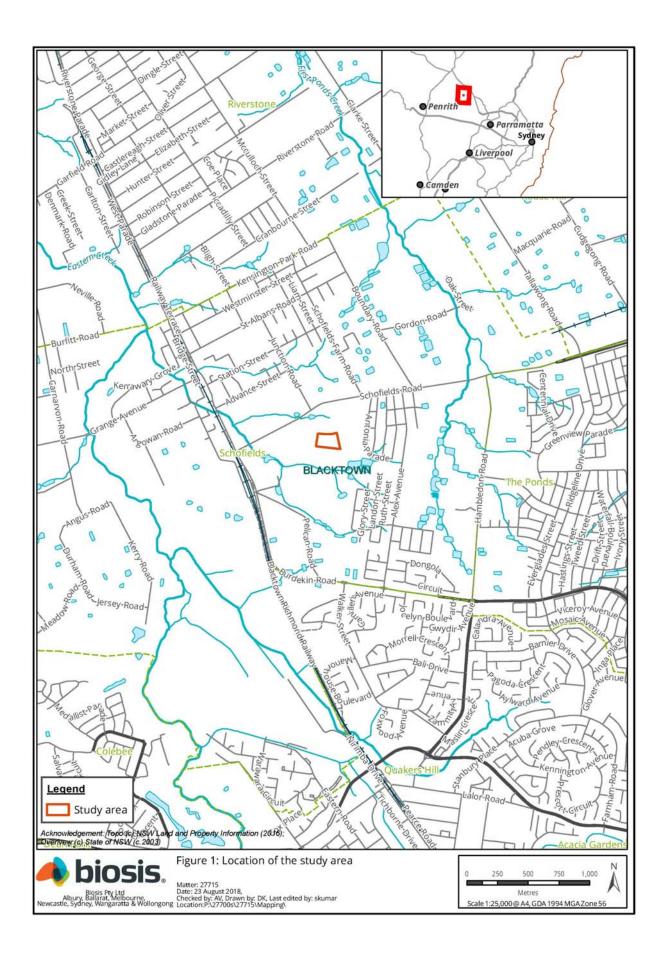
Each section of the methodology will be undertaken in consultation with the Aboriginal stakeholders. Biosis invites Aboriginal stakeholders to provide culturally appropriate information via mail, email or phone with regards to this project.

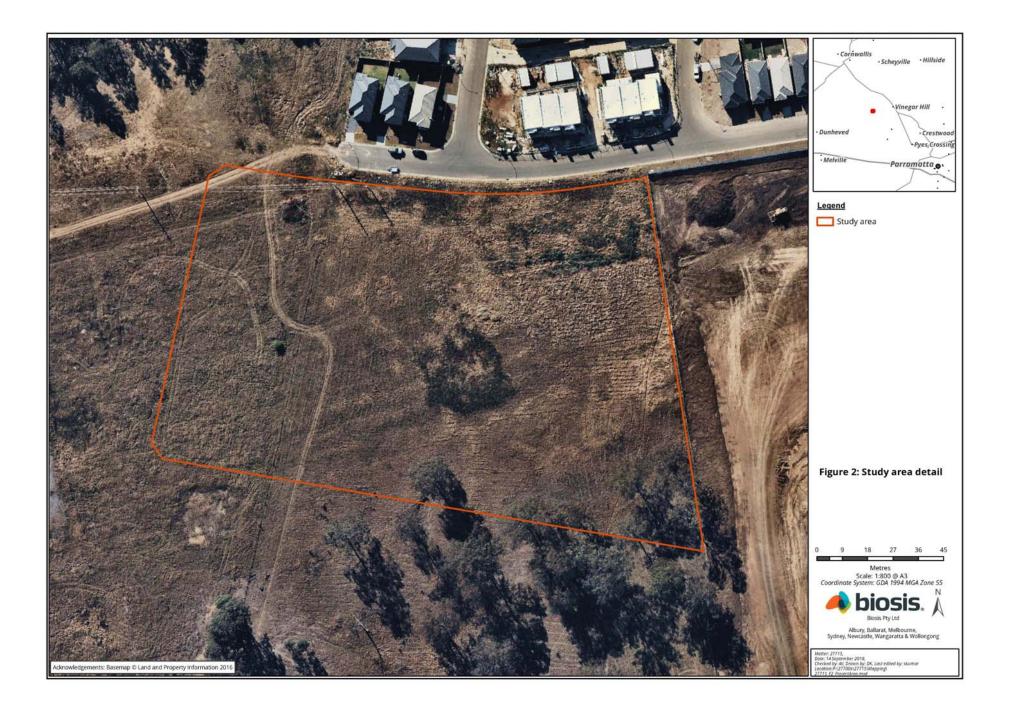
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5 November 2018

Steven Randall Deerubbin Local Aboriginal Land Council PO Box 40 Penrith NSW 2751

Dear Steven Randall,

RE: Alex Avenue Public School, Aboriginal cultural heritage assessment – Project Methodology

Our Ref: 27715

This letter is being provided to all the Registered Aboriginal Parties (RAPs) who registered their interest in the consultation process for the Alex Avenue Public School development being undertaken by School Infrastructure NSW (Figure 1, Figure 2).

In accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements), we provide the proposed methodology for the Aboriginal Cultural Heritage Assessment (ACHA) for your review and feedback.

It would be appreciated if you could provide feedback on the methodology to Biosis Pty Ltd by **5pm on Monday 3 December 2018**, either by email or return mail.

Please address methodology feedback to:

Charlotte Allen Biosis Pty Ltd Unit 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

Please do not hesitate to contact me if you require additional information or have any queries about the methodology or information provided.

Kind regards,

Charlotte Allen Archaeologist

Biosis Pty Ltd
Sydney Resource Group





Stage 3: Alex Avenue Public School Aboriginal Cultural Heritage Assessment: Methodology for field survey and test excavations (if required)

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with the proposed methodology for the cultural heritage and archaeological assessment.

Biosis has been engaged by School Infrastructure NSW to conduct an Aboriginal Cultural Heritage Assessment (ACHA), as part of an Environmental Impact Statement and to provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application.

Assessment methodology

Aims of the survey

The principle aims of the survey are to:

- undertake a systematic archaeological survey of the study area in accordance with the code, while targeting areas with the potential for Aboriginal heritage
- identify and record Aboriginal archaeological sites visible on the ground surface
- identify and record areas of potential archaeological deposit (PAD).

Survey methodology

The survey methods are intended to assess and understand the landforms and to determine whether any archaeological material from Aboriginal occupation or land use exists within the study area. Identification of natural soil deposits within the study area will be undertaken if possible. Photographs and recording techniques will be incorporated into the survey including representative photographs of survey units, landforms, vegetation coverage, ground surface visibility and the recording of soil information for each survey unit. Any Aboriginal objects observed during the survey will be documented and photographed. No artefacts discovered during the survey component are to be removed from the site.

The archaeological survey will occur concurrently with the test excavations. Recording during the survey will follow the guidelines of the OEH, in particular the *Code of practice for archaeological investigation of Aboriginal objects in New South Wales* (DECCW 2010b).

Specific information that will be recorded during the survey includes:

- Aboriginal objects or sites present in the study area
- survey coverage
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- any resources that may have potentially been exploited by Aboriginal people
- landforms and general soil information
- photographs of the site indicating landforms



- evidence of disturbance
- Aboriginal artefacts, culturally modified trees, shell middens or any other Aboriginal sites.

Distinguishing landform elements and their association with Aboriginal cultural heritage will assist with the identification of site patterning, though with the awareness of the following limitations:

- The degree of ground surface visibility (GSV) and amount of exposed areas can significantly bias the discovery of surface artefacts.
- Cultural material exposed on the surface is not necessarily representative of the potential extent of the site (either horizontally or vertically).

Information about the presence of potentially exploitable resources helps contribute to predictions of the Aboriginal sites that may occur within the study area. Information about GSV, DV and areas of exposures help to provide a general indication of the effectiveness of the survey for identifying Aboriginal cultural heritage exposed to the surface. Observable disturbances are also considered when assessing the integrity of known or potential sites in an area. The location of Aboriginal cultural heritage and points marking the boundary of the landform elements will be recorded using a hand-held Global Positioning System and the Map Grid of Australia (94) coordinate system.

Test excavation methodology

Should areas of archaeological potential or cultural values be identified during the field survey, test excavations will be conducted in accordance with the requirements of the code.

Aims of the sub-surface test excavations

The principle objectives of the subsurface test excavations would be to identify and understand the nature, extent and significance of any archaeological sites located within areas of archaeological potential.

The aims of the testing program would be to:

- Determine whether sub-surface archaeological deposits exist which may be impacted by the development.
- If so, to determine the extent and nature of such deposits.
- Identify if the archaeological material occurs in an intact, undisturbed context, by examining the soil profile and stratigraphy.
- Analyse and interpret any archaeological finds (such as stone artefacts, shell midden deposits, etc.) recovered during the testing program.
- Inform current knowledge of Aboriginal occupation and land use models of the region.
- Provide management and mitigation measures for Aboriginal archaeological objects located during the subsurface testing program.

Test excavation sampling strategy

Test excavations across the study area would conform to the following methodology:



- Test excavations will be undertaken in areas identified as having the potential to contain Aboriginal cultural material.
- Test excavations will be conducted in 50 x 50 centimetre units.
- The test excavation units will be excavated by hand (inclusive of trowels, spades and other hand tools) along transects at intervals of between 10 20 metres or other justifiable and regular spacing (being no smaller than five metres).
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- If the depth of deposit prevents reaching sterile deposits within the 50 x 50 centimetre test pit, additional 50 x 50 centimetre test pits may be excavated adjacent to the original test pit (for example expanding the test pit to 50 x 100 centimetres) to reach the sterile deposits.
- Test pits may be combined and excavated as necessary in 50 x 50 centimetre units for the purposes of further understanding site characteristics. Note that under the Code, the maximum area that can be excavated in any one continuous area is three metres squared (3 m²).
- The Code dictates that the maximum surface area of all test excavation units must be no greater than 0.5% of the PAD or area being investigated.
- All excavated soil will be sieved in 5mm sieves. Dry sieving will be attempted in the first instance, however wet sieving may be used if deposits cannot be dry sieved.
- All cultural material will be collected, bagged and clearly labelled. They will be temporarily stored in the Biosis office for analysis (at Unit 14, 17-27 Power Avenue, Alexandria).
- The following documentation will be taken for the test pit:
 - Unique test pit identification number
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 - Munsell soil colour, texture and pH
 - Amount and location of cultural material within the deposit
 - Nature of disturbance where present
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- The test excavation unit must be backfilled as soon as practicable due to safety issues.
- An AHIMS Site Impact Recording form will be completed and submitted to the AHIMS Registrar for any sites impacted during test excavations.
- In the event that suspected human remains are identified works will immediately cease and the NSW Police and OEH will be notified.
- Test excavations will cease when enough information* has been recovered to adequately characterise the objects present with regard to their nature and significance.

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Storage of cultural material

Any cultural material identified during test excavations will be temporarily stored in the Biosis, Sydney office for analysis (Unit 14, 17-27 Power Avenue, Alexandria).

Once the cultural material has been analysed, the cultural material can be managed in the following manners:

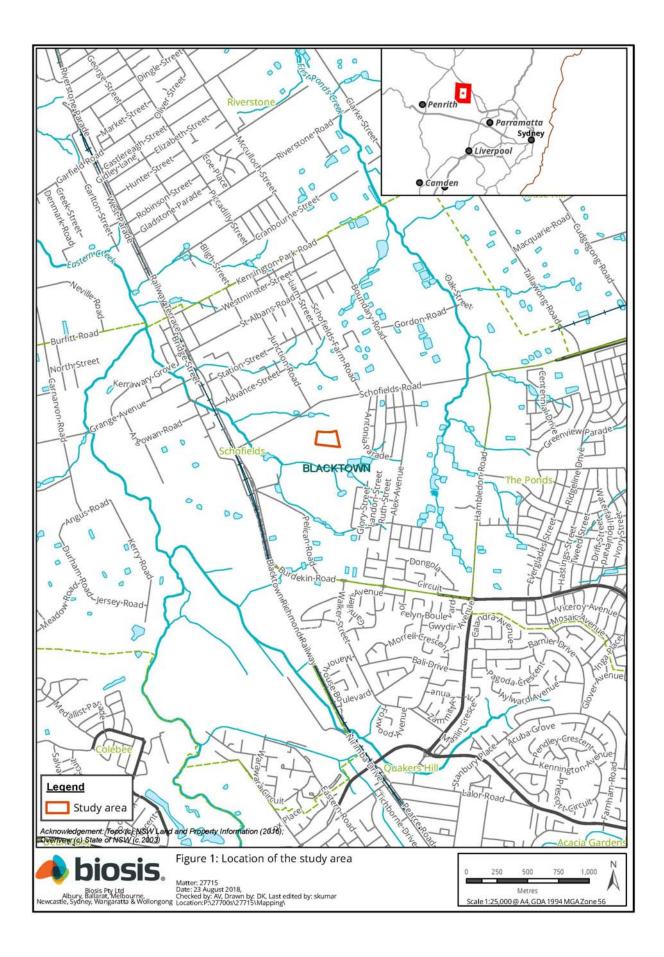
- Cultural material can be held by the Aboriginal community under a care and control agreement.
- Cultural material can be returned to country and reburied as soon as practicable in a secure location in accordance with Requirements 16b and 26 of the code.

Biosis requests any comments regarding the care and control of any cultural material be included as part of the review of this assessment methodology.

References

Department of Environment, Climate Change and Water. 2010a. Aboriginal cultural heritage consultation requirements for proponents 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.

Department of Environment, Climate Change and Water. 2010b. Code of practice for Archaeological Investigation of Aboriginal Objects in New South Wales 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.







5 November 2018

Phil Khan 78 Forbes Street Emu Plains NSW 2750

Dear Phil,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – project information

Our Ref: Matter 27715

Thank you for your registration of interest in this project. We are writing to you in order to provide you with the project information and methodology packs for the proposed development of a new public school at 34-38 Schofields Road, Schofields, NSW. This information has been provided in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements).

In this letter you will find the project information pack, and attached to this mailout is the document *Alex Avenue Public School Aboriginal Cultural Heritage Assessment – Project Methodology.*

The purpose of the methodology document is to provide you with further information on the background of this assessment, as well as the methodology for how it will be conducted, including any test excavations should they be required.

Please note that comments on the project methodology pack should be received before **4 pm Monday 3 December 2018**.

As this project will involve a field investigation and potentially test excavations, the purpose of the second letter is to invite your feedback on the proposed project information and methodology packs, and to assist the proponent in the programing of groups for participation in the test excavations should they be carried out within the study area.

If you have any queries regarding the project or the information in this letter, please don't hesitate to contact us.

Yours sincerely,

Charlotte Allen

Archaeologist callen@biosis.com.au



Project information

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with information about the proposed project and the scope of the Aboriginal archaeology and cultural heritage investigations and assessment.

Study area

The study area is located within the Blacktown Local Government Area (LGA), Parish of Gidley, County of Cumberland. It encompasses Lot 4, DP 1208329, and part of Lot 121, DP 1203646 at 34-38 Schofields Road, Schofields, NSW (Figure 1 and Figure 2).

Project

School Infrastructure NSW are proposing to develop a new school at 34-38 Schofields Road, Schofields NSW, which consists of the following elements:

- a two storey Home Base building (stage 1)
- a two storey admin and staff building (stage 1)
- a two storey library (stage 1)
- a hall and out of school hours care facilities
- three learning courtyards and sports court
- covered outdoor learning area and walkway
- interconnected external area
- parking facilities
- two storey home base building (stage 2).

Biosis Pty Ltd is assisting School Infrastructure NSW with consultation with the Aboriginal community and the Aboriginal Cultural Heritage Assessment. Consultation with the Aboriginal community will follow the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a). The purpose of the Aboriginal community consultation will be to provide sufficient information for the assessment of Aboriginal cultural heritage values and to inform the Aboriginal cultural heritage assessment (ACHA).

The ACHA will support an Environmental Impact Statement and provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application. The project will be undertaken in accordance with the *National Parks and Wildlife Act 1974*. The development of the school will be assessed as a SSD under Section 89(c) of the *Environmental Planning and Assessment Act 1979* and Schedule 1 of the State Environmental Planning Policy (State and Regional Development) 2011(SSD 9368).

Aboriginal Cultural Heritage Assessment process

The assessment process includes the following steps:

Background research

Background research has been undertaken in order to identify known Aboriginal sites, areas of potential archaeological sensitivity and previous disturbance, and inform the predictive modelling for the assessment



area. Background research will be conducted in line with the requirements of the *Code of practice for the investigation of Aboriginal objects in New South Wales* (DECCW 2010b) ('the code'). Background research for the project included the following tasks:

- Conduct heritage register searches to identify previously recorded cultural heritage sites in or within the vicinity of the proposed study area. Searches will include the Aboriginal Heritage Information Management System (AHIMS), the National Heritage List, Commonwealth Heritage List, Register of the National Estate, State Heritage Register, Local Environmental Plan and National Trust heritage lists.
- Conduct additional background research in order to recognise any identifiable regional trends in site distribution and location and provide a site prediction model for the study area.
- Undertake a comprehensive survey of the study area, identifying any previously recorded sites (on AHIMS).
- Record and assess sites identified during the survey in compliance with the guidelines issued by OEH.
- Assess the scientific significance of all identified Aboriginal cultural heritage sites and places.
- Identify impacts to all identified Aboriginal cultural heritage sites and places based on potential ground disturbance from the proposed realignment of the road.
- Make recommendations to minimise or mitigate potential impacts of the proposed realignment upon cultural heritage values within the study area.

Consultation with the Aboriginal community

This task will allow the Aboriginal community the opportunity to participate in decisions regarding the management of their cultural heritage by providing proponents information regarding cultural significance and input into management options.

Consultation with Aboriginal stakeholders under the DECCW 2010a consultation guidelines is being undertaken to assist School Infrastructure NSW by:

- Providing relevant information about the cultural significance and values of the Aboriginal object(s) and/or place(s) within the study area.
- Influencing the design of the method to assess cultural and scientific significance of Aboriginal objects(s) and/or place(s) within the study area.
- Actively contributing to the development of cultural heritage management plan options and recommendations for any Aboriginal object(s) and/or place(s) within the proposed study area.
- Commenting on the draft assessment reports before they are submitted by the proponent to the determining authority of the proposed realignment.

Aboriginal community consultation will be undertaken in accordance with the consultation requirements, which includes:

• **COMPLETED.** Ascertaining the names of Aboriginal people or groups who may hold cultural knowledge relevant to determining the significance of Aboriginal objects and/ or places within the proposed study area. This would include writing to the following:



- OEH
- Local Aboriginal Land Council (LALC)
- Office of the Registrar (Aboriginal Land Rights Act 1983)
- National Native Title Tribunal (NNTT)
- Native Title Services Corporation Limited (NTSCORP Limited)
- Relevant Local Councils
- Relevant Catchment Management Authorities
- **COMPLETED.** Biosis will undertake the 'Placement of Notification' (Public Notice) in the *Rouse Hill Times*, on behalf of School Infrastructure NSW, that must include details of the proponent, the project, the exact location, and statement of the purpose of the community consultation in preparation for possible test excavations. The Public Notice is also an invitation for Aboriginal people who hold relevant cultural knowledge about the study area. A closing date for the registration must be included and be no less than **14 days**. **Registrations closed on 31 October 2018**.
- **COMPLETED.** Aboriginal people or groups identified were provided with notification of the proposed project via Biosis and given the opportunity to be involved in consultation. **Registrations of interest closed on 17 October 2018**.
- A list of Aboriginal people or groups who registered an interest in the project will be forwarded to the OEH and Deerubbin LALC by Biosis no later than **28 days** following close of registration. This list will not include those people or groups who specified that they did not want their details shared with OEH or the LALC.
- Biosis will provide details of the project and methodology for the archaeological assessment to the registered parties. The RAPs must be given an opportunity to review and provide feedback to the proponent within a minimum of **28 days** of the Biosis providing the methodology document.
- Selected representatives of the RAPs will be given the opportunity to participate in test excavations within the study area, should they be required.
- The DRAFT ACHA report and Archaeological Report will be provided to all RAPs for comment the proponent must allow **28 days** for comment. All comments and correspondence sent and received regarding the project will be included in the final report in an Appendix.

Field Survey

An Aboriginal archaeological survey of the study area will be undertaken in accordance with the guidelines outlined in the code in order to identify any previously unknown Aboriginal objects, sites or places. If identified, these will be recorded to the required standard. Should any sites of significance be identified the location and extent shall be recorded on MGA coordinates to enable overlay with the site plans.

There are several registered Aboriginal sites in the vicinity of the study area. The field survey will attempt to relocate and inspect these sites. This task will assist in the assessment of disturbance and with the predictive modelling for areas of potential archaeological deposit. It will also assist with the assessment of whether the proposed works are likely to impact on undiscovered Aboriginal objects and /or places.

The results of the survey and background research will be analysed to determine whether there are any areas of archaeological potential within the study area.



Test excavations

Should the results of the field survey indicate that there is an area of archaeological potential within the study area, Biosis will conduct test excavations to in accordance with the requirements of the code. Further information on the methodology for test excavation is available in the project methodology.

Reporting

A draft ACHA report and archaeological report will be prepared in accordance with the code and will include:

- background and project description
- a summary and analysis of the findings of the archaeological survey and test excavations (if applicable) including the presence and location of registered or undiscovered Aboriginal artefacts or heritage items within proximity of the study area
- a summary of any other relevant studies or surveys which have relevance to the assessment area
- a summary of the landscape features of the site which may indicate a history of Aboriginal activity
- a summary of previous land use that may have affected the retention of intact Aboriginal archaeology in the landscape
- the potential or likelihood for the proposed works to uncover or expose potential undiscovered Aboriginal objects
- Survey results and, if undertaken, test excavation results
- legislative implications of the proposed works
- recommendations and justification for further assessment (if required)
- mitigation measures (if any) required for the works to proceed
- mapping to show the location of registered and newly located (if any) Aboriginal sites in relation to the proposed works.

RAPs will be provided with the draft report for comment and allowed **28 days** for review.

Project schedule

The proposed schedule and time allocations for the consultation stages are summarised below.

Action	Timeframe	Potential constraints
Commencement of Aboriginal community consultation – advertising of project and notification to stakeholders	Completed	Project advertised in the <i>Rouse Hill Times</i> 9 October 2018. Notices sent to identified Aboriginal parties on 3 October 2018.
Aboriginal stakeholder registration period	Completed	Registration period ran from 3 October to 31 October 2018.
Field survey	Completed	ТВС
Archaeological test excavations with selected representatives of RAPs	ТВС	ТВС
Information gathering	Continuous	Until finalisation of report.



Action	Timeframe	Potential constraints
Review of draft report	ТВС	28 days review time allowed under OEH Aboriginal Community Consultation Guidelines.
Final report	ТВС	ТВС

Responsibilities and roles

As part of the consultation process, RAPs are expected to respond to requests for cultural information and comment on draft reporting, as appropriate in accordance with their role specified in the guidelines (DECCW 2010a, p. 16). Biosis and the proponent, in accordance with their role under the guidelines, will consult with the Aboriginal community by supplying suitable project information and providing the opportunity for Aboriginal stakeholders to provide input into the heritage management process (DECCW 2010a, pp. 16-17).

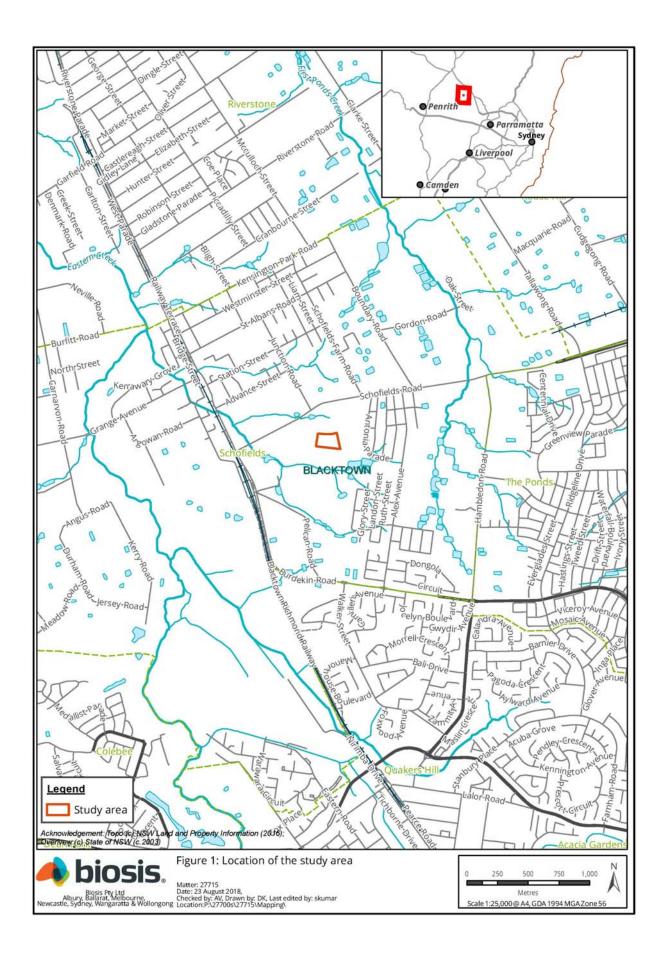
Each section of the methodology will be undertaken in consultation with the Aboriginal stakeholders. Biosis invites Aboriginal stakeholders to provide culturally appropriate information via mail, email or phone with regards to this project.

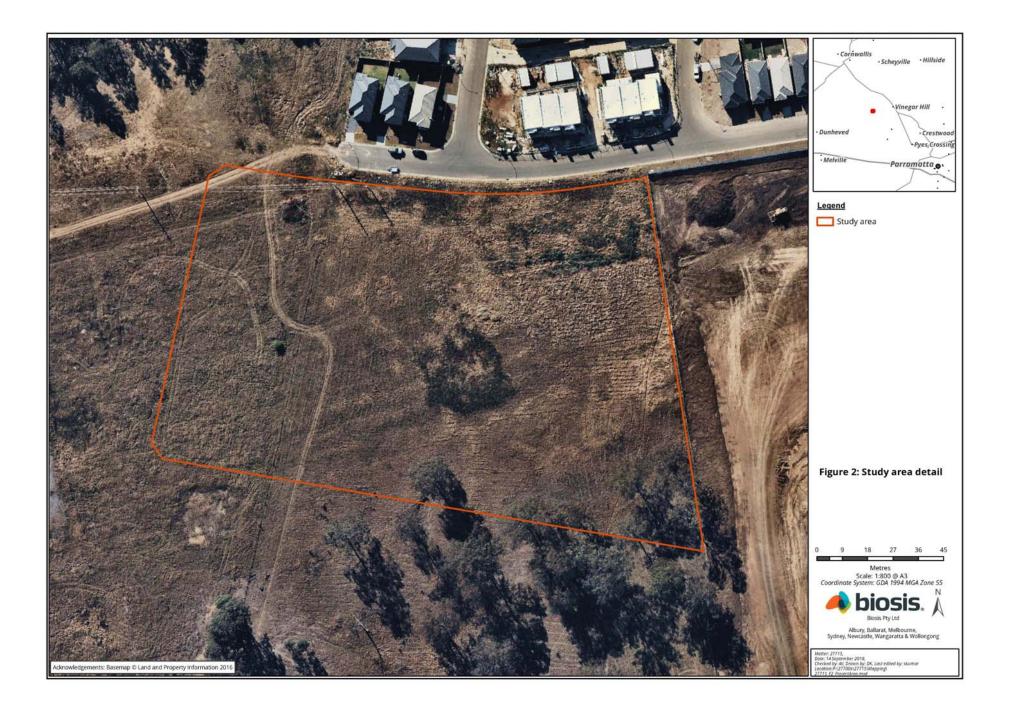
Cultural information provided will be recorded in the Aboriginal consultation log and discussed in the report. If the information is regarded as too sensitive to be made public then the Aboriginal stakeholder should advise Biosis and identify the nature of the sensitivity. Biosis will then arrange for the recording of the information in accordance with its sensitivity. Documents which hold sensitive information will clearly list, on the front cover, who can have access to the document. These documents will be stored securely.

References

DECCW 2010a, Aboriginal cultural heritage consultation requirements for proponents, Department of Environment and Climate Change, Sydney NSW.

DECCW 2010b, Code of practice for archaeological investigation of Aboriginal objects in New South Wales, Department of Environment and Climate Change, Sydney NSW.





5 November 2018

Phil Khan 78 Forbes Street Emu Plains NSW 2750

Dear Phil Khan,

RE: Alex Avenue Public School, Aboriginal cultural heritage assessment – Project Methodology

Our Ref: 27715

This letter is being provided to all the Registered Aboriginal Parties (RAPs) who registered their interest in the consultation process for the Alex Avenue Public School development being undertaken by School Infrastructure NSW (Figure 1, Figure 2).

In accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010a) (consultation requirements), we provide the proposed methodology for the Aboriginal Cultural Heritage Assessment (ACHA) for your review and feedback.

It would be appreciated if you could provide feedback on the methodology to Biosis Pty Ltd by **5pm on Monday 3 December 2018**, either by email or return mail.

Please address methodology feedback to:

Charlotte Allen Biosis Pty Ltd Unit 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

Please do not hesitate to contact me if you require additional information or have any queries about the methodology or information provided.

Kind regards,

Charlotte Allen Archaeologist

Biosis Pty Ltd
Sydney Resource Group





Stage 3: Alex Avenue Public School Aboriginal Cultural Heritage Assessment: Methodology for field survey and test excavations (if required)

The following information has been provided in accordance with the consultation requirements. The aim of this document is to provide registered Aboriginal parties (RAPs) with the proposed methodology for the cultural heritage and archaeological assessment.

Biosis has been engaged by School Infrastructure NSW to conduct an Aboriginal Cultural Heritage Assessment (ACHA), as part of an Environmental Impact Statement and to provide sufficient information for the consideration of Aboriginal cultural heritage values as part of the State Significant Development (SSD) application.

Assessment methodology

Aims of the survey

The principle aims of the survey are to:

- undertake a systematic archaeological survey of the study area in accordance with the code, while targeting areas with the potential for Aboriginal heritage
- identify and record Aboriginal archaeological sites visible on the ground surface
- identify and record areas of potential archaeological deposit (PAD).

Survey methodology

The survey methods are intended to assess and understand the landforms and to determine whether any archaeological material from Aboriginal occupation or land use exists within the study area. Identification of natural soil deposits within the study area will be undertaken if possible. Photographs and recording techniques will be incorporated into the survey including representative photographs of survey units, landforms, vegetation coverage, ground surface visibility and the recording of soil information for each survey unit. Any Aboriginal objects observed during the survey will be documented and photographed. No artefacts discovered during the survey component are to be removed from the site.

The archaeological survey will occur concurrently with the test excavations. Recording during the survey will follow the guidelines of the OEH, in particular the *Code of practice for archaeological investigation of Aboriginal objects in New South Wales* (DECCW 2010b).

Specific information that will be recorded during the survey includes:

- Aboriginal objects or sites present in the study area
- survey coverage
- survey effectiveness
- any resources that may have potentially been exploited by Aboriginal people
- landforms and general soil information
- photographs of the site indicating landforms



- evidence of disturbance
- Aboriginal artefacts, culturally modified trees, shell middens or any other Aboriginal sites.

Distinguishing landform elements and their association with Aboriginal cultural heritage will assist with the identification of site patterning, though with the awareness of the following limitations:

- The degree of ground surface visibility (GSV) and amount of exposed areas can significantly bias the discovery of surface artefacts.
- Cultural material exposed on the surface is not necessarily representative of the potential extent of the site (either horizontally or vertically).

Information about the presence of potentially exploitable resources helps contribute to predictions of the Aboriginal sites that may occur within the study area. Information about GSV, DV and areas of exposures help to provide a general indication of the effectiveness of the survey for identifying Aboriginal cultural heritage exposed to the surface. Observable disturbances are also considered when assessing the integrity of known or potential sites in an area. The location of Aboriginal cultural heritage and points marking the boundary of the landform elements will be recorded using a hand-held Global Positioning System and the Map Grid of Australia (94) coordinate system.

Test excavation methodology

Should areas of archaeological potential or cultural values be identified during the field survey, test excavations will be conducted in accordance with the requirements of the code.

Aims of the sub-surface test excavations

The principle objectives of the subsurface test excavations would be to identify and understand the nature, extent and significance of any archaeological sites located within areas of archaeological potential.

The aims of the testing program would be to:

- Determine whether sub-surface archaeological deposits exist which may be impacted by the development.
- If so, to determine the extent and nature of such deposits.
- Identify if the archaeological material occurs in an intact, undisturbed context, by examining the soil profile and stratigraphy.
- Analyse and interpret any archaeological finds (such as stone artefacts, shell midden deposits, etc.) recovered during the testing program.
- Inform current knowledge of Aboriginal occupation and land use models of the region.
- Provide management and mitigation measures for Aboriginal archaeological objects located during the subsurface testing program.

Test excavation sampling strategy

Test excavations across the study area would conform to the following methodology:



- Test excavations will be undertaken in areas identified as having the potential to contain Aboriginal cultural material.
- Test excavations will be conducted in 50 x 50 centimetre units.
- The test excavation units will be excavated by hand (inclusive of trowels, spades and other hand tools) along transects at intervals of between 10 20 metres or other justifiable and regular spacing (being no smaller than five metres).
- The first test pit within a site or PAD area will be excavated in five centimetre spits; the subsequent test pits conducted within the site or PAD area can then be excavated in either 10 centimetre spits or stratigraphic units (whichever is smaller) to the base of Aboriginal object-bearing units being the removal of the A-horizon soil deposit down to the sterile clay or bedrock layer (B-horizon).
- If the depth of deposit prevents reaching sterile deposits within the 50 x 50 centimetre test pit, additional 50 x 50 centimetre test pits may be excavated adjacent to the original test pit (for example expanding the test pit to 50 x 100 centimetres) to reach the sterile deposits.
- Test pits may be combined and excavated as necessary in 50 x 50 centimetre units for the purposes of further understanding site characteristics. Note that under the Code, the maximum area that can be excavated in any one continuous area is three metres squared (3 m²).
- The Code dictates that the maximum surface area of all test excavation units must be no greater than 0.5% of the PAD or area being investigated.
- All excavated soil will be sieved in 5mm sieves. Dry sieving will be attempted in the first instance, however wet sieving may be used if deposits cannot be dry sieved.
- All cultural material will be collected, bagged and clearly labelled. They will be temporarily stored in the Biosis office for analysis (at Unit 14, 17-27 Power Avenue, Alexandria).
- The following documentation will be taken for the test pit:
 - Unique test pit identification number
 - GPS coordinate
 - Munsell soil colour, texture and pH
 - Amount and location of cultural material within the deposit
 - Nature of disturbance where present
 - Stratigraphy
 - Archaeological features (if present)
 - Photographic records
 - Spit records.



- The test excavation unit must be backfilled as soon as practicable due to safety issues.
- An AHIMS Site Impact Recording form will be completed and submitted to the AHIMS Registrar for any sites impacted during test excavations.
- In the event that suspected human remains are identified works will immediately cease and the NSW Police and OEH will be notified.
- Test excavations will cease when enough information* has been recovered to adequately characterise the objects present with regard to their nature and significance.

*Enough information is defined by OEH as meaning "the sample of excavated material clearly and selfevidently demonstrates the deposit's nature and significance. This may include things like locally or regionally high object density: presence of rare or representative objects: presence of archaeological features: or locally or regionally significant deposits stratified or not." (DECCW 2010b).

Storage of cultural material

Any cultural material identified during test excavations will be temporarily stored in the Biosis, Sydney office for analysis (Unit 14, 17-27 Power Avenue, Alexandria).

Once the cultural material has been analysed, the cultural material can be managed in the following manners:

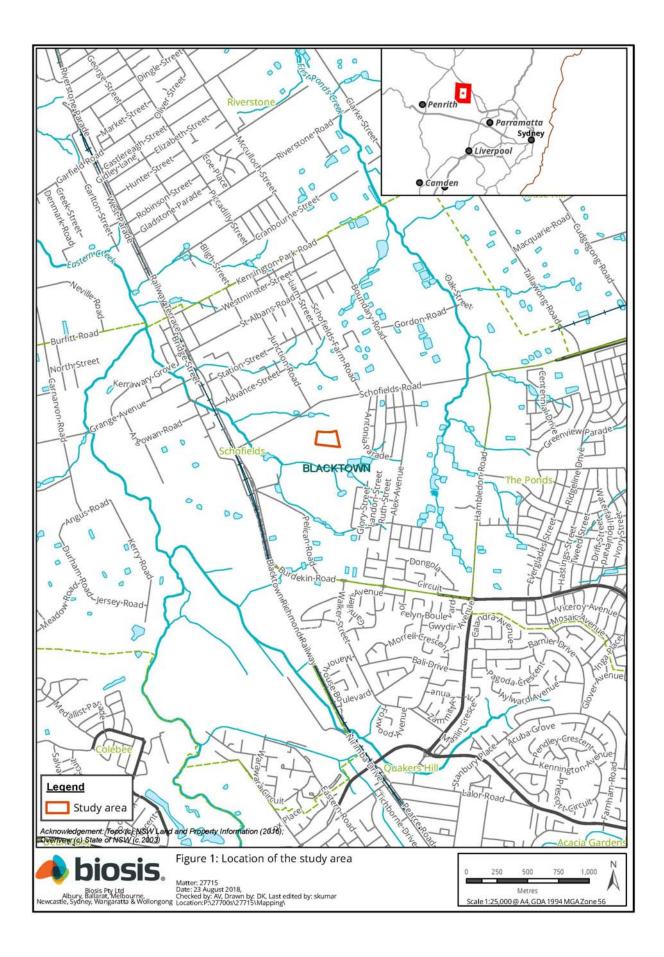
- Cultural material can be held by the Aboriginal community under a care and control agreement.
- Cultural material can be returned to country and reburied as soon as practicable in a secure location in accordance with Requirements 16b and 26 of the code.

Biosis requests any comments regarding the care and control of any cultural material be included as part of the review of this assessment methodology.

References

Department of Environment, Climate Change and Water. 2010a. Aboriginal cultural heritage consultation requirements for proponents 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.

Department of Environment, Climate Change and Water. 2010b. Code of practice for Archaeological Investigation of Aboriginal Objects in New South Wales 2010. NSW Department of Environment, Climate Change and Water, Sydney NSW.









ICN: 8890 ABN: 76 170 262 247 E-mail: <u>Boorooberongal@outlook.com</u> Address: PO Box 14 Doonside NSW 2767 Phone: 0415 663 763



5/11/2018

TO: Charlotte Allen

Archaeologist

RE: 34-38 Schofields Road, Schofields, NSW.

Notification and Registration of ALL Darug Aboriginal Interests

Please be advice that Darug Boorooberongal Elders Aboriginal Corporation (DBEAC) is seeking to be involved in any and all consultation meetings and field work.

This office specialises in Darug Aboriginal and community consultation. The membership comprises of traditional owners from the area in question who retain strong story, song lines, oral history and continued contact. We have a continued spiritual connection to Darug nation territories. We would also like to state, that we do not except or support any person or organisation that are NOT from the DARUG Nation to have input on the project area.

Please also be advised that this Aboriginal organisation does not do volunteer work or attend unpaid meetings. I hope that you advise your client of this, so that, this group will not be discriminated against and refused paid field work.

We will be delighted to discuss this project with you in the near future. Please do not hesitate to send all correspondence should be emailed to our email <u>boorooberongal@outlook.com</u>.

Yours faithfully

Uncle Gordon Workman Darug Elder

Sites Officer



EMAIL: DARUGLANDOBSERVATIONS@GMAIL.COM PO BOX 173 ULLADULLA NSW 2539 MOBILE: 0413 687 279

14th November, 2018

Charlotte Allen Biosis Pty Ltd Unit 14, 17-27 Power Avenue ALEXANDRIA NSW 2015

Dear Charlotte,

RE: ALEX AVENUE PUBLIC SCHOOL, 34-38 SCHOFIELDS ROAD, SCHOFIELDS

Aboriginal Cultural Heritage Assessment: Project Information & Methodology

Darug Land Observations Pty Ltd (DLO) has reviewed the Project Information and Methodology, and supports the methodology for the proposed development of a new school at Lot 4 DP 1208329 and part of Lot 121 DP 1203646, located at 34-38 Schofields Road, in Schofields.

In relation to the long-term storage of recovered artefacts, if any, we believe that the recovered artefacts should be re-buried on Country (the study area).

Furthermore, Darug Land Observations Pty Ltd would like to be involved in the archaeological survey, test excavations and all other forms of works to be carried out on the site.

Look forward to working with you on this project.

Yours sincerely,

gavil Workuan

Jamie Workman Darug Land Observations Pty Ltd

Uncle Gordon Workman Darug Elder

Aboriginal Archaeology Service INC: 1400988 2/24 Goodwin Street Narrabeen NSW 2101 Mobile: 0456 399 687 Email: aas.info@bigpond.com



3th December 2018

Attention: Charlotte Allen Biosis – RE: 27715 – Alex Avenue Public School, Schofields, ACHA

A.A.S agrees with the recommendations as documented by Biosis Pty Ltd in the Aboriginal Cultural Heritage Assessment Report. AAS would like to see any artefacts collected displayed for all to see in the museum, local library or local government building or reburied in close proximity of the area.

Aboriginal Archaeology Service is seeking *involvement* in all consultation meetings and fieldwork for the above-mentioned project, as we are registered traditional owners of the area. AAS immediate family has lived in the area from 1897 and retains local and oral history on behalf of its first nation people. We have no objection to our information being provided to the Office of Environment and Heritage and the Local Aboriginal Land Council.

AAS can assist with input that can be incorporated into a written assessment of cultural values of the area. We are also able to provide fit staff to assist with work that may involve physical labour. We can provide our schedule of rates and copies of relevant certificates of currency for business insurances on request.

All correspondence should be emailed to <u>AAS.info@bigpond.com</u> and. The area is an important part of our culture and valued by our family.

Yours truly

den alle

Andrew Williams

Pollowan Phillip Khan 78 Forbes Street Emu Plains NSW 2750 Email <u>philipkhan.acn@live.com.au</u> mobile: 0434545982

Biosis Pty Ltd Unit 14, 17-27 Power Avenue Alexandria NSW 2015



7/11/18

Dear James Cole

Ref 27715

Thank you for your letter informing me of the Project Information and Methodology of Alex Avenue Public School Schofields. I have read your report and am quite happy with It and support the Methodology for field survey and test excavation looking forward to be working with you and your team regards Philip Khan.

As Senior Aboriginal person who has for the past forty of so years (40) actively participated in the Protection Aboriginal Cultural Heritage throughout the Sydney Basin, and particularly throughout Western Sydney, I, on behalf of the Kamilaroi Yankuntjatjara Working Group, wish to provide to you my organisations' registration of interest.

Information in my registration of Interest:

- 1. I am a Senior Aboriginal and Principal of the Kamilaroi -Yankuntjatjara Working Group, and all Aboriginal entity (ABN33979702507).
- I prefer communicating by, Mail, Telephone, and; and I am, the Principal, person to contact, and; My contact details are: Phillip Khan 78 Forbes Street, Emu Plains NSW 2750 Mobile 043 4545 982
- I wish to be involved and participate in all levels of consultation/project involvement. I wish to attend all meetings, and, participate in available field work; and would receive a copy of the report.
- 4. I attach to this letter a copy of Kamilaroi- Yankuntjatjara Working Group's; GIO Public Liability Insurance; GIO Workers Compensation Certificate.

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

Yours Sincerely,

Pollowan Phillip Khan

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From:	Uncle Gordon Workman
To:	Charlotte Allen
Subject:	Re: 27715 Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment - Project information and methodology
Date:	Monday, 5 November 2018 6:18:40 PM
Attachments:	image2c524c.PNG
	34 - 38 docx

From: Charlotte Allen <callen@biosis.com.au>

Sent: Monday, 5 November 2018 1:30 PM

To: 'boorooberongal@outlook.com'

Subject: 27715 Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment - Project information and methodology

Good afternoon,

Thank you for your registration of interest in this project. We are writing to you in order to provide you with the project information and methodology packs for the proposed development of a new public school at 34-38 Schofields Road, Schofields, NSW.

Attached to this email you will find the project information pack, and the Alex Avenue Public School Aboriginal Cultural Heritage Assessment – Project Methodology.

The purpose of the methodology document is to provide you with further information on the background of this assessment, as well as the methodology for how it will be conducted, including any test excavations should they be required.

Please note that comments on the project methodology pack should be received before 4 pm Monday 3 December 2018.

Please address methodology feedback to:

Charlotte Allen Biosis Pty Ltd Unit 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

Please do not hesitate to contact me if you require additional information or have any queries about the methodology or information provided.

Kind regards, Charlotte

Charlotte Allen Archaeologist

M: 0437 641 267 D: (02) 9101 8712 E: <u>callen@biosis.com.au</u>



Leaders in Ecology and Heritage Consulting

The information transmitted including attachments is intended only for the person or entity to which it is addressed and may contain copyright material, or information that is confidential or is exempt from disclosure by law. Any review, retransmission, dissemination or other use of, or taking

of any action in reliance upon this information by persons or entities other than the intended recipient is strictly prohibited. If you received this in error, please contact the sender and delete the material from your computer. The views expressed in this email are those of the sender except where the sender expressly and with authority states them to be the views of Biosis Pty Ltd. Biosis Pty Ltd does not represent that this email is free of errors, viruses or interference. When using email to communicate with Biosis Pty Ltd, access to that information by Biosis Pty Ltd personnel is strictly limited and controlled.

From:	Jennifer Beale
To:	Charlotte Allen
Subject:	RE: 27715 Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment - Project information and methodology
Date:	Tuesday, 4 December 2018 6:21:15 PM
Attachments:	image001.png

Dear Charlotte,

Butucarbin supports the proposed methodology. Thank you for developing a clear and concise document.

Kind Regards, Jennifer Beale

From: Charlotte Allen [mailto:callen@biosis.com.au]
Sent: Monday, 5 November 2018 1:31 PM
To: 'koori@ozemail.com.au'
Subject: 27715 Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment - Project information and methodology

Good afternoon,

Thank you for your registration of interest in this project. We are writing to you in order to provide you with the project information and methodology packs for the proposed development of a new public school at 34-38 Schofields Road, Schofields, NSW.

Attached to this email you will find the project information pack, and the Alex Avenue Public School Aboriginal Cultural Heritage Assessment – Project Methodology.

The purpose of the methodology document is to provide you with further information on the background of this assessment, as well as the methodology for how it will be conducted, including any test excavations should they be required.

Please note that comments on the project methodology pack should be received before 4 pm Monday 3 December 2018.

Please address methodology feedback to:

Charlotte Allen Biosis Pty Ltd Unit 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

Please do not hesitate to contact me if you require additional information or have any queries about the methodology or information provided.

Kind regards, Charlotte

Charlotte Allen Archaeologist

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Hi Charlotte,

The Darug Aboriginal Land care Agrees with your recommendations and Methodology for this project

Kind regards Des

From: Charlotte Allen <callen@biosis.com.au>

Sent: Monday, 5 November 2018 1:30 PM

To: 'desmond4552@hotmail.com'

Subject: 27715 Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment - Project information and methodology

Good afternoon,

Thank you for your registration of interest in this project. We are writing to you in order to provide you with the project information and methodology packs for the proposed development of a new public school at 34-38 Schofields Road, Schofields, NSW.

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Charlotte Allen Biosis Pty Ltd Unit 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

Please do not hesitate to contact me if you require additional information or have any queries about the methodology or information provided.

Kind regards, Charlotte

Charlotte Allen Archaeologist

M: 0437 641 267 D: (02) 9101 8712



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From:	Darug Land Observations
То:	Charlotte Allen
Subject:	Re: 27715 Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment - Project information and methodology
Date:	Wednesday, 14 November 2018 12:51:40 PM
Attachments:	image58773f.PNG image58773f.PNG AHIP Comments letter BIOSIS (Schofields).docx

Sorry, I forget to attach the letter..

On Wed, Nov 14, 2018 at 12:50 PM Darug Land Observations <<u>daruglandobservations@gmail.com</u>> wrote: Hi Charlotte, Please find attached letter in reply to the project information and methodology for the proposed development of a new school at 34-38 Schofields Road, in Schofields. Look forward to working with you on this project. Kind Regards, Anna On Mon, Nov 5, 2018 at 1:30 PM Charlotte Allen <<u>callen@biosis.com.au</u>> wrote: Good afternoon. Thank you for your registration of interest in this project. We are writing to you in order to provide you with the project information and methodology packs for the proposed development of a new public school at 34-38 Schofields Road, Schofields, NSW. Attached to this email you will find the project information pack, and the Alex Avenue Public School Aboriginal Cultural Heritage Assessment - Project Methodology. The purpose of the methodology document is to provide you with further information on the background of this assessment, as well as the methodology for how it will be conducted, including any test excavations should they be required. Please note that comments on the project methodology pack should be received before 4 pm Monday 3 December 2018. Please address methodology feedback to: Charlotte Allen **Biosis Pty Ltd** Unit 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au Please do not hesitate to contact me if you require additional information or have any queries about the methodology or information provided. Kind regards, Charlotte

Charlotte Allen Archaeologist

M: 0437 641 267 D: (02) 9101 8712 E: <u>callen@biosis.com.au</u>



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From:	Shaun Carroll
To:	Charlotte Allen
Subject:	RE: 27715 Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment - Project information and methodology
Date:	Thursday, 8 November 2018 11:24:07 AM
Attachments:	imagef3270f.PNG

Hi Charlotte,

I have read the project information and methodology for the above project and agree with the recommendations made by Biosis Kind regards Shaun

Sent from Mail for Windows 10

From: Charlotte Allen <callen@biosis.com.au>

Sent: Monday, November 5, 2018 1:30:39 PM

To: 'Merrigarn@hotmail.com'

Subject: 27715 Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment - Project information and methodology

Good afternoon,

Thank you for your registration of interest in this project. We are writing to you in order to provide you with the project information and methodology packs for the proposed development of a new public school at 34-38 Schofields Road, Schofields, NSW.

Attached to this email you will find the project information pack, and the Alex Avenue Public School Aboriginal Cultural Heritage Assessment – Project Methodology.

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Charlotte Allen Biosis Pty Ltd Unit 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

Please do not hesitate to contact me if you require additional information or have any queries about the methodology or information provided.

Kind regards, Charlotte

Charlotte Allen Archaeologist

M: 0437 641 267 D: (02) 9101 8712



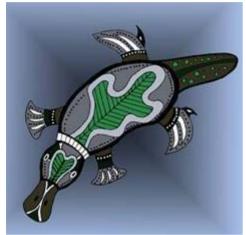
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From:	Ryan Johnson
To:	Charlotte Allen
Subject:	RE: 27715 Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment - Project information and methodology
Date:	Wednesday, 21 November 2018 11:30:03 PM
Attachments:	image002.png

Hi Charlotte,

I have read the project information, ACHA and methodology for Alex Avenue Public school Schofields, I endorse the recommendations made. Thanks

Ryan Johnson | Murra Bidgee Mullangari



Aboriginal Corporation Cultural Heritage

A: PO Box 246, Seven Hills, NSW, 2147 E: <u>murrabidgeemullangari@yahoo.com.au</u> ICN: 8112

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From: Charlotte Allen [mailto:callen@biosis.com.au] Sent: Monday, 5 November 2018 1:31 PM

To: 'murrabidgeemullangari@yahoo.com.au' <murrabidgeemullangari@yahoo.com.au>
 Subject: 27715 Alex Avenue Public School, Schofields, Aboriginal Cultural Heritage Assessment Project information and methodology

Good afternoon,

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Kind regards, Charlotte

Charlotte Allen Archaeologist

M: 0437 641 267 D: (02) 9101 8712 E: <u>callen@biosis.com.au</u>



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07 February 2019

Jody Kulakowski Barking Owl Aboriginal Corporation 2-65/69 Wehlow Street Mt Druitt NSW 2770

Dear Jody Kulakowski,

RE: Registered Aboriginal Party Invitation to Participate in Aboriginal Archaeological Test Excavations – Alex Avenue Public School, Schofields, NSW Our Ref: Matter 27715

Biosis is currently undertaking an Aboriginal Cultural Heritage Assessment on behalf of School Infrastructure NSW for Alex Avenue Public School at 14-28 Schofields Road, Schofields NSW. Biosis wishes to invite **one site officer** from your registered group to participate in test excavations for the project.

The test excavations will be conducted over a period of eight (8) days (7.5 hours a day), between 18 February and 27 February 2019. Due to the current seasonal weather conditions, it is proposed that work hours will be 07:00 to 15:00 to avoid working for extended periods in high temperatures.

The site officer attending will need to wear full PPE including enclosed steel-capped boots, long sleeve shirts and trousers, and hi-vis, and bring along enough food and water for the day. All site officers and Biosis staff will be required to comply with relevant Work Health and Safety Legislation and Safe Work and Environment Method Statements (SWEMS). These will be presented at the induction on the first day of fieldwork.

To register your availability to participate please provide Biosis with the following documentation by 5pm Tuesday 12 February 2019:

- daily rates
- insurances
- site officer contact details.

If you have any questions or queries regarding the test excavations please do not hesitate to contact:

Charlotte Allen Archaeologist M: 0437 641 267 D: (02) 9101 8712 E: callen@biosis.com.au

Biosis Pty Ltd Sydney Resource Group



Please do not hesitate to contact me if you require additional information or have any queries about the test excavations.

Yours sincerely,

Charlotte Allen Archaeologist



07 February 2019

Des Dyer Darug Aboriginal Land Care 18A Perigree Close Doonside NSW 2767

Dear Des Dyer,

RE: Registered Aboriginal Party Invitation to Participate in Aboriginal Archaeological Test Excavations – Alex Avenue Public School, Schofields, NSW Our Ref: Matter 27715

Biosis is currently undertaking an Aboriginal Cultural Heritage Assessment on behalf of School Infrastructure NSW for Alex Avenue Public School at 14-28 Schofields Road, Schofields NSW. Biosis wishes to invite **one site officer** from your registered group to participate in test excavations for the project.

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Charlotte Allen Archaeologist M: 0437 641 267 D: (02) 9101 8712 E: callen@biosis.com.au

Biosis Pty Ltd Sydney Resource Group



Please do not hesitate to contact me if you require additional information or have any queries about the test excavations.

Yours sincerely,

Charlotte Allen Archaeologist



07 February 2019

Steven Randall Deerubbin Local Aboriginal Land Council PO Box 40 Penrith NSW 2751

Dear Steven Randall,

RE: Registered Aboriginal Party Invitation to Participate in Aboriginal Archaeological Test Excavations – Alex Avenue Public School, Schofields, NSW Our Ref: Matter 27715

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- site officer contact details.

If you have any questions or queries regarding the test excavations please do not hesitate to contact:

Charlotte Allen Archaeologist M: 0437 641 267 D: (02) 9101 8712 E: callen@biosis.com.au

Biosis Pty Ltd Sydney Resource Group



Please do not hesitate to contact me if you require additional information or have any queries about the test excavations.

Yours sincerely,

Charlotte Allen Archaeologist



07 February 2019

Phil Khan Kamilaroi Yankuntjatjara Working Group 78 Forbes Street Emu Plains NSW 2750

Dear Phil Khan,

RE: Registered Aboriginal Party Invitation to Participate in Aboriginal Archaeological Test Excavations – Alex Avenue Public School, Schofields, NSW Our Ref: Matter 27715

Biosis is currently undertaking an Aboriginal Cultural Heritage Assessment on behalf of School Infrastructure NSW for Alex Avenue Public School at 14-28 Schofields Road, Schofields NSW. Biosis wishes to invite **one site officer** from your registered group to participate in test excavations for the project.

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- site officer contact details.

If you have any questions or queries regarding the test excavations please do not hesitate to contact:

Charlotte Allen Archaeologist M: 0437 641 267 D: (02) 9101 8712 E: callen@biosis.com.au

Biosis Pty Ltd Sydney Resource Group



Please do not hesitate to contact me if you require additional information or have any queries about the test excavations.

Yours sincerely,

Charlotte Allen Archaeologist

From:	Steve Randall	
То:	Charlotte Allen	
Subject:	Alex Avenue Public School, Schofield	
Date:	Friday, 8 February 2019 11:54:01 AM	
Attachments:	ICareInsurance2019.pdf	
	QBE2019.pdf	

Hi Charlotte,

Deerubbin LALC would like to register to participate in the testing of the above location, Our daily rate for an on-site field worker is \$800.00 per day. At this point in time I don't know who the worker will be, just use me for the moment regards Steven Randall Aboriginal Cultural Heritage Officer **Deerubbin Local Aboriginal Land Council** Level 1, Suite 3 291-295 High Street, Penrith NSW 2750 PO Box 40, Penrith NSW 2751 T: (02) 4724 5600 F: (02) 4722 9713 M: 0417 219 174

E: srandall@deerubbin.org.au



7th February 2019

Dear Charlotte,

RE: PARTICIPATION IN TEST EXCAVATIONS ALEX AVENUE PUBLIC SCHOOL

Thank you for the opportunity to participate in test excavations for the Aboriginal heritage assessment for Alex Avenue Public School at 14-28 Schofields Road, Schofields NSW.

Registered Aboriginal Party: Contact Person: Contact No: Contact Email: Barking Owl Aboriginal Corporation Jody Kulakowski 0426 242 015 barkingowlcorp@gmail.com

Workers Insurance:	ICARE	Policy Number:	186138801
Public Liability:	DUAL	Policy Number:	P_PL/0/212440/18/J-8
Professional Indemnity:	DUAL	Policy Number:	P-P1/0/212440/18/J-8

Schedule of Rates - Half day \$440 - Full Day \$880 Inclusive of GST

Please find attached certificate of currencies for insurances as requested.

Kind regards

Jody Kulakowski Director - BOAC Barking Owl Aboriginal Corporation

From:	philip khan
То:	Charlotte Allen
Subject:	FW: 27715 Alex Avenue Public School Aboriginal Cultural Heritage Assessment - invitation to test excavations
Date:	Thursday, 7 February 2019 4:47:57 PM
Attachments:	image2f1f7e.PNG
	GIO cert of currency.jpeg
	GIO letterhead.jpeg
	Marsden park.eml

Hi Charlotte,

My apologies an incorrect document was attached to this email, can you please disregard it. Thanks Stef Kamilaroi Yankuntjatjara Working Group Aboriginal Cultural Heritage Surveys, Lawn Mowing & Fencing ABN 33 979 702 507

Not registered for GST

78 Forbes Street, Emu Plains NSW 2750 Mobile: 0434545982 Email: philipkhan.acn@live.com.au Sent from <u>Mail</u> for Windows 10

From: philip khan Sent: Thursday, February 7, 2019 4:39:57 PM To: Charlotte Allen Subject: RE: 27715 Alex Avenue Public School Aboriginal Cultural Heritage Assessment invitation to test excavations Hi Charlotte. Thank you for your email, we would like to register to complete test excavations between 18-27th of February 2019. I have attached our insurance details. Rates - \$800 a day Site officer details - would I be able to get back to you on our RAP once I have completed rostering? Kind Regards Stef Kamilaroi Yankuntjatjara Working Group Aboriginal Cultural Heritage Surveys, Lawn Mowing & Fencing ABN 33 979 702 507 Not registered for GST

78 Forbes Street, Emu Plains NSW 2750 Mobile: 0434545982 Email: philipkhan.acn@live.com.au Sent from <u>Mail</u> for Windows 10

From: Charlotte Allen
Sent: Thursday, February 7, 2019 3:10:08 PM
To: 'philipkhan.acn@live.com.au'
Subject: 27715 Alex Avenue Public School Aboriginal Cultural Heritage Assessment - invitation to test excavations

Good afternoon,

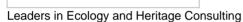
Further to your registration of interest for the Alex Avenue Public School Aboriginal Cultural Heritage Assessment, we would like to invite your registered Aboriginal party to participate in test excavations. The test excavations will be conducted over a period of eight days, between 18 February and 27 February. Due to the current seasonal weather conditions, we are proposing work hours of 07:00-15:00 to avoid working for extended periods in high temperatures.

To register your availability to participate in the test excavations, please provide Biosis with daily rate, insurances and site officer contact details by 5pm on Tuesday 12 February 2019. Once we have received your registration and this information, we will provide you with a Services Agreement for review and signing.

If you have any questions regarding the test excavations, please do not hesitate to contact me on the details below.

Kind regards, Charlotte

Charlotte Allen Archaeologist M: 0437 641 267 D: (02) 9101 8712 E: callen@biosis.com.au Biosis Logo



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From:	Ricky Fields
To:	Charlotte Allen
Subject:	Re: 27715 Alex Avenue Public School Aboriginal Cultural Heritage Assessment - invitation to test excavations
Date:	Thursday, 14 February 2019 1:15:46 PM
Attachments:	image001.png
	OH&S Dermott Fields.pdf

Hi Charlotte,

My name is Stephen Fields and I am helping Des and my brother Ricky out with their admin work.

Ricky has asked me to confirm that DALC rate is currently \$920 per day.

He also asked me to send through the sites officer details for Excavation work at Schofields. I have also attached a copy of his OH&S card for your records.

Sites officer Name: Dermott Fields

OH&S number: 1024720

Let me know if you require anything further.

Regards,

Stephen Fields DALC

From: Charlotte Allen Sent: Wednesday, 13 February 2019 11:09 PM To: 'desmond dyer' Cc: Rick Fields Subject: RE: 27715 Alex Avenue Public School Aboriginal Cultural Heritage Assessment invitation to test excavations Hi Des. Thank you for getting back to me so quickly. Please find attached the Services Agreement for your review and signature if you are happy to proceed. If you are able to get this back to me by tomorrow I would be very grateful. If that's not possible your representative can bring a hard copy with them on Monday morning. Kind regards, Charlotte From: desmond dyer Sent: Thursday, 14 February 2019 9:55 AM To: Charlotte Allen Subject: Re: 27715 Alex Avenue Public School Aboriginal Cultural Heritage Assessment invitation to test excavations Hi Charlotte. yes we can reduce our rate to \$ 850.00 a day Kind regards

Des

From: Charlotte Allen <<u>callen@biosis.com.au</u>> Sent: Thursday, 14 February 2019 9:47 AM To: 'desmond dyer' Subject: RE: 27715 Alex Avenue Public School Aboriginal Cultural Heritage Assessment invitation to test excavations Hi Des. For our test excavations we don't normally request a report from our RAPs. Would the daily rate be reduced if the report was not prepared by DALC? Many thanks and kind regards, Charlotte From: desmond dyer <<u>desmond4552@hotmail.com</u>> Sent: Wednesday, 13 February 2019 8:14 PM To: Charlotte Allen <<u>callen@biosis.com.au</u>> Subject: Re: 27715 Alex Avenue Public School Aboriginal Cultural Heritage Assessment invitation to test excavations Hi Charlotte. our day rate is \$920.00 a day and that is also all report writing we are GST exempt Kind regards Des From: Charlotte Allen <<u>callen@biosis.com.au</u>> Sent: Wednesday, 13 February 2019 6:46 PM To: 'desmond dyer'; Rick Fields Subject: RE: 27715 Alex Avenue Public School Aboriginal Cultural Heritage Assessment invitation to test excavations Hi Des. Thanks for sending through your insurances. Would it be possible for you or Rick to confirm DALC's daily rate so I can prepare the Service Agreement for you? Many thanks and kind regards, Charlotte From: desmond dyer <<u>desmond4552@hotmail.com</u>> Sent: Wednesday, 13 February 2019 6:05 PM To: Charlotte Allen <<u>callen@biosis.com.au</u>>; Rick Fields <<u>fields.r@outlook.com</u>> Subject: Re: 27715 Alex Avenue Public School Aboriginal Cultural Heritage Assessment invitation to test excavations Hi Charlotte. Rick's number is 0402 942 572 Email fields.r@outlook.com thank you

Des

From: Charlotte Allen <<u>callen@biosis.com.au</u>>
Sent: Wednesday, 13 February 2019 1:49 PM
To: 'desmond4552@hotmail.com'
Subject: RE: 27715 Alex Avenue Public School Aboriginal Cultural Heritage Assessment - invitation to test excavations
Hi Des,
Thanks for your time on the phone just now. Would you be able to forward this email to your a statement of the phone instance.

Thanks for your time on the phone just now. Would you be able to forward this email to your site officer Rick Fields as discussed?

If your group does have someone available to attend the test excavations in Schofields from 18/02/2019-27/02/2019 we will need your insurances and daily rate. Once we have these I can then prepare a Services Agreement for you to sign and return. I'll need your insurances and the signed agreement for your group's representative to be able to work on site with us.

Many thanks for your help and I look forward to hearing from yourself or Rick. Kind regards, Charlotte

From: Charlotte Allen <<u>callen@biosis.com.au</u>> Sent: Thursday, 7 February 2019 3:10 PM To: 'desmond4552@hotmail.com' <<u>desmond4552@hotmail.com</u>> Subject: 27715 Alex Avenue Public School Aboriginal Cultural Heritage Assessment invitation to test excavations Good afternoon,

Further to your registration of interest for the Alex Avenue Public School Aboriginal Cultural Heritage Assessment, we would like to invite your registered Aboriginal party to participate in test excavations. The test excavations will be conducted over a period of eight days, between 18 February and 27 February. Due to the current seasonal weather conditions, we are proposing work hours of 07:00-15:00 to avoid working for extended periods in high temperatures.

To register your availability to participate in the test excavations, please provide Biosis with daily rate, insurances and site officer contact details by 5pm on Tuesday 12 February 2019. Once we have received your registration and this information, we will provide you with a Services Agreement for review and signing.

If you have any questions regarding the test excavations, please do not hesitate to contact me on the details below.

Kind regards,
Charlotte
Charlotte Allen
Archaeologist
M: 0437 641 267
D: (02) 9101 8712
E: callen@biosis.com.au
Biosis Logo
2

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Appendix 4 Stage 4: Review of draft cultural heritage assessment report



Andrew Williams Aboriginal Archaeology Serivice 2/24 Goodwin Street Narrabeen NSW 2101

Dear Andrew Williams,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – Draft ACHA and AR

Our Ref: Matter 27715

Following up on your registration for the Alex Avenue Public School Aboriginal cultural heritage assessment, enclosed is a copy of the draft Aboriginal cultural heritage assessment report (ACHA) and archaeological report (AR) for your review. Once comments have been received by registered Aboriginal parties (RAPs), the comments will be incorporated into a final report which will then be issued to all RAPs for their records.

In accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW 2010), we provide the ACHA and AR for your review and feedback. If you would like further information, please do not hesitate to contact us. It would be appreciated if you would provide feedback on the report to Biosis Pty Ltd by **5pm 25 April 2019** either by email, return mail or a phone call.

Please address feedback to:

Charlotte Allen Biosis Pty Ltd Unit 14, 17-27 Power Avenue Alexandria NSW 2015 <u>callen@biosis.com.au</u>

If you have any queries regarding the study area or the information in this letter, please do not hesitate to contact Charlotte in the office on (02) 9101 8712 or on her mobile 0437 641 267.

Yours sincerely,

Anthea Vella Research Assistant - Heritage



Jody Kulakowski Barking Owl Aboriginal Corporation 2-65/69 Wehlow Street Mt Druitt NSW 2770

Dear Jody Kulakowski,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – Draft ACHA and AR

Our Ref: Matter 27715

Following up on your registration for the Alex Avenue Public School Aboriginal cultural heritage assessment, enclosed is a copy of the draft Aboriginal cultural heritage assessment report (ACHA) and archaeological report (AR) for your review. Once comments have been received by registered Aboriginal parties (RAPs), the comments will be incorporated into a final report which will then be issued to all RAPs for their records.

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Yours sincerely,

Anthea Vella Research Assistant - Heritage



Jennifer Beale Butucarbin Aboriginal Corporation PO Box E18 Emerton NSW 2770

Dear Jennifer Beale,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – Draft ACHA and AR

Our Ref: Matter 27715

Following up on your registration for the Alex Avenue Public School Aboriginal cultural heritage assessment, enclosed is a copy of the draft Aboriginal cultural heritage assessment report (ACHA) and archaeological report (AR) for your review. Once comments have been received by registered Aboriginal parties (RAPs), the comments will be incorporated into a final report which will then be issued to all RAPs for their records.

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Yours sincerely,

Anthea Vella Research Assistant - Heritage



Des Dyer Darug Aboriginal Land Care 18A Perigree Close Doonside NSW 2767

Dear Des Dyer,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – Draft ACHA and AR

Our Ref: Matter 27715

Following up on your registration for the Alex Avenue Public School Aboriginal cultural heritage assessment, enclosed is a copy of the draft Aboriginal cultural heritage assessment report (ACHA) and archaeological report (AR) for your review. Once comments have been received by registered Aboriginal parties (RAPs), the comments will be incorporated into a final report which will then be issued to all RAPs for their records.

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Yours sincerely,

Anthea Vella Research Assistant - Heritage



Gordon Workman Darug Boorooberongal Elders Aboriginal Corporation 73 Judith Anderson Drive Doonside NSW 2767

Dear Gordon Workman,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – Draft ACHA and AR

Our Ref: Matter 27715

Following up on your registration for the Alex Avenue Public School Aboriginal cultural heritage assessment, enclosed is a copy of the draft Aboriginal cultural heritage assessment report (ACHA) and archaeological report (AR) for your review. Once comments have been received by registered Aboriginal parties (RAPs), the comments will be incorporated into a final report which will then be issued to all RAPs for their records.

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Yours sincerely,

Anthea Vella Research Assistant - Heritage



Jamie and Anna Workman Darug Land Observations PO Box 173 Ulladulla NSW 2539

Dear Jamie and Anna Workman,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – Draft ACHA and AR

Our Ref: Matter 27715

Following up on your registration for the Alex Avenue Public School Aboriginal cultural heritage assessment, enclosed is a copy of the draft Aboriginal cultural heritage assessment report (ACHA) and archaeological report (AR) for your review. Once comments have been received by registered Aboriginal parties (RAPs), the comments will be incorporated into a final report which will then be issued to all RAPs for their records.

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Yours sincerely,

Anthea Vella Research Assistant - Heritage



Dirk Schmitt Darug Tribal Aboriginal Corporation 71 Seven Hills Rd South Seven Hills NSW 2147

Dear Dirk Schmitt,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – Draft ACHA and AR

Our Ref: Matter 27715

Following up on your registration for the Alex Avenue Public School Aboriginal cultural heritage assessment, enclosed is a copy of the draft Aboriginal cultural heritage assessment report (ACHA) and archaeological report (AR) for your review. Once comments have been received by registered Aboriginal parties (RAPs), the comments will be incorporated into a final report which will then be issued to all RAPs for their records.

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Yours sincerely,

Anthea Vella Research Assistant - Heritage



Steven Randall Deerubbin Local Aboriginal Land Council PO Box 40 Penrith NSW 2751

Dear Steven Randall,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – Draft ACHA and AR

Our Ref: Matter 27715

Following up on your registration for the Alex Avenue Public School Aboriginal cultural heritage assessment, enclosed is a copy of the draft Aboriginal cultural heritage assessment report (ACHA) and archaeological report (AR) for your review. Once comments have been received by registered Aboriginal parties (RAPs), the comments will be incorporated into a final report which will then be issued to all RAPs for their records.

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Yours sincerely,

Anthea Vella Research Assistant - Heritage



Lillie Carrol and Paul Boyd Didge Ngunawal Clan 7 Siskin Street Quakers Hill NSW 2763

Dear Lillie Carrol and Paul Boyd,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – Draft ACHA and AR

Our Ref: Matter 27715

Following up on your registration for the Alex Avenue Public School Aboriginal cultural heritage assessment, enclosed is a copy of the draft Aboriginal cultural heritage assessment report (ACHA) and archaeological report (AR) for your review. Once comments have been received by registered Aboriginal parties (RAPs), the comments will be incorporated into a final report which will then be issued to all RAPs for their records.

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Yours sincerely,

Anthea Vella Research Assistant - Heritage



Shaun Carroll Merrigarn Indigenous Corporation GPO Box 158 Canberra City ACT 2601

Dear Shaun Carroll,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – Draft ACHA and AR

Our Ref: Matter 27715

Following up on your registration for the Alex Avenue Public School Aboriginal cultural heritage assessment, enclosed is a copy of the draft Aboriginal cultural heritage assessment report (ACHA) and archaeological report (AR) for your review. Once comments have been received by registered Aboriginal parties (RAPs), the comments will be incorporated into a final report which will then be issued to all RAPs for their records.

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Yours sincerely,

Anthea Vella Research Assistant - Heritage



Jesse Muragadi

Dear Jesse,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – Draft ACHA and AR

Our Ref: Matter 27715

Following up on your registration for the Alex Avenue Public School Aboriginal cultural heritage assessment, enclosed is a copy of the draft Aboriginal cultural heritage assessment report (ACHA) and archaeological report (AR) for your review. Once comments have been received by registered Aboriginal parties (RAPs), the comments will be incorporated into a final report which will then be issued to all RAPs for their records.

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Please address feedback to:

Charlotte Allen

Biosis Pty Ltd Unit 14, 17-27 Power Avenue Alexandria NSW 2015 <u>callen@biosis.com.au</u>

If you have any queries regarding the study area or the information in this letter, please do not hesitate to contact Charlotte in the office on (02) 9101 8712 or on her mobile 0437 641 267.

Yours sincerely,

Anthea Vella Research Assistant - Heritage



Darleen Johnson Murra Bidgee Mullangari Aboriginal Corporation PO Box 246 Seven Hills NSW 2147

Dear Darleen Johnson,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – Draft ACHA and AR

Our Ref: Matter 27715

Following up on your registration for the Alex Avenue Public School Aboriginal cultural heritage assessment, enclosed is a copy of the draft Aboriginal cultural heritage assessment report (ACHA) and archaeological report (AR) for your review. Once comments have been received by registered Aboriginal parties (RAPs), the comments will be incorporated into a final report which will then be issued to all RAPs for their records.

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Yours sincerely,

Anthea Vella Research Assistant - Heritage



Phil Khan Kamilaroi Yankuntjatjara Working Group 78 Forbes Street Emu Plains NSW 2750

Dear Phil Khan,

RE: Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – Draft ACHA and AR

Our Ref: Matter 27715

Following up on your registration for the Alex Avenue Public School Aboriginal cultural heritage assessment, enclosed is a copy of the draft Aboriginal cultural heritage assessment report (ACHA) and archaeological report (AR) for your review. Once comments have been received by registered Aboriginal parties (RAPs), the comments will be incorporated into a final report which will then be issued to all RAPs for their records.

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Please address feedback to:

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If you have any queries regarding the study area or the information in this letter, please do not hesitate to contact Charlotte in the office on (02) 9101 8712 or on her mobile 0437 641 267.

Yours sincerely,

Anthea Vella Research Assistant - Heritage

From:	Muragadi
To:	Charlotte Allen
Subject:	RE: 27715 Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment - Draft ACHA and AR
Date:	Wednesday, 3 April 2019 3:14:09 PM
Attachments:	image001.png

Hi Charlotte,

I have read the draft ACHA for the above project, I agree with the recommendations made by Biosis, please feel free to contact me if you require further details. Kind regards Anthony 0418970389

From: Charlotte Allen [mailto:callen@biosis.com.au]

Sent: Thursday, 28 March 2019 9:56 AM

To: 'muragadi@yahoo.com.au' <muragadi@yahoo.com.au>

Subject: 27715 Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – Draft ACHA and AR

Good morning,

Following up on your registration for the Alex Avenue Public School Aboriginal cultural heritage assessment, a copy of the draft Aboriginal cultural heritage assessment report (ACHA) and archaeological report (AR) can be downloaded from the following webpage for your review: https://spaces.hightail.com/receive/oDcTwqQmtQ. Once comments have been received by registered Aboriginal parties (RAPs), the comments will be incorporated into a final report which will then be issued to all RAPs for their records.

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Charlotte Allen Biosis Pty Ltd Unit 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

If you have any queries please do not hesitate to contact me on the details below.

Kind regards, Charlotte

Charlotte Allen Archaeologist

M: 0437 641 267 D: (02) 9101 8712 E: <u>callen@biosis.com.au</u>



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From:	Darug Land Observations
To:	Charlotte Allen
Subject:	Re: 27715 Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – Draft ACHA and AR
Date:	Wednesday, 10 April 2019 11:53:41 AM
Attachments:	image53d33b.PNG AHIP Comments letter BIOSIS (Schofields).docx

Hi Charlotte,

Please find attached letter in reply to the draft Aboriginal Cultural Heritage Assessment and Archaeological Report for the proposed new Alex Avenue Public School, in Schofields.

Look forward to working with you again soon.

Kind Regards,

Anna

On Thu, Mar 28, 2019 at 9:55 AM Charlotte Allen <<u>callen@biosis.com.au</u>> wrote:

Good morning,

Following up on your registration for the Alex Avenue Public School Aboriginal cultural heritage assessment, a copy of the draft Aboriginal cultural heritage assessment report (ACHA) and archaeological report (AR) can be downloaded from the following webpage for your review: https://spaces.hightail.com/receive/oDcTwqQmtQ. Once comments have been received by registered Aboriginal parties (RAPs), the comments will be incorporated into a final report which will then be issued to all RAPs for their records.

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Charlotte Allen Biosis Pty Ltd Unit 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

If you have any queries please do not hesitate to contact me on the details below.

Kind regards, Charlotte

Charlotte Allen Archaeologist

M: 0437 641 267 D: (02) 9101 8712 E: <u>callen@biosis.com.au</u>



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EMAIL: DARUGLANDOBSERVATIONS@GMAIL.COM PO BOX 173 ULLADULLA NSW 2539 MOBILE: 0413 687 279

10th April, 2019

Charlotte Allen Biosis Pty Ltd Unit 14, 17-27 Power Avenue ALEXANDRIA NSW 2015

Dear Charlotte,

RE: ALEX AVENUE PUBLIC SCHOOL, SCHOFIELDS

Aboriginal Cultural Heritage Assessment & Archaeological Report

Darug Land Observations Pty Ltd has reviewed the draft Aboriginal Cultural Heritage Assessment and the draft Archaeological Report, and supports the methodology for the proposed development of a new school of Lots 1 & 2 being part of existing Lot 4 DP 1208329 and Lot 121 DP 1203646, located at the corner of Farmland Drive and future realignment of Pelican Road, in Schofields.

In regards to the long-term storage of recovered artefacts, we strongly agree that the recovered artefacts should be reburied on Country, within the south-eastern portion of the study area.

Look forward to working with you again, in the near future.

Yours sincerely,

Gavil Wotzuan

Jamie Workman Darug Land Observations Pty Ltd

Uncle Gordon Workman Darug Elder

From:	desmond dyer
To:	Charlotte Allen
Subject:	Re: 27715 Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – Draft ACHA and AR
Date:	Thursday, 11 April 2019 10:18:23 AM
Attachments:	image821095.PNG
	Archo report.doc

Hi Charlotte, Hope this letter is okay Kind regards Des

From: Charlotte Allen <callen@biosis.com.au>
Sent: Thursday, 28 March 2019 9:55 AM
To: 'desmond4552@hotmail.com'
Subject: 27715 Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – Draft ACHA and AR

Good morning,

Following up on your registration for the Alex Avenue Public School Aboriginal cultural heritage assessment, a copy of the draft Aboriginal cultural heritage assessment report (ACHA) and archaeological report (AR) can be downloaded from the following webpage for your review: https://spaces.hightail.com/receive/oDcTwqQmtQ. Once comments have been received by registered Aboriginal parties (RAPs), the comments will be incorporated into a final report which will then be issued to all RAPs for their records.

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If you have any queries please do not hesitate to contact me on the details below.

Kind regards, Charlotte

Charlotte Allen Archaeologist

M: 0437 641 267 D: (02) 9101 8712 E: <u>callen@biosis.com.au</u>



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strictly limited and controlled.



Darug Aboriginal Land care

Uncle Des Dyer

18 a Perigee Close Doonside NSW 2767 ABN 71 301 006 047

Charlotte Allen Archaeologist Biosis Pty Ltd 8/27 Annie Street Wickham 2293 NSW

Re: Alex Public School, Schofields .

Dear Charlotte,

The Darug Aboriginal Land care/ Uncle Des Dyer, has no objections to the planned development.

We have read your report and agree with the recommendations, in your report. We agree with your Methodology.

We ask that native plants be used in the landscape .

We ask that while the development is in progress if any Artefacts are uncovered that work stops until the Artefacts can be salvaged and moved.

We make Recommendation that this is strongly heard to for projects !!!!!

We ask that all artefacts be reburied on site out of harm's way, or put on display in the new building. That any rock cravens, and scared tree be preserved, were possible, and be recorded.

<u>If not Care and control</u> of Artefacts are put in the local museum, or displayed in the foyer of new building with signage on where they came from. If not we would like to see them in the <u>old Parramatta Goal....</u>

The Darug Aboriginal Land care have and always will hold all land specific social, spiritual and have a responsibility to look after the plants, animals creeks rivers on Darug land has cultural values to our organisation.

We are Traditional Owner, our members have lived on Darug land for most of their lives and worked in the area. We have been doing Cultural Heritage Assessments for over 20 years and still do today.

Respectfully yours, Uncle Des Dyer Darug Elder Darug Aboriginal Land Care Mobile 0408 360 814

From:	Barking Owl Aboriginal Corporation
То:	Charlotte Allen
Subject:	Re: 27715 Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – Draft ACHA and AR
Date:	Monday, 15 April 2019 1:59:53 PM
Attachments:	image072cf5.PNG
	27715.Stage4.Draft.ACHA.FIN01.20190328pdf

Dear Charlotte,

Myself and the members of Barking Owl Aboriginal Corporation have agreed and are satisfied with the Aboriginal cultural heritage assessment report (ACHA) and the archaeological report (AR)

RE: Alex Avenue Public School NSW, and have no further comments or recommendations to add.

Kind regards

Jody Kulakowski Barking Owl Aboriginal Corporation BOAC

On 28 Mar 2019, at 9:55 am, Charlotte Allen <<u>callen@biosis.com.au</u>> wrote:

Good morning,

Following up on your registration for the Alex Avenue Public School Aboriginal cultural heritage assessment, a copy of the draft Aboriginal cultural heritage assessment report (ACHA) and archaeological report (AR) can be downloaded from the following webpage for your review: <u>https://spaces.hightail.com/receive/oDcTwqQmtQ</u>. Once comments have been received by registered Aboriginal parties (RAPs), the comments will be incorporated into a final report which will then be issued to all RAPs for their records.

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Kind regards, Charlotte

Charlotte Allen Archaeologist

M: 0437 641 267 D: (02) 9101 8712 E: <u>callen@biosis.com.au</u>



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Barking Owl Aboriginal Corporation barkingowlcorp@gmail.com Hi Charlotte,

Thank you for sending through the ACHAR, I agree and support all your recommendations regarding Alex Avenue Public School, Schofields and it was a pleasure working with you and your team.

I appreciate you sending through the hard copy.

Have a great day!

Regards Stef

Kamilaroi Yankuntjatjara Working Group Aboriginal Cultural Heritage Surveys, Lawn Mowing & Fencing ABN 33 979 702 507

Not registered for GST

78 Forbes Street, Emu Plains NSW 2750 Mobile: 0434545982 Email: philipkhan.acn@live.com.au

Sent from Mail for Windows 10

From: philip khan <philip khan.acn@live.com.au>
Sent: Friday, March 29, 2019 8:50:58 AM
To: Charlotte Allen
Subject: RE: 27715 Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – Draft ACHA and AR

Thank you Charlotte.

Kamilaroi Yankuntjatjara Working Group Aboriginal Cultural Heritage Surveys, Lawn Mowing & Fencing ABN 33 979 702 507

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To: philip khan
Subject: Re: 27715 Alex Avenue Public School, Schofie

Subject: Re: 27715 Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – Draft ACHA and AR

Hi Stef,

Apologies for the delay - I was in the field yesterday. I will arrange for a hard copy of the reports to be sent to your address.

Kind regards, Charlotte

Sent from my Samsung GALAXY S5 on the Telstra Mobile Network

------ Original message ------From: philip khan <philipkhan.acn@live.com.au> Date: 28/03/2019 2:05 PM (GMT+10:00) To: Charlotte Allen <callen@biosis.com.au> Subject: RE: 27715 Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – Draft ACHA and AR

Hi Charlotte,

I'm not sure why but I can never access the reports from the links sent, would you be able to send me the hard copy.

Thanks Stef

Kamilaroi Yankuntjatjara Working Group Aboriginal Cultural Heritage Surveys, Lawn Mowing & Fencing ABN 33 979 702 507

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Sent from Mail for Windows 10

From: Charlotte Allen <callen@biosis.com.au>

Sent: Thursday, March 28, 2019 9:55:39 AM

To: 'philipkhan.acn@live.com.au'

Subject: 27715 Alex Avenue Public School, Schofields, Aboriginal cultural heritage assessment – Draft ACHA and AR

Good morning,

Following up on your registration for the Alex Avenue Public School Aboriginal cultural heritage assessment, a copy of the draft Aboriginal cultural heritage assessment report (ACHA) and archaeological report (AR) can be downloaded from the following webpage for your review: https://spaces.hightail.com/receive/oDcTwqQmtQ. Once comments have been received by registered Aboriginal parties (RAPs), the comments will be incorporated into a final report which will then be issued to all RAPs for their records.

It would be appreciated if you would provide feedback on the report to Biosis Pty Ltd by 5pm 25 April 2019 either by email, return mail or a phone call. Please address feedback to:

Charlotte Allen Biosis Pty Ltd Unit 14, 17-27 Power Avenue Alexandria NSW 2015 callen@biosis.com.au

If you have any queries please do not hesitate to contact me on the details below.

Kind regards,

Charlotte

Charlotte Allen Archaeologist

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Appendix 5 Archaeological report



Alex Avenue Public School, Schofields Archaeological Report

FINAL REPORT Prepared for Schools Infrastructure NSW 14 May 2019



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Biosis Pty Ltd has completed this assessment in accordance with the relevant federal, state and local legislation and current industry best practice. The company accepts no liability for any damages or loss incurred as a result of reliance placed upon the report content or for any purpose other than that for which it was intended.



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Biosis gratefully acknowledges the contributions of the following people and organisations (listed alphabetically) in preparing this report:

Registered Aboriginal Parties

- Aboriginal Archaeology Service
- Barking Owl Aboriginal Corporation
- Butucarbin Aboriginal Corporation
- Darug Aboriginal Land Care
- Darug Boorooberongal Elders Aboriginal Corporation
- Darug Land Observations
- Darug Tribal Aboriginal Corporation
- Deerubbin Local Aboriginal Land Council
- Didge Ngunawal Clan
- Kamilaroi Yankuntjatjara Working Group
- Merrigarn Indigenous Corporation
- Muragadi
- Murra Bidgee Mullangari Aboriginal Corporation

Government Departments

- Office of Environment and Heritage
- National Native Title Tribunal

Client

- Hayball Pty Ltd: Natalia Krysiak and Rob Chan
- TSA Management: Craig Butler and Jacqueline Sellen



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Glossary

ACHA	Aboriginal Cultural Heritage Assessment
АНІР	Aboriginal Heritage Impact Permit
AHIMS	Aboriginal Heritage Information Management System
BP	Before present
CBD	Central Business District
Consultation requirements	Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW 2010b)
DECCW	Department of Environment, Climate Change and Water (now OEH)
DP	Deposited Plan
EP&A Act	Environmental Planning and Assessment Act 1979
GPS	Global Positioning System
GSV	Ground Surface Visibility
ICOMOS	International Council on Monuments and Sites
LALC	Local Aboriginal Land Council
LEP	Local Environmental Plan
LGA	Local Government Area
NPW Act	National Parks and Wildlife Act 1974
NPWS	National Parks and Wildlife Service
NSW	New South Wales
OEH	Office of Environment and Heritage
PAD	Potential Archaeological Deposit
SEARs	Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
SSD	State Significant Development
Study area	Part of Lot 4, DP 1208329, and part of Lot 121, DP 1203646
the Code	Code of practice for archaeological investigation of aboriginal objects in NSW (DECCW 2010a)



Summary

Biosis Pty Ltd was commissioned to undertake an Aboriginal Cultural Heritage Assessment (ACHA) of the proposed development of the Alex Avenue Public School at 34-38 Schofields Road, Schofields, New South Wales (NSW) (the study area). The proposed development will be assessed as a State Significant Development (SSD) under Section 89(c) of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and Schedule 1 of the State Environmental Planning Policy (State and Regional Development) 2011(State and Regional Development SEPP) (SSD 18_ 9368). The Secretary's Environmental Assessment Requirements (SEARs) issued for this development (22 June 2018, and updated on 2 October 2018 and 30 January 2019) specify that an ACHA must be undertaken to identify, describe and document the Aboriginal heritage values that exist across the whole area that would be affected by the development in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010a) (the Code). Impacts on Aboriginal cultural heritage values are also to be assessed and documented in the ACHA, and demonstrate attempts to avoid impact upon those heritage values, and outline any measures proposed to mitigate impacts. Consultation with the Aboriginal community is also required in accordance with the Department of Environment Climate Change and Water document (DECCW) document, *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010b) (Consultation Requirements).

The study area is situated approximately 7.8 kilometres north-north-west of Blacktown and approximately 34.5 kilometres north-west of the Sydney central business district (CBD). The study area contains a crest which gradually descends to the west in the northern portion, and a simple slope descending south towards an open depression and a third order non-perennial stream, which is located outside of the study area, in a wider landscape of gentle slopes.

There are 94 Aboriginal cultural heritage sites registered with the Aboriginal Heritage Information Management System (AHIMS) register in the vicinity of the study area, with no registered sites located within the study area. The western portion of the study area has been subject to previous assessment and was included within an Aboriginal Heritage Impact Permit (AHIP) C000550 issued to Landcom, trading as UrbanGrowth NSW, which commenced on 11 September 2014. The AHIP is for a period of five years, and is due to expire on 11 September 2019. There are no sites listed on the AHIP or in AHIMS which are located within the study area.

The Aboriginal community was consulted regarding the heritage management of the project throughout its lifespan. Consultation has been undertaken as per the process outlined in the Consultation Requirements and is documented in the ACHA report for this project.

The survey was conducted on 20 November 2018. The overall effectiveness of the survey for examining the ground for Aboriginal sites was deemed low. This was attributed to vegetation cover restricting ground surface visibility (GSV) combined with a low amount of exposures. No previously unrecorded Aboriginal cultural heritage sites were identified during the field survey. One area of moderate archaeological potential, Alex Avenue PS potential archaeological deposit (PAD) 1, was identified on part of the crest and ridgeline and extending to the simple slope and open depression within the study area.

The proposed development will impact the area of moderate archaeological potential identified during the survey. Test excavations were proposed in order to confirm the nature and extent of any archaeological deposits which may be present within the study area.

Test excavations were conducted within the area of moderate archaeological potential between 18 and 26 February 2019. A total of 31 test pits were excavated as part of the test excavations and a total of three



artefacts were recovered. The test excavations resulted in the identification of two new Aboriginal sites: Alex Avenue PS 01 (AHIMS site no. 45-5-5218), and Alex Avenue PS 02 (AHIMS site no. 45-5-5219).

Avoidance of impact to archaeological and cultural heritage sites through design of the development is the primary mitigation and management strategy, and should be implemented where practicable. It is not possible for the proposed works to avoid impacts to the areas containing Alex Avenue PS 01 and Alex Avenue PS02 within the study area, and as such Alex Avenue PS 01 and Alex Avenue PS02 will be impacted by the proposed SSD project.

Alex Avenue PS 01 and Alex Avenue PS 02 have been assessed as holding low scientific significance. The two sites contained within the study area represent opportunistic background scatter and do not warrant further investigation. Accordingly, no further archaeological works are required within the study area prior to development impacts. However, a Care and Control Agreement should be established in consultation with the RAPs for the artefacts recovered from Alex Avenue PS 01 and Alex Avenue PS 02.

Strategies have been developed based on the archaeological (significance) of cultural heritage relevant to the study area. The strategies also take into consideration:

- Predicted impacts to Aboriginal cultural heritage.
- The planning approvals framework.
- Current best conservation practice, widely considered to include:
 - The ethos of the Australia International Council on Monuments and Sites (ICOMOS) Burra Charter.
 - The Code.

The recommendations that resulted from the consultation process are provided below.

Management recommendations

Prior to any development impacts occurring within the study area, the following is recommended:

Recommendation 1: Conditions of AHIP C000550

Although SSD projects are not required to comply with Part 6 of the *National Parks and Wildlife Act 1974* (NPW Act), the Office of Environment and Heritage (OEH) advises that conditions of valid AHIPs are followed by SSDs in order to reduce the risk of impacting Aboriginal heritage values.

OEH also advises that the holder of the AHIP should be contacted to confirm the works that are intended on the area covered by the AHIP.

Recommendation 2: No further archaeological works required for Alex Avenue PS 01 and Alex Avenue PS 02

It is recommended that no further archaeological works are required for Alex Avenue PS 01 and Alex Avenue PS 02 prior to development impacts.

Recommendation 3: Preparation and lodgement of AHIMS site cards for Alex Avenue PS 01 and Alex Avenue PS 02

It is recommended that AHIMS site cards are prepared and lodged with AHIMS for newly identified sites Alex Avenue PS 01 and Alex Avenue PS 02, and that the site numbers are included in the final version of this report.



Following development impacts it will be necessary to update these AHIMS records with AHIMS site impact recording forms for Aboriginal sites Alex Avenue PS 01 and Alex Avenue PS 02. This should occur within four months following completion of development impacts or as otherwise stated in SSD approval conditions.

Recommendation 4: Long term care and control of artefacts

In consultation with TSA Management on behalf of School Infrastructure NSW (SINSW), it has been determined that there are a number of areas within the study area which will not be subject to development or landscaping as part of the proposed works and will be maintained as a natural ground areas in the southeastern portion of the study area. It is proposed that the artefacts will be reburied on site somewhere within this location.

Recommendation 5: Discovery of unanticipated heritage items

Aboriginal objects

All Aboriginal objects and Places are protected under the NPW Act. It is an offence to knowingly disturb an Aboriginal site without a consent permit issued by the OEH. Should any Aboriginal objects be encountered during works associated with this proposal, works must cease in the vicinity and the find should not be moved until assessed by a qualified archaeologist. If the find is determined to be an Aboriginal object the archaeologist will provide further recommendations. These may include notifying the OEH and Aboriginal stakeholders.

Aboriginal ancestral remains

Aboriginal ancestral remains may be found in a variety of landscapes in NSW, including middens and sandy or soft sedimentary soils. If any suspected human remains are discovered during any activity you must:

- 1. immediately cease all work at that location and not further move or disturb the remains
- 2. notify the NSW Police and OEH's Environmental Line on 131 555 as soon as practicable and provide details of the remains and their location
- 3. not recommence work at that location unless authorised in writing by OEH.

Recommendation 6: Continued consultation with registered Aboriginal stakeholders

As per the consultation requirements, it is recommended that the proponent provides a copy of this draft report to the Aboriginal stakeholders and considers all comments received. The proponent should continue to inform these groups about the management of Aboriginal cultural heritage sites within the study area throughout the life of the project.

Recommendation 7: Lodgement of final report

A copy of the final report will be sent to the RAPs, the client, OEH and the AHIMS register for their records.



1 Introduction

1.1 Project background

This ACHA has been prepared by Biosis on behalf of the Schools Infrastructure NSW (the Applicant). It accompanies an Environmental Impact Statement (EIS) in support of SSD Application (SSD 18_9368) for the new Alex Avenue Public School at the corner of Farmland Drive and future realignment of Pelican Road in Schofields, NSW (the study area) (Figure 1 and Figure 2). The study area is legally described as proposed Lots 1 and 2, being part of existing Lot 4 in DP1208329 and Lot 121 in DP1203646.

The new school will cater for approximately 1,000 primary school students and 70 full-time staff upon completion. The proposal seeks consent for:

- Construction of a 2-storey library, administration and staff building (Block A) comprising:
 - School administrative spaces including reception.
 - Library with reading nooks, makers space and research pods.
 - Staff rooms and offices.
 - Special programs rooms.
 - Amenities.
 - Canteen.
 - Interview rooms.
 - Presentation spaces.
- Construction of four 2-storey classroom buildings (Block B) containing 40 homebases comprising:
 - Collaborative learning spaces.
 - Learning studios.
 - Covered outdoor learning spaces.
 - Practical activity areas.
 - Amenities.
- Construction of a single storey assembly hall (Block C) with a performance stage and integrated covered outdoor learning area (COLA). The assembly hall will have OOSH facilities, store room areas and amenities.
- Associated site landscaping and open space including associated fences throughout and games courts.
- Pedestrian access points along both Farmland Drive and the future Pelican Road.
- Substation on the north-east corner of the site.
- School signage to the front entrance.



All proposed school buildings will be connected by a covered walkway providing integrated covered outdoor learning areas. School staff will use the Council car park for the adjacent sports fields pursuant to a Joint Use agreement. The proposed School pick up and drop off zone will also be contained within the future shared car park and will be accessed via Farmland Drive.

The Aboriginal Cultural Heritage Assessment was_required by the SEARs for SSD 18_9368 issued on 22 June 2018 and updated on 2 October 2018 and on 30 January 2019. This table identifies the SEARs and relevant reference within this report.

Table 1SEARs and relevant references issued on 22 June 2018, 2 October 2018 and 30
January 2019

SEARs item	Report reference
Identify and describe the Aboriginal cultural heritage values that exist across the whole area that would be affected by the development and document these in an Aboriginal Cultural Heritage Assessment Report (ACHAR). This may include the need for surface survey and test excavation. The identification of cultural heritage values must be conducted in accordance with the Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (OEH 2010), and guided by the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (DECCW 2011).	Section 4 and 5 of AR
Consultation with Aboriginal people must be undertaken and documented in accordance with the Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW 2010). The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented in the ACHAR.	Section 4 and Appendix 1 of the ACHAR
Impacts on Aboriginal cultural heritage values are to be assessed and documented in the ACHAR. The ACHAR must demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the ACHAR must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and notified to OEH.	Section 7 of AR and section 6 of ACHAR

The western portion of the study area has been subject to previous assessment and was included within AHIP C000550, issued to Landcom, trading as UrbanGrowth NSW, and commencing on 11 September 2014. The AHIP is for a period of five years, and is due to expire on 11 September 2019. There are no sites listed on the AHIP or in AHIMS which are located within the study area.

1.2 Study area

The study area is located approximately 4.3 kilometres west of Rouse Hill and approximately 35.6 kilometres north-west of the Sydney CBD (Figure 1). It encompasses approximately two hectares of private land.

The study area is within the:

- Blacktown Local Government Area (LGA)
- Parish of Gidley



• County of Cumberland

The study area is currently bounded on its northern side by Farmland Drive and Lot 121, DP 1203646, on its western side by Lot 121, DP 1203646, by Lot 121, DP 1203646 and Lot 4, DP 1208329 on its southern side, and by Lot 2, DP 1209060 on its eastern side.

1.3 Planning approvals

The proposed development will be assessed as a SSD under Section 89(c) of the EP&A Act and Schedule 1 of the SEPP (State and Regional Development) 2011. Other relevant legislation and planning instruments that will inform the assessment include:

- Blacktown Development Control Plan 2015
- Blacktown LEP 2015
- National Parks and Wildlife Amendment Act 2010
- NPW Act

1.4 Objectives of the investigation

The objectives of the investigation can be summarised as follows:

- To identify and consult with any registered Aboriginal stakeholders and the Deerubbin LALC.
- To conduct additional background research in order to recognise any identifiable trends in site distribution and location.
- To search statutory and non-statutory registers and planning instruments to identify listed Aboriginal cultural heritage sites within the study area.
- To highlight environmental information considered relevant to past Aboriginal occupation of the locality and associated land use and the identification and integrity/preservation of Aboriginal sites.
- To summarise past Aboriginal occupation in the locality of the study area using ethnohistory and the archaeological record.
- To formulate a model to broadly predict the type and character of Aboriginal sites likely to exist throughout the study area, their location, frequency and integrity.
- To conduct a field survey of the study area to locate unrecorded or previously recorded Aboriginal sites and to further assess the archaeological potential of the study area.
- To assess the significance of any known Aboriginal sites in consultation with the Aboriginal community.
- To identify the impacts of the proposed development on any known or potential Aboriginal sites within the study area.
- To recommend strategies for the management of Aboriginal cultural heritage within the context of the proposed development.

1.5 Investigators and contributors

The roles, previous experience and qualifications of the Biosis project team involved in the preparation of this archaeological report are described below in Table 2.



Name and qualifications	Experience summary	Project role
Alexander Beben BA (Hons), MA	Alex has twelve years archaeological experience and has conducted over 200 heritage projects across Australia and internationally in the UK and Italy. He has extensive experience in the successful completion of Aboriginal and historical assessments, archaeological surveys, excavations, permit applications and management plans. Alex is accomplished in obtaining approvals under the NSW <i>National Parks and Wildlife Act</i> <i>1974</i> and NSW <i>Heritage Act 1977</i> . He has operated as the heritage consultant within large multidisciplinary teams tasked with managing heritage values under the EP&A Act and <i>Environment</i> <i>Protection and Biodiversity Act 1999</i> . Alex's extensive and varied experience with both public and private sector clients has enabled him to forge close relationships with Aboriginal stakeholders and government regulators. Alex is frequently able to leverage these relationships to ensure that his approach to projects meets the expectations of parties involved.	 Project director Attendance at project meetings Technical advice
	Alex has been involved in multiple projects from master planning through to development application stage and is experienced in ensuring that heritage values are mitigated in a manner that ensures the project is able to proceed.	
Amanda Atkinson BA (Arch/Paleo). Grad Dip. Arch	Amanda has ten years archaeological consulting experience across south-eastern and western Australia. She is experienced in all aspects of heritage consulting with specialisation in Aboriginal archaeology. Amanda has extensive experience in the successful completion of Aboriginal and Historical assessments, archaeological surveys, excavations, permits and management plans. She is accomplished in obtaining approvals under the NPW Act and NSW <i>Heritage Act 1977</i> . Amanda has primarily undertaken projects in south-eastern Australia and the Pilbara region of Western Australia and has a detailed understanding of heritage values within the Sydney Basin, Cumberland Plain and Hunter Valley. Amanda specialises in the archaeology of central and far western New South Wales, with particular research interests in the Lachlan River valley. Amanda has extensive experience in the successful completion of Aboriginal and Historical assessments, archaeological surveys, excavations, permits and management plans.	Quality assurance

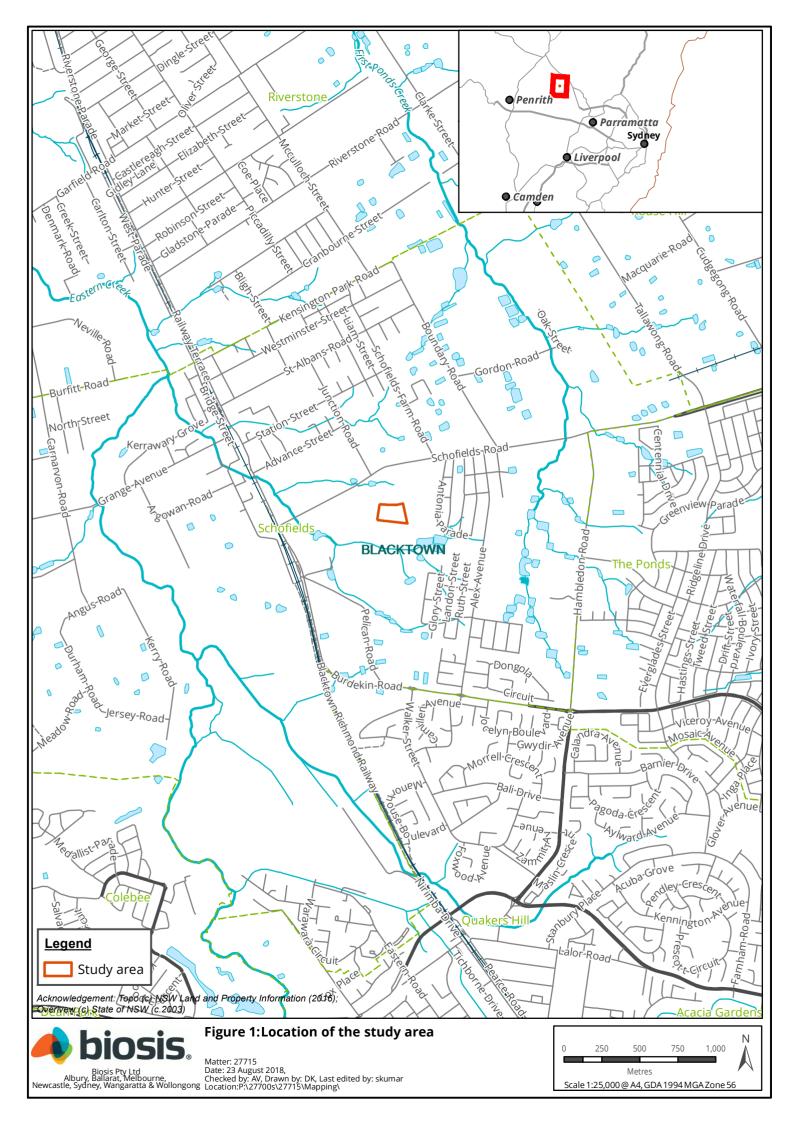
Table 2 Investigators and contributors



Name and qualifications	Experience summary	Project role
Dr Amanda Markham BA Hons (Anthro/Soc), PhD (Anthro) Grad. Cert (Arch) MA (Arch) - current	Amanda Markham has over 20 years' experience in anthropology and archaeology throughout Australia, including extensively in remote outback Australia. Her project experience includes working for Aboriginal representative bodies, mining and exploration companies, Commonwealth, state and territory government agencies, community groups and Indigenous stakeholder groups. Over her career Amanda has developed a deep understanding of Aboriginal people and culture and has extensive experience providing advice on Aboriginal cultural heritage management. Amanda's particular areas of expertise include cultural heritage management, field work in remote areas with Aboriginal Traditional Owners, conducting heritage assessments under state and territory legislation, skeletal remains assessment and conducting archaeological and anthropological surveys and assessments. Amanda has proven staff and project management skills and ability to simultaneously oversee multiple large complex projects to deliver client outcomes within tight time frames and budget constraints. Amanda's excellent communication and negotiation skills have seen her easily managing and building relationships between Aboriginal people and senior government and corporate figures.	 Quality assurance Technical advice
James Cole BA (Hons)	James is a consultant archaeologist with five years' experience. James has had experience working as an archaeologist and project manager on a number of Aboriginal and European heritage projects across NSW, Victoria, and Tasmania, and is skilled in both excavation and field recording. James has well developed skills in Aboriginal archaeology, serving as a key team member and project manager on a number of projects in Sydney, the Illawarra, the Hunter Region, and in Western NSW. These projects have seen him take part in Aboriginal consultation, background research, the formation of predictive modelling, fieldwork, and report authorship. He is also skilled in undertaking historical heritage assessments, having completed a number of Statements of Heritage Impact as the primary author.	 Technical advice Quality assurance



Name and qualifications	Experience summary	Project role	
Taryn Gooley BASc (Hons)	Taryn has been based in Newcastle since 2012 and has successfully completed numerous projects throughout the Newcastle, Port Stephens, Lake Macquarie, Central Coast, Hunter Valley, and North Western NSW regions. Taryn has extensive experience in undertaking remote archaeological surveys and large scale archaeological testing and salvage excavation programs. Taryn has participated in and managed a number of long term archaeological programs under Part 4 and Part 5 of the EP&A Act. Her areas of expertise include archaeological and heritage management advice, archaeological excavation and survey, artefact analysis, Aboriginal community consultation, technical report writing, and preparing cultural heritage management plans. Taryn is also accomplished in obtaining approvals under the NPW Act. Taryn has conducted numerous archaeological assessments for a diverse client base including Local Government, Roads and Maritime Services, the Australian Rail Track Corporation, Sydney Water, National Parks and Wildlife Service, Department of Primary Industry and Water, resource companies, architectural firms, engineering firms, and private developers.	Technical advice	
Charlotte Allen BA (Hons)	Charlotte joined Biosis in 2017 and is currently an Archaeologist based in Sydney, NSW. During this time, she has provided crucial support to project managers by conducting background research, field investigations and preparing reports for projects in Sydney and eastern and western NSW. Charlotte has experience with desktop research, Aboriginal and historical excavations in Australia and the UK, and the recording and analysis of cultural material. Charlotte has also undertaken a number of Aboriginal and historical heritage assessments, managing projects and conducting consultation with Aboriginal stakeholders.	 Project manager Report author Aboriginal community consultation 	
Anthea Vella BA, MAHM	Anthea graduated from Flinders University with a Bachelor of Archaeology and has also recently completed her Master of Archaeology and Heritage Management thesis at Flinders University. She has experience with desktop assessments, project administration, collating internal and external research, and reporting. Anthea also has experience in Aboriginal test excavations, and Historical excavations.	• Background research	
Ashley Bridge BA, MArchSci (Hons)	Ashley is a research assistant with under one year's experience in archaeology. Ashley is developing skills in background research for Aboriginal and non-aboriginal heritage assessments in NSW, and has excavation experience in both NSW and Europe.	Data analysisTest excavations	







2 Proposed development

School Infrastructure NSW are proposing to develop a new school on a Greenfields site with capacity for 1,000 students and 70 staff members. The study area will incorporate part of Lot 4, DP 1208329, and part of Lot 121, DP 1203646 (Plate 1, Plate 2, Plate 3, Plate 4). The project involves the following elements:

- Construction of a 2-storey library, administration and staff building (Block A) comprising:
 - School administrative spaces including reception.
 - Library with reading nooks, makers space and research pods.
 - Staff rooms and offices.
 - Special programs rooms.
 - Amenities.
 - Canteen.
 - Interview rooms.
 - Presentation spaces.
- Construction of four 2-storey classroom buildings (Block B) containing 40 homebases comprising:
 - Collaborative learning spaces.
 - Learning studios.
 - Covered outdoor learning spaces.
 - Practical activity areas.
 - Amenities.
- Construction of a single storey assembly hall (Block C) with a performance stage and integrated covered outdoor learning area (COLA). The assembly hall will have OOSH facilities, store room areas and amenities.
- Associated site landscaping and open space including associated fences throughout and games courts.
- Pedestrian access points along both Farmland Drive and the future Pelican Road.
- Substation on the north-east corner of the site.
- School signage to the front entrance.





Plate 1 Proposed development - landscape



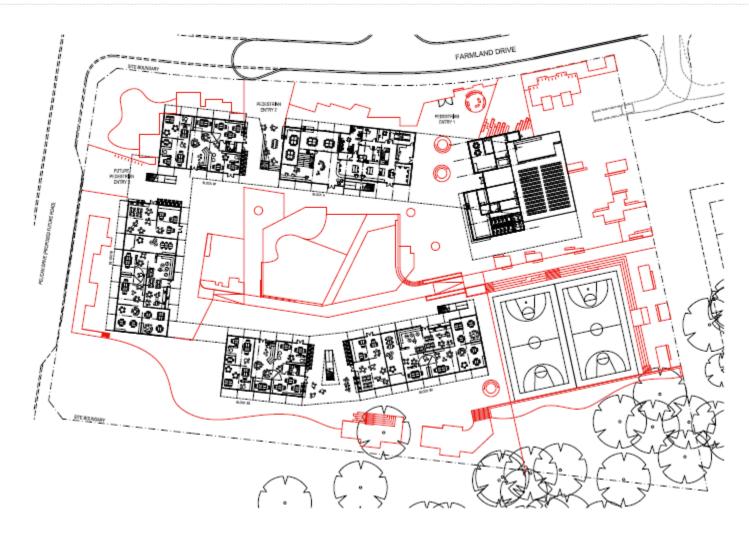


Plate 2 Proposed development - ground floor



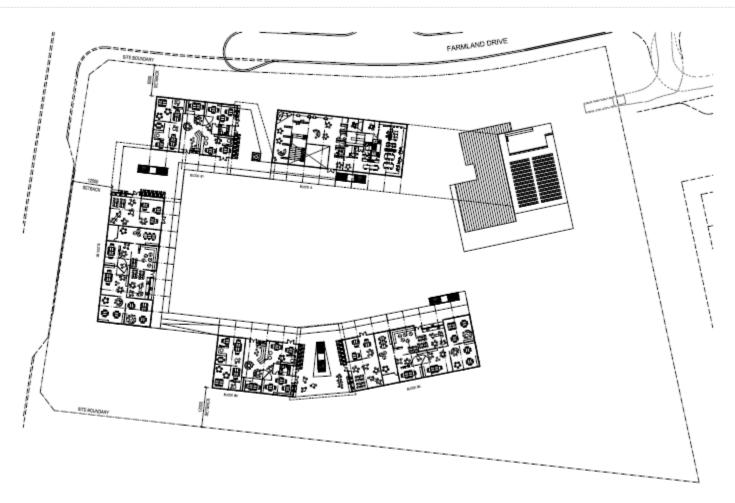


Plate 3 Proposed development - level one



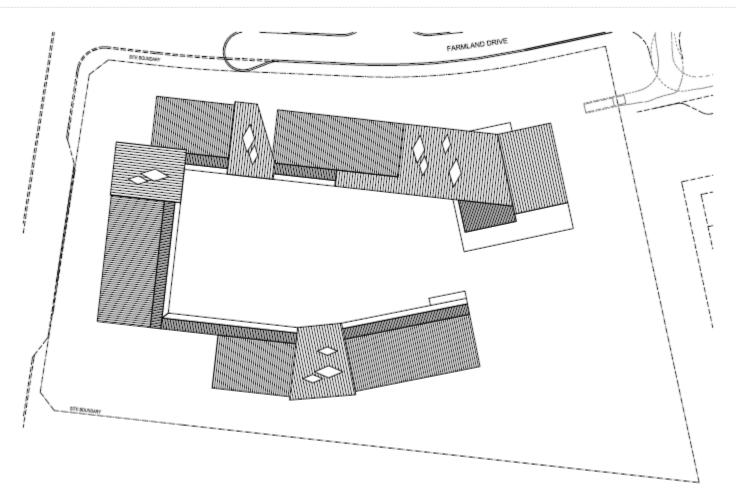


Plate 4 Proposed development - roof



3 Desktop assessment

The desktop assessment involves researching and reviewing existing archaeological studies and reports relevant to the study area and surrounding region. This information is combined to develop an Aboriginal site prediction model for the study area, and to identify known Aboriginal sites and/or places recorded in the study area. This desktop assessment has been prepared in accordance with requirements 1 to 4 of the Code.

3.1 Landscape context

It is important to consider the local environment of the study area any heritage assessment. The local environmental characteristics can influence human occupation and associated land use and consequently the distribution and character of cultural material. Environmental characteristics and geomorphological processes can affect the preservation of cultural heritage materials to varying degrees or even destroy them completely. Lastly landscape features can contribute to the cultural significance that places can have for people.

3.1.1 Topography and hydrology

The study area lies within the Cumberland Plain, which is a broad and shallow basin that stretches westwards from Parramatta to the Hawkesbury-Nepean River and southwards from Windsor to Thirlmere. The study area is contained within the Wianamatta Group geological formation, specifically the Bringelly Shale geological unit. The Bringelly Shale formation is primarily composed of shale, with occasional calcareous claystone, laminate, and coal (Bannerman & Hazelton 1990, p.28). The formation also contains subsidiary sandstone bands, varying in thickness from one inch to five feet (Lovering 1954).

Common landform elements within these systems include hillslopes, crests, drainage depressions, valley flats, and stream channels. A review of topographic maps of the study area indicates that it is dominated by gentle slopes. Landform units present in the vicinity of the study area include crests, alluvial plains, hillslopes, and creek banks. The study area contains a crest which gradually descends to the west in the northern portion, and a simple slope descending south towards an open depression and a third order non-perennial stream, which is located outside of the study area.

Stream order is recognised as a factor which assists the development of predictive modelling in Sydney Basin Aboriginal archaeology, and has seen extensive use in the Sydney region, most notably by Jo McDonald Cultural Heritage Management (Jo McDonald Cultural Heritage Management 2000, Jo McDonald Cultural Heritage Management Pty Ltd 2005a, Jo McDonald Cultural Heritage Management Pty Ltd 2005b, Jo McDonald Cultural Heritage Management 2006, Jo McDonald Cultural Heritage Management 2008). Predictive models which have been developed for the region have a tendency to favour higher order streams as the locations of campsites as they would have been more likely to provide a stable source of water and by extension other resources which would have been used by Aboriginal groups.

The stream order system used for this assessment was originally developed by Strahler (1952). It functions by adding two streams of equal order at their confluence to form a higher order stream, as shown in Plate 5. As stream order increases, so does the likelihood that the stream would be a perennial source of water.



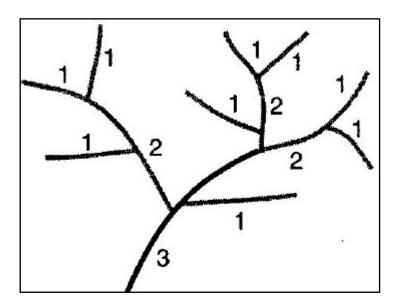


Plate 5 Diagram showing Strahler stream order (Ritter et al. 1995, p.151)

The nearest water course to the study area is a third order creek line approximately 150 metres to its south. First Ponds Creek, a second order stream, is located approximately 850 metres east of the study area, while approximately 1.5 kilometres to the west is Eastern Creek, a fourth order creek line, which would have provided a more stable source of water. Flood mapping undertaken by Blacktown City Council indicates that the study area is outside of any flood risk extent areas (Plate 6).

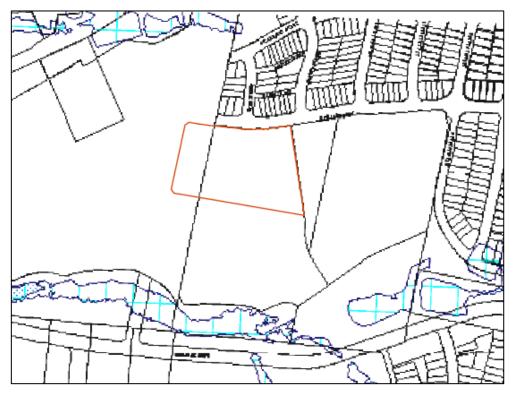


Plate 6 Flood risk extent areas in the vicinity of the study area (Source: Blacktown City Council)



3.1.2 Soil landscapes

Soil landscapes have distinct morphological and topological characteristics that result in specific archaeological potential. They are defined by a combination of soils, topography, vegetation and weathering conditions. Soil landscapes are essentially terrain units that provide a useful way to summarise archaeological potential and exposure.

The study area is contained within the Blacktown soil landscape. This landscape is characterised by its low reliefs and gentle slope, and is generally associated with a landform pattern of gently undulating rises. The local relief is around 30 metres, with slopes of 5 per cent. The soil characteristics of this landscape are described in Table 3 below.

Soil material	Description		
bt1—Friable brownish black loam	This is a friable brownish black loam to clay loam with moderately pedal subangular blocky (2 – 20 mm) structure and rough-faced porous ped fabric. This material occurs as topsoil (A horizon). Colour is brownish black (10YR 2/2) but can range from dark reddish brown (5YR 3/2) to dark yellowish brown (10YR 3/4). Rounded iron indurated fine gravel-sized shale fragments and charcoal fragments are sometimes present. Roots are common.		
bt2—Hardsetting brown clay loam	This is a brown clay loam to silty clay loam which is hardsetting on exposure or when completely dried out. It occurs as an A2 horizon. This material is water repellent when extremely dry. Colour is dark brown (7.5YR 4/3) but can range from dark reddish brown (2.5YR 3/3) to dark brown (10YR 3/3). Platy, iron indurated gravel-sized shale fragments are common. Charcoal fragments and roots are rarely present.		
bt3—Strongly pedal, mottled brown light clay	This is a brown light to medium clay with strongly pedal polyhedral or sub-angular to blocky structure and smooth-faced dense ped fabric. This material usually occurs as subsoil (B horizon). Colour is brown (7.5YR 4/6) but may range from reddish brown (2.5YR 4/6) to brown (10YR 4/6). Frequent red, yellow or grey mottles occur often becoming more numerous with depth. Fine to coarse gravel-sized shale fragments are common and often occur in stratified bands. Both roots and charcoal fragments are rare.		
bt4—Light grey plastic mottled clay	This is a plastic light grey silty clay to heavy clay with moderately pedal polyhedral to subangular blocky structure and smoothfaced dense ped fabric. This material usually occurs as deep subsoil above shale bedrock (B3 or C horizon). Colour is usually light grey (10YR 7/1) or, less commonly, greyish yellow (2.5YR 6/2). Red, yellow or grey mottles are common. Strongly weathered ironstone concretions and rock fragments are common. Gravel-sized shale fragments and roots are occasionally present. Charcoal fragments are rare.		

Table 3 Blacktown soil landscape characteristics (Bannerman & Hazelton 1990, pp.29–30)

On crests and ridges there can be up to 30 centimetres of friable brownish black loam (bt1) overlying 10-20 centimetres of hardsetting brown clay loam (bt2) and up to 90 centimetres strongly pedal brown mottled light clay (bt3). Soil horizons are generally clear and total soil depth is <100 centimetres, though bt1 material is occasionally absent. On upper slopes and midslopes there can be up to 30 centimetres of bt1 overlying 10-20 centimetres of bt2 and 20-50 centimetres of bt3, under which lies up to 100 centimetres of a light grey plastic mottled clay (bt4). Soil depth is <200 centimetres, and similar to crests and ridges soil horizons are clear and bt1 may be absent. On lower side slopes there can be up to 30 centimetres of bt1 overlying 10-30 centimetres



of bt2 and 40-100 centimetres of bt3, under which usually lies <100 centimetres of bt4; soil horizons are clear and total depth is >200 centimetres (Bannerman & Hazelton 1990, p.30).

Subsurface artefacts in the Blacktown soil landscape are typically located in the A horizon topsoil. In the Blacktown soil landscape, it is likely that any subsurface artefacts would be identified in the upper two stratigraphic profiles (bt1 and bt2). The soils described in Table 3 align closely with profiles described in nearby excavations at the Rouse Hill Anglican College, on the northern side of Rouse Road (Stephanie Garling Archaeological Consulting 2000, p.45). The descriptions given by Stephanie Garling Archaeological Consulting (2000) suggest that the bt1 profile had largely eroded away from the study area, and that the majority of the artefacts identified came from the bt2 profile. Raw material sources in the vicinity of the study area include silcrete quarries at Riverstone and Plumpton Ridge, which are located approximately 1 kilometre west (Archaeological & Heritage Management Solutions 2015, p.18).

Geotechnical investigations were undertaken in 2017 and 2018. Areas of stockpiling were noted in the central portion. Three boreholes were established within the study area in the 2017 investigations, which displayed similar soils in varying colours throughout, namely clayey silt up to 20-50 centimetres, overlying a silty clay extending to a depth of 110-200 centimetres, underlain by sandstone. Borehole 3 in the north-eastern portion of the study area identified 20 centimetres of silty sand fill material containing organic material and traces of clay (JK Geotechnics 2017). Similar results were found in the 2018 investigation, with 24 boreholes established (Greencap 2018).

3.1.3 Landscape resources

While the diverse natural environment would have provided vast and plentiful floral and faunal resources and the temperate climate would have made the area suitable for year-round occupation, the distance of the study area from permanent water sources would have detracted from its appeal as a long term occupation site. Although extensively cleared today, the Blacktown Soil Landscape typically supports dry sclerophyll forest; predominantly species of eucalypt, including Forest Red Gum, Narrow Leaved Ironbark, and Grey Box (Bannerman & Hazelton 1990, p.29). Broad Leaved Ironbark and White Stringy Bark are also occasionally present.

Within the Cumberland subregion of the Sydney Basin Bioregion there is a variety of vegetation types present, with Grey Box, Forest Red Gum, Narrow-leaved Ironbark woodland, and Spotted Gum are present on shale hills. Hard-leaved Scribbly Gum, Rough-barked Apple, and Old Man Banksia are identified on alluvial sands and gravels. Broad-leaved Apple, Cabbage Gum, Forest Red Gum, and Swamp Oak are present on river flats. Tall Spike Sush, and Juncus with Parramatta Red Gum is noted around lagoons and swamps (NSW National Parks and Wildlife Service 2003, p.193).

Native fauna that would have been present in the vicinity of the study area include: Australian Wood Duck, White-faced Heron, Eastern Long-necked Tortoise, Eastern Water Skink, Garden Skink, Welcome Swallow, Purple Swamphen, as well as arboreal fauna including owls, Ring- and Brush-tailed Possums, and gliders.

Plant resources were used in a variety of ways. Fibres were twisted into string which was used for many purposes including the weaving of nets, baskets and fishing lines. String was also used for personal adornment. Bark from eucalypts was used in the provision of shelter; a large sheet of bark being propped against a stick to form a gunyah (Attenbrow 2002). Swamp oak bark could be used for the making of canoes, and smooth-barked apple for the making of baskets and bowls.

As well as being important food sources, animal products were also used for tool making and fashioning a myriad of utilitarian and ceremonial items. For example, tail sinews are known to have been used to make fastening cord, while 'bone points', which would have functioned as awls or piercers, are often an abundant part of the archaeological record. Animals such as Brush-tailed Possums were highly prized for their fur, with possum skin cloaks worn fastened over one shoulder and under the other (Attenbrow 2002).



3.1.4 Land use history

Our knowledge of Aboriginal people and their land-use patterns and lifestyles prior to European contact is mainly reliant on documents written by non-Aboriginal people. These documents are affected by the inherent bias of the class and cultures of their authors, who were also often describing a culture that they did not fully understand - a culture that was in a heightened state of disruption given the arrival of settlers and disease. Early written records can however be used in conjunction with archaeological information and surviving oral histories from members of the Aboriginal community in order to gain a picture of Aboriginal life in the region.

Despite a proliferation of Aboriginal heritage sites there is considerable ongoing debate about the nature, territory and range of pre-contact Aboriginal language groups in the greater Sydney region. These debates have arisen largely because, by the time colonial diarists, missionaries and proto-anthropologists began making detailed records of Aboriginal people in the late 19th century, pre-European Aboriginal groups had been broken up and reconfigured by European settlement activity. The following information relating to Aboriginal people on the Cumberland Plains is based on such early records.

There is some confusion relating to group names, which can be explained by the use of differing terminologies in early historical references. Language groups were not the main political or social units in Aboriginal life. Instead, land custodianship and ownership centred on the smaller named groups that comprised the broader language grouping. There is some variation in the terminology used to categorise these smaller groups; the terms used by Attenbrow (2002) will be used here. Attenbrow (2002, p.34) suggests that a total of four dialects were spoken in the Sydney region:

- Darug coastal dialect/s the Sydney Peninsula (north of Botany Bay, south of Port Jackson, west to Parramatta), as well as the country to the north of Port Jackson, possibly as far as Broken Bay
- Darug hinterland dialect on the Cumberland Plain from Appin in the south to the Hawkesbury River in the north; west of the Georges River, Parramatta, the Lane Cove River and Berowra Creek
- Dharawal from south side of Botany Bay, extending south as far as the Shoalhaven River; from the coast to the Georges River and Appin, and possibly as far west as Camden,
- Gundungurra southern rim of the Cumberland Plain west of the Georges River, as well as the southern Blue Mountains.

Early interactions between local Aboriginal groups in the Sydney region and European settlers varied in nature between peaceful and hostile. It was not long before the effects of colonisation proved detrimental to local groups, with farming practices employed by the settlers removing land that had until that point been used for subsistence (Attenbrow 2002).

Early observers made no note of the language of the local groups, and it was not until the latter part of the nineteenth century that the name Darug was used. Matthews (1901, p. 155, cited by Attenbrow 2002, p.32) stated that "The Dharuk speaking people adjoined the Thurrawal on the north, extending along the coast to the Hawkesbury River, and inland to what are now Windsor, Penrith, Campbelltown, and intervening towns". Subsistence activities varied based on the local landscapes, with Darug groups closer to the coast employing different food sources and means of hunting in order to survive, compared to those further inland (Kelleher Nightingale Consulting 2010, p.10).

After the arrival of European settlers the movement of Aboriginal hunter-gatherers became increasingly restricted. European expansion along the Cumberland Plain was swift and soon there had been considerable loss of land to agriculture. This led to violence and conflict between Europeans and Aboriginal people as both groups sought to compete for the same resources (Brookes & Associates et al. 2003, p.16). At the same time diseases such as small pox were having a devastating effect on the Aboriginal population. Death, starvation and disease were some of the disrupting factors that led to a reorganisation of the social practices of



Aboriginal communities after European contact. The formation of new social groups and alliances were made as Aboriginal people sought to retain some semblance of their previous lifestyle.

The study area is located within a land grant of 100 acres (40.4686 hectares) initially made to Josh Ward in 1815, and later made to Joseph Pye on 19 October 1831 by Crown grant (Plate 7) (NSW Department of Lands, Vol. 1101 Fol. 101, Colonial Secretary's Office 1831). The study area remained under the ownership of the Pye family until 1938. The Pye family were known as orchardists and also grazed cattle, so it is possible that orcharding and/or grazing activities may have taken place within the study area (Windsor and Richmond Gazette 1897, 8; AHMS 2015). In 1938, part of the Pye lands were sold to Joseph and Harold Langlade, who established 'Langlade's Dairy'; several dairy-related structures were constructed east of the study area (AHMS 2015). It is likely the study area continued to be used for grazing purposes under their ownership, and that of subsequent owners, including the Geddes from 1949-c.1960 (master butcher), Gordons from 1960-1973 (horse trainer) and Jones' from 1973 (farmer) (NSW Department of Lands, Vol. 1932 Fol. 207).

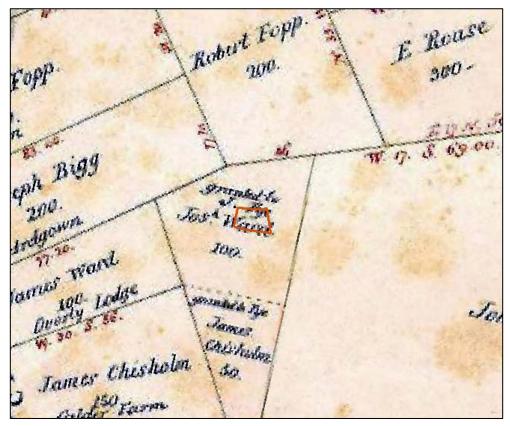


Plate 7 Extract from an 1833 Gidley Parish Map, with the study area highlighted (Source: NSW Land Registry Services)

Aerial photographs from the mid-20th century onwards reveal detail of the use and disturbance of the study area (Plate 8, Plate 9, Plate 10, Plate 11, Plate 12, Plate 13, Plate 14, Plate 15, Plate 16, Plate 17). Table 4 provides a summary of the changes to the study area from 1956 to 2018.

Table 4	Analysis of aerial	photographs of the study area
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Year	Comments
1956	A large proportion of the study area appears to have been ploughed, specifically in the northern sections. The southern areas retain some bushland but app has been partially cleared.



Year	Comments
1961	Significant changes to the study area, with the installation of an unsealed oval track in the north- eastern portion of the study area; this may have been a horse track considering the ownership of the study area by a horse trainer at this time. Possibly some earthworks or terracing in the south and south-eastern portions of the study area. Some bushland has been retained in the south-eastern corner, and plough marks are also strongly evident.
1965	Similar to previous aerial, with the track less defined and sparser bushland in the south-eastern corner.
1970	The track appears to be out of use, having been grown over. Bushland in the south-eastern corner appears to be in similar condition to the previous aerial.
1978	Very little evidence of the track remains; possibly used for grazing animal stock.
1982	Several tracks run through the study area, and potentially an earthwork in the north-eastern corner.
1991	Western portion of the study area has been developed for agricultural purposes, with grass cover appearing sparse in this area.
2005	An informal track appears to run across the south-eastern corner of the study area near the area of bush, while grass cover has increased in the western portion, with some earth scours remaining.
2009	The track running across the south-eastern corner is more defined, suggesting heavier use, with a further track running north-south in the central portion of the study area. There is an area of exposure in the south-western corner.
2018	Introduction of residential development north of the study area has resulted in some removal of topsoil along the northern boundary, and possible deposited materials just south of this exposure



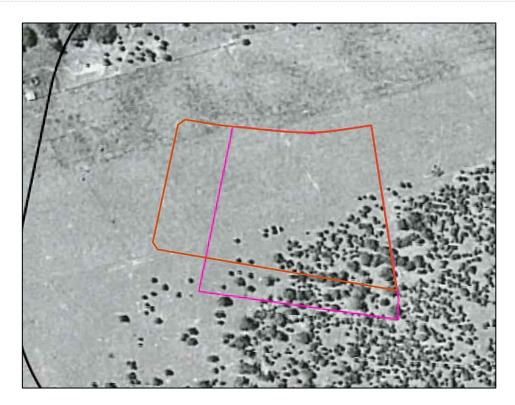


Plate 8 1956 aerial of the study area, with the study area highlighted in red (please note the pink outline is the area assessed in Environmental Investigation Services 2017) (Source: Environmental Investigation Services 2017)



Plate 9 1961 aerial of the study area, with the study area highlighted in red (please note the pink outline is the area assessed in Environmental Investigation Services 2017) (Source: Environmental Investigation Services 2017)





Plate 10 1965 aerial of the study area, with the study area highlighted in red (please note the pink outline is the area assessed in Environmental Investigation Services 2017) (Source: Environmental Investigation Services 2017)

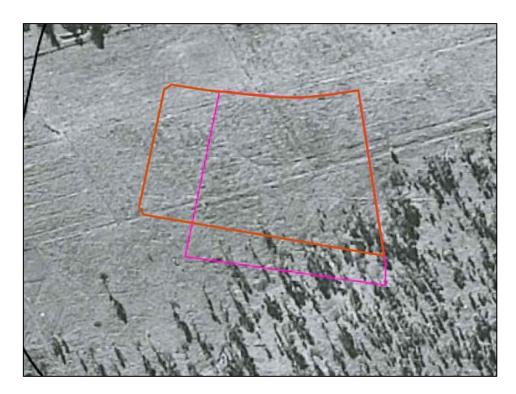


Plate 11 1970 aerial of the study area, with the study area highlighted in red (please note the pink outline is the area assessed in Environmental Investigation Services 2017) (Source: Environmental Investigation Services 2017)





Plate 12 1978 aerial of the study area (Source: NSW Spatial Services 2018)



Plate 13 1982 aerial of the study area, with the study area highlighted in red (please note the pink outline is the area assessed in Environmental Investigation Services 2017) (Source: Environmental Investigation Services 2017)





Plate 14 1991 aerial of the study area, with the study area highlighted in red (please note the pink outline is the area assessed in Environmental Investigation Services 2017) (Source: Environmental Investigation Services 2017)



Plate 15 2005 aerial of the study area, with the study area highlighted in red (please note the pink outline is the area assessed in Environmental Investigation Services 2017) (Source: Environmental Investigation Services 2017)

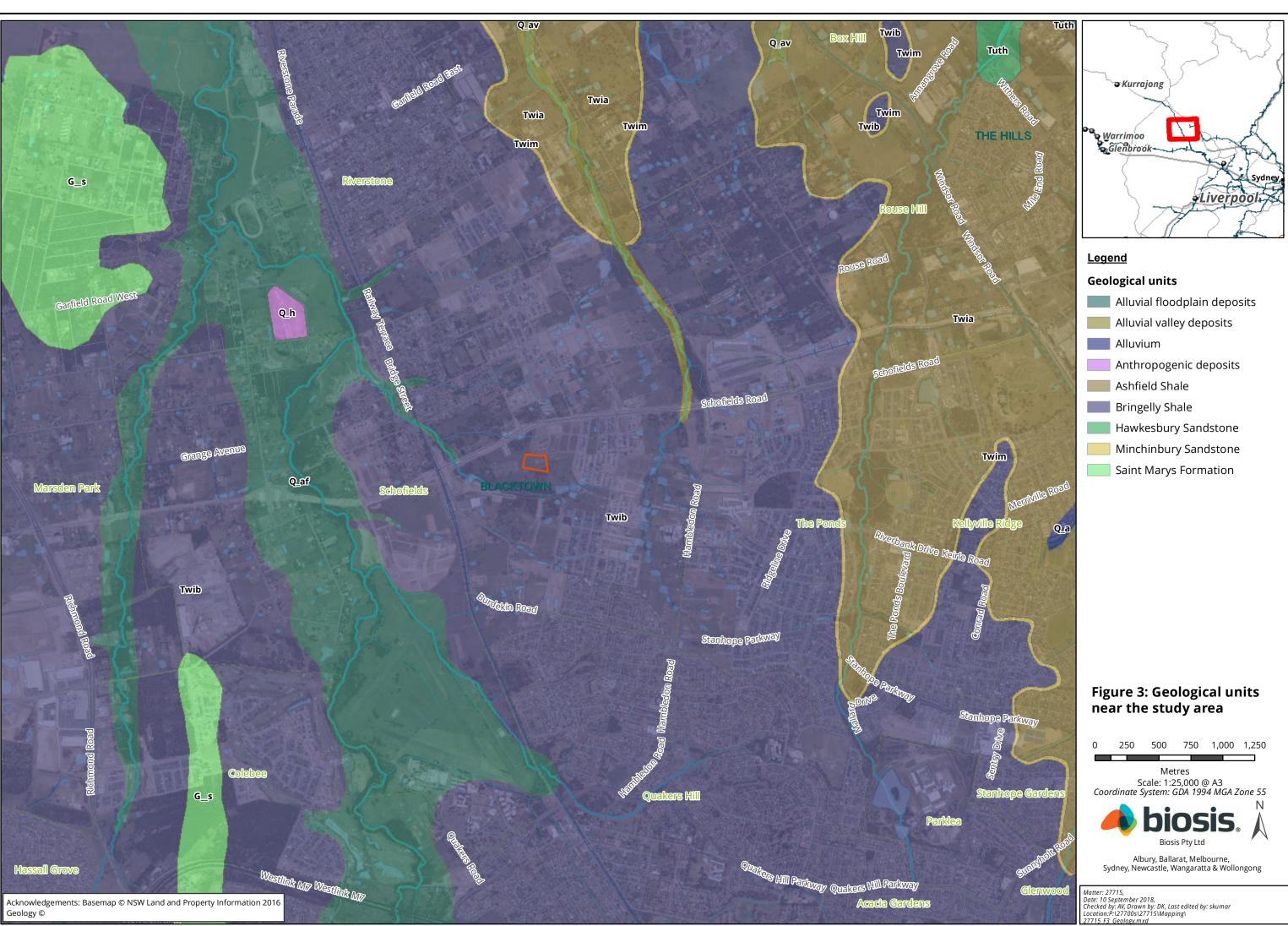




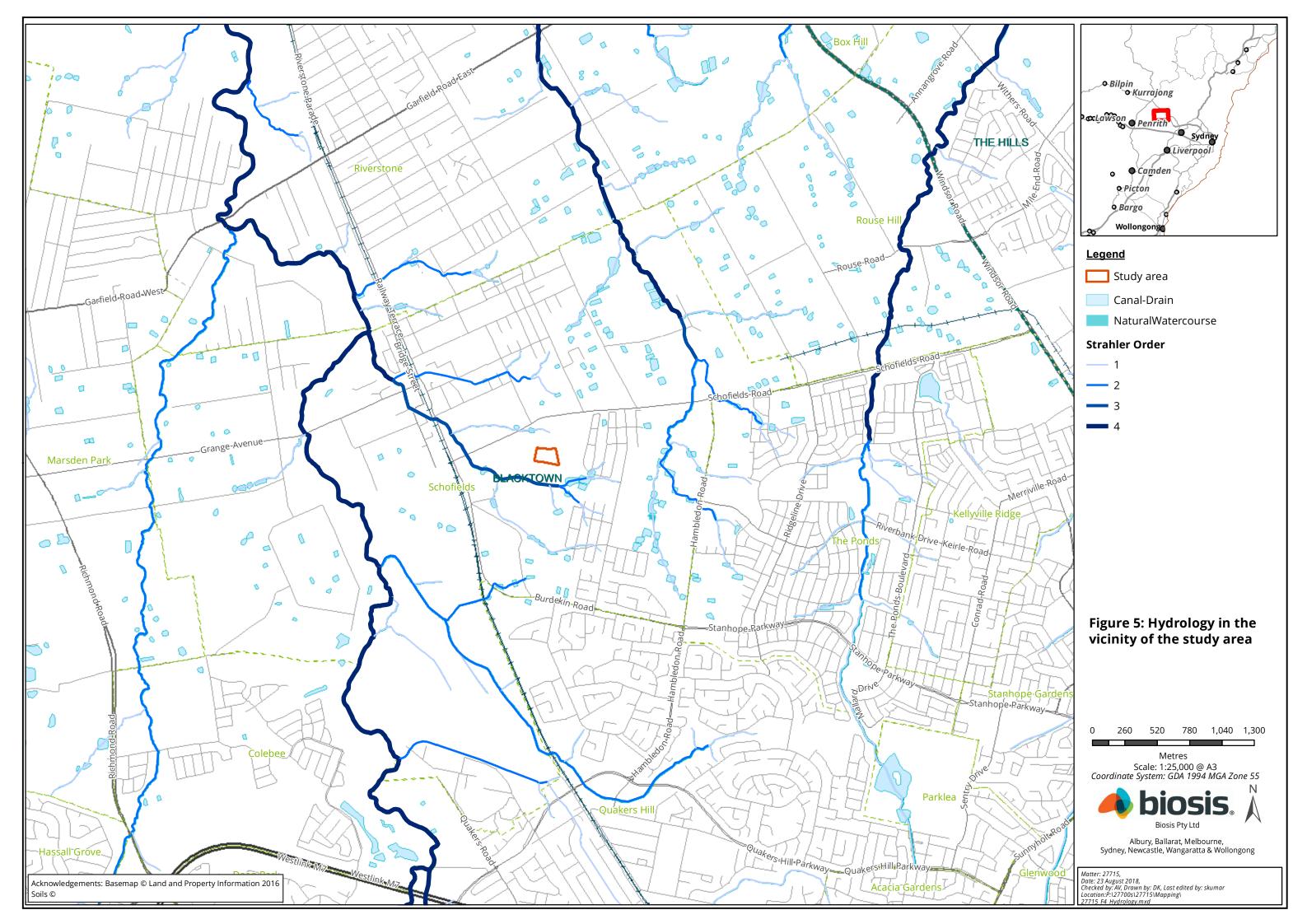
Plate 16 2009 aerial of the study area, with the study area highlighted in red (please note the pink outline is the area assessed in Environmental Investigation Services 2017) (Source: Environmental Investigation Services 2017)

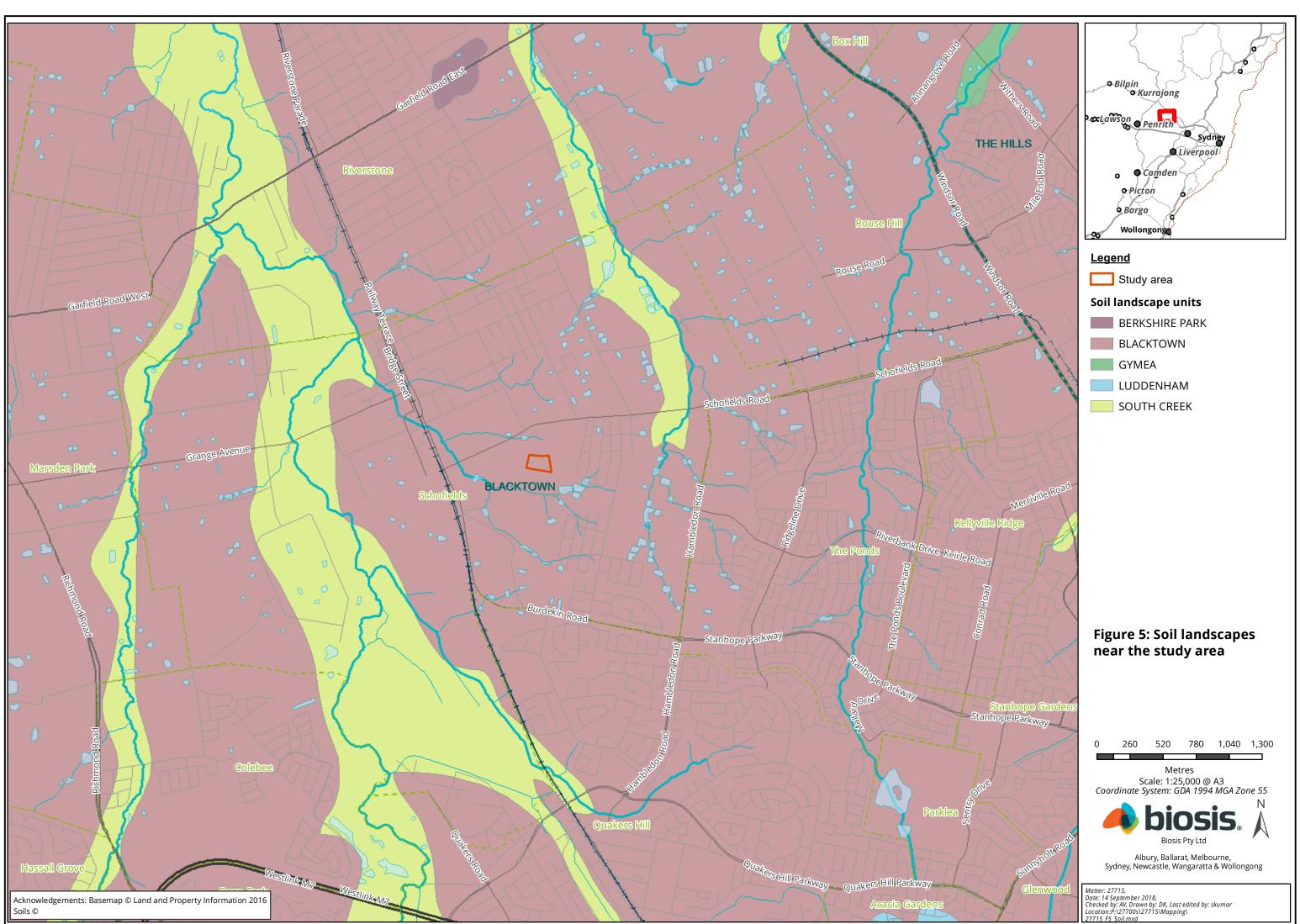


Plate 17 2018 aerial of the study area, with the study area highlighted in red (Source: GoogleMaps 2018)



0	250	500	750	1,000	1,250
Metres Scale: 1:25,000 @ A3 Coordinate System: GDA 1994 MGA Zone 55					
Biosis Pty Ltd					
Albury, Ballarat, Melbourne, Sydney, Newcastle, Wangaratta & Wollongong					







3.2 Previous archaeological work

A large number of cultural heritage surface (surveys) and sub-surface (excavations) investigations have been conducted throughout the region of NSW in the past 30 years. There has been an increasing focus on cultural heritage assessments in NSW due to ever increasing development, along with the legislative requirements for this work and greater cultural awareness of Aboriginal cultural heritage. The archaeology of the Sydney Basin region has been well documented through a large number of academic and impact assessment investigations over the past 30 years (Kohen 1986, Haglund 1980, Smith 1989, McDonald & Rich 1993). This is particularly evident in the Cumberland Plain, largely as a result of archaeological studies related to rapid urban development across the area. These studies have enabled a comprehensive model of archaeological site distribution to be developed for the Cumberland Plain, including the local area.

It is generally accepted that people have inhabited the Australian landmass for the last 50,000 years (Allen & O'Connell 2003). Dates of the earliest occupation of the continent by Aboriginal people are subject to continued revision as more research is undertaken. The timing for the human occupation of the Sydney Basin is still uncertain. While there is some possible evidence for occupation of the region around 40,000 years ago, the earliest known radiocarbon date for the Aboriginal occupation of the Sydney Basin is associated with a cultural / archaeological deposit at Parramatta, which was dated to 30,735 ± 407 before present (BP) (Jo McDonald Cultural Heritage Management Pty Ltd 2005a, Jo McDonald Cultural Heritage Management Pty Ltd 2005b).

Archaeological evidence of Aboriginal occupation of the Cumberland Plains indicates that the area was intensively occupied from approximately 4,000 years BP. Such 'young' dates are probably more a reflection of the conditions associated with the preservation of this evidence and the areas that have been subject to surface and sub-surface archaeological investigations, rather than actual evidence of the Aboriginal people prior to this time.

3.2.1 Regional overview

A number of Aboriginal cultural heritage investigations have been conducted for the Blacktown region and Cumberland Plain. Models for predicting the location and type of Aboriginal sites with a general applicability to the Cumberland Plain and thus relevant to the study area have also been formulated, some as a part of these investigations and others from cultural heritage investigations for relatively large developments.

Stephanie Garling Archaeological Consulting (2000) completed test excavations on two areas of potential (RHAC2 and RHAC3). Testing was completed in advance of the construction of the Rouse Hill Anglican College. The program of testing was completed following an archaeological survey which identified one stone artefact and two PADs. These areas were assessed as having moderate to high potential based on:

- Close proximity to food and water sources in the form of Second Ponds Creek.
- Gentle hillslopes in the area, which formed a potentially suitable camping location.
- The presence of previously excavated sites in the vicinity, which had contained significant deposits.
- Predictive modelling, which suggested that higher densities of artefactual material may be present within the study area.
- A lack of disturbance identified within the study area.
- The presence of the study area on Shale Lowlands, which had previously been assessed as a threatened landscape on the Cumberland Plain in terms of disturbance.

Stephanie Garling Archaeological Consulting also brought together background research from various sources relating to sources of raw artefact material in relation to the study area (Table 5).



Table 5Distance to known sources of raw material for artefacts from the study area
(Stephanie Garling Archaeological Consulting 2000, p.37)

Raw material type						
Nearest sources of surface stone (km)	Silcrete	Silicified tuff	Petrified wood	Quartz	Quartzite	Igneous
Hawkesbury sandstone	-	-	-	1.2	-	-
Scheyville	10	10	-	-	10	-
South Windsor	-	11	-	-	11	-
Nepean River Agnes Banks	-	21	-	21	21	21
Riverstone	3	-	4	4	-	-
Echo Vale	8	8	8	-	8	8
Sirius Place	-	12	-	12	12	-
Marsden Park	6.5	-	6.5	-	6.5	-
Plumpton Ridge	6	-	6	-	-	-
Bells Creek 2	8	-	-	-	-	-
ADI Dunheved (St Marys)	13	13	13	-	13	-
Plumpton Park	9.5	-	-	-	-	-
Blacktown 1	9	-	-	-	-	-

Test excavations at both sites identified subsurface deposits, with the results summarised in Table 6.

Table 6Results of test excavations conducted by Stephanie Garling Archaeological Consulting
(2000)

Site	Extent of excavations	Number of artefacts recovered	Density (artefact / metres squared)
RHAC2	32 metres squared Six 1 x 1 metre test pits Two open areas	942	29.44
RHAC3	15 metres squared Fifteen 1 x 1 metre test pits	7	0.47

Within RHAC2, localised knapping floors were identified, with the largest containing 812 artefacts. Excavations in this area identified a relatively intact knapping floor with a central area of high density and a lower density peripheral area. It was noted that a high number of backed artefacts (47) were identified in the assemblage, and that the primary raw material was silcrete. The site was assessed as having moderate significance, as while a large number of artefacts were recovered, it was considered that the deposit was relatively unstratified, and as such as unable to provide a chronology for Aboriginal occupation in the area (Stephanie Garling Archaeological Consulting 2000, p.80).



The low density of artefacts identified at RHAC3 led to it being classed as 'background scatter' with it being considered unlikely that camping or knapping took place at this site, with it being suggested that local Aboriginal groups may have favoured the lower hillslope closer to Second Ponds Creek. This site was classed as having low potential.

White & McDonald (2010) undertook a review of previous work in the Rouse Hill development area, discussing lithic artefact distribution in previous excavations carried out by Jo McDonald Cultural Heritage Management in 2008. The study considered a number of factors including stream order, distance from water, landform, aspect, and distance to silcrete sources. As a result of the assessment, the following statements were made:

- Stream Order: water supply was a significant factor influencing Aboriginal land use and habitation in the area. There was a correlation between increasing stream order and larger numbers and higher densities of artefacts (from a comparison of first, second, and fourth order streams)
- Distance from water: the results showed that an assumption that sites would be clustered within 50 metres of water sources was not entirely correct from the data available. In first order stream landscapes, there was no significant correlation between artefact distribution and distance to water. In second order landscapes, artefact density was highest within 50 metres of water, and then declined with increasing distance. In fourth order landscapes, density was highest between 51-100 metres from water
- Landform: Artefact density was considered to be lowest on upper slopes and ridgetops, with density increasing on mid and lower slopes. Density was highest in terrace landforms, and lower on creek flats, likely due to repeated flooding events and the erosion the caused
- Distance to silcrete sources: the results of the study showed no significant difference between sites located closer to or further away from silcrete sources. However, 6 kilometres was the maximum tested distance from silcrete sources, so the sample is only representative of a limited area
- Aspect: only appeared to have an influence on sites in the lower parts of valleys may have been sited to take advantage of steady factors such as the rising/setting sun and wind direction. Sites in higher parts of valleys may have been influenced by weather and other factors.

The study concluded that landform and distance from water had an impact on site distribution, with artefacts becoming more numerous closer to creeks, and along higher order creeks. It also found that although artefacts are found on all landforms, landform type influences artefact distribution, with the preference being for slightly elevated, well-drained areas in the lower parts of valleys.

AHMS (2015) conducted an Aboriginal cultural heritage assessment for the proposed earthworks on part of the former Schofields aerodrome. A number of previous assessments and investigations resulted in the identification of several Aboriginal archaeological sites and areas of sensitivity within the study area. Further background research and the results of the AECOM survey indicated that there were two sites with PADs located within the study area. The field investigation consisted of test excavations. A total of 46 pits were excavated and 507 artefacts were recovered. The excavations allowed a revision of earlier interpretations of the previously identified sites. It was found that these sites were significantly disturbed and the surface artefacts were likely to have been introduced in gravel. Artefacts were present in high densities in the deeper soils in close proximity to the watercourse.

Biosis (2017) undertook an Aboriginal due diligence assessment and historical heritage advice for a proposed small scale concrete and sandstone crushing plant at Edward Street, approximately 2.1 kilometres north-west



of the study area. The assessment included background research and an archaeological survey. The study area had been impacted by the construction of various structures and vegetation clearance. The archaeological survey of the study area did not identify any new archaeological sites or any areas of PAD.

Extent (2017a) were commissioned by Design Cubicle to complete an Aboriginal heritage due diligence assessment at 166 Guntawong Road, Riverstone. A desktop assessment and site visit determined it is unlikely that Aboriginal materials would be present across most of the southern portion of the property due to previous land use and disturbance that had truncated the soil profile, specifically the A1 horizon where Aboriginal objects are commonly found. However, a small area in the northern part of the property, located within proximity to the dam, was considered to be relatively undisturbed and therefore considered to have potential to contain Aboriginal objects.

Extent (2017b) were commissioned by Guntawaong Estate Pty Ltd to undertaken an Aboriginal heritage due diligence assessment of 172 Guntawong Road, Riverstone. The assessment was undertaken for a proposed residential redevelopment of the site. The site inspection revealed that majority of the subject area had been previously disturbed and/or cleared. It was noted that a first order drainage line was once present but had been subject to modification by heavy machinery to construct a dam. No Aboriginal objects were observed around the watercourse or within the study area.

3.2.2 Local overview

A number of Aboriginal cultural heritage investigations have been conducted within the region (within approximately 10 kilometres of the study area). Most of these investigations were undertaken as part of development applications and included surface and sub-surface investigations. These investigations are summarised below.

Dallas (1982) completed a survey at Riverstone, Schofields, and Quakers Hill. Background research completed by Dallas indicated that it was likely that artefact sites and culturally modified trees would occur within the study area, and that based on previous work completed by Haglund, artefact sites were most likely to occur on high points adjacent to or between creeklines (Dallas 1982, pp.7–8).

Dallas' survey included the current study area. The assessment identified seven artefact scatters and four isolated artefacts in the surveyed area. One of the isolated finds, ISF2, was located south of the current study area, and is described as a yellow-orange banded chert notched and nosed scraper located on the edge of a dry creek bed (Dallas 1982, p.15).

Jo McDonald Cultural Heritage Management (2002) undertook an assessment of Areas 2, 5, 20, 22, and 24b of the Rouse Hill Infrastructure Project in the Second Ponds Creek Area. This survey incorporated the current study area, which forms a part of Area 20. The initial sections of the assessment identified the majority of Area 20 as being in a zone of 'lesser' disturbance (Jo McDonald Cultural Heritage Management 2002, p.14). The regional predictive modelling used for this study was based on work undertaken throughout the 1990s and early 2000s in the Cumberland Plain, predominantly throughout the Rouse Hill area. It was stated that:

- "It is predicted that the size (density and complexity) of archaeological features will vary according to the permanence of water (i.e. ascending stream order), landscape unit and proximity to lithic resources in the following way:
- In the headwaters of upper tributaries (i.e. first order creeks) archaeological evidence will be sparse and represent little more than a background scatter.
- In the middle reaches of minor tributaries (second order creeks) will be archaeological evidence for sparse but focussed activity (e.g. one-off camp locations, single episode knapping floors).



- In the lower reaches of tributary creeks (third order creeks) will be archaeological evidence for more frequent occupation. This will include repeated occupation by small groups, knapping floors (perhaps used and reused), and evidence of more concentrated activities.
- On major creek lines, such as the lower reaches of Second Ponds and Caddies Creeks (fourth order), there will be archaeological evidence for more permanent or repeated occupation. Sites will be complex and may even be stratified.
- Creek junctions may provide foci for site activity; the size of the confluence (in terms of stream ranking nodes) could be expected to influence the size of the site.
- Ridgetop locations between drainage lines will usually contain limited archaeological evidence, although isolated knapping floors or other forms of one-off occupation may be in evidence in such a location.
- Naturally outcropping silcrete will have been exploited and evidence for extraction activities (decortication, testing and limited knapping) would be found in such locations.
- Sites in close proximity to an identified stone source would cover a range of size and cortex characteristics. As one moves away from the resource, the general size of artefacts in the assemblage should decrease, as should the percentage of cortex. The increasing number of new (in particular) silcrete sources has made the testing of the distance decay model (Dallas & Witter 1983) more difficult, and suggests that this model is a poor mechanism for explaining raw material preferences around the Plain." (Jo McDonald Cultural Heritage Management 2002, pp.15–16).

This predictive model, and variations upon it, has formed the base standard for predictive modelling in the Cumberland Plain region for the past decade, with a large numbers of reports drawing on it to develop their own predictions of sites that will be present in a given area. Stream order is given precedence as an indicator of permanent, reliable watercourses, which in the Cumberland Plain occurs at the confluence of two second or third order creeks (Jo McDonald Cultural Heritage Management 2002, p.12). The local predictive model stated that: surface artefacts (predominantly silcrete) were likely to occur in open locations on shale bedrock, but were unlikely to be present in large numbers unless in a disturbed context. Areas of PAD should be marked based on low disturbance caused by previous land use. Shelter sites would not be found, but open grinding grooves may be found in sandstone or shale/sandstone transition areas. There was some potential for scarred trees to occur in areas of original vegetation. The survey identified four new sites within its study area, as well as eighteen previously recorded sites and nine PADs (which were not recorded as sites in the AHIMS register). Of these sites, four were isolated finds, seven were open camp sites, ten were open camp sites with PADs, and one was an open camp site with grinding groove. The majority of these sites were located in the Ashfield Shale or Quaternary Alluvium geological formations. The majority of artefacts identified by survey were made of silcrete.

Jo McDonald Cultural Heritage Management (2006) undertook salvage excavations within the Colebee Release Area in advance of the development of residential areas and a golf course, south-west of the study area. Seven sample areas were investigated, primarily located on grassed open slopes between Eastern Creek and the upper slopes of Plumpton Ridge, which was part of a gently undulating landscape, which sloped down from the ridge to the creek. Over 80,000 artefacts were recovered, with only a small number of pits across the sample areas being artefactually sterile. Silcrete was the most common material, with silicified tuff, silicified wood and quartz also being recovered in significant numbers. The majority of silcrete artefacts were considered debitage. It is noted that Plumpton Ridge has been considered a silcrete quarry since the early 1980s. The results of the lithics analysis demonstrated that the highest densities of silcrete artefacts were located on the upper ridge slopes of the subject area, closest to Plumpton Ridge, and also on the banks of Eastern Creek.



Cultural Heritage Connections (2007) completed an Aboriginal archaeology and cultural heritage impacts assessment report for Integral Energy in advance of the development of the proposed Rouse Hill electrical substation on the corner of Schofields Road and Cudgegong Road. The assessment included background research and consultation and collated the results of previous assessments on the site. A total of eight test pits measuring 1 metre by 1 metre had been excavated on the site two years prior to a maximum depth of 350 millimetres. A total of 28 stone artefacts were identified by testing, with the report recommending further assessment take place in the form of salvage excavation prior to impacts on site.

ENSR AECOM (2008, cited by Archaeological & Heritage Management Solutions 2015, pp.39–40) undertook an archaeological sample survey of the Alex Avenue and Riverstone Growth Precincts, which included the current study area. The survey identified 37 Aboriginal archaeological sites, 12 of which were located within the Alex Avenue Precinct. Site types identified include 18 isolated finds, five low-density artefact scatters and four artefact scatters, five archaeological deposits and four areas of PAD, three areas of natural silcrete occurrence and two potential scarred trees. A predictive model was also developed; areas which contained cultural material were classed as high archaeological potential, and areas of similar environment and landform as holding moderate archaeological potential. The current study area is situated in an area of moderate archaeological potential, likely attributed to the presence of the ridgeline and nearby water sources (Plate 18).



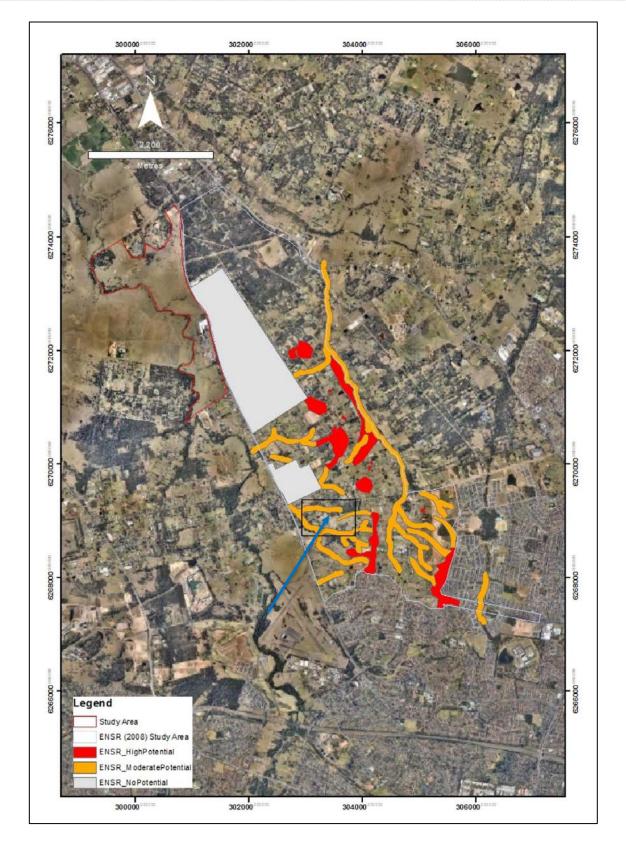


Plate 18 Predictive modelling of archaeological potential undertaken by ENSR AECOM (2008, cited by Archaeological & Heritage Management Solutions 2015, p.40); the approximate location of the study area is indicated by the blue arrow, with the black box indicating the neighbouring site



AECOM (2010) undertook an archaeological review of the Riverstone and Alex Avenue Precincts for the Department of Planning. The project was intended to provide further information on two Aboriginal sites (RAA11 and RAA23 (AHIMS site 45-5-4474)) which were assessed by ENSR in 2008. RAA11, bounded by Westminster Street, Chester Street and Kensington Park Road (north of the current study area) had been previously assessed as a silcrete source area due to the high concentration of silcrete cobbles/fragments/pieces within the Riverstone portion of the ENSR assessment area. A site inspection undertaken by AECOM in 2009 aimed to clarify the nature and extent of naturally occurring silcrete across this location. The site was reassessed as being 0.7 hectares, occurring from the 50 metre topographic contour and above, significantly reducing the size of the area of naturally occurring silcrete. It is noted that silcrete typically occurs on high ground within the St Marys Formation, which caps the Wianamatta Shales in high locations along the Riverstone ridge and Colebee further east. Restoration of this site was recommended in consultation with Aboriginal stakeholders. RAA23 (AHIMS site 45-5-4474) within 114 Alex Avenue, Schofields (east of the study area), was originally recorded as background scatter and an archaeological deposit/PAD measuring 200 by 200 metres. The site was reassessed as being considerably disturbed after new information was provided by the property owners. This along with general soil conditions and other disturbances suggest that it is unlikely for stratified archaeological deposits to be present at RAA23 and of low archaeological significance. Furthermore, two areas of PAD identified by ENSR, RAA3 and RAA8, were revised as not holding archaeological potential due to a reassessment of landforms and hydrology, and heavy disturbance (respectively). A third PAD, RV30, was considered to still retain archaeological potential and recommended test excavations if impacts were proposed for that location.

Kelleher Nightingale Consulting (2010) undertook an Aboriginal heritage assessment of the Area 20 precinct of the North West growth centre for the NSW Department of Planning. The study involved broad assessment and survey of the area to inform precinct planning, zoning, and layout. Based on the results of previous assessments in the vicinity of the study area, a predictive model was developed which stated the following (Kelleher Nightingale Consulting 2010, p.18):

- Stone artefacts are likely to occur across the entire study area.
- The highest artefact numbers and densities will be associated with the margins of Second Ponds Creek.
- Artefact densities are likely to be quite low on the higher upper slope and crest landforms within Area 20. Although artefacts may not be observed on the surface during field survey they are likely to be present in a subsurface context.
- The subsurface archaeological context across Area 20 would not necessarily have been heavily disturbed by ploughing and/or vegetation clearance.

This model was based on the findings of Australian Museum Business Services (1998, 2000), Jo McDonald Cultural Heritage Management (2002), and a number of other surface and subsurface investigations that have taken place in the vicinity of Area 20. It noted that the results of multiple excavations had indicated that low artefact densities were consistently recorded on upper slopes and crests in the area (Kelleher Nightingale Consulting 2010, p.17). It was also noted that previous predictive models had placed a large emphasis on the idea that more complex sites would be identified in close proximity to streams, but that that potential had been demonstrated by the results of excavations carried out by Therin (2004), which had identified artefacts in a range of landforms, but that the highest artefact densities were located in the margins of Second Ponds Creek. The majority of sites identified in the survey were located on lower and mid slopes, with some being present on upper slopes and crests as well as one on a creek flat. A total of 19 artefact sites and 7 PADs were identified during the survey. The results of the survey largely confirm the predictive statements made in the predictive model. Stone artefacts formed the majority of identified sites, and were located across a variety of landforms, as well as being well distributed throughout the study area. The majority of sites were located



away from upper slopes and crests, and those that were located on these landforms were low density scatters and isolated finds (although it is noted that all scatters were of low density). The sites with the largest artefact counts were located within 150 metres of Second Ponds Creek. As the assessment did not involve subsurface investigations, it is not possible to judge the accuracy of that portion of the predictive model.

Austral Archaeology (2013) were engaged to undertake an Aboriginal Cultural Heritage Assessment of 14 Schofields Road (formerly Lot 12, DP 1133321), which contains the western portion of the study area. This assessment followed on from ENSR's 2008 assessment of the Riverstone and Alex Avenue precincts. The predictive statements developed for the assessment noted that stone artefact scatters and PADs are likely to be present due to the proximity of a third order stream; however, this depends on the level of disturbance within the site. Scarred trees, burials, rockshelters, shell middens, grinding grooves and stone arrangements were considered not likely to occur. The survey paid close attention to areas of the least disturbance so as to focus on arras of the highest archaeological sensitivity. Two new isolated artefacts (a chert proximal flake with bending initiation and possible use wear and a non-diagnostic quartz flake with cortex) were identified during the survey (AHIMS site 45-5-4202), in an area of clay exposure south of the current study area and adjacent to an unnamed creek; no area of PAD was associated with this site. Disturbance mapping assessed the portion of the current study area contain within this report as low to moderate (market gardens) (north-western corner) and low (erosion) (western portion). The assessment recommended the application for an AHIP to allow harm to the newly identified surface artefacts identified within the site, which was subsequently granted (AHIP C0000550), and includes the western portion of the current study area.

Archaeological & Heritage Management Solutions (2015) were commissioned to prepare a preliminary Aboriginal heritage assessment for 14 Schofields Road, Schofields, which contains part of the western portion of the study area. The survey identified three small artefact scatters and one isolated find, located within 200 metres of the third order stream to the south; one of these scatters (AHIMS site 45-5-4628) consists of silcrete artefacts and is located south of the current study area. These artefacts were identified in open exposures featuring shallow topsoils that had been heavily impacted and eroded. It was proposed that the artefacts had likely been originally located higher on the slope near the ridgeline, and redeposited either by natural soil erosion or earthworks. It was assessed that no areas of PAD were associated with the finds due to their locations and historical disturbances within the assessment area.

Futurepast (2015) prepared an Aboriginal Due Diligence assessment for 14 and 34-38 Schofields Road, Schofields, south of the current study area, in advance of a proposed residential subdivision. Following consideration of the hydrology, topography, including the presence of the Plumpton ridgeline running through the centre of 14 Schofields Road, and available resources in the surrounding landscape and erosion disturbance, it was predicted likely that Aboriginal objects could be present on the ground surface. While no Aboriginal objects or areas of PAD were identified during the site inspection, the assessment considered there to be high potential for Aboriginal objects to be present on the ground surface. However, taking into account existing assessments for surrounding sites, these would likely be of low significance. No further investigations were recommended for the subject area.

Biosis (2016) conducted an Aboriginal Cultural Heritage Assessment including test excavations for Blacktown City Council in advance of the proposed Rouse Road Upgrade, located 2.3 kilometres north-east of the current study area. Predictive modelling undertake for the assessment concluded that there was a very high likelihood that the assessment would identify stone artefacts, and a high likelihood that areas of potential would be identified during the survey, with the rationale behind this presented in Table 7.



Site type	Potential
Flaked Stone Artefact Scatters and Isolated Artefacts	High: This site type has been recorded in all locally noted soil landscapes and landforms, as well as being the most common site type in relation to both geological formations underlying the study area. When looking at the AHIMS data this site type is the most dominant within the local region. This site type will be recorded on average 158 metres and 208 metres from permanent and ephemeral water sources respectively. Artefacts scatters in this area appear to be located closer to permanent creeks. Artefact scatters are also very common in close proximity to Second Ponds creek, a third order stream which flows through the study area. This site type has also been recorded at various heights throughout the landscape ranging from 27 metres to 72 metres above sea level, and is located primarily on hillslopes, however it is present across all landforms, being less common on crests.
PADs	High: This site type has been recorded locally within the Blacktown soil landscape, which covers all of the study area. They have also been identified locally in the Ashfield and Bringelly shale formations, which cover the study area. This site type represents the second highest recorded site type within the wider area, after artefact scatters. The majority of previously recorded PADs occur within 100 metres of water sources and are located most commonly on hillslopes, but also in alluvial plains and creek banks at the edges of watercourses. The study area contains Second Ponds Creek, a permanent water source which has previously had PADs identified in close proximity to it, increasing the likelihood of identifying this site type.

Table 7 Aboriginal site prediction statements (Biosis Pty Ltd 2016, p.43)

The results of Biosis' predictive modelling suggested that sites were most likely to be identified in association with first and third order creeklines, with sites occurring in relatively large numbers up to 400 metres from both permanent and ephemeral water courses.

The survey did not identify any new Aboriginal sites, with the lack of stone artefacts being identified mostly attributed to the grass cover over the study area, as well as large areas of disturbance associated with Rouse Road. Based on the results of the assessment the study areas was classed into areas of high, moderate, and low archaeological potential, and further investigation undertaken in the form to test excavation. Areas of low potential were associated with areas of disturbance, typically those which had already been developed, areas of moderate potential with lesser disturbed areas considered to have the potential to contain intact subsurface deposits, and areas of high potential typically associated with the margins of Second Ponds Creek.

Test excavations identified stone artefacts at two previously recorded sites (RH/SP 17 and RH/A20P 11), and identified three new archaeological deposits (Table 8). The most common raw material was silcrete (87%), followed by quarts (12%).

Site	Landform	Surface artefacts	Artefacts recovered during excavation	Total number of stone artefacts
RH/SP 17 (#45-5- 3108)	Alluvial plain	7	170	177
RH/A20P 11 (#45-5- 3926)	Alluvial plain	1	5	6
RR-AD1 (#45-5-4739)	Alluvial plain and creek bank	N/A	11	11

Table 8	Results of test excavations conducted by Biosis (2016, pp.89–90)
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Site	Landform	Surface artefacts	Artefacts recovered during excavation	Total number of stone artefacts
RR-AD2 (#45-5-4740)	Alluvial plain	N/A	1	1
RR-AD3 (#45-5-4738)	Hillslope	N/A	1	1
Total	-	8	188	196

Comber Consultants (2016) completed an Aboriginal archaeological assessment for 56 Cudgegong Road, approximately 3.8 kilometres north-east of the study area, in advance of a proposed residential subdivision and development at the site. The assessment included background research, survey, and the formulation of management recommendations relating to the site. Background research for the project indicated that there was a high potential for artefact sites and subsurface archaeological deposits to be present, particularly given the close proximity of the site to Second Ponds Creek. The site survey did not identify any Aboriginal sites, as the ground surface was largely obscured by grass. Based on the results of the assessment, Comber recommended that the site be subject to archaeological testing to determining if an AHIP would be required under the NPW Act, as the site had the potential to contain subsurface archaeological deposits.

Biosis (2018) was commissioned by Hayball to undertake an Aboriginal cultural heritage due diligence assessment for Riverstone High School, 71 McCulloch Street, Riverstone. During the site survey areas of previous disturbance were noted and recorded. Areas of ground surface exposure were targeted in order to identify any Aboriginal objects within the study area. No previously unrecorded sites or objects were located during the site survey. One previously identified site, QH 3 Quakers Hills (AHIMS #45-5-0359) could not be relocated during the site survey. It was concluded that the development will not impact the northern portion of the study area.

3.2.3 AHIMS site analysis

An extensive search of the AHIMS database was conducted on 22 August 2018 (Client service ID: 365832). The search identified 94 Aboriginal archaeological sites within a 2 kilometre search area, centred on the proposed study area (Figure 6, Table 9). None of these registered sites are located *within* the study area. The mapping coordinates recorded for these sites were checked for consistency with their descriptions and location on maps from Aboriginal heritage reports where available. These descriptions and maps were relied where notable discrepancies occurred.

It should be noted that the AHIMS database reflects Aboriginal sites that have been officially recorded and included on the list. Large areas of NSW have not been subject to systematic, archaeological survey; hence AHIMS listings may reflect previous survey patterns and should not be considered a complete list of Aboriginal sites within a given area.

Site type	Number of occurrences	Frequency (%)
Artefact	74	78.7%
Artefact, PAD	10	10.6%
Open campsite – artefact	6	6.4%
Artefact, PAD, modified tree	1	1.1%
Artefact, ochre quarry	1	1.1%

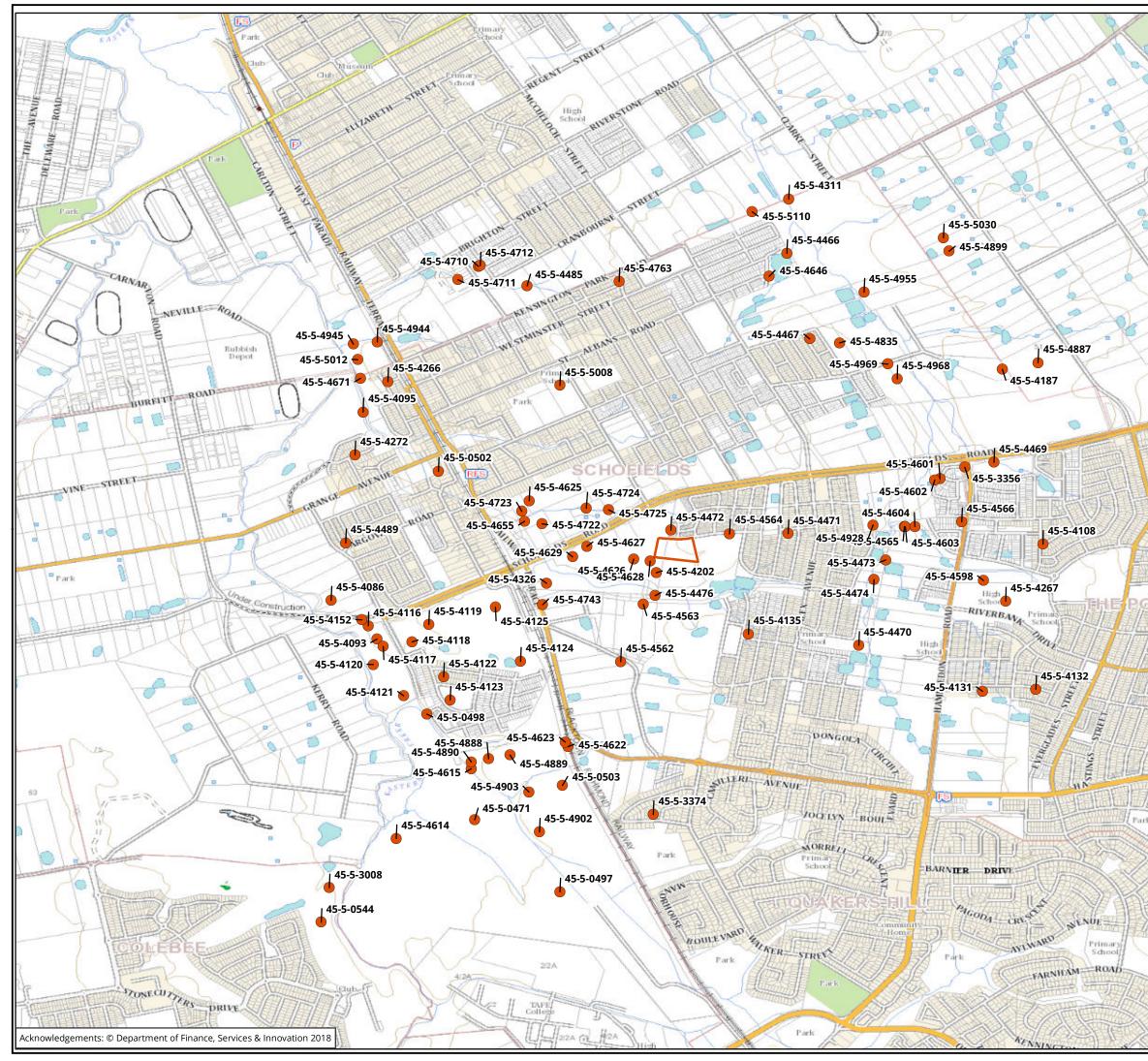
Table 9AHIMS site type frequency



Site type	Number of occurrences	Frequency (%)
PAD	2	2.1%

A simple analysis of the Aboriginal cultural heritage sites registered within a 2 kilometre search with a 200 metre buffer of the study area indicates that the dominant site type are artefacts, either as isolated artefacts or scatters, representing 78.79% (n=74), followed by PAD and artefact sites accounting for 10.6% (n=10), and open campsites featuring artefact(s) taking up 4% (n=6). The remaining sites included an artefact, PAD and modified tree site (1.1%, n=1) and an artefact and ochre quarry site (1.1%, n=1). All of the above sites appear to be located in proximity to perennial and non-perennial water sources surrounding the study area.

A number of AHIMS sites are in close proximity to the study area. AHIMS site 45-5-4202 consists of two surface stone artefacts (chert proximal flake and quartz flaked piece) approximately 88 metres south of the study area, eroding out of a large exposure. AHIMS site 45-5-4472 is an isolated artefact (chert flake) located approximately 49 metres north of the study area, said to be eroding out of an orange clay exposure. AHIMS site 45-5-4476 is an isolated artefact (silcrete flake) located on a track approximately 211 metres south of the study area; this artefact was considered to not be in situ. AHIMS site 45-5-4564 consists of three artefacts (silcrete flaked piece) located approximately 170 metres east of the study area, also in an area of exposure. AHIMS site 45-5-4626 is an isolated artefact (silcrete distal fragment) located in a clay exposure approximately 88 metres west of the study area. AHIMS site 45-5-4628 is an artefact scatter (13 red silcete flakes) eroding out of an exposure approximately 29 metres south of the study area.





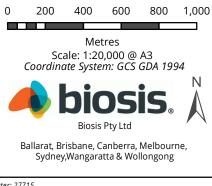


Legend

AHIMS Record

Figure 6: AHIMS search results in the vicinity of the study area

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3.3 Discussion

3.3.1 Predictive statements

A model has been formulated to broadly predict the type and character of Aboriginal cultural heritage sites likely to exist throughout the study area and where they are more likely to be located.

This model is based on:

- site distribution in relation to landscape descriptions within the study area
- consideration of site type, raw material types and site densities likely to be present within the study area
- findings of the ethnohistorical research on the potential for material traces to present within the study area
- potential Aboriginal use of natural resources present or once present within the study area
- consideration of the temporal and spatial relationships of sites within the study area and surrounding region.

Based on this information, a predictive model has been developed, indicating the site types most likely to be encountered during the survey and subsequent sub-surface investigations across the present study area (Table 10). The definition of each site type is described firstly, followed by the predicted likelihood of this site type occurring within the study area.

Site type	Site description	Potential
Flaked stone artefact scatters and isolated artefacts	Artefact scatter sites can range from high- density concentrations of flaked stone and ground stone artefacts to sparse, low- density 'background' scatters and isolated finds.	High: Flaked stone artefacts are an extremely common site type in a local and regional context, and have the potential to be identified across a variety of landforms. In addition to this, a number of stone artefacts have previously been identified on a lot adjoining the study area.
PADs	Deposits of shells accumulated over either singular large resource gathering events or over longer periods of time.	High: PADs have previously been identified across a variety of landforms in the local area, as well as within the study area. Previous testing within the local area has also demonstrated that there is the potential for subsurface archaeological deposits to be present in the area.
Shell middens	Raw stone material procurement sites.	Low: shell midden sites have not been recorded within the vicinity of the study area.
Quarries	Potential sub surface deposits of cultural material.	Low: there is no record of any quarries being within the study area, and only one record of an ochre quarry within 2.2km of the study area.

Table 10 Aboriginal site prediction statements



Site type	Site description	Potential
Modified trees	Trees with cultural modifications	Low: scarred trees are not a common site type within the vicinity of the study area. Due to extensive vegetation clearance only a small number of mature native trees have survived within the study area.
Grinding grooves	Grooves created in stone platforms through ground stone tool manufacture.	Low: the underlying geology of the study area lacks the sandstone required for the presence of this site type.
Burials	Aboriginal burial sites.	Low: aboriginal burial sites are generally situated within deep, soft sediments, caves or hollow trees. Areas of deep sandy deposits will have the potential for aboriginal burials. The soil profiles associated with the study area are not commonly associated with burials.
Rock shelters with art and / or deposit	Rock shelter sites include rock overhangs, shelters or caves, and generally occur on, or next to, moderate to steeply sloping ground characterised by cliff lines and escarpments. These naturally formed features may contain rock art, stone artefacts or midden deposits and may also be associated with grinding grooves.	Low: the sites will only occur where suitable sandstone exposures or overhangs possessing sufficient sheltered space exist, which are not present within the study area
Aboriginal ceremony and dreaming sites	Such sites are often intangible places and features and are identified through oral histories, ethnohistoric data, or Aboriginal informants.	Low: there are currently no recorded mythological stories for the study area.
Post-contact sites	These are sites relating to the shared history of Aboriginal and non-Aboriginal people of an area and may include places such as missions, massacre sites, post-contact camp sites and buildings associated with post- contact Aboriginal use.	Low: there are no post-contact sites previously recorded in the study area and historical sources do not identify one.
Aboriginal places	Aboriginal places may not contain any 'archaeological' indicators of a site, but are nonetheless important to Aboriginal people. They may be places of cultural, spiritual or historic significance. Often they are places tied to community history and may include natural features (such as swimming and fishing holes), places where Aboriginal political events commenced or particular buildings.	Low: there are currently no recorded Aboriginal historical associations for the study area.



4 Archaeological survey

A field survey of the study area was undertaken on 20 November 2018 by Charlotte Allen (Archaeologist, Biosis) and Steven Randall (Aboriginal Cultural Heritage Officer, Deerubbin LALC). The field survey sampling strategy, methodology and a discussion of results are provided below.

4.1 Archaeological survey objectives

The objectives of the survey were to:

- Provide Deerubbin LALC an opportunity to view the study area and to discuss previously identified Aboriginal object(s) and/or place(s) in or within close proximity to the study area.
- Attempt to re-identify Aboriginal archaeological sites and/or Aboriginal places 45-5-2628 and 45-5-4202 previously identified in the vicinity of the study area.
- Undertake a systematic survey of the study area targeting areas with the potential for Aboriginal heritage.
- Identify and record Aboriginal archaeological sites visible on the ground surface.
- Identify and record areas of PAD.

4.2 Archaeological survey methodology

The survey methods were intended to assess and understand the landforms and to determine whether any archaeological material from Aboriginal occupation or land use exists within the study area.

4.2.1 Sampling strategy

The survey effort targeted areas of exposures in all landforms (including each occurrence of a specific landform type that will be impacted) that will potentially be impacted by proposed works.

4.2.2 Survey methods

The archaeological survey was conducted on foot with a field team of two members. Recording during the survey followed the archaeological survey requirements of the code and industry best practice methodology. Information that recorded during the survey included:

- Aboriginal objects or sites present in the study area during the survey.
- Survey coverage.
- Any resources that may have potentially have been exploited by Aboriginal people.
- Landform.
- Photographs of the site indicating landform.
- Evidence of disturbance.
- Aboriginal artefacts, culturally modified trees or any other Aboriginal sites.

Where possible, identification of natural soil deposits within the study area was undertaken. Photographs and recording techniques were incorporated into the survey including representative photographs of survey units, landform, vegetation coverage, ground surface visibility (GSV) and the recording of soil information for



each survey unit were possible. Any potential Aboriginal objects observed during the survey were documented and photographed. The location of Aboriginal cultural heritage and points marking the boundary of the landform elements were recorded using a hand-held Global Positioning System (GPS) and the Map Grid of Australia (94) coordinate system.

4.3 Constraints to the survey

With any archaeological survey there are several factors that influence the effectiveness (the likelihood of finding sites) of the survey. The factors that contributed most to the effectiveness of the survey within the study area were low ground visibility due to grass coverage and low exposures.

4.4 Visibility

In most archaeological reports and guidelines visibility refers to GSV, and is usually a percentage estimate of the ground surface that is visible and allowing for the detection of (usually stone) artefacts that may be present on the ground surface (DECCW 2010a). Visibility in areas of exposure within the study area was moderate, averaging at approximately 65% (Plate 19 and Plate 20). Grass coverage was extensive, with isolated areas ground visibility, namely caused by erosion or disturbance.



Plate 19 Example of moderate ground surface visibility in the central portion of the study area





Plate 20 Example of moderate ground surface visibility in the north-western portion of the study area

4.5 Exposure

Exposure refers to the geomorphic conditions of the local landform being surveyed, and attempts to describe the relationship between those conditions and the likelihood the prevailing conditions provide for the exposure of (buried) archaeological materials. Whilst also usually expressed as a percentage estimate, exposure is different to visibility in that it is in part a summation of geomorphic processes, rather than a simple observation of the ground surface (Burke & Smith 2004, p.79, DECCW 2010a). Overall, the study area displayed few areas of exposure due to heavy grass coverage, with approximately 4% of the ground surface within the study area exposed. Those areas of exposure that were identified appears to have largely been caused by erosion through run-off (Plate 20) and vehicle tracks (Plate 21).



Plate 21 Example of erosion caused by vehicle tracks in the northwestern corner of the study area



4.6 Disturbances

Disturbance in the study area is associated with natural and human agents. Natural agents generally affect small areas and include the burrowing and scratching in soil by animals, such as wombats, foxes, rabbits and wallabies, and sometimes exposure from slumping or scouring. Disturbances associated with recent human action are prevalent in the study area and cover large sections of the land surface. The agents include farming practices, such as initial vegetation clearance for creation of paddocks, fencing and stock grazing (Plate 22); agricultural practices such as fruit orchards and ploughing for crops; and animal management such as training tracks. Evidence of ploughing, orcharding and animal management identified in historical aerials of the study area were not visible during the survey due to the dense grass coverage present at the time of inspection. As per the historical aerials, trees were present in the south-eastern corner of the study area, with the remainder having been cleared (Plate 23, Plate 24).



Plate 22 Evidence of former paddock and property boundaries in the western portion of the study area

Plate 23 View of tree coverage in the south-eastern corner of the study area, facing east





Plate 24 Typical view of cleared areas within the study area, facing east

More recent disturbances noted during the survey include overgrown deposited materials and stockpiling in the northern portion of the study area near Farmland Drive (Plate 25, Plate 26). The study area had also been recently subjected to geotechnical testing; this was evident in the form of redeposited soils in numerous locations (Plate 27).



Plate 25 Area of overgrown deposited materials in the northern portion of the study area, facing east





Plate 26 Overgrown stockpile in the central northern portion of the study area, facing south-west

Plate 27 Example of geotechnical investigations within the study area, looking south

4.7 Archaeological survey results

A series of meandering transects were walked across two landforms as part of the sampling strategy (Figure 7). The methodology set out in Burke and Smith (2004, p.65) states that a single person can only effectively visually survey an area of two linear metres. No Aboriginal sites and one PAD was identified in the study area (Plate 28, Plate 29). The results from the field survey have been summarised in Table 11. The study area contains two landform units, both of which were assessed as part of the survey. The northern portion is contained within a crest and ridgeline, while the southern portion is contained within a simple slope which descends south towards a third order non-perennial stream and open depression, both of which are outside of the study area. Both landforms have been subjected to some disturbance from historical farming and pastoral activities.

The overall effectiveness of the survey in identifying any Aboriginal objects which may be present within the study area was low. This is primarily attributable to the extremely low GSV within the study area. The majority of the ground surface was covered by dense grass, and exposures were limited to areas of disturbance.



Exposures within the study area were targeted in an attempt to identify any visible surface artefacts but none were located. The study area has been subjected to extensive clearing; trees in the south-eastern portion of the study area were inspected but no scars or modifications were identified. No sandstone rock outcroppings were located within the study area capable of supporting art sites or grinding grooves, and no midden or shell remains consistent with Aboriginal resource exploitation were visible within the study area at the time of survey.

The study area is in the vicinity of several registered AHIMS sites. AHIMS site 45-5-4628, a silcrete artefact scatter south of the study area, was relocated and inspected during the survey (Plate 30, Plate 31, Plate 32). AHIMS site 45-5-2628 was not located within the study area boundaries. AHIMS site 45-5-4202, another artefact scatter located south of the study area, could not be relocated during the survey.



Plate 28 View towards area of area of archaeological potential, looking north-west



Plate 29 View of area of archaeological potential, looking east





Plate 30 View of part of AHIMS site 45-5-4628

Plate 31 Detail of silcrete artefacts within AHIMS site 45-5-4628

Plate 32 Detail of further silcrete artefacts within AHIMS site 45-5-4628



Survey unit	Landform	Survey unit area (m²)	Visibility (%)	Exposure (%)	Effective coverage area (m²)	Effective coverage (%)
1	Crest and ridgeline	10062.38801	90%	2%	181.1229842	1.8%
2	Simple slope	8085.596312	40%	5%	161.7119262	2.0%
3	Open depression	1856.672567	65%	4%	42.2393009	2.3%

Table 11 Survey coverage

4.8 Discussion

The archaeological survey was heavily hampered by very limited ground surface visibility and, existing disturbance. However, an area of archaeological potential, Alex Avenue PS PAD 1, was identified. This area is primarily associated with existing water courses in the vicinity of the study area. The following analysis has been undertaken for this area of archaeological potential.

4.8.1 Alex Avenue PS PAD 1

The presence of a crest and ridgeline through the northern part of the study area and the presence of third and first order streams to the south and north suggest that this portion of the study area could have been a suitable location for a temporary camp site associated with resource gathering from the aforementioned watercourses. The raised location of the crest and ridgeline indicates that it may have been an opportunistic place for food or tool processing related to hunter gathering activities near the creeklines. Flood mapping undertaken by Blacktown City Council indicates that the study area of higher ground would not have been subject to inundation, and likely provided a reliable area of dry, higher ground in close proximity to two streams.

Predictive modelling undertaken by ENSR AECOM (2008, cited by Archaeological & Heritage Management Solutions 2015, pp.39–40) identified the study area as holding moderate archaeological potential. However, the assessment of the adjacent property at 14 Schofields Road by Archaeological & Heritage Management Solutions (2015) did not identify any areas of PAD due to historical disturbances within the assessment area. However, the silcrete artefact scatter located just south of the study area (AHIMS site 45-5-4628) was assessed as not being associated with PAD, but rather proposed that the artefacts had likely been originally located higher on the slope near the ridgeline and redeposited down the slope due to erosion or earthworks.

Geotechnical investigations undertaken in 2017 and 2018 and visual inspection of exposures south of the study area suggest that the study area contains shallow silty and sandy topsoils (Plate 31), overlying residual clayey silt and silty clay soils, followed by clays (JK Geotechnics 2017, Greencap 2018). Historical tree clearance and ploughing may have had an impact on the integrity of topsoils and higher subsoils. Ploughing and tree clearing are unlikely to have removed artefacts from the topsoil, but rather moved and/or damaged any artefacts present to a depth of approximately 20 centimetres, where the soil begins to transition from a clayey silt to silty clay. Excavations at the Rouse Hill Anglican College, on the northern side of Rouse Road, found that bt1 profile had largely eroded away from the study area, and that the majority of the artefacts identified came from the bt2 profile, which seems to correspond with the clayey silt layer identified during the geotechnical investigations (Stephanie Garling Archaeological Consulting 2000).

The results of the archaeological survey remain broadly consistent with the predictive statements made for this assessment. The area of PAD identified during the survey is largely similar to the results of previous assessments of potential archaeological deposits, located on elevated ground in close proximity to water sources and resource gathering areas but at low risk by inundation by floodwaters.







5 Test excavation

Following the results of the field survey a test excavation program was undertaken to characterise the extent, nature and archaeological (scientific) value of Aboriginal cultural heritage within the area of PAD within the study area. The test excavations program was undertake by Biosis archaeologists Charlotte Allen, Ashley Bridge, James Cole and Maggie Butcher. Fieldwork was attended by members of the following RAP groups:

- Barking Owl Aboriginal Corporation
- Darug Aboriginal Land Care
- Deerubbin Local Aboriginal Land Council
- Kamilaroi Yankuntjatjara Working Group.

The test excavations were conducted in accordance with Requirement 16a of the Code. The sampling strategy, methodology and results of the test excavation program are discussed below

5.1 Test excavation objectives

The principle objectives of the test excavations are to identify and understand the nature, extent and significance of any areas of PAD within the study area. This will further our knowledge of Aboriginal archaeological site patterning within the study area and enable the predictive model to be further tested and refined.

The aims of the testing program are to:

- Determine whether sub-surface archaeological deposits exist within the study area and to establish the extent and nature of such deposits.
- Identify if the archaeological material occurs in an intact, undisturbed context, by examining the soil profile and stratigraphy.
- Analyse and interpret any archaeological finds (such as stone artefacts, hearths, etc.) recovered during the testing program.
- Inform current knowledge of Aboriginal occupation and land use models of the region.
- Provide management and mitigation measures for Aboriginal archaeological objects located during the subsurface testing program.
- Test the predictive model and answer the research questions developed as part of this assessment.

5.2 Research questions

Research questions provide a framework for undertaking sub-surface investigations and ensure that the information collected during the sub-surface testing program contributes to the knowledge of the sites and the broader archaeological record. Research questions include:

- Do non-disturbed or minimally-disturbed soil profiles exist within areas of archaeological potential?
- What is the nature of the lithic assemblages?
- Is the lithic typology similar to the assemblages from other subsurface excavations in the region?



- Are any of the archaeological materials of significance?
- What management is appropriate? Does the area warrant further investigation?

5.3 Test excavation methodology

Test excavations were conducted in accordance with the Code and conformed to the below methodology:

- Test excavations were conducted in 50 by 50 centimetre units.
- The test excavation units were excavated by hand (inclusive of trowels, spades and other hand tools) along transects at intervals of between 10 – 20 metres or other justifiable and regular spacing (being no smaller than five metres).
- The first test pit within the PAD area was excavated in 5 centimetre spits; the subsequent test pits conducted within the site or PAD area were then excavated in 10 centimetre spits or stratigraphic units (whichever is smaller) to the base of Aboriginal object-bearing units being the removal of the A-horizon soil deposit down to the sterile clays or bedrock layer (B-horizon).
- Where the depth of deposit prevented reaching sterile deposits within the 50 by 50 centimetre test pit, it was proposed that additional 50 by 50 centimetre test pits would be excavated adjacent to the original test pit (for example expanding the test pit to 50 by 100 centimetres) to reach the sterile deposits.
- Test pits may be combined and excavated as necessary in 50 by 50 centimetre units for the purposes of further understanding site characteristics. Note that under the code, the maximum area that can be excavated in any one continuous area is three metres squared (3 m²).
- The Code dictates that the maximum surface area of all test excavation units must be no greater than 0.5% of the PAD or area being investigated.
- All excavated soil was sieved in 3 millimetre sieves.
- All cultural material was collected, bagged and clearly labelled. They will be temporarily stored in the Biosis office for analysis (at 14/17-27 Power Ave, Alexandria NSW 2015).
- For each test pit that is excavated, the following documentation will be taken:
 - unique test pit identification number
 - GPS coordinate of each test pit
 - Munsell soil colour and texture
 - amount and location of cultural material within the deposit
 - nature of disturbance where present
 - stratigraphy
 - archaeological features (if present)
 - photographic records
 - spit records.
- Test excavation units were backfilled as soon as practicable.
- An AHIMS Site Impact Recording form will be completed and submitted to the AHIMS Registrar for any sites impacted during test excavations.



- In the event that suspected human remains are identified works will immediately cease and the NSW Police and OEH will be notified.
- Test excavations will cease when enough information* has been recovered to adequately characterise the objects present with regard to their nature and significance.

*Enough information is defined by OEH as meaning "the sample of excavated material clearly and self-evidently demonstrates the deposit's nature and significance. This may include things like locally or regionally high object density: presence of rare or representative objects: presence of archaeological features: or locally or regionally significant deposits stratified or not." (DECCW 2010a).





5.4 Test excavation results

A total of 31 test pits were excavated within Alex Avenue PS PAD 1 (Plate 34, Plate 35, Plate 37, Plate 36 and Figure 10). Individual test pit and soil analysis results are provided in Appendix 2. Results are shown in Table 12 and a detailed discussion of results is provided below.

5.4.1 Alex Avenue PS PAD 1

A total of 31 test pits were excavated at Alex Avenue PS PAD 1 at approximately 20 metre intervals in order to determine the extent and nature of any sub-surface deposits which may be present within the study area. Three artefacts were identified in three test pits (Figure 10). All artefacts were located either within a silty clay or silty sand. While 27 test pits were planned, the presence of artefacts in TP11, TP12 and TP27 prompted the establishment of a further four test pits in the vicinity of the artefact bearing test pits.

Soil composition varied across the study area. On the crest and ridgeline landform, the soil profile featured three stratigraphic contexts, and generally consisted of a silty sand of low compaction ranging in colour from pale brown to dark yellowish brown, overlying a moderately compacted silty clay varying from yellowish brown to dark brown, followed by a highly compacted red clay (Plate 33). For those test pits excavated within the open depression landform, soil profiles were mixed. Upper contexts varied from brown to light brown silty sand, sandy silt or a loamy silt with compaction increasing with depth, ultimately overlying a highly compacted red clay. It is possible this variation may have been caused by erosion soils from the crest, ridgeline and slope into the open depression. The majority of test pits displayed an interface layer featuring clay mottling or nodules which increased in density with depth.



Plate 33 Section of TP3, facing noth, showing typical soil profiles on the crest and ridgeline landform

Soil profiles across the slope landform also varied, with the main observation being that there was generally an increase in clay content within the upper contexts in comparison to those in the open depression and crest and ridgeline landforms. Topsoils and upper contexts generally consisted of silty sands or silty clays, and



occasionally loamy silts, ranging in colour from grey to very dark brown, with compaction broadly increasing with depth. Clay content within the soils also increased with depth, and most excavation units displayed the same interface layer noted above featuring clay mottling or nodules increasing with depth. The final soil deposit in all pits on the slope landform was a highly compacted clay, ranging in colour from red, yellowish red, very dark greyish brown and yellow grey, with some instances of yellow mottling (Plate 34).

Inclusions across the study area generally included rootlets, charcoal flecks, manganese nodules and ironstone nodules.

These soils generally conform to the descriptions of the Blacktown soil landscape in Table 3.



Plate 34 Section of TP20, showing a typical soil profile in the slope landform, facing north

In some instances, a layer of fill was present above the topsoils, for example in TP5 (Plate 35), TP7 and TP8, which contained stone fragments and was of high compaction. In some instances the topsoils appear to have been removed or eroded away, for example in TP25. The majority of clay within the study area was red; however, several pits deviated from this, presenting a yellow grey clay in TP17, and a mottled yellow and red clay in TP6, TP19 and TP28.





Plate 35 Section of TP5, showing the fill deposit, facing north

Several anomalies were identified in the soil profiles within Alex Avenue PS PAD 1. One test pit, TP15, reached a depth of 900 millimetres and contained six soil profiles (Plate 36). These consisted of a brown silty clay of medium compaction overlying a similarly compacted dark brown clayey silt. Below these a strong brown sandy silt of medium compaction was present, followed by a highly compacted light yellowish brown sandy silt. Underlying this was a moderately compacted brown silty sand lens deposit, finally reaching a red highly compacted clay. It is possible that TP15 may have been located in a former open depression which has subsequently been filled in over time. In TP21, a dark reddish grey highly compacted loamy silt lens was identified in the north-western corner of the test pit at a depth of 240-290 millimetres; this lens overlaid a highly compacted red clay, beneath a dark brown silty loam of low compaction (Plate 37). A number of large charcoal fragments were recovered from TP19; these were situated at the interface of a brown clayey silt of low compaction and a highly compacted red clay with yellow mottles. Disturbance in TP6 is believed to have been related to geotechnical investigations.





Plate 36 Section of TP 15, facing north





Plate 37 Section of	TP21, showing the loamy	y silt lense in the north-western corner,	, facing north
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PAD	Landform	PAD area (m ²)	Area tested (m²)	PAD effectively tested (%)	No. of sites	No. of artefacts
Alex	Crest and ridgeline	3,018.51	2	0.1	0	0
Avenue PS PAD 1	Slope	7,095.88	5	0.1	2	2
	Open depression	450.19	0.75	0.2	1	1

Table 12 Test excavation results by PAD

5.4.2 Archaeological sites identified

There were no existing registered AHIMS sites located within the study area. The test excavation program confirmed the presence of two sub-surface artefact sites within the study area (Figure 10). Site results are included below.

Alex Avenue PS 01 (AHIMS site no. 45-5-5218)

Alex Avenue PS 01 consists of two artefacts, a grey brown chert distal fragment, recovered from Spit 3, TP11 and silcrete medial fragment, recovered from Spit 2, TP12, in a silty clay deposit located on a simple slope in the south-western portion of the study area (Plate 38, Plate 39). Soils at this location consisted of three stratigraphic layers. Topsoils ranged from a dark brown silty clay of low compaction to a dark yellowish brown silty sand of low compaction. These overlaid a moderately compacted dark brown silty clay to a moderately compacted red silty clay followed by a highly compacted red clay. The base of this deposit was reached at 350 millimetres.





Plate 38 Overview of TP11 in Alex Avenue PS 01 (AHIMS site no. 45-5-5218), facing north



Plate 39 Section of TP12 in Alex Avenue PS 01 (AHIMS site no. 45-5-5218), facing north



Alex Avenue PS 02 (AHIMS site no. 45-5-5219)

Alex Avenue PS 02 consists of a single artefact, a complete silcrete flake, recovered from Spit 2, TP27, located on the edge of an open depression landform in the south-eastern portion of the study area (Plate 40). Soils at this location consisted of three stratigraphic layers, including a brown moderately compacted sandy silt, overlying a highly compacted brown silty sand, followed by a highly compacted red clay. The base of this deposit was reached at 380 millimetres.



Plate 40 Overview of TP27 within Alex Avenue PS 02 (AHIMS site no. 45-5-5219), facing north





5.5 Sub-surface artefact analysis

The following analysis has been undertaken for the sub-surface assemblage of the study area excavated as part of the test excavation program. A total of three Aboriginal artefacts were identified and recorded from the program of test excavations. Several non-Aboriginal artefacts were also recovered, including glass and metal fragments, as well as one item of non-artefactual material.

The artefact analysis addresses a series of themes including:

- spatial distribution
- stone raw material procurement
- stone reduction technology.

Stone artefacts collected from the excavations were labelled by transect, pit and spit to locate them vertically and horizontally within the study area. Artefacts were collected and then individually analysed by Biosis. The recording form prompts the user to record all relevant artefact attributes; this enabled a typological, technological and metrical analysis of the assemblage to be undertaken. Analysis was undertaken using a standard set of digital Vernier caliper, scale, and stereographic microscope. All measurements were recorded in millimetres to one decimal place. Appendix 3contains the detailed sub-surface lithics recordings.

Collected artefacts were transported to a temporary storage location consisting of a locked storage cabinet in the Biosis Sydney Office at Unit 14, 17-27 Power Avenue, Alexandria, for lithic analysis.

The analysis of artefacts recorded during the sub-surface excavations has been undertaken as a whole assemblage in order to characterise the artefact assemblage present within the study area.

5.5.1 Artefact distribution

Alex Avenue PS PAD 1 is located on slope, open depression and crest and ridgeline landforms in the Cumberland Plain. A total of three artefacts were recovered from the western and eastern portion of the PAD (Table 13). Two artefacts (66%) were recovered in the eastern portion in TP11 and TP12, which are approximately 26 metres apart. One artefact (33%) was recovered from the western portion in TP27, which is located approximately 110 metres east of TP12.

Test pit no.	Artefact count
11	1
12	1
27	1

Table 13 Distribution of artefacts within Alex Avenue PS PAD 1

An analysis of the artefact densities within the landforms within the PAD show a trend in the intensity of use within the study area. While the artefact densities are generally very low, the open depression landform has the highest density level (1.3 artefacts per square metre), and the slope landform has the highest count of recovered artefacts present (n=2) (Table 14).



Table 14	Artefact densities by landform
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Landform within PAD	Area excavated (m²)	Artefacts (n)	Artefacts per m ²
Crest and ridgeline	2	0	0
Slope	5	2	0.4
Open depression	0.75	1	1.3

In terms of vertical distribution, the highest density of artefacts were recovered from a depth of 100-200 millimetres (66%, n=2), with artefact densities decreasing downwards in the soil profile from this depth (Table 15. This suggests that the period of highest density occupation within Alex Avenue PS PAD 1 occurred during the deposition of the 100-200 millimetre soils, with occupation dropping off after this depositional period.

Table 15 Vertical distribution of artefacts

Test pit no.	Depth (mm)	Artefact count
11	100-200	1
12	100-200	1
27	200-300	1

5.5.2 Artefact composition

Flakes

Flakes and broken flakes make up 100% (n=3) of the sub-surface assemblage (Table 16).

Table 16 Artefact type frequency

Artefact type	Number	Frequency (%)
Complete flake	1	33%
Medial fragment	1	33%
Distal fragment	1	33%
TOTAL	3	100

An analysis of flake features was undertaken and included an analysis of platform type, and termination type. This was done to characterise the nature of the flaked assemblage and to allow assumptions to be made on the level of the knapper's skill and technology strategies. A flaked platform was identified on the complete flake; no platform was present on the medial or distal fragments.

Flake platforms are the remnants of a core from which a flake was removed and can provide useful information about the way a core was reduced, during what stage of reduction the flake was removed at and the skill of the knapper (Holdaway & Stern 2004, p.119). Platforms that are produced in the reduction of a raw material include a number of different types. Cortical platforms contain unmodified surfaces still containing the outer surface or cortex of a core and indicate early reduction (Holdaway & Stern 2004, p.119). Flaked platforms contain one to two flake scars and indicate a later stage of reduction compared to cortical flakes



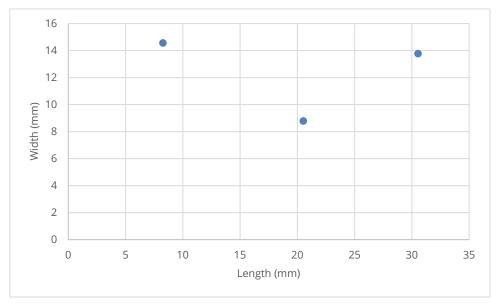
(Holdaway & Stern 2004, pp.119–20). Facetted platforms contain more than two flake scars and are representative of, late stage reduction (Holdaway & Stern 2004, p.119). Crushed platforms occur when a flake platform has been damaged and no platform attributes can be recorded (Holdaway & Stern 2004, p.120). These platforms often occur when flakes are struck from unsuitable platforms and can indicate an inexperienced knapper.

An analysis of termination types was also undertaken for the two artefacts exhibiting a termination. The complete flake featured a feather termination (50%, n=1), while the distal fragment featured a hinge termination (50%, n=1). Feather terminations are achieved when the knapper has struck the core at an appropriate distance from the core edge with the appropriate amount of force, meaning the knapper is showing some degree of control in the process (Holdaway & Stern 2004, pp.132–133). The remaining two artefacts featuring terminations consisted of plunge and hinge terminations. Hinge terminations are most often produced when there is not enough force to detach a feather terminated flake, such as when a core is struck too far from the platform edge or an incorrect striking angle is used. Plunge terminations occur more frequently when too much force is used in striking flakes from a core.

Table 17 Termination types within the assemblage

Platform type	Count	Percentage (%)
Plunge	1	50
Feather	1	50
TOTAL	2	100

The overall size of artefacts within an assemblage can provide insight into the intensity and stages of reduction present at a site. Over half of the artefacts within the assemblage measure less than 21 millimetres lengths and widths, suggesting the majority of artefacts are small in size and indicative of later stage or intensive reduction (Graph 1).



Graph 1 Size distribution of artefacts





Plate 41 Chert distal fragment from Spit 3, TP11, within Alex Avenue PS 01 (AHIMS site no. 45-5-5218)



Plate 42 Silcrete medial fragment from Spit 2 TP12, within Alex Avenue PS 01 (AHIMS site no. 45-5-5218)





Plate 43 Complete silcrete flake from Spit 2, TP27 in Alex Avenue PS 02 (AHIMS site no. 45-5-5219)

Raw material

The dominant material was silcrete, accounting for 66% (n=2) of the assemblage, followed by chert at 33% (n=1) (Table 18). The item of non-artefactual material was also silcrete. While significantly lower artefact densities are present, these results are similar to those investigations at the Rouse Hill Anglican College (Stephanie Garling Archaeological Consulting 2000), the Colebee Release Area (Jo McDonald Cultural Heritage Management Pty Ltd 2006) and Rouse Road Upgrade (Biosis Pty Ltd 2016) where silcrete was the dominant material. Assessments undertaken in the immediate vicinity of the study area also identified a chert proximal flake in a surface site (AHIMS site 45-5-4202) (Austral Archaeology 2013) and three artefact scatters consisting of red and yellow silcrete and chert, and an isolated silcrete artefact (AHIMS sites 45-5-4626, 45-5-4627, 45-5-4628, 45-5-4629) present on eroded exposures (Archaeological & Heritage Management Solutions 2015).

Material	Number	Frequency (%)
Silcrete	2	66%
Chert	1	33%
TOTAL	3	100

Table 18 Artefact material frequency



6 Analysis and discussion

6.1 Discussion of results

The general pattern confirms that the majority of sites are located in areas that have abundant resources, are close to permanent water sources and have good vantage points over the surrounding area. Areas that are further away from permanent and ephemeral water sources have fewer archaeological sites present. Ethnographic accounts suggest that Aboriginal groups were highly mobile, largely dispersed and were moving seasonally for resource exploitation and/or ceremonial activities.

The predictive statements formulated in Section 3.3.1 were based on the results of the AHIMS search and the regional and local studies of the area. It predicted a high archaeological potential for flaked stone artefact scatters and a high archaeological potential for PADs to be present. It was also predicted that there was low archaeological potential for shell middens, quarries, modified trees, grinding grooves, burials, rock shelters with art and / or deposit, Aboriginal ceremony and dreaming sites, post-contact sites and Aboriginal places to be present within the study area.

The results of the archaeological survey were largely consistent with the predictive statements. Given the low GSV, no new sites in the form of surface artefact scatters were identified. It is also possible that historical disturbances including tree clearances, ploughing and animal grazing could have displaced any intact surface artefact scatters. This does not necessarily mean that artefacts are not present within the subsurface. Therefore, an area of moderate archaeological potential was identified with the potential for subsurface deposits to be present (Figure 8).

The results of the test excavations confirmed the presence of sub-surface artefacts within Alex Avenue PS PAD 1. The locations of these sites according to landform and distance from water sources are consistent with the predictive statements in Section 3.3.1. The test excavations resulted in two newly identified sites: Alex Avenue PS 01; and Alex Avenue PS 02.

Subsurface artefacts within the Blacktown soil landscape are typically located in the upper two stratigraphic horizons. These soils align closely with profiles described in nearby excavations which suggest that the A1 horizon has largely eroded away and that the majority of the artefacts identified came from the A2 horizon (Stephanie Garling Archaeological Consulting 2000, Biosis Pty Ltd 2016). This is consistent with the results of the test excavations undertaken in Alex Avenue PS PAD 1. For all sites within the study area subject to test excavation, all of the artefacts were recovered from spits 2 and 3, located within the upper two stratigraphic horizons.

The presence of the artefacts on the slope and open depression landforms suggest the objects may have washed down the slope from higher ground, and as such may not be in their original context. It is not surprising that fewer artefacts were found here given the greater distance from Second Ponds Creek and is therefore consistent with the predictive statement that sites will be closer to permanent water sources, despite being within an elevated landform. The low density of artefacts identified in Alex Avenue PS PAD 1 indicate that Alex Avenue PS 01 and Alex Avenue PS 02 are 'background scatter'; it is considered unlikely that camping or knapping took place at these sites. It is likely that Aboriginal groups may have favoured the lower slope areas closer to the unnamed creek south of the study area, or Eastern Creek, west of the study area.

The results of the current investigations largely conform to the predictive statements presented in Section 3.3.1. While no surface artefact sites were identified, a very low density artefact-bearing deposit was confirmed in the south-western and south-eastern portions of the study area through the test excavation program, presenting two separate artefact sites: Alex Avenue PS 01; and Alex Avenue PS 02.



6.2 Research questions responses

This section provides detailed responses to the research questions, based on the results above.

Do non-disturbed or minimally disturbed soil profiles exist within areas of archaeological potential?

There was evidence of previous disturbance noted within the areas subject to test excavations. Areas that had evidence of ground disturbance were located throughout the study area in association with ploughing activities, erosion of topsoils and presence of fill material overlying topsoils in various locations; evidence of geotechnical testing was also identified in one test pit unit. Despite these disturbances, the soil profile below the A1 horizon topsoils contained minimal sub-surface disturbance. All three artefacts recovered from the test excavations were located within the upper 10-30 centimetres of deposit, which appeared to be less disturbed soil profiles.

What is the nature of lithics assemblage?

The lithic items recovered from the test excavations displayed knapping on silcrete and chert. The assemblage contained one complete flake, one proximal flake fragment and one distal flake fragment. The distal flake displayed evidence of retouch, and the complete flake featured a flaked platform. All artefacts were recovered from a depth of 10-30 centimetres.

Is the lithic typology similar to the assemblages from other subsurface excavations in the region?

The number of artefacts recovered from Alex Avenue PAD 1 was significantly smaller than the assemblages recovered from excavations at Rouse Road (Biosis Pty Ltd 2016), the proposed Rouse Hill (Stephanie Garling Archaeological Consulting 2000) and Colebee Release Area (Jo McDonald Cultural Heritage Management Pty Ltd 2006), and as such it is difficult to make meaningful comparisons. However, materials and artefact types present largely similar results. Statistically, silcrete is the dominant material at all four sites, while similar artefact types, being complete, proximal and distal flakes, were present at Rouse Road (Biosis Pty Ltd 2016). Furthermore, the surrounding AHIMS sites, consisting mainly of surface artefact scatters, also present similar materials and artefact types; chert and silcrete flakes and flake fragments located either on the ground surface or eroding out of the topsoils have been recorded in the immediate vicinity of the study area (AHIMS sites 45-5-4202, 45-5-4626, 45-5-4627, 45-5-4628, 45-5-4629) (Austral Archaeology 2013, Archaeological & Heritage Management Solutions 2015). While the assemblage contains three artefacts, the typology largely aligns with the surrounding assemblages and sites within the local area and region.

Are any of the archaeological materials of significance?

The artefacts recovered from the test excavations are not considered to be significant in terms of their material, type or distribution, and are unlikely to shed light on occupation patterns or raw material procurement for the area. The artefacts from Alex Avenue PS 01 and Alex Avenue PS 02 are considered to be 'background scatter', with camping or knapping unlikely to have taken place at this location.

What management is appropriate? Does the area warrant further investigation?

No further investigation is warranted within the study area due to the very low density of artefacts recovered during the test excavations and low significance of the artefacts themselves.



7 Scientific values and significance assessment

The two main values addressed when assessing the significance of Aboriginal sites are cultural values to the Aboriginal community and archaeological (scientific) values. This report will assess scientific values while the ACHA report will detail the cultural values of Aboriginal sites in the study area.

7.1 Introduction to the assessment process

Heritage assessment criteria in NSW fall broadly within the significance values outlined in the Australia International Council on Monuments and Sites (ICOMOS) Burra Charter (Australia ICOMOS 2013). This approach to heritage has been adopted by cultural heritage managers and government agencies as the set of guidelines for best practice heritage management in Australia. These values are provided as background and include:

- **Historical significance** (evolution and association) refers to historic values and encompasses the history of aesthetics, science and society, and therefore to a large extent underlies all of the terms set out in this section. A place may have historic value because it has influenced, or has been influenced by, an historic figure, event, phase or activity. It may also have historic value as the site of an important event. For any given place the significance will be greater where evidence of the association or event survives in situ, or where the settings are substantially intact, than where it has been changed or evidence does not survive. However, some events or associations may be so important that the place retains significance regardless of subsequent treatment.
- **Aesthetic significance** (Scenic/architectural qualities, creative accomplishment) refers to the sensory, scenic, architectural and creative aspects of the place. It is often closely linked with social values and may include consideration of form, scale, colour, texture, and material of the fabric or landscape, and the smell and sounds associated with the place and its use.
- Social significance (contemporary community esteem) refers to the spiritual, traditional, historical
 or contemporary associations and attachment that the place or area has for the present-day
 community. Places of social significance have associations with contemporary community identity.
 These places can have associations with tragic or warmly remembered experiences, periods or
 events. Communities can experience a sense of loss should a place of social significance be damaged
 or destroyed. These aspects of heritage significance can only be determined through consultative
 processes with local communities.
- Scientific significance (Archaeological, industrial, educational, research potential and scientific significance values) refers to the importance of a landscape, area, place or object because of its archaeological and/or other technical aspects. Assessment of scientific value is often based on the likely research potential of the area, place or object and will consider the importance of the data involved, its rarity, quality or representativeness, and the degree to which it may contribute further substantial information.

The cultural and archaeological significance of Aboriginal and historic sites and places is assessed on the basis of the significance values outlined above. As well as the ICOMOS Burra Charter significance values guidelines, various government agencies have developed formal criteria and guidelines that have application when assessing the significance of heritage places within NSW. Of primary interest are guidelines prepared by the Commonwealth Department of the Environment and Energy, OEH, NSW Department of Planning and Environment. The relevant sections of these guidelines are presented below.



These guidelines state that an area may contain evidence and associations which demonstrate one or any combination of the ICOMOS Burra Charter significance values outlined above in reference to Aboriginal heritage. Reference to each of the values should be made when evaluating archaeological and cultural significance for Aboriginal sites and places.

In addition to the previously outlined heritage values, the OEH Guidelines (OEH 2011) also specify the importance of considering cultural landscapes when determining and assessing Aboriginal heritage values. The principle behind a cultural landscape is that 'the significance of individual features is derived from their inter-relatedness within the cultural landscape'. This means that sites or places cannot be 'assessed in isolation' but must be considered as parts of the wider cultural landscape. Hence the site or place will possibly have values derived from its association with other sites and places. By investigating the associations between sites, places, and (for example) natural resources in the cultural landscape the stories behind the features can be told. The context of the cultural landscape can unlock 'better understanding of the cultural meaning and importance' of sites and places.

Although other values may be considered – such as educational or tourism values – the two principal values that are likely to be addressed in a consideration of Aboriginal sites and places are the cultural/social significance to Aboriginal people and their archaeological or scientific significance to archaeologists. The determinations of archaeological and cultural significance for sites and places should then be expressed as statements of significance that preface a concise discussion of the contributing factors to Aboriginal cultural heritage significance.

7.2 Archaeological (scientific significance) values

Archaeological significance (also called scientific significance, as per the ICOMOS Burra Charter) refers to the value of archaeological objects or sites as they relate to research questions that are of importance to the archaeological community, including indigenous communities, heritage managers and academic archaeologists. Generally the value of this type of significance is determined on the basis of the potential for sites and objects to provide information regarding the past life-ways of people (Burke & Smith 2004, p.249, NPWS 1997).

Research potential

Research potential is assessed by examining site content and site condition. Site content refers to all cultural materials and organic remains associated with human activity at a site. Site content also refers to the site structure – the size of the site, the patterning of cultural materials within the site, the presence of any stratified deposits and the rarity of particular artefact types. As the site contents criterion is not applicable to scarred trees, the assessment of scarred trees is outlined separately below. The site content ratings used for archaeological sites are provided in Table 19. Site condition refers to the degree of disturbance to the contents of a site at the time it was recorded. The site condition ratings used for archaeological sites are provided in Table 20.

Rating	Description
0	No cultural material remaining.
1	Site contains a small number (e.g. 0–10 artefacts) or limited range of cultural materials with no evident stratification.



Rating	Description
2	Site contains a larger number, but limited range of cultural materials; and/or some intact stratified deposit remains; and/or are or unusual example(s) of a particular artefact type.
3	Site contains a large number and diverse range of cultural materials; and/or largely intact stratified deposit; and/or surface spatial patterning of cultural materials that still reflect the way in which the cultural materials were deposited.

Table 20 Site condition ratings used for archaeological sites

Rating	Description
0	Site destroyed.
1	Site in a deteriorated condition with a high degree of disturbance; lack of stratified deposits; some cultural materials remaining.
2	Site in a fair to good condition, but with some disturbance.
3	Site in an excellent condition with little or no disturbance. For surface artefact scatters this may mean that the spatial patterning of cultural materials still reflects the way in which the cultural materials were laid down.

Pearson and Sullivan (1995, p.149) note that Aboriginal archaeological sites are generally of high research potential because 'they are the major source of information about Aboriginal prehistory'. Indeed, the often great time depth of Aboriginal archaeological sites gives them research value from a global perspective, as they are an important record of humanity's history. Research potential can also refer to specific local circumstances in space and time – a site may have particular characteristics (well preserved samples for absolute dating, or a series of refitting artefacts, for example) that mean it can provide information about certain aspects of Aboriginal life in the past that other less or alternatively valuable sites may not (Burke & Smith 2004, pp.247–8). When determining research potential value particular emphasis has been placed on the potential for absolute dating of sites.

The following sections provide statements of significance for the Aboriginal archaeological sites recorded during the sub-surface testing for the assessment. The significance of each site follows the assessment process outlined above. This includes a statement of significance based on the categories defined in the Burra Charter. These categories include social, historic, scientific, aesthetic and cultural (in this case archaeological) landscape values. Nomination of the level of value—high, moderate, low or not applicable—for each relevant category is also proposed. Where suitable the determination of cultural (archaeological) landscape value is applied to both individual sites and places (to explore their associations) and also, to the Study Area as a whole. The nomination levels for the archaeological significance of each site are summarised below.

Representativeness

Representativeness refers to the regional distribution of a particular site type. Representativeness is assessed by whether the site is common, occasional, or rare in a given region. Assessments of representativeness are subjectively biased by current knowledge of the distribution and number of archaeological sites in a region. This varies from place to place depending on the extent of archaeological research. Consequently, a site that is assigned low significance values for contents and condition, but a high significance value for representativeness, can only be regarded as significant in terms of knowledge of the regional archaeology. Any such site should be subject to re-assessment as more archaeological research is undertaken.



Assessment of representativeness also takes into account the contents and condition of a site. For example, in any region there may only be a limited number of sites of any type that have suffered minimal disturbance. Such sites would therefore be given a high significance rating for representativeness, although they may occur commonly within the region. The representativeness ratings used for archaeological sites are provided in Table 21.

Table 21	Site representativeness i	ratings used for	archaeological sites

Rating	Description
1	Common occurrence.
2	Occasional occurrence.
3	Rare occurrence.

Overall scientific significance ratings for sites, based on a cumulative score for site contents, site integrity and representativeness are provided in Table 22.

Table 22 Scientific significance ratings used for archaeological sites

Rating	Description
1-3	Low scientific significance.
4-6	Moderate scientific significance.
7-9	High scientific significance.

Each site is given a score on the basis of these criteria – the overall scientific significance is determined by the cumulative score. This scoring procedure has been applied to the Aboriginal archaeological sites identified during the sub-surface testing. The results are in Table 23.

7.2.1 Statements of archaeological significance

The following archaeological significance assessment is based on Requirement 11 of the code. Using the assessment criteria detailed in Scientific Values and Significance Assessment, an assessment of significance was determined and a rating for each site was determined. The results of the archaeological significance assessment are given in Table 23 below.

Table 23Scientific significance assessment of archaeological sites recorded within the study
area

Site name	Site content	Site condition	Representativeness	Scientific significance
Alex Avenue PS 01	1	1	1	3 - Low
Alex Avenue PS 02	1	1	1	3 - Low



Table 24 Statements of scientific significance for archaeological sites recorded within the study area

Site name	Statement of significance
Alex Avenue PS 01	Alex Avenue PS 01 consists of two sub-surface artefacts, a chert distal fragment with a hinge termination and retouch evidence, and a silcrete medial fragment, located on a slope landform approximately 180 m north of an unnamed third order creekline connected to Eastern Creek, approximately 1.5 km west of the site. The site contains moderate levels of disturbance from historical farming activities and represents a common site type within the area. Alex Avenue PS 01 is considered to be representative of opportunistic background scatter. The site has no direct historical or aesthetic associations, and has low scientific significance. The significance of Alex Avenue PS 01 has been assessed as low.
Alex Avenue PS 02	Alex Avenue PS 02 consists of a single isolated sub-surface artefact, a complete silcrete flake with a flaked platform and feather termination, located on a slope landform approximately 180 m north of an unnamed third order creekline connected to Eastern Creek, approximately 1.5 km west of the site. The site contains moderate levels of disturbance from historical farming activities and represents a common site type within the area. Alex Avenue PS 02 is considered to be representative of opportunistic background scatter. The site has no direct historical or aesthetic associations, and has low scientific significance. The significance of Alex Avenue PS 02 has been assessed as low.



8 Impact assessment

As previously outlined, the proposed development will consist of a new school to which will have capacity for 1,000 students and 70 staff members. The project involves the following elements:

- Two two-storey Home Base buildings.
- A two-storey admin and staff building.
- A two-storey library.
- A hall and out of school hours care facilities.
- Three learning courtyards and sports court.
- Covered outdoor learning area and walkway.
- Interconnected external area.
- Two storey home base building.

8.1 Predicted physical impacts

The construction of the school buildings, facilities and associated infrastructure associated with the development will impact the majority of the area identified as holding archaeological potential within the study area. If not mitigated the impact may include:

- Vehicle movement within study area with potential compaction of surface soils.
- Earthworks, which will involve the removal of topsoil and subsoil.

Left unmitigated, these activities have potential to completely remove or disturb archaeological deposits and Aboriginal objects. A summary of impacts is provided below in Table 25.

Table 25	Summary of potential archaeological impacts
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AHIMS site no.	Site name	Significance	Type of harm	Degree of harm	Consequence of harm
45-5-5218	Alex Avenue PS 01	Low	Direct	Complete	Total loss of value
45-5-5219	Alex Avenue PS 02	Low	Direct	Complete	Total loss of value

8.2 Management and mitigation measures

Ideally, heritage management involves conservation of sites through the preservation and conservation of fabric and context within a framework of 'doing as much as necessary, as little as possible' (Marquis-Kyle & Walker 1994, p.13). In cases where conservation is not practical, several options for management are available. For sites, management often involves the salvage of features or artefacts, retrieval of information through excavation or collection (especially where impact cannot be avoided) and interpretation.

Avoidance of impact to archaeological and cultural heritage sites through design of the development is the primary mitigation and management strategy, and should be implemented where practicable. It is not



possible for the proposed works to avoid impacts to the areas containing Alex Avenue PS 01 and Alex Avenue PS02 within the study area, and as such Alex Avenue PS 01 and Alex Avenue PS 02 will be impacted by the proposed SSD project.

Alex Avenue PS 01 and Alex Avenue PS 02 have been assessed as holding low scientific significance. The two sites contained within the study area represent opportunistic background scatter and do not warrant further investigation. Accordingly, no further archaeological works are required within the study area prior to development impacts.

8.3 Long term management of Alex Avenue PS 01 and Alex Avenue PS 02

As part of this assessment, the long term management of the three artefacts recovered during test excavations must be addressed. In consultation with the TSA Management on behalf of SINSW, it has been determined that there are a number of areas within the study area which will not be subject to development or landscaping as part of the proposed works and will be maintained as a natural ground areas in the south-eastern portion of the study area. It is proposed that the artefacts will be reburied on site somewhere within this location.



9 Recommendations

Strategies have been developed based on the archaeological (significance) of cultural heritage relevant to the study area and influenced by:

- predicted impacts to Aboriginal cultural heritage
- the planning approvals framework
- current best conservation practise, widely considered to include:
 - ethos of the Australia ICOMOS Burra Charter
 - the code.

Prior to any impacts occurring within the study area, the following is recommended:

Recommendation 1: Conditions of AHIP C000550

Although SSD projects are not required to comply with Part 6 of the *National Parks and Wildlife Act 1974* (NPW Act), the Office of Environment and Heritage (OEH) advises that conditions of valid AHIPs are followed by SSDs in order to reduce the risk of impacting Aboriginal heritage values.

OEH also advises that the holder of the AHIP should be contacted to confirm the works that are intended on the area covered by the AHIP.

Recommendation 2: No further archaeological works required for Alex Avenue PS 01 and Alex Avenue PS 02

It is recommended that no further archaeological works are required for Alex Avenue PS 01 and Alex Avenue PS 02 prior to development impacts.

Recommendation 3: Preparation and lodgement of AHIMS site cards for Alex Avenue PS 01 and Alex Avenue PS 02

It is recommended that AHIMS site cards are prepared and lodged with AHIMS for newly identified sites Alex Avenue PS 01 and Alex Avenue PS 02, and that the site numbers are included in the final version of this report.

Following development impacts it will be necessary to update these AHIMS records with AHIMS site impact recording forms for Aboriginal sites Alex Avenue PS 01 and Alex Avenue PS 02. This should occur within four months following completion of development impacts or as otherwise stated in SSD approval conditions.

Recommendation 4: Long term care and control of artefacts

In consultation with TSA Management on behalf of SINSW, it has been determined that there are a number of areas within the study area which will not be subject to development or landscaping as part of the proposed works and will be maintained as a natural ground areas in the south-eastern portion of the study area. It is proposed that the artefacts will be reburied on site somewhere within this location.



Recommendation 5: Discovery of unanticipated heritage items

Aboriginal objects

All Aboriginal objects and Places are protected under the NPW Act. It is an offence to knowingly disturb an Aboriginal site without a consent permit issued by the OEH. Should any Aboriginal objects be encountered during works associated with this proposal, works must cease in the vicinity and the find should not be moved until assessed by a qualified archaeologist. If the find is determined to be an Aboriginal object the archaeologist will provide further recommendations. These may include notifying the OEH and Aboriginal stakeholders.

Aboriginal ancestral remains

Aboriginal ancestral remains may be found in a variety of landscapes in NSW, including middens and sandy or soft sedimentary soils. If any suspected human remains are discovered during any activity you must:

- 4. immediately cease all work at that location and not further move or disturb the remains
- 5. notify the NSW Police and OEH's Environmental Line on 131 555 as soon as practicable and provide details of the remains and their location
- 6. not recommence work at that location unless authorised in writing by OEH.

Recommendation 6: Continued consultation with registered Aboriginal stakeholders

As per the consultation requirements, it is recommended that the proponent provides a copy of this draft report to the Aboriginal stakeholders and considers all comments received. The proponent should continue to inform these groups about the management of Aboriginal cultural heritage sites within the study area throughout the life of the project.

Recommendation 7: Lodgement of final report

A copy of the final report will be sent to the RAPs, the client, OEH and the AHIMS register for their records.



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Appendices



Appendix 1 AHIMS results

THE FOLLOWING APPENDIX IS NOT TO BE MADE PUBLIC

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Extensive search - Site list report

Client Service ID : 365832

SiteID 45-5-3356	SiteName SCR/UPG2	Datum GDA	Zone 56	Easting 304901	Northing 6269461	Open site	<u>Site Status</u> Partially Destroyed	SiteFeatur Artefact : 1 Potential Archaeolog Deposit (P	0, gical AD) : -	<u>SiteTypes</u>	Reports 103710
	Contact T Russell	<u>Recorders</u>			-	Cultural Heritage Ma				3504,3637,3877,4142	
45-5-3374	Reycroft 1	AGD	56	303417	6267350	Open site	Valid	Artefact : -			100609
	<u>Contact</u> Searle	Recorders	Tota	l Earth Care I	Pty Ltd				<u>Permits</u>	3566	
45-5-4095	PAD 1037-6	GDA	56	302155	6269705	Open site	Valid	Potential Archaeolog Deposit (P	,		
	Contact	Recorders	Exte	nt Heritage P	ty Ltd - Water	loo,Doctor.Alan Willi	ams		Permits		
45-5-4086	Isolated Object 1025-5	GDA	56	302031	6268677	Open site	Valid	Artefact : -			
	Contact	<u>Recorders</u>	Exte	nt Heritage P	ty Ltd - Water	loo,Doctor.Alan Willi	ams		<u>Permits</u>		
45-5-4093	PAD 1035-6	GDA	56	302243	6268470	Open site	Partially Destroyed	Potential Archaeolog Deposit (P	,		
	<u>Contact</u>	<u>Recorders</u>			ty Ltd - Water	loo,Doctor.Alan Willi	ams,Kelleher Night	ingale Cons	<u>Permits</u>	3637	
45-5-4646	110 Boundary Rd AS1	GDA	56	303989	6270483	Open site	Valid	Artefact : -			
	<u>Contact</u>	<u>Recorders</u>	Arte	fact - Cultura	l Heritage Man	agement ,Mr.Alex Ti	mms		<u>Permits</u>	4041	
45-5-4671	Reburied Artefacts of 45-5-4489	GDA	56	302140	6269889	Open site	Valid	Artefact : -			
	Contact	Recorders	Mary	v Dallas Cons	ulting Archaeo	logists,Ms.Tamika Go	oward,Ms.Tamika (Goward	Permits	4075	
45-5-4655	Advance Street 1	GDA	56	302902	6269125	Open site	Valid	Artefact : -			103598,10359 9,103600,1036 01
	<u>Contact</u>	Recorders	Mr.T	yler Beebe					Permits	3998	
45-5-4710	Bligh Street Isolated Find 1	GDA	56	302664	6270510	Open site	Valid	Artefact : -			
	Contact	<u>Recorders</u>	Mr.Jo	osh Symons					<u>Permits</u>		
45-5-4711	Bligh Street Isolated Find 3	GDA	56	302572	6270435	Open site	Valid	Artefact : -			
	Contact	Recorders	Mr.Jo	osh Symons					<u>Permits</u>		
45-5-4712	Bligh Street Isolated Find 2	GDA	56	302672	6270513	Open site	Valid	Artefact : -			
	Contact	Recorders	Mr.Jo	osh Symons					Permits		
45-5-4722	Advance Street AFT 2	GDA		302982	6269114	Open site	Valid	Artefact : -			103598,10359 9,103600,1036 01
	Contact	<u>Recorders</u>		0 0		Pty Ltd,Mr.Benjamir			<u>Permits</u>	3998	
45-5-4723	Schofields Road Detention Basin (SRDB) IF 3	GDA	56	302888	6269179	Open site	Valid	Artefact : -			103598,10359 9,103600,1036 01

Report generated by AHIMS Web Service on 22/08/2018 for Samantha Keats for the following area at Datum :GDA, Zone : 56, Eastings : 302212 - 305120, Northings : 6267062 - 6270836 with a Buffer of 200 meters. Additional Info : Archaeological assessment. Number of Aboriginal sites and Aboriginal objects found is 94



Extensive search - Site list report

<u>SiteID</u>	SiteName	<u>Datum</u>	<u>Zone</u>	Easting	<u>Northing</u>	<u>Context</u>	<u>Site Status</u>	<u>SiteFeatur</u>	es	<u>SiteTypes</u>	<u>Reports</u>
	Contact	Recorders	Kelle	eher Nightin	gale Consulting	g Pty Ltd,Mr.Benjamii	n Anderson		Permits	3998	
45-5-4724	Schofields Road Detention Basin (SRDB) IF 2	GDA	56	303182	6269203	Open site	Valid	Artefact : -			103598,10359 9,103600,1036 01
	Contact	<u>Recorders</u>	Kelle	eher Nightin	gale Consulting	g Pty Ltd,Mr.Benjamii	n Anderson		Permits	3998	
45-5-4725	Schofields Road Detention Basin (SRDB) IF 1	GDA	56	303284	6269195	Open site	Valid	Artefact : -			103598,10359 9,103600,1036 01
	<u>Contact</u>	Recorders	Kelle	eher Nightin	gale Consulting	g Pty Ltd,Mr.Benjamii	n Anderson		Permits	3998	
45-5-0471	Eastern Creek 4 Schofields Aerodrome	GDA	56	302709	6267494	Open site	Valid	Artefact : -		Open Camp Site	1018
	Contact	Recorders	Jim I	Kohen,Kelleh	er Nightingale	Consulting Pty Ltd,M	Ir.Benjamin Ander	son	Permits	4075,4086,4272	
45-5-0544	SA 8 Riverstone	GDA	56	302021	6266922	Open site	Destroyed	Artefact : -		Open Camp Site	1018,100450
	Contact	Recorders	Doct	or.Jo McDon	ald,Kelleher N	ightingale Consulting	g Pty Ltd,Mr.Benjar	nin Andersoı	Permits	2084,2596	
45-5-0497	Eastern Creek 3 Schofields Aerodrome	AGD	56	303000	6266920	Open site	Valid	Artefact : -		Open Camp Site	521,1018
	Contact	Recorders	Jim I	Kohen					Permits	4086	
45-5-0498	Eastern Creek 5 Schofields Aerodrome	GDA	56	302479	6268066	Open site	Valid	Artefact : -		Open Camp Site	521,1018,9818 7
	Contact	<u>Recorders</u>	Jim I	Kohen,Kelleh	er Nightingale	Consulting Pty Ltd,M	Ir.Benjamin Ander	son	Permits	4074,4075,4086	
45-5-0502	Schofields 1 Schofields (Public Road)	AGD	56	302400	6269200	Open site	Valid	Artefact : -		Open Camp Site	521,1018,9818 7
	Contact	<u>Recorders</u>	,	Kohen					Permits		
45-5-0503	Eastern Creek 6 Schofields Aerodrome	AGD	56	303000	6267500	Open site	Valid	Artefact : -		Open Camp Site	521,1018
	Contact	<u>Recorders</u>	,	Kohen					<u>Permits</u>	4086	
45-5-3008	PAD12	GDA		302055	6267110	Open site	Destroyed	Potential Archaeolog Deposit (Pa Artefact : -	AD) : -,		
	Contact	<u>Recorders</u>				ightingale Consulting			<u>Permits</u>	2084,2596	
45-5-4187	28 Tallawong Road	GDA		305061	6269998	Open site	Destroyed	Artefact : 1			103781
	Contact	<u>Recorders</u>			<i>.</i>	- Surry Hills,Kellehe	0 0	0,	Permits		
45-5-4202	NWG AS 1	GDA	56	303508	6268857	Open site	Valid	Artefact : 1			
	Contact	<u>Recorders</u>			0	ey Consultants,Mr.Da	wid Marcus		Permits	3646	
45-5-4267	The Ponds PAD1	GDA	56	305102	6268735	Open site	Valid	Potential Archaeolog Deposit (Pa Artefact : -			
	Contact	<u>Recorders</u>		0 .	y Ltd + Context	- Surry Hills,Mr.Josh			<u>Permits</u>	3616	
45-5-4266	SF01a	GDA	56	302264	6269873	Open site	Valid	Artefact : 1			

Report generated by AHIMS Web Service on 22/08/2018 for Samantha Keats for the following area at Datum :GDA, Zone : 56, Eastings : 302212 - 305120, Northings : 6267062 - 6270836 with a Buffer of 200 meters. Additional Info : Archaeological assessment. Number of Aboriginal sites and Aboriginal objects found is 94



<u>SiteID</u>	SiteName	<u>Datum</u>	Zone	Easting	<u>Northing</u>	<u>Context</u>	<u>Site Status</u>	<u>SiteFeatures</u>	<u>SiteTypes</u>	<u>Reports</u>
	Contact	Recorders	Iain S	Stuart				<u>Permi</u>	<u>s</u> 3696	
45-5-4311	A7 Archaeological Complex	GDA	56	304070	6270906	Open site	Partially	Artefact : 1, Potenti	al	103781
							Destroyed	Archaeological		
								Deposit (PAD) : 1,		
								Modified Tree		
								(Carved or Scarred):	
	Constant.	n	M		NA AL XA7:11-			1	2502 4054	
AF F 4116	Contact Schofields Village AS1	Recorders		302202	s,Mr.Alan Willi 6268541		Valid	Permi Artefact : 136	<u>s</u> 3793,4074	
45-5-4116	Ŭ	GDA				Open site				
	Contact	<u>Recorders</u>			, a	ously HLA-Envirosci	2.		<u>s</u> 3525	
45-5-4117	Schofields Village AS2	GDA	56	302273	6268430	Open site	Valid	Artefact : 188		
	<u>Contact</u>	Recorders			v a	ously HLA-Envirosci	ences),Mr.Luke Kii	rkwood <u>Permi</u>	<u>s</u> 3525	
45-5-4118	Schofields Village AS3	GDA	56	302404	6268458	Open site	Valid	Artefact : 22		
	<u>Contact</u>	Recorders	AECO	OM Australia	Pty Ltd (previ	ously HLA-Envirosci	ences),Mr.Luke Kii	rkwood <u>Permi</u>	<u>s</u> 3525	
45-5-4119	Schofields Village AS4	GDA	56	302478	6268554	Open site	Valid	Artefact : 3		
	<u>Contact</u>	Recorders	AECO	OM Australia	Pty Ltd (previ	ously HLA-Envirosci	ences),Mr.Luke Kii	rkwood <u>Permi</u>	<u>s</u> 3525	
45-5-4120	Schofields Village AS5	GDA	56	302229	6268331	Open site	Valid	Artefact : 63		
	Contact	Recorders	AECO	OM Australia	Pty Ltd (previ	ously HLA-Envirosci	ences),Mr.Luke Kii	rkwood <u>Permi</u>	<u>s</u>	
45-5-4121	Schofields Village AS6	GDA	56	302372	6268163	Open site	Valid	Artefact : 4		
	<u>Contact</u>	Recorders	AECO	OM Australia	Pty Ltd (previ	ously HLA-Envirosci	ences),Mr.Luke Kii	rkwood <u>Permi</u>	S	
45-5-4122	Schofields Village AS7	GDA	56	302552	6268270	Open site	Valid	Artefact : 4		
	<u>Contact</u>	Recorders	AECO	OM Australia	Pty Ltd (previ	ously HLA-Envirosci	ences),Mr.Luke Kii	rkwood <u>Permi</u>	s 3525	
45-5-4123	Schofields Village AS8	GDA		302584	6268143	Open site	Valid	Artefact : 77		
	Contact	Recorders	AEC)M Australia	Ptv Ltd (previ	ously HLA-Envirosci	ences).Mr.Luke Kii	rkwood Permi	s 3525	
45-5-4124	Schofields Village AS9	GDA		302900	6268362	Open site	Valid	Artefact : 2	0010	
	Contact	Recorders	AECO	M Australia	Pty I td (provi	ously HLA-Envirosci	oncos) Mr Luko Ki	rkwood <u>Permi</u>	c	
45-5-4125	SC IA1	GDA		302779	6268654	Open site	Valid	Artefact : 1	<u>5</u>	
10 0 1120	Contact	Recorders				ously HLA-Envirosci			s 3525	
45-5-4272	SB - AS1 - 12	GDA		302123	6269471	Open site	Valid	Artefact : 1	<u>s</u> 5525	
43-3-4272						•			26022606	
4F F 4100	Contact	Recorders				alia Pty Ltd (previou		,	<u>s</u> 3608,3696	
45-5-4108	AA AS 4	GDA	50	305265	6269048	Open site	Partially Destroyed	Artefact : 11		
	Contact	Recorders	Ms F	iona Leslie			Destroyeu	Permi	s 3499	
45-5-4152	VR1	GDA		302172	6268573	Open site	Destroyed	Artefact : 2		
	Contact	Recorders				•	,	g Pty Ltd,Mi: Permi	s 3637	
45-5-4135	RAA19	GDA		303934	6268532	Open site	Valid	Artefact : 1	<u>s</u> 3037	
49-9-4199	NAA17	UDA	50	303334	0200332	opensite	vailu	AI ICIALL . I		

Report generated by AHIMS Web Service on 22/08/2018 for Samantha Keats for the following area at Datum :GDA, Zone : 56, Eastings : 302212 - 305120, Northings : 6267062 - 6270836 with a Buffer of 200 meters. Additional Info : Archaeological assessment. Number of Aboriginal sites and Aboriginal objects found is 94



Extensive search - Site list report

<u>SiteID</u>	SiteName	<u>Datum</u>	<u>Zone</u>	Easting	<u>Northing</u>	<u>Context</u>	<u>Site Status</u>	<u>SiteFeatur</u>	e <u>s</u>	<u>SiteTypes</u>	<u>Reports</u>
	<u>Contact</u>	<u>Recorders</u>	Docto	or.Alan Willi	ams,AECOM A	ustralia Pty Ltd (pre	viously HLA-Enviro	osciences)	<u>Permits</u>	3606	
5-5-4131	RAA 16	GDA	56	305006	6268242	Open site	Partially	Artefact : 1	1		
			4.5.6.6		D. I.I.C.		Destroyed		D	0.400	
F F 4400	Contact	Recorders				ously HLA-Envirosc			Permits	3499	
45-5-4132	RAA 17	GDA	56	305249	6268257	Open site	Partially Destroyed	Artefact : 1			
	<u>Contact</u>	Recorders	AECO)M Australia	Ptv Ltd (previ	ously HLA-Envirosc			<u>Permits</u>	3499	
5-5-4625	30AdvSt-IF1	GDA		302921	6269238	Open site	Valid	Artefact : -			
	Contact	Recorders	Mr Al	listair Hobb		•			<u>Permits</u>		
15-5-4626	14SchRd_IF1	GDA		303403	, 6268930	Open site	Valid	Artefact : -	<u>r crimity</u>		
	<u>Contact</u>	Recorders		listair Hobb		1			<u>Permits</u>		
45-5-4627	14SchRd-AS3	GDA		303189	6268994	Open site	Valid	Artefact : -	<u>r crimito</u>		
	Contact	Recorders		listair Hobb		· · · · · ·			<u>Permits</u>		
45-5-4628	14SchRd-AS2	GDA		303479	, 6268920	Open site	Valid	Artefact : -	<u>r crimts</u>		
	Contact	Recorders		listair Hobb					<u>Permits</u>		
5-5-4629	14SchRd-AS1	GDA		303125	6268936	Open site	Valid	Artefact : -	<u>r crimts</u>		
	Contact	Recorders		listair Hobb		- F			Permits		
5-5-4565	Hambledon Road PAD + AS	GDA		304632	6269132	Open site	Valid	Artefact : -,			
						- F		Archaeolog			
								Deposit (PA	ND) : -		
	<u>Contact</u>	<u>Recorders</u>		or.Tim Ower	1				<u>Permits</u>		
5-5-4566	Hambledon Road IF	GDA	56	304893	6269163	Open site	Valid	Artefact : -			
	<u>Contact</u>	<u>Recorders</u>	Docto	or.Tim Ower	1				Permits	3877	
5-5-4485	RS_BASIN_E10.3_AS	GDA	56	302888	6270407	Open site	Destroyed	Artefact : -			
	Contact	Recorders	Mr.Da	avid Marcus					<u>Permits</u>	3759	
5-5-4614	Schofields 3	GDA	56	302354	6267385	Open site	Valid	Artefact : -,			
								Archaeolog			
	Control .	Describert	17 11	1 11.1.1				Deposit (PA	-	4075 4006 4000 4105 42	70
5-5-4615	Contact Schofileds 1	<u>Recorders</u> GDA		ner Nighting 302687	6267773	Pty Ltd,Mr.Benjami Open site	n Anderson,Mr.Asn Valid	Artefact : -,		4075,4086,4090,4105,42	12
5-5-4015	Scholleus 1	GDA	50	302007	0207773	open site	vanu	Archaeolog			
								Deposit (PA			
	Contact	Recorders	Mr.As	shley O'Sulli	van			1 (Permits	4075,4086	
5-5-4622	QV1	GDA	56	303126	6267901	Open site	Valid	Artefact : -			
	Contact	Recorders	Mr.As	shley O'Sulli	van				<u>Permits</u>		
	Contact										
5-5-4623	QV2	GDA	56	303112	6267927	Open site	Valid	Artefact : -			

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<u>SiteID</u>	SiteName	Datum	Zone	Easting	Northing	<u>Context</u>	<u>Site Status</u>	<u>SiteFeatu</u>	<u>es</u>	<u>SiteTypes</u>	Reports
45-5-4562	AA-AS-001	GDA	56	303356	6268369	Open site	Valid	Artefact : -			
	Contact	Recorders	Mr.L	ance Syme					Permits	3998	
45-5-4563	AA-AS-002	GDA	56	303453	6268684	Open site	Valid	Artefact : -			
	Contact	Recorders	Mr.L	ance Syme					<u>Permits</u>	3998	
45-5-4564	AA-AS-003	GDA	56	303837	6269076	Open site	Valid	Artefact : -			
	Contact	<u>Recorders</u>	Mr.L	ance Syme					<u>Permits</u>		
45-5-4598	Alex Avenue 5 (AA5)	GDA	56	304999	6268846	Open site	Destroyed	Artefact : -			
	Contact	Recorders	Artef	fact - Cultura	l Heritage Mai	agement ,Artefact -	Cultural Heritage N	Management	Permits	3972	
45-5-4601	Alex Avenue 1 (AA1)	GDA	56	304790	6269395	Open site	Valid	Artefact : -			103761
	<u>Contact</u>	<u>Recorders</u>	Artef	fact - Cultura	l Heritage Mai	agement ,Ms.Alyce l	Ioward		<u>Permits</u>		
45-5-4602	Alex Avenue 2 (AA2)	GDA	56	304766	6269389	Open site	Valid	Artefact : -			103761
	<u>Contact</u>	<u>Recorders</u>	Artef	fact - Cultura	l Heritage Maı	agement ,Ms.Alyce I	Ioward		<u>Permits</u>		
45-5-4603	Alex Avenue 3 (AA3)	GDA	56	304637	6269130	Open site	Valid	Artefact : -			
	<u>Contact</u>	<u>Recorders</u>	Artef	fact - Cultura	l Heritage Mai	agement ,Ms.Alyce I	Ioward		<u>Permits</u>		
45-5-4604	Alex Avenue 4 (AA4)	GDA	56	304680	6269134	Open site	Valid	Artefact : -			
	<u>Contact</u>	<u>Recorders</u>	Artef	fact - Cultura	l Heritage Maı	agement ,Ms.Alyce I	Ioward		<u>Permits</u>		
45-5-4489	Argowan Rd1	GDA	56	302090	6268991	Open site	Destroyed	Artefact : -			
	Contact	Recorders	Ms.T	amika Gowa	rd				Permits	3803	
45-5-5008	Schofields PS	GDA	56	303048	6269868	Open site	Valid	Artefact : 1	, Ochre		
	Contact	Docondono	Com	han Canaulta	nta Dtv Limita	d Ma Alan dua Taaina		Quarry : 1	Dormito	4324	
45-5-5012	Contact Bridge Street AFT 1	Recorders GDA			5		Valid	Artefact : -	Permits Potential	4524	
15 5 5012		0D/1	50	502125	0207770	opensite	Vanu	Archaeolog			
								Deposit (P			
	Contact	Recorders	Kelle	her Nighting	gale Consulting	g Pty Ltd,Ms.Cristany	Milicich		<u>Permits</u>		
45-5-5110	BR IF 1 (Boundary Road Isolate Find 1)	GDA	56	303904	6270832	Open site	Valid	Artefact : -			
	<u>Contact</u>	<u>Recorders</u>			l Heritage Mai	agement ,Miss.Jenni	fer Norfolk		<u>Permits</u>		
45-5-4955	First Ponds 1	GDA	56	304423	6270405	Open site	Valid	Artefact : 1			
	Contact	<u>Recorders</u>	Eco I	ogical Austr	alia Pty Ltd - S	ydney,Mr.Tyler Beel	be		<u>Permits</u>	4274	
45-5-4968	Gordon Road Artefact Scatter (GR AS) 01	GDA	56	304583	6269935	Open site	Valid	Artefact : -			
	Contact	<u>Recorders</u>			~	agement ,Ms.veroni			<u>Permits</u>	4311	
45-5-4969	Gordon Road Isolated Find 01 (GR ISO 01)	GDA	56	304539	6270015	Open site	Valid	Artefact : -			
	Contact	<u>Recorders</u>			l Heritage Mai	agement ,Ms.veroni			<u>Permits</u>	4311	
45-5-5030	Tallawong Road OC1	GDA	56	304779	6270708	Open site	Valid	Artefact : -			
	<u>Contact</u>	<u>Recorders</u>	Mary	aber Consultants Pty Limited,Ms.Alandra Tasire 302125 6269990 Open site Valid eher Nightingale Consulting Pty Ltd,Ms.Cristany Milicich 303904 6270832 Open site Valid fact - Cultural Heritage Management ,Miss.Jennifer Norfolk 304423 6270405 Open site Valid Logical Australia Pty Ltd - Sydney,Mr.Tyler Beebe 304583 6269935 Open site Valid fact - Cultural Heritage Management ,Ms.veronica norman 304539 6270015 Open site Valid fact - Cultural Heritage Management ,Ms.veronica norman					<u>Permits</u>		

Report generated by AHIMS Web Service on 22/08/2018 for Samantha Keats for the following area at Datum :GDA, Zone : 56, Eastings : 302212 - 305120, Northings : 6267062 - 6270836 with a Buffer of 200 meters. Additional Info : Archaeological assessment. Number of Aboriginal sites and Aboriginal objects found is 94



Extensive search - Site list report

<u>SiteID</u>	SiteName	Datum	Zone	Easting	Northing	Context	<u>Site Status</u>	SiteFeatures	<u>SiteTypes</u>	Reports
45-5-4944	HF OC2	GDA	56	302211	6270088	Open site	Valid	Artefact : -		
	Contact	Recorders	Murr	ay Brown,Mi	.Paul Irish			Permits		
45-5-4945	HF OC1	GDA	56	302103	6270074	Open site	Valid	Artefact : -		
	Contact	Recorders	Murra	ay Brown,Mi	.Paul Irish			Permits		
45-5-4466	RAA10	GDA	56	304067	6270609	Open site	Valid	Artefact : -		103781
	Contact	<u>Recorders</u>	AECO	M Australia	Pty Ltd (previ	ously HLA-Enviros	ciences)	Permits		
45-5-4467	RAA12	GDA	56	304181	6270146	Open site	Valid	Artefact : -		
	<u>Contact</u>	Recorders	AECO	M Australia	Pty Ltd (previ	ously HLA-Enviros	ciences)	Permits		
45-5-4469	RAA14	GDA	56	305034	6269491	Open site	Valid	Artefact : -		
	Contact	<u>Recorders</u>	AECO	M Australia	Pty Ltd (previ	ously HLA-Enviros	ciences)	Permits		
45-5-4470	RAA15	GDA	56	304438	6268481	Open site	Valid	Artefact : -		
	Contact	<u>Recorders</u>	AECO	M Australia	Pty Ltd (previ	ously HLA-Enviros	ciences)	Permits		
45-5-4471	RAA20	GDA	56	304104	6269082	Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	AECO	M Australia	Pty Ltd (previ	ously HLA-Enviros	ciences)	Permits		
45-5-4472	RAA21	GDA	56	303570	6269090	Open site	Valid	Artefact : -		
	Contact	<u>Recorders</u>	AECO	M Australia	Pty Ltd (previ	ously HLA-Enviros	ciences)	Permits		
45-5-4473	RAA22	GDA	56	304551	6268948	Open site	Valid	Artefact : -		
	<u>Contact</u>	Recorders	AECO	M Australia	Pty Ltd (previ	ously HLA-Enviros	ciences)	Permits		
45-5-4474	RAA23	GDA	56	304500	6268840	Open site	Valid	Artefact : -, Potential		
								Archaeological		
	<u>Contact</u>	Recorders	AECO	M Australia	Ptv Ltd (nrevi	ously HLA-Enviros	ciences)	Deposit (PAD) : - <u>Permits</u>		
45-5-4476	RV40	GDA		303505	6268732	Open site	Valid	Artefact : -		
	Contact	Recorders	AECO)M Australia	Ptv Ltd (nrevi	ously HLA-Enviros	ciences)	Permits	3998	
45-5-4326	Basin4IF30	GDA		303009	6268789	Open site	Valid	Artefact : 1	0,70	
	Contact	Recorders	Mr.Ol	liver Brown		•		Permits	3784	
45-5-4835	GR-01	GDA		304317	6270126	Open site	Valid	Artefact : -, Potential	0,01	103781
						•		Archaeological		
								Deposit (PAD) : -		
	Contact	Recorders					0.	Balazs Hanse Permits	4182	
45-5-4763	RL 8	GDA		303306	6270440	Open site	Valid	Artefact : 1		
	<u>Contact</u>	Recorders		ala-Lia	(270(2))	0	¥7 1·1	Permits		
45-5-4899	Tr-As 01	GDA		304806	6270636	Open site	Valid	Artefact : -		
45 5 4000	Contact	Recorders						ge,Ms.Tamika Permits	4255	
45-5-4903	SC AS3	GDA		302953	6267652	Open site	Valid	Artefact : 3		
	<u>Contact</u>	<u>Recorders</u>	Exten	nt Heritage P	ty Ltd - Water	loo		<u>Permits</u>	4086	

Report generated by AHIMS Web Service on 22/08/2018 for Samantha Keats for the following area at Datum :GDA, Zone : 56, Eastings : 302212 - 305120, Northings : 6267062 - 6270836 with a Buffer of 200 meters. Additional Info : Archaeological assessment. Number of Aboriginal sites and Aboriginal objects found is 94



Extensive search - Site list report

Client Service ID : 365832

<u>SiteID</u>	SiteName	<u>Datum</u>	Zone	Easting	<u>Northing</u>	<u>Context</u>	<u>Site Status</u>	<u>SiteFeatures</u>		<u>SiteTypes</u>	<u>Reports</u>
45-5-4928	54 Schofields Road	GDA	56	304490	6269137	Open site	Valid	Artefact : 1, Pot	tential		103761
								Archaeological			
								Deposit (PAD) :			
	<u>Contact</u>	<u>Recorders</u>	<u>Mr.D</u>	ominic Steel	e			Per	<u>rmits</u>	4286	
45-5-4743	209 Railway Terrace IF1	GDA	56	302994	6268672	Open site	Valid	Artefact : -			
	Contact	Recorders	Exte	nt Heritage H	Pty Ltd - Water	loo,Doctor.Tessa Br	/ant	<u>Pe</u>	<u>rmits</u>		
45-5-4887	Riverstone Isolated Artefact 6	GDA	56	305223	6270037	Open site	Valid	Artefact : -			
	<u>Contact</u>	Recorders	Doct	or.Darran Jo	rdan,AECOM A	ustralia Pty Ltd (pre	eviously HLA-Envir	osciences) <u>Pe</u>	<u>rmits</u>	4074	
45-5-4888	Schofields Artefact Scatter 1	GDA	56	302765	6267828	Open site	Valid	Artefact : -			
	Contact	Recorders	Doct	or.Darran Jo	rdan,AECOM A	ustralia Pty Ltd (pre	eviously HLA-Envir	osciences) <u>Pe</u>	<u>rmits</u>	4074	
45-5-4889	Schofields Artefact Scatter 2	GDA	56	302863	6267851	Open site	Valid	Artefact : -			
	Contact	Recorders	Doct	or.Darran Jo	rdan,AECOM A	ustralia Pty Ltd (pre	viously HLA-Envir	osciences) <u>Pe</u>	<u>rmits</u>	4074	
45-5-4890	Schofields Isolated Artefact 1	GDA	56	302687	6267810	Open site	Valid	Artefact : -			
	Contact	<u>Recorders</u>	Doct	or.Darran Jo	rdan,AECOM A	ustralia Pty Ltd (pre	viously HLA-Envir	osciences) <u>Pe</u>	<u>rmits</u>	4074	
45-5-4902	SC AS4	GDA	56	303005	6267434	Open site	Valid	Artefact : 3			
	Contact	<u>Recorders</u>	Exte	nt Heritage H	Pty Ltd - Water	loo		Per	<u>rmits</u>	4086	

Report generated by AHIMS Web Service on 22/08/2018 for Samantha Keats for the following area at Datum :GDA, Zone : 56, Eastings : 302212 - 305120, Northings : 6267062 - 6270836 with a Buffer of 200 meters. Additional Info : Archaeological assessment. Number of Aboriginal sites and Aboriginal objects found is 94 This information is not guaranteed to be free from error omission. Office of Environment and Heritage (NSW) and its employees disclaim liability for any act done or omission made on the information and consequences of such acts or omission.



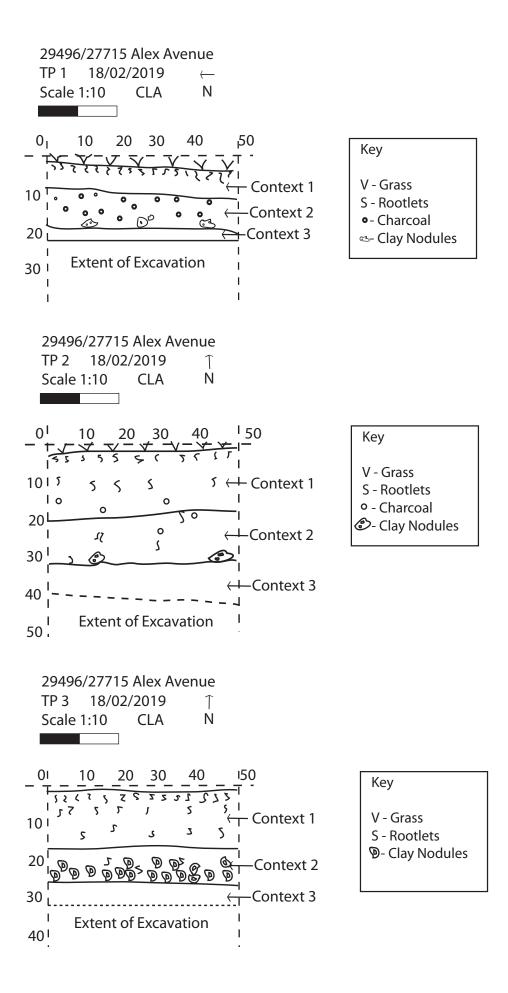
Appendix 2 Test excavation results

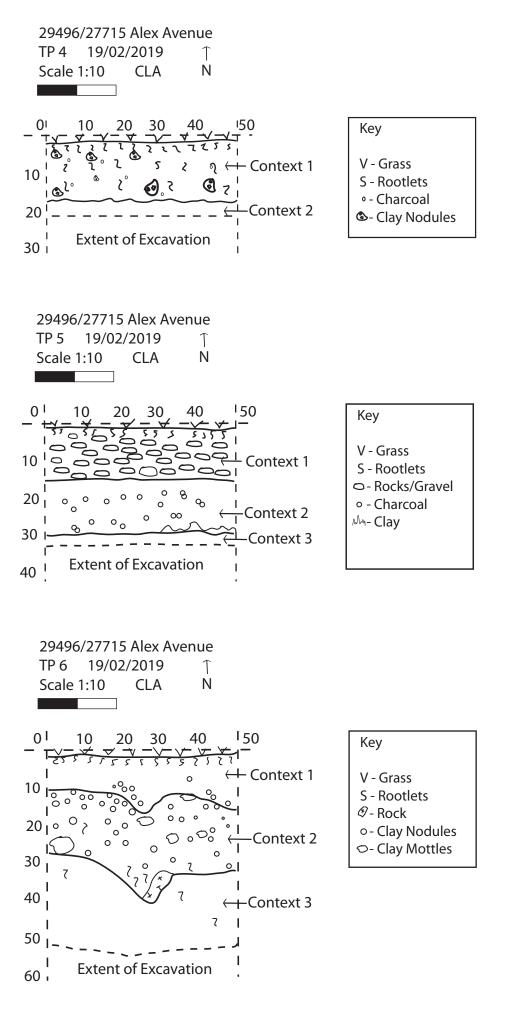
Test Pit No.	Context No.	Start depth (mm)	End depth (mm)	Colour (Munsell Code)	Compaction	Texture	Disturbance	Notes	Inclusions	РН
TP1	1	C		10YR 6/3 Pale Brown	Low	Silty sand	Ploughing, horse paddock	N/A	Grass, rootlets (>2%)	6.5
TP1	2	70	160	10YR 5/6 Yellow Brown	Medium	Silty clay	Ploughing, horse paddock	Interface layer between context 1 and 3	Charcoal flecks, clay mottles	6
TP1	3	160	200	10 YR 3/4 Dark Yellowish Brown	High	Clay	Ploughing, horse paddock	Clay content increasing with depth, highly compacted context	High clay content, charcoal (a couple of large charcoal chunks)	6.5
TP2	1	C	170	10YR 5/4 Yellowish Brown	Low	Silty sand	Ploughing	N/A	Grass, rootlets (>5%)	6
TP2	2	170	290	10YR 5/6 Yellowish Brown	Medium	Silty clay	Ploughing, horse paddock	Interface layer between context 1 and 3	Same as TP1, however not large charcoal flecks evident	6
TP2	3	290	350	2.5YR 4/6 Red	High	Clay	Ploughing, horse paddock	Clay content increasing with depth, highly compacted context	Same as TP1, with very high clay content at base of pit	6
ТРЗ	1	C	165	10YR 4/4 Dark Yellowish Brown	Low	Silty sand	Ploughing, horse paddock	N/A	Grass, rootlets (>5%)	6.5
TP3	2	165	240	10YR 4/4 Dark Yellowish Brown	Medium	Silty clay	Ploughing, slight insect burrowing	N/A	Charcoal flecks (3%), with increasing clay mottles with depth	6
TP3	3	240	300	2.5YR 4/8 Red	High	Clay	Ploughing, horse paddock	Highly compacted sterile clay layer	Clay	6
TP4	1	C	140	7.5YR 4/4 Brown	Medium	Silty clay	Ploughing, horse paddock	N/A	Grass, rootlets (5%) and clay mottles increasing with depth	6.5
TP4	2	140	200	2.5YR 4/8 Red	High	Clay	Roolets (>1%)	N/A	Highly compacted clay at base of pit	6
TP5	1	C	150	10YR 5/3 Brown	High	Silty sand	Ploughing, horse paddock	very rocky fill layer	Rock, clay mottles, gravel	6.5
TP5	2	150	300	10YR 5/4 Yellowish Brown	Medium	Silty clay	Ploughing, horse paddock	Interface layer between context 1 and 3	Clay mottles increasing with depth, small charcoal flecks	6
TP5	3	300	320	5YR 5/6 Yellowish Red	High	Clay	N/A	Highly compacted clay layer at base of pit	Clay mottles	6
TP6	1	C	150	10YR 5/2 Greyish Brown	Low	Silty sand	Ploughing, horse paddock, geotech activity	Test pit placed over prior geotech hole	Rootlets and grass cover (>2%)	6.5
TP6	2	150	350	7.5YR 3/4 Dark Brown	Medium	Silty clay	Roolets (>1%), ploughing	Interface layer between context 1 and 3	Clay mottles increasing with depth, stone/rock	6
TP6	3	350	500	2.5YR 4/8 Red	High	Clay	Geotech disturbance, ploughing	Highly compacted sterile clay layer at base of pit	N/A	6
TP7	1	C	100	7.5YR 4/4 Brown	Low	Silty sand	Ploughing, horse paddock, grass	Gravely layer	Grass, rootlets (>2%)	8
TP7	2	100	200	2.5YR 4/8 Red	High	Clay	Insect burrowing (ants)	N/A	Clay mottles increasing with depth to highly compacted clay	7
TP8	1	C	110	7.5YR 5/4 Brown	Medium	Silty clay	Ploughing, horse paddock	Fill layer due to ploughing. Not the same make up as previous context 1s	Clay nodules, rocks, rootlets (>1%)	8.5
TP8	2	110	260	7.5YR 4/4 Brown	Medium	Silty sand	N/A	Context 2 is the same as TP3,4 and 5 context 1	Rootlets (>1%), charcoal flecks, small clay nodules towards bottom of context	8.5

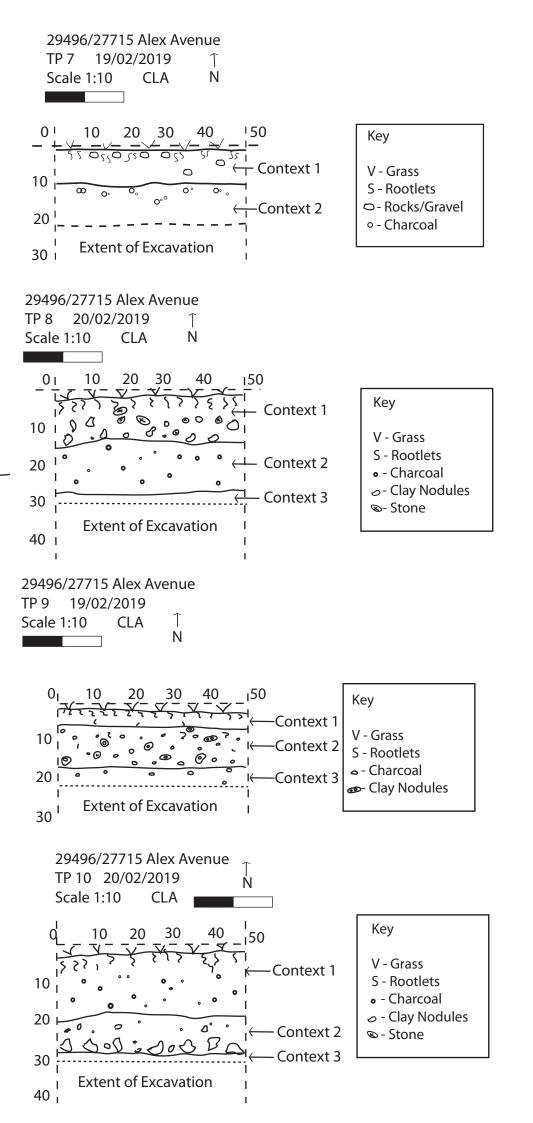
	Context Star No. (mr		nd depth Colour (Munsell Code) nm)	Compaction	Texture	Disturbance	Notes	Inclusions	РН
TP8	3	240	280 2.5YR 4/8 Red	High	Clay	N/A	Highly compacted red clay at base of pit	N/A	7.5
TP9	1	0	50 7.5YR 4/2 Brown	Low	Silty sand	Ploughing, horse paddock	N/A	Grass, rootlets (>2%)	6
TP9	2	50	170 10YR 4/3 Brown	Medium	Silty clay	N/A	N/A	Charcoal flecks (5%) and clay mottles increasing with depth	6
TP9	3	170	200 2.5YR 4/8 Red	High	Clay	N/A	Highly compacted red clay at base	N/A	6
TP10	1	0	170 10YR 4/4 Dark Yellowish Brown	Low	Silty sand	Ploughing, rootlets (2%), grass	N/A	Small charcoal flecks and clay nodules towards end of context	6.5
TP10	2	170	240 7.5YR 3/4 Dark Brown	Medium	Silty clay	N/A	Interface layer between context 1 and 3	Charcoal flecks and clay nodules/mottles increasing with depth	6
TP10	3	240	270 2.5YR 4/8 Red	High	Clay	N/A	N/A	N/A	(
TP11	1	0	90 7.5YR 3/4 Dark Brown	Low	Silty clay	Ploughing, old horse paddock	N/A	Grass, rootlets (>1%)	
TP11	2	90	330 7.5YR 3/3 Dark Brown	Medium	Silty clay	N/A	N/A	N/A	6.
TP11	3	330	350 2.5YR 4/8 Red	High	Clay	N/A	N/A	N/A	
TP12	1	0	130 10YR 3/4 Dark Yellowish Brown	Low	Silty sand	Ploughing, old horse paddock	N/A	Grass, rootlets (3%)	
TP12	2	130	230 2.5YR 4/8 Red	Medium	Silty clay	N/A	N/A	Red clay mottles increasing with depth	
TP12	3	230	250 2.5YR 4/8 Red	High	Clay	N/A	N/A	N/A	
TP13	1	0	210 7.5YR 5/4 Brown	Low	Silty loam	N/A	N/A	Rootlets in top 80mm (5%)	
TP13	2	210	320 5YR 3/2 Dark Reddish Brown	High	Sandy clay	N/A	N/A	Charcoal flecks (<10mm, 5%)	
TP13	3	320	380 2.5YR 4/6 Red	High	Clay	N/A	Mixed charcoal in base of pit, likely burnt out plant root	N/A	
TP14	1	0	140 7.5YR 5/2 Brown	Medium	Silt	N/A	N/A	Rootlets (>3%)	
TP14	2	140	220 7.5YR 4/3 Brown	Medium	Clayey silt	N/A	N/A	N/A	
TP14	3	220	300 2.5YR 4/6 Red	High	Clay	N/A	N/A	N/A	
TP15	1	0	120 7.5YR 4/3 Brown	Medium	Silty clay	Ploughing, old horse paddock	N/A	Stone, gravel, rootlets	
TP15	2	120	370 7.5 YR 3/4 Dark Brown	Medium	Clayey silt	N/A	N/A	Rootlets, charcoal flecks	
TP15	3	370	550 7.5YR 4/6 Strong Brown	Medium	Sandy silt	N/A	N/A	Charcoal flecks, with white mottling throughout context	
TP15	4	550	690 10YR 6/4 Light Yellowish Brown	High	Sandy silt	N/A	N/A	Charcoal flecks, with orange mottles and manganese nodules throughout context	
TP15	5	690	720 7.5YR 5/4 Brown	Medium	Silty sand	N/A	Sandy silt lense between context 4 and 6	N/A	
TP15	6	720	900 2.5YR 4/8 Red	High	Clay	N/A	N/A	N/A	
TP16	1	0	80 7.5YR 3/3 Dark Brown	Low	Clayey silt	Ploughing	N/A	Rootlets (5%)	

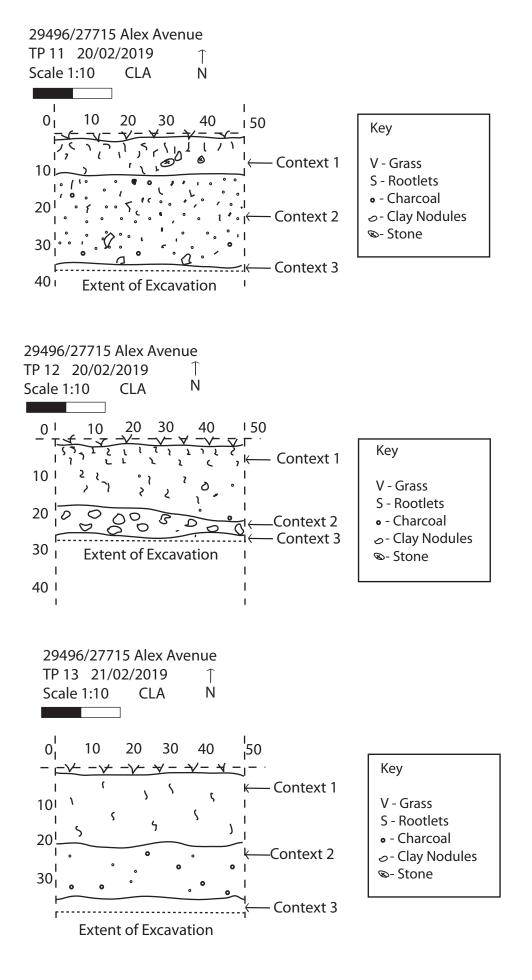
Test Pit No.	Context No.	Start depth (mm)	End depth (mm)	Colour (Munsell Code)	Compaction	Texture	Disturbance	Notes	Inclusions	РН
TP16	2	80	190	10YR 4/3 Brown	Medium	Loamy silt	Rootlets	Higher compaction than context 1	Ironstone fragments	6
TP16	3	190	300	2.5YR 4/8 Red	High	Clay	N/A	Clay content increases with depth	Ironstone fragments	6
TP17	1	0	210	10YR 2/2 Very Dark Brown	Low	Silty clay	Ploughing, old horse paddock	N/A	Roolets (10%)	6
TP17	2	100	230	10YR 4/2 Greyish Brown	Medium	Silty sand	N/A	N/A	Charcoal flecks and clay mottles	6
TP17	3	230	290	10YR 4/3 Brown	High	Clay	N/A	Yellow grey clay at base of pit, as opposed to red clay seen throughout the rest of the site	N/A	6
TP18	1	0	90	7.5YR 5/3 Brown	Low	Loamy silt	Ploughing, horse paddock	N/A	Rootlets (5%), orange clay flecks	6
TP18	2	90	320	7.5YR 5/3 Brown	High	Sandy silt	N/A	N/A	Managnese nodules, orange clay flecks and charcoal flecks throughout context	6
TP18	3	280	340	2.5YR 4/8 Red	High	Clay	N/A	N/A	Charcoal flecks, rootlets (2%)	6
TP19	1	0	60	7.5YR 4/3 Brown	Low	Clayey silt	Ploughing, horse paddock	N/A	Rootlets (>3%)	6
TP19	2	80	170	7.5YR 4/4 Brown	Low	Clayey silt	N/A	Higher compaction than context 1	Rootlets, charcoal flecks and ironstone throughout context, with large charcoal pieces pressed into interface between context 2 and 3	6
TP19	3	160	200	2.5YR 4/8 Red	High	Clay	N/A	Some pale yellow mottling present throughout base of pit	Large charcoal pieces pressed into the interface of context 2 and 3 on eastern side	6
TP20	1	0	260	7.5YR 5/4 Brown	High	Silty clay	Rootlets	N/A	Charcoal, rootlets, red and orange clay nodules	7
TP20	2	260	320	2.5YR 5/6 Red	High	Sandy clay	Rootlets	N/A	Light brown silty clay patches, rootlets	6
TP20	3	320	350	2.5YR 4/6 Red	High	Clay	N/A	N/A	Some lighter yellow clay patches throughout	5.5
TP21	1	0	240	7.5YR 3/4 Dark Brown	Low	Silty loam	Ploughing, old horse paddock	N/A	Grass, rootlets, very small clay nodules throughout	6
TP21	2	240	290	5YR 4/2 Dark Reddish Grey	High	Loamy silt	Rootlets	Lense in north western corner of test pit	Red and orange clay nodules, rootlets	6
TP21	3	260	320	2.5YR 4/8 Red	High	Clay	Rootlets	N/A	Rootlets	6
TP22	1	0	100	7.5YR 5/3 Brown	Medium	Sandy silt	N/A	N/A	Rootlets (5%)	6
TP22	2	100	210	5YR 6/4 Light Reddish Brown	High	Clayey silt	N/A	N/A	Charcoal flecks (<1%)	6
TP22	3	210	250	2.5YR 4/6 Red	High	Clay	N/A	N/A	N/A	6
TP23	1	0	200	10YR 6/3 Pale Brown	High	Silty clay	Rootlets	Ironstone present in 2 sections of the test pit. Very large <100mm	Rootlets, charcoal and ironstone	6
TP23	2	200	250	2.5YR 4/6 Red	High	Sandy clay	Rootlets	N/A	Rootlets	6
TP23	3	250	300	2.5YR 4/8 Red	High	Clay	N/A	N/A	Lighter yellow clay mixed throughout context	6

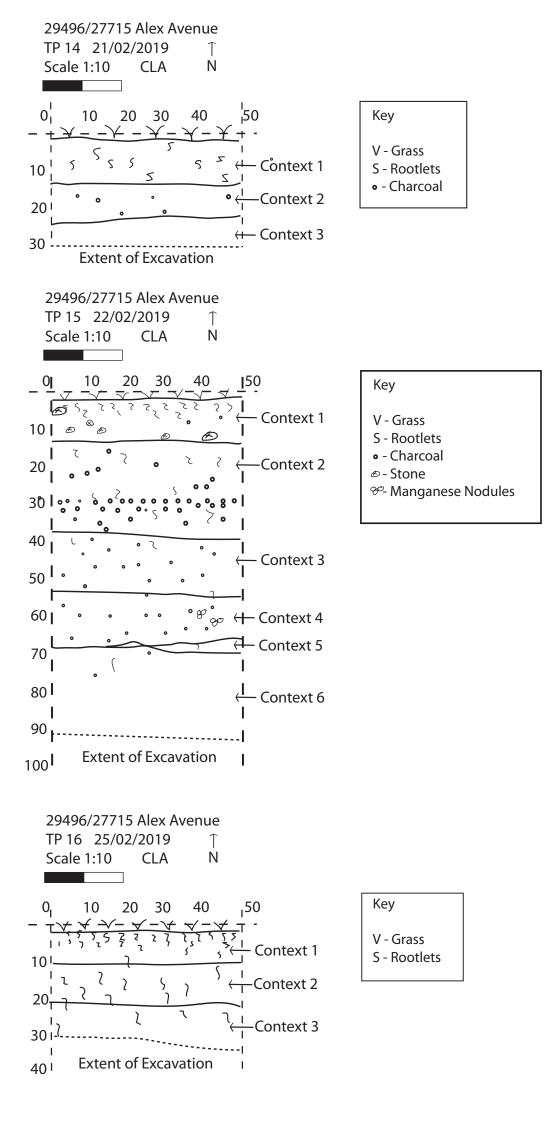
Test Pit No.	Context No.		End depth (mm)	Colour (Munsell Code)	Compaction	Texture	Disturbance	Notes	Inclusions	РН
TP24	1	0	17	0 7.5YR 6/1 Grey	High	Silt	N/A	N/A	Rootlets (5%)	5
TP24	2	2 170	28	0 5YR 4/6 Yellowish Red	High	Clay	N/A	N/A	N/A	6
TP25	1	0	14	0 10YR 3/2 Very Dark Greyish Brown	Medium	Clay	Ploughing, old horse paddock	N/A	Rootlets	6
TP25	2	2 140	26	0 2.5YR 4/8 Red	High	Clay	N/A	N/A	N/A	6
TP26	1	0	6	0 10YR 4/3 Brown	Low	Silty sand	Ploughing	N/A	Grass, rootlets (2%)	5.5
TP26	2	2 60	29	0 7.5YR 5/2 Brown	High	Sandy silt	N/A	Highly compacted sandy silt throughout context	Gravel, charcoal flecks	6
TP26	3	3 290	34	0 2.5YR 4/8 Red	High	Clay	N/A	N/A	N/A	6
TP27	1	0	8	0 7.5YR 4/2 Brown	Medium	Sandy silt	Ploughing, horse paddock	N/A	Rootlets	6
TP27	2	90	33	0 7.5YR 4/3 Brown	High	Silty sand	N/A	N/A	Manganese nodules, charcoal flecks, clay flecks and rootlets	6
TP27	3	3 310	38	0 2.5YR 4/8 Red	High	Clay	N/A	N/A	Charcoal flecks	6
TP28	1	0	6	0 7.5YR 4/2 Brown	Low	Loamy silt	Ploughing, horse paddock	N/A	Rootlets	6
TP28	2	2 60	22	0 7.5YR 5/3 Brown	High	Sandy silt	N/A	N/A	Rootlets, manganese nodules	6
TP28	3	3 200	38	0 7.5YR 6/3 Light Brown	High	Silty sand	N/A	Higher compaction than context 2	Manganese nodules	6
TP28	4	380	42	0 2.5YR 4/8 Red	High	Clay	N/A	Light yellow mottling throughout base of test pit	N/A	6
TP29	1	0	8	0 7.5YR 2.5/3 Very Dark Brown	Low	Loamy silt	Ploughing	N/A	Grass and rootlets (3%)	6
TP29	2	80	24	0 7.5YR 3/3 Dark Brown	Medium	Sandy silt	N/A	N/A	Charcoal flecks, with clay mottles increasing with depth	6
TP29	3	3 240	25	0 2.5YR 4/8 Red	High	Clay	N/A	N/A	N/A	6
TP30	1	0	10	0 10YR 2/2 Very Dark Brown	Low	Loamy silt	Ploughing	N/A	Grass and rootlets	6.5
TP30	2	2 100	24	0 7.5YR 4/6 Strong Brown	Medium	Loamy silt	N/A	N/A	Charcoal flecks and clay mottles throughout context	6
TP30	3	8 240	31	0 7.5YR 4/6 Strong Brown	High	Loamy silt	N/A	N/A	Charcoal flecks and clay content increasing with depth	6
TP30	4	290	34	0 2.5YR 4/8 Red	High	Clay	N/A	N/A	N/A	6
TP31	1	0	9	0 7.5YR 4/4 Brown	Low	Loamy silt	Ploughing, old horse paddock	N/A	Grass, rootlets	6
TP31	2	90	30	0 7.5YR 5/4 Brown	Medium	Silty sand	N/A	N/A	Charcoal flecks, small clay mottles	6
TP31	3	8 150	33	0 10YR 4/6 Dark Yellowish Brown	Medium	Loamy silt	N/A	N/A	Charcoal flecks, manganese nodules, with clay mottles increasing with depth	6.5
TP31	4	340	36	0 2.5YR 4/8 Red	High	Clay	N/A	N/A	Charcoal flecks	6

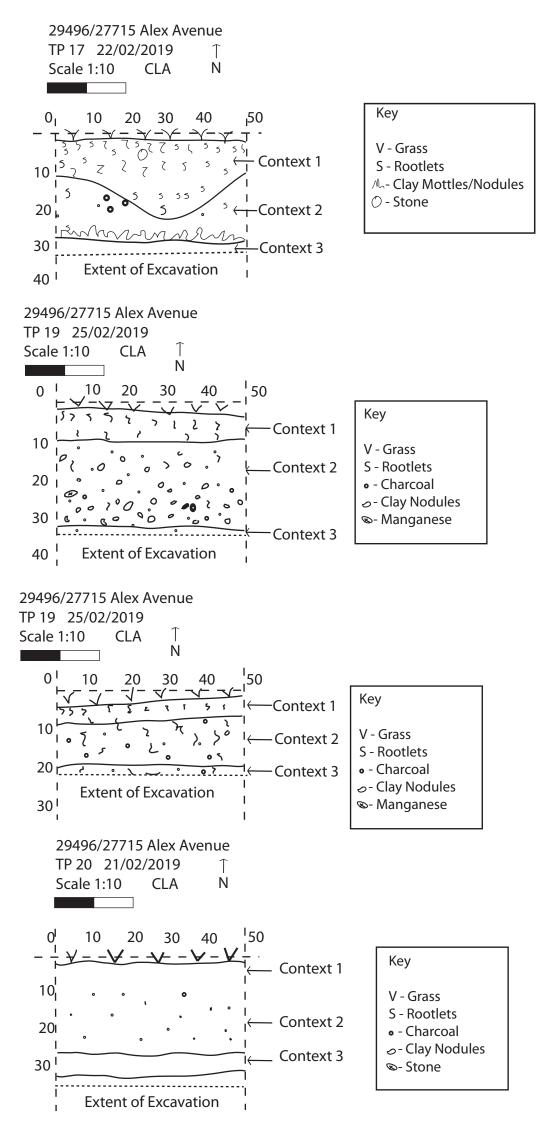


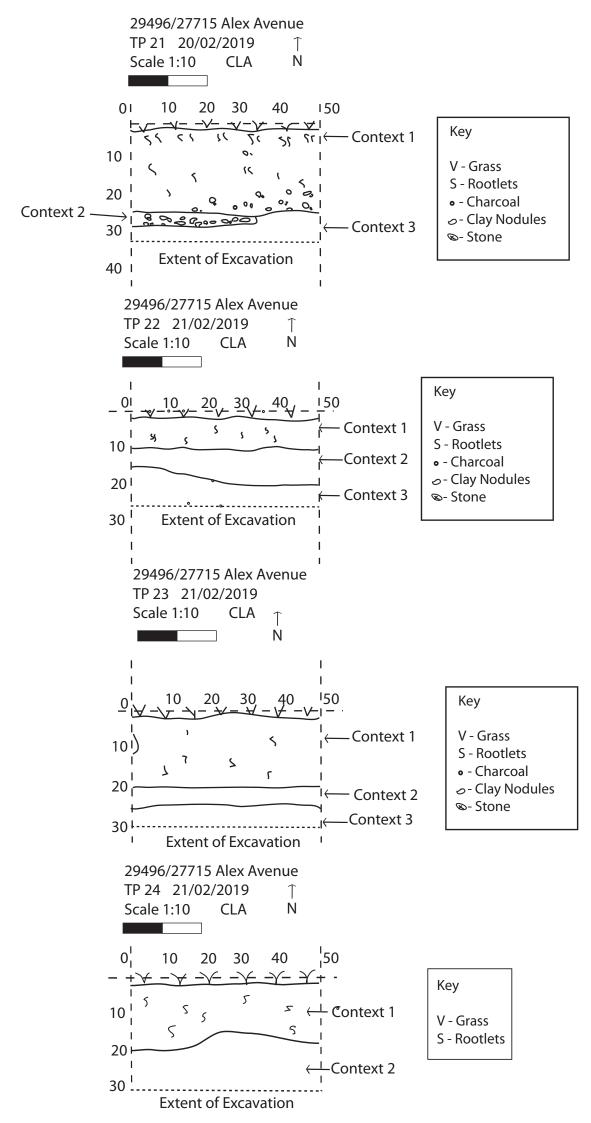


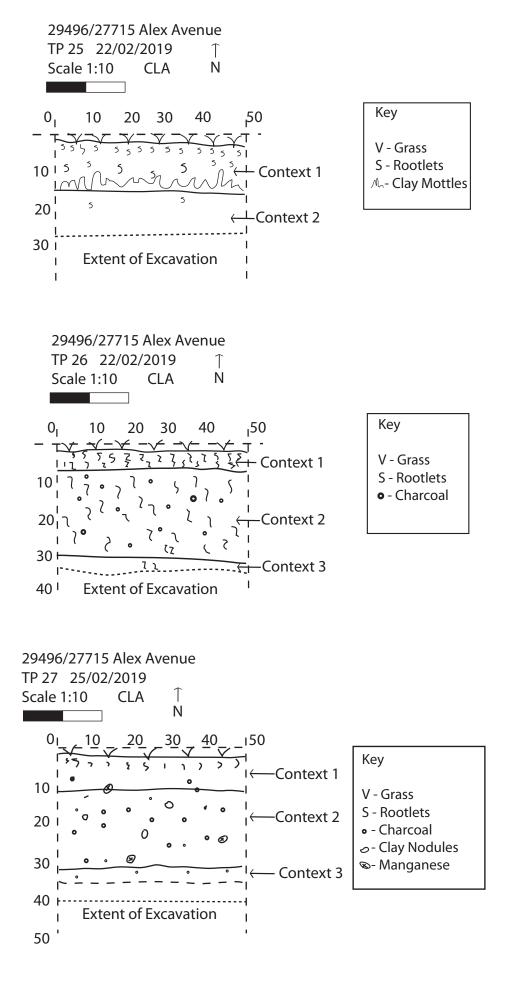


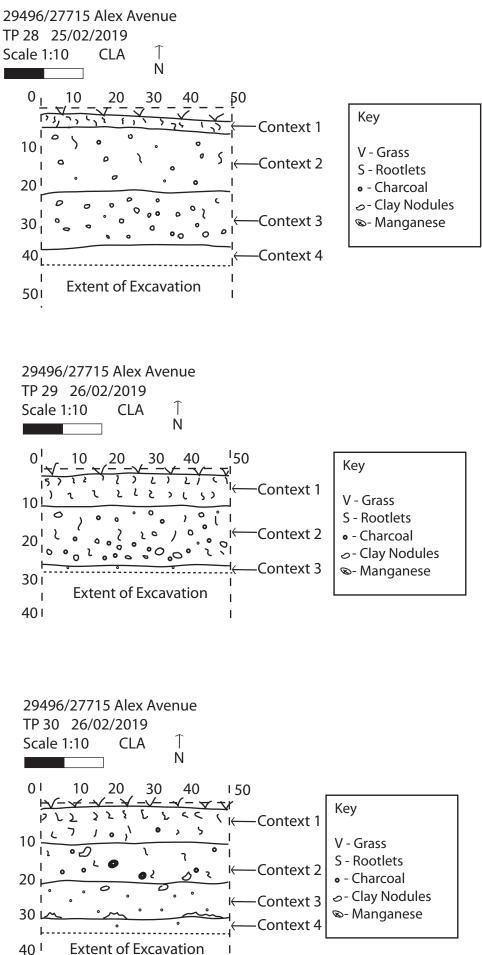






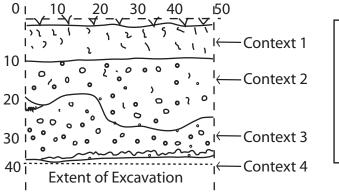


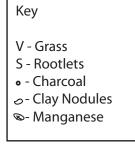




Extent of Excavation L

29496/27715 Alex Avenue TP 31 26/02/2019 Scale 1:10 CLA ↑ N







Appendix 3 Artefact analysis

ID No. F	Pit N.	Spit N.	Туре	Raw material	Colour	Cortex (%)		Platform width (mm)			Retouch type	Retouch location	Length (mm)	Width (mm)	Thickness (mm)	Flake scars
1	27	2	2 Complete flake	Silcrete	Brown with red vein	30	Flaked	4.61	3.11	Feather			20.52	8.78	4.33	6
2	12	2	2 Medial fragment	Silcrete	Red	0							30.54	13.77	9.53	5
3	11	3	B Distal fragment	Chert	Grey brown	20				Hinge	Distal	Dorsal surface	8.27	14.56	4.45	3