RICHMOND AGRICULTURAL CENTRE

ABORIGINAL DUE DILIGENCE ASSESSMENT

Report to the Department of Education

LGA: Hawkesbury

May 2025

APEX ARCHAEOLOGY

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Executive Summary

Apex Archaeology has been engaged to assist Richard Crookes Construction (RCC) on behalf of the Department of Education (DoE) (the Proponent) to assess the potential impacts on Aboriginal heritage that could arise from the activities associated with the Richmond Agricultural Centre development at 2 College Street, Richmond (Part Lot 2 DP1051798) (the site).

This report has been produced in accordance with the 2010 *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (the Due Diligence Code of Practice).

This report accompanies a Review of Environmental Factors (REF) that seeks approval for the construction and operation of the agricultural centre which will provide facilities for a specialist agricultural curriculum at the site. The activities associated with establishing the Richmond Agricultural Centre involves the following works:

- The removal of trees and fencing
- Construction of a general learning hub
- Construction of a science hub
- Construction of a multipurpose hall
- Construction of an administration building
- Construction of canteen and amenities building
- Construction of a new parking area (including accessible spaces) driveway and kiss and drop facilities
- The provision of outdoor agricultural learning areas comprising:
  - Agricultural plots
  - Aboriginal enterprise
  - Agricultural shed and greenhouse
  - Animal plots with associated stock yard, animal shelters, troughs and stock lane
  - Gravel access road with wash bay
- Landscaping including new trees, entry forecourt, village green and kitchen garden
- Ancillary services and infrastructure upgrades including new substation and HV Works, sewer pump station, water booster, dual carriage vehicle access and pedestrian paths
- Wayfinding and school identification signage

A site visit was conducted in November of 2024. No previously registered archaeological sites were located within the study area. No newly identified archaeological material was identified during the survey.

Ground surface visibility (GSV) was low throughout the study area. GSV was rated at 10% overall. No raw material sources were identified within the study area.

Ground disturbance was moderate to high throughout the study area due to historic vegetation clearance, subsequent agricultural development, and ongoing land use.

The level of disturbance from prior land clearing activities, agriculture, and current land use is prevalent throughout the study area. The area is relatively flat and low lying with no focal points for Aboriginal occupation. Several areas were marshy and wet. Drainage swales have been excavated at numerous areas along the margins and through the central portion of the site. Landscape modification has reduced the potential for any intact archaeological sub-surface deposits within the study area to nil along with the likelihood that this area was not an attractive place for Aboriginal camping to occur.

The proposed works are considered unlikely to impact on Aboriginal cultural heritage. Inclusion of a stop works procedure for unexpected finds, as outlined below, is considered appropriate to ensure that any potential impacts can be appropriately mitigated to ensure minimal impact on Aboriginal cultural values.

It is recommended that:

- No further Aboriginal archaeological assessment is required prior to the commencement of works as described in this report.
- This due diligence assessment must be kept by Richard Crooks Construction so that it can be presented, if needed, as a defence from prosecution under Section 86(2) of the National Parks and Wildlife Act 1974.
- The results of this assessment fulfil the requirement for archaeological assessment in accordance with the OEH 2010 *Guide to Investigation, assessing and reporting on Aboriginal cultural heritage in NSW* and the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (Code of Practice). Works may proceed with caution.
- The proposed works must be contained to the area assessed during this archaeological assessment, as shown on Figure 1. If the proposed location is amended, further archaeological assessment may be necessary to determine if the proposed works will impact any Aboriginal objects or archaeological deposits.
- Should unanticipated archaeological material be encountered during site works, all work must cease and an archaeologist contacted to make an assessment of the find. Further archaeological assessment and Aboriginal community consultation may be required prior to the recommencement of works. Any objects confirmed to be Aboriginal in origin must be reported to Heritage NSW.

Apex Archaeology would like to acknowledge the Aboriginal people who are the traditional custodians of the land in which this project is located. Apex Archaeology would also like to pay respect to Elders both past and present.

Document Control

The following register documents the development and issue of the document entitled 'Richmond Agricultural Centre – Aboriginal Due Diligence Assessment', prepared by Apex Archaeology in accordance with its quality management system.

Revision	Prepared by	Reviewed by	Comment	Issue Date
1 – Draft	Peta Rice & Leigh Bate	Jenni Bate	Client review	4 Dec 2024
2 – Final	Jenni Bate	RCC	Issue of final	9 April 2025
3 – Final	Jenni Bate	EPM	Minor updates	27 May 2025

GLOSSARY OF TERMS

Aboriginal Object	An object relating to the Aboriginal habitation of NSW (as defined in the NPW Act), which may comprise a deposit, object or material evidence, including Aboriginal human remains.
AHIMS	Aboriginal Heritage Information Management System maintained by Heritage NSW, detailing known and registered Aboriginal archaeological sites within NSW
AHIP	Aboriginal Heritage Impact Permit
BP	Before Present, defined as before 1 January 1950.
Code of Practice	The DECCW September 2010 *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales*
Consultation	Aboriginal community consultation in accordance with the DECCW April 2010 *Aboriginal cultural heritage consultation requirements for proponents 2010.* Consultation is not a required step in a due diligence assessment; however, it is strongly encouraged to consult with the relevant Local Aboriginal Land Council and to determine if there are any Aboriginal owners, registered native title claimants or holders, or any registered Indigenous Land Use Agreements in place for the subject land
DA	Development Application
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DCP	Development Control Plan
DECCW	The Department of Environment, Climate Change and Water – now Heritage NSW
Disturbed Land	If land has been subject to previous human activity which has changed the land's surface and are clear and observable, then that land is considered to be disturbed
Due Diligence	Taking reasonable and practical steps to determine the potential for an activity to harm Aboriginal objects under the *National Parks and Wildlife Act 1974* and whether an application for an AHIP is required prior to commencement of any site works, and determining the steps to be taken to avoid harm
Due Diligence Code of Practice	The DECCW Sept 2010 *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales*
GCP	Growth Centres Precinct
GIS	Geographical Information Systems
GSV	Ground Surface Visibility
Harm	To destroy, deface or damage an Aboriginal object; to move an object from land on which it is situated, or to cause or permit an object to be harmed
Heritage NSW	Heritage NSW in the Department of Climate Change, Energy, the Environment and Water – responsible for heritage matters in NSW
LALC	Local Aboriginal Land Council
LGA	Local Government Agency
NPW Act	NSW *National Parks and Wildlife Act* 1974
OEH	The Office of Environment and Heritage – now Heritage NSW
RAPs	Registered Aboriginal Parties
RCC	Richard Crooks Construction
SEPP	State Environmental Planning Policy
Visibility	The amount of bare ground within exposures which might reveal archaeological materials. Visibility on its own is not a reliable indicator of buried archaeological material. Vegetation, plant or leaf litter, loose sand, stony ground or introduced materials will affect the visibility (DECCW 2010:39)

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1.0 Introduction

Apex Archaeology has been engaged to assist Richard Crookes Construction (RCC) on behalf of the Department of Education (DoE) (the Proponent) to assess the potential impacts on Aboriginal heritage that could arise from the activities associated with the Richmond Agricultural Centre development at 2 College Street, Richmond (Part Lot 2 DP1051798) (the site - Figure 1).

This report has been produced in accordance with the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (the Due Diligence Code of Practice).

1.1 Study Area

The Site is located on 2 College Street, Richmond (Part Lot 2 DP 1051798). The site is located within the Hawkesbury City Council area and is zoned SP1 Special Activities (the SP1 zone) by the *Hawkesbury Local Environmental Plan 2012* (the LEP).

The study area is located 46 km north west of Sydney. The study area comprises approximately 14.7ha and is bound by Londonderry Road to the north, College Drive to the south, existing paddocks to the east and a university carpark and more paddocks to the south.

1.2 Investigators and Contributors

This report has been prepared by Peta Rice, Archaeologist with Apex Archaeology, and Leigh Bate, Director and Archaeologist with apex Archaeology and reviewed by Jenni Bate, Director and Archaeologist with Apex Archaeology. Peta has three years of consulting experience in NSW and Jenni and Leigh have over eighteen years of consulting experience within NSW.

Name	Role	Qualifications
Leigh Bate	Primary Report Author, GIS, Field inspection	B. Archaeology; Grad. Dip. Arch; Dip. GIS
Jenni Bate	Project Manager, Review	B. Archaeology; Grad. Dip. CHM
Peta Rice	Primary Report Author	B. Arts, History, Arch & Ancient Hist

1.3 Statutory Context

Heritage in Australia, including both Aboriginal and non-Aboriginal heritage, is protected and managed under several different Acts. The following section presents a summary of relevant Acts which provide protection to cultural heritage within NSW.

1.3.1 Commonwealth Native Title Act 1993

The *Native Title Act 1993*, as amended, provides protection and recognition for native title. Native title recognises the traditional rights of Aboriginal and Torres Strait Islanders to land and waters.

PO Box 236
NOWRA
NEW SOUTH WALES 2541

0 370 740
metres

Projection:
MGA Zone 56 (GDA 94)
Base Map:
Near Maps 2024
Image Date:27/10/2024

Figure 1: General location of the study area in its local context.

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The National Native Title Tribunal (NNTT) was established to mediate native title claims made under this Act. Three registers are maintained by the NNTT, as follows:

- National Native Title Register
- Register of Native Title Claims
- Register of Indigenous Land Use Agreements

A search of the above registers did not identify any applicable Native Title claims, registrations, or applications, for the study area or surrounds.

1.3.2 NSW National Parks and Wildlife Act 1974

Protection for Aboriginal heritage in NSW is provided primarily under the *National Parks and Wildlife Act* 1974 (NPW Act). Although cultural heritage is protected by other Acts, the NPW Act is the relevant Act for undertaking due diligence assessments. Protection for Aboriginal sites, places and objects is overseen by Heritage NSW, of the Department of Climate Change, Energy, the Environment and Water.

Changes to the NPW Act with the adoption of the *NPW Amendment (Aboriginal Objects and Places) Regulation* 2010 in October 2010 led to the introduction of new offences regarding causing harm to Aboriginal objects or declared Aboriginal places. These offences include destruction, defacement or movement of an Aboriginal object or place. Other changes to the NPW Act include:

- Increased penalties for offences relating to Aboriginal heritage for individuals and companies who do not comply with the legislation;
- Introduction of the strict liability offences, meaning companies or individuals cannot claim 'no knowledge' if harm is caused to Aboriginal objects or places; and
- Changes to the permitting process for AHIPs – preliminary archaeological excavations can be undertaken without the need for an AHIP, providing the excavations follow the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales*.

A strict liability offence was introduced, meaning a person who destroys, defaces or moves an Aboriginal object without an Aboriginal Heritage Impact Permit (AHIP) is guilty of an offence, whether they knew it was an Aboriginal object or not. Exercising due diligence (as described in Section 1.4) provides a defence against the strict liability offence.

1.3.3 NSW National Parks and Wildlife Regulation 2019

Part 5, Division 2 of the *National Parks and Wildlife Regulation* addresses Aboriginal objects and places in relation to the NPW Act 1974, and outlines how compliance with relevant codes of practice can be met, including with the *Due Diligence Code*

of Practice for the Protection of Aboriginal Objects in New South Wales. Clause 57 states:

> *For the purposes of section 87(3) of the Act, compliance with any of the following codes of practice and documents (when undertaking an activity to which the code of document applies) is taken for the purposes of section (87(2) of the Act to constitute due diligence in determining whether the act or omission constituting the alleged offence would harm an Aboriginal object.*

Clause 58(1) outlines the defence of low impact acts or omissions to the offence of harming Aboriginal objects, which includes maintenance works on existing roads and fire trails, farming and land management work, grazing of animals, activities on land that has been disturbed that is exempt or complying development, mining exploration work, removal of vegetation (aside from Aboriginal culturally modified trees), seismic surveying or groundwater monitoring bores on disturbed ground, environmental rehabilitation work (aside from erosion control or soil conservation works such as contour banks) or geological mapping, surface geophysical surveys, or sub-surface geophysical surveys.

Clause 58(4) outlines the definition of 'disturbed land', as land that "has been the subject of a human activity that has changed the land's surface, being changes that remain clear and observable".

'Disturbance' is further defined in a note to the above clause as follows:

> *Examples of activities that may have disturbed land include the following—*
>
> *(a) soil ploughing,*
> *(b) construction of rural infrastructure (such as dams and fences),*
> *(c) construction of roads, trails and tracks (including fire trails and tracks and walking tracks),*
> *(d) clearing of vegetation,*
> *(e) construction of buildings and the erection of other structures,*
> *(f) construction or installation of utilities and other similar services (such as above or below ground electrical infrastructure, water or sewerage pipelines, stormwater drainage and other similar infrastructure),*
> *(g) substantial grazing involving the construction of rural infrastructure,*
> *(h) construction of earthworks associated with anything referred to in paragraphs (a)–(g).*

1.3.4 NSW Due Diligence Code of Practice

The *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (Code of Practice) was introduced in September 2010. It outlines a method to undertake 'reasonable and practical' steps to determine whether a proposed activity has the potential to harm Aboriginal objects within the subject area, and thereby determine whether an application for an Aboriginal Heritage Impact Permit (AHIP) is required. When due diligence has been correctly exercised,

it provides a defence against prosecution under the NPW Act under the strict liability clause if Aboriginal objects are unknowingly harmed without an AHIP.

The Code of Practice provides the 'reasonable and practicable' steps to be followed when determining the potential impact of a proposed activity on Aboriginal objects. Due diligence has been defined by Heritage NSW as "taking reasonable and practical steps to determine whether a person's actions will harm an Aboriginal object and, if so, what measures can be taken to avoid that harm" (DECCW 2010:18).

These steps include:

- Identification of whether Aboriginal objects are, or are likely to be, present within the subject area, through completing a search of the Aboriginal Heritage Information Management System (AHIMS);
- Determine whether the proposed activity is likely to cause harm to any Aboriginal objects; and
- Determine the requirement for an AHIP.

Should the conclusion of a due diligence assessment be that an AHIP is required, further assessment must be undertaken, with reference to the following guidelines:

- DECCW, April 2010, *Aboriginal cultural heritage consultation requirements for proponents 2010.* Part 6 National Parks and Wildlife Act 1974;
- DECCW, Sept 2010, *Code of Practice for Archaeological Investigation of Aboriginal Objects In New South Wales*;
- OEH, April 2011, *Guide to Investigation, assessing and reporting on Aboriginal cultural heritage in NSW*; and
- OEH, May 2011, *Applying for an Aboriginal Heritage Impact Permit: Guide for Applicants*.

2.0 The Due Diligence Code of Practice Process

The Due Diligence Code of Practice provides a specific framework to guide the assessment of Aboriginal cultural heritage. The following section presents the results of this process.

2.1 Step 1: Will the Activity Disturb the Ground Surface?

This report accompanies a Review of Environmental Factors (REF) that seeks approval for the construction and operation of a secondary school with a specialist agricultural curriculum at the site. The activities associated with establishing the Richmond Agricultural Centre involves the following works:

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- The removal of trees and fencing
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  - Gravel access road with wash bay
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- Ancillary services and infrastructure upgrades including new substation and HV Works, sewer pump station, water booster, dual carriage vehicle access and pedestrian paths
- Wayfinding and school identification signage

For a detailed project description, please refer to the Review of Environmental Factors (REF) prepared by EPM Projects.

Excavation relating to the redevelopment would include infrastructure and levelling of the ground surface. Connection to town water supply, sewerage, and electricity will require trenching. Earthworks would also include clearing, grubbing, stripping and stockpiling topsoil, excavation of soil and backfilling. On completion of the

development the area would be landscaped. All proposed works would have an impact to some extent on the ground surface.

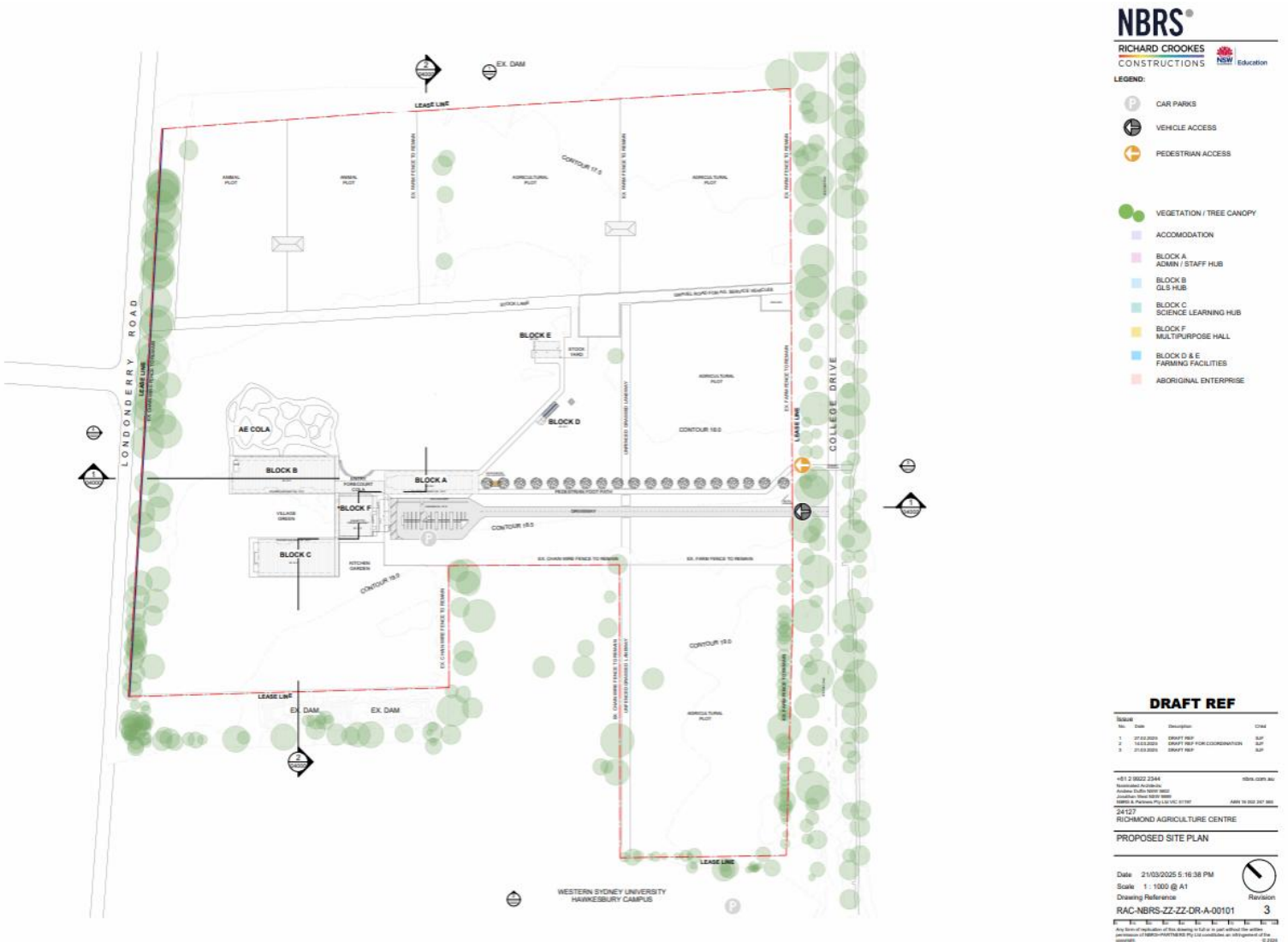

Figure 2: Layout of proposed works within site (Source: NBRS 2025)

2.2 Step 2a: AHIMS and Available Literature Search

Heritage NSW is required to maintain a register of Aboriginal sites recorded during archaeological assessments and other activities within NSW. This is known as the Aboriginal Heritage Information Management System (AHIMS). This register provides information about site types, their geographical location, and their current status. It is the requirement for the recorder of a newly identified site to register this site with Heritage NSW to be placed onto the AHIMS register. It is a requirement of the Code of Practice to undertake a search of this register as part of undertaking a due diligence assessment.

Heritage NSW also maintains a register of archaeological reports relating to archaeological investigations throughout NSW. These reports are a valuable source of information regarding investigations previously completed and their findings, and can inform the assessment process regarding the potential for Aboriginal cultural material and archaeological potential within a study area.

2.2.1 AHIMS Results

A basic 5km x 5km search box of the study area identified seven registered sites on the database. A subsequent extensive search was conducted on the AHIMS register on 1 October 2024. Eight site results were subsequently returned (Table 1). A copy of the extensive search is attached in Appendix G.

Table 1: Sites identified during AHIMS search.

Site Feature	Number of sites	Percentage
Artefact	7	87.50%
Potential Archaeological Deposit (PAD)	1	12.50%
Grand Total	**8**	**100.00%**

Seven out of the eight sites identified remain valid, meaning no previous AHIPs have been obtained to destroy sites within five kilometres of the study area. The PAD site, however, has been noted on the AHIMS search as 'deleted', which suggests that the site was either incorrectly registered or was declared as not a site.

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0 0.75 1.5

kilometres

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MGA Zone 56 (GDA 94)
Base Map:
Near Maps 2024
Image Date:27/10/2024

Figure 3: AHIMS sites within a 5km x 5km search box of the study area.

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2.2.2 Literature Review

A review of previous archaeological work within the surrounding region of the study area was undertaken. A number of reports were identified from background research and the AHIMS database and are detailed below.

JMcDCHM 1998

An archaeological survey for two land parcels, Bona Vista and Fernadell, was undertaken by Jo McDonald in 1998. This included the land surveyed by Byrne in 1987, as well as the Fernadell (now Fernville) area located to the south. Surface visibility within the study area was considered excellent within the citrus orchards in the study area, while the northern part of the study area was heavily grassed and had leaf litter and understorey hampering archaeological visibility. However, five sites were recorded for this assessment which included two artefact scatters, two isolated finds and a scarred tree. One artefact scatter and the two isolated finds were located within a citrus orchard whilst the remaining sites were found in a relatively undisturbed portion of the northern parcel of the study area (JMcDCHM 1998).

The study area was considered to be moderately to extremely disturbed and zones of archaeological potential were identified. The zone of least disturbance was recommended to have further archaeological assessment prior to any disturbance, including test excavations, but the moderately to extremely disturbed areas were considered to have no potential for subsurface deposits and no further work in these regions was recommended. It was recommended that the scarred tree (PT3) should be conserved and protected from development. One artefact scatter (PT1) and the two isolated artefacts (IF1 and IF2) were recommended to have a Consent to Destroy permit issued with no further assessment (JMcDCHM 1998).

AHMS 2005

In 2005, AHMS assessed eight lots within Pitt Town, bounded by the Hawkesbury River to the north, Hall Street to the east and south and Punt Road to the west. It was noted within the report that no archaeological test excavations had been undertaken within the Freeman's Reach soil landscape.

Eighteen artefact sites were identified during the survey, consisting of eleven open artefact scatters and seven isolated finds. The artefacts identified were mostly formed on silcrete, quartz and rhyolitic tuff, and included flaked pieces, flakes, cores and several ground edged stone axes and hammerstones (AHMS 2005). Most of the artefacts were quite small at less than 5cm in size, although cores tended to be slightly larger at up to 10cm (AHMS 2005).

Several areas were also identified during the survey as potential archaeological deposits (PADs), ranging from high, moderate and low potential to contain surface and subsurface deposits based on landform analysis and historic aerial

photographs. Of the eighteen artefact sites identified during the survey, fourteen were located within flat or only slightly undulating landscapes, with the remaining four located on hill slopes leading down to the Hawkesbury River (AHMS 2005). The report concluded that less elevated land had "higher potential to contain buried stratified remains than more elevated areas, due to recent deposition of alluvium during flooding events", and recommended test excavation to explore this conclusion (AHMS 2005). Several of the sites identified were considered to be of moderate scientific significance, particularly those with higher numbers of artefacts. Isolated finds were generally considered to be of low scientific significance, although some were considered to have some subsurface archaeological potential (AHMS 2005).

AHMS 2006

AHMS completed test excavations and salvage collections within the study area they assessed in 2005 (AHMS 2006). The excavations targeted specific landforms including the river bank, terrace slopes, floodplain, flood channel and alluvial terrace which was capped with a sand levee (AHMS 2006). Twelve $2m^2$ test trenches were excavated using a mechanical excavator. The excavations identified that the disturbance was limited to the upper 200-300mm of the soil profile and that bioturbation varied across the site. Artefact densities also varied depending on landform, with the highest densities identified on the crest of the alluvial terrace and the lowest density within the flood plains. There was evidence of a "deep, stratified stone assemblage with signs of spatial patterning" within the elevated alluvial terrace and terrace slopes, and the site was considered to have been formed through alluvial rather than aeolian processes, which assisted in preservation of the sand terrace (AHMS 2006).

Based on the results of the test excavation, it was predicted that the highest densities of artefacts would be identified along the crest of the alluvial terrace (AHMS 2006). Flooding of the Hawkesbury River was considered to have had some differing effects on the archaeological deposition within the study area, based on the distance from the river and the elevation of the area. Closer to the river, the area demonstrated both erosion and deposition, while on higher landforms, the effects of flooding were not as clear. One theory was that during the Cranebrook Pluvial episode between 47 and 43 ka, high level floods transported and deposited material. This may have resulted in buried land surfaces within the elevated terraces (AHMS 2006).

The deposit within the alluvial terrace was found to have some vertical integrity with intact stone artefact assemblages, and demonstrating at least two phases of Aboriginal occupation (AHMS 2006). The lower artefact assemblage was dominated by amorphous tuff items with occasional scrapers. One steeply flaked core was identified and was considered reminiscent of the Kartan industry (AHMS 2006). Flakes from the lower levels were considered to be simpler in form and technology

than those from the upper levels. Evidence of onsite artefact reduction was also noted (AHMS 2006). The upper assemblage comprised silcrete and quartz artefacts, including some backed blades and a thumbnail scraper. The upper assemblage was considered to be characteristic of the Bondaian technology, which was considered a dramatic difference to the results of the excavations undertaken by Comber in 2004 at 'Bona Vista' and 'Fernadell' (AHMS 2006).

A total of 783 artefacts were recovered from the test excavations within PT1-PT5. The excavations reached a depth of between "40cm and 160cm below the surface, depending on the depth of culturally sterile deposits" (AHMS 2006:30).

Very low numbers of artefacts were recovered from PT1, which was located on the flats adjacent to the river. PT2 was located just on the crest overlooking the river and had higher artefact concentrations, with three artefacts recovered from PT1 and 108 from PT2. However, PT3, located on a relatively flat area back from the crest above the river, had 519 flaked pieces recovered from a single $2m^2$ pit. This particular pit had the highest concentrations of artefacts identified as part of the AHMS 2006 works, with numbers dropping along with the reduction in elevation. However, it should be noted that PT5, located within the central portion of the study area, still contained 103 flaked pieces.

Surface artefacts associated with site PT3 were described in AHMS 2006 as having been "collected during the testing program and analysed as part of the recovered assemblage" (AHMS 2006:31).

AHMS 2011

In 2011, AHMS undertook salvage excavations within the area bound by Punt Road, Hall Street, Hawkesbury Street and the Hawkesbury River, and known as PT12. The focus of the excavations was the deepest, most archaeologically sensitive area located in the northwest corner of the Cleary Precinct, close to the Hawkesbury River. The sampling strategy for salvage excavations included undertaking boreholes across the PT12 area to identify the deepest deposit that was likely to be archaeologically rich, and based on the results of the boreholes, an area was selected for open area salvage (AHMS 2011).

The excavation reached a final depth of 1.8m, with a total of 1,151 items recovered. A number of samples for OSL ages were taken. Three discrete artefact assemblages were identified and included an upper assemblage which was characterised by Bondaian technology, and dated to between 5 and 10ka, although it was considered that the site was heavily bioturbated and the assemblage was more likely to date to between 4 and 1.8ka. Two lower assemblages were identified beneath a culturally sterile layer considered to comprise several thousand years of deposition (AHMS 2011). These lower assemblages were considered to be Capertian, with large amorphous flakes primarily formed on tuff. Two peaks of distribution were noted and

were dated to approximately 15 ka and 11 ka respectively, which were considered accurate due to far less bioturbation occurring at this depth (AHMS 2011).

The results were considered to correlate with the palaeo climate at the time, with the use of specific materials such as tuff in the lower assemblages relating to the lower sea levels that would have been present in the Terminal Pleistocene, as the Hawkesbury River would have been lower at this time allowing access to the local gravel beds (AHMS 2011). As sea levels rose in the early Holocene and the Hawkesbury River rose, the use of tuff as a raw material decreased, and the use of silcrete sourced from distant areas increased (AHMS 2011). The site was considered to compare favourably with other sites in the wider area, both chronologically and compositionally, with a lower Capertian assemblage dated to approximately 10 ka and an upper Bondaian assemblage dated to approximately 4 ka or younger. There was also a correlation between the raw materials present within the PT12 excavations and the wider region excavations, although less silcrete was seen in rockshelter excavations (AHMS 2011).

The site was considered to have high to exceptional cultural and scientific significance (AHMS 2011). The cultural landscape was considered to extend along the river's terraces for at least several hundred metres. Further archaeological work for PT12 within the Cleary Precinct was not recommended, although it was noted that the deposit extended into other precincts and further investigations would be undertaken within those precincts instead.

AHMS 2012

AHMS undertook a surface survey and test excavation within the Thornton Precinct of the Vermont Estate, which fronts the Hawkesbury River and is bound by Hall Street to the west. During the surveys, six Aboriginal sites were identified, including three isolated artefacts, two artefact scatters and a PAD (AHMS 2012). The test excavation was completed within the area identified as PAD. Two horizons of artefacts were identified within the deposit, and were focused within the centre of the study area, within an area of 300 x 150 m (AHMS 2012).

The upper assemblage was considered to be late Bondaian due to artefact typology, although the OSL ages suggested it may be significantly older. The lower assemblage was considered to be pre-Bondaian/Capertian and was dated to between 9.5-17 ka.

Raw material used suggested the Aboriginal people utilised the materials available from the Hawkesbury River during the Terminal Pleistocene when sea levels were lower (AHMS 2012). The stratigraphy may suggest that the area was abandoned for several thousand years before being reoccupied during the late Holocene, in the last 5,000 years (AHMS 2012). The area was considered to be of high to exceptional scientific significance. However, further salvage excavations within the area were

not recommended by AHMS, although the RAPs for the project objected to this recommendation.

NICHE 2016

Niche undertook archaeological test excavations in accordance with the Code of Practice at a property between Wells St and Johnson Street, Pitt Town. This area falls within a relatively level landform at a lower elevation than the main east-west ridgeline parallel to the Hawkesbury River. Aboriginal consultation was conducted as part of the assessment. A total of eight artefacts were recovered from sixteen test pits during the test excavation and the area was assessed to contain very low potential for archaeological research. Artefacts were recovered from 5 cm to 90 cm depth and evidence of disturbance was present to a depth of 60 cm.

The artefacts recovered included three silcrete, two chert, and three quartzite artefacts, including a core, a complete flake and various flake fragments. Two items had retouch present. No specific land surfaces or artefact concentrations were noted during the test excavations.

The test excavations identified that the study area was highly disturbed, with historical material found at substantial depths. As a result, the report concluded that an AHIP should be applied for, with no further archaeological work required.

BAKER ARCHAEOLOGY 2017

Baker Archaeology undertook an archaeological assessment of the property at 44 Wells Street, in advance of a proposed subdivision of the property. The study area was considered to be relatively flat with fall of less than 2m in total across the lot. No surface expressions of archaeological material were identified during the survey. Based on previous archaeological assessments, including the excavations undertaken by Niche within the property adjacent to the lot at 44 Wells Street, it was determined to undertake a staged salvage strategy on receipt of an AHIP for the area. This strategy included excavation of stage one 1m^2 pits with a subsequent stage two open area excavation, based on the results of the stage one excavations. Although not undertaken as part of the assessment detailed in Baker Archaeology 2017, preliminary advice from Neville Baker of Baker Archaeology advised that low densities of artefacts were recovered from approximately 60cm depth (less than 10 artefacts) during the stage one excavations, and the second stage did not proceed due to the low densities recovered (pers. comm. Neville Baker 2017).

APEX ARCHAEOLOGY 2017

Apex Archaeology were engaged to complete an ACHA for the Vermont Central Precinct Stage 2, located to the west of the current study area. This project included test excavations under the Code of Practice.

A total of nine 1m^2 test pits were excavated across the ridgeline comprising Pitt Town PAD 3 (AHIMS site 45-5-2882). A total of 286 culturally associated items were

recovered during the test excavation at Pitt Town, of which 49 were confirmed to be artefacts, with the remaining 237 items comprising unflaked fragments of manuport stone, which may have been heat shattered, as well as possible heat shattered artefacts. This was also noted at other excavations within the wider area, such as the site RM1 at Richmond, and the assemblage recovered from the Parramatta sand body; as well as from excavations at PT12. Two phases of occupation were noted during the test excavation, although there was limited evidence of the more recent phase of occupation characterised by silcrete assemblages.

Artefacts were generally recovered from 40 to 100cm depth, and were concentrated between 80-90cm depth. The assemblage identified within the Central Precinct was considered to be Pre-Bondaian in origin and was likely to be Capertian, based on the characteristics of the assemblage which was large, heavy and generally amorphous. The upper assemblage recovered had too few items to make informed predictions regarding its origin, although one silcrete flake is considered to be a representative example of Bondaian technology within the Cumberland Plain. The density of Aboriginal objects increased towards the eastern portion of the study area. This may have been related to Aboriginal use of the Canning Reach of the Hawkesbury River, located approximately 700m to the east of the eastern portion of the study area.

As a result of the test excavations, OSL dates of between 23.8 ± 2.2 (2.0) ka and 37.5 ± 3.7 (3.3) ka were returned for the top and base of the artefact bearing deposit. Based on the artefact assemblage and the range of the OSL dates, the results indicate that the area was occupied for approximately 13,000 years before a period of abandonment, and then re-occupied at a substantially lower intensity at a later period, likely to be approximately 5,000 years ago. It was recommended that the proponent apply for an AHIP to permit further salvage excavations within the site.

APEX ARCHAEOLOGY 2018

The test excavations previously completed within Stage 2 of the Central Precinct supported an AHIP application for the site, with salvage excavations completed on receipt of the AHIP. A total of 129m^2 was excavated in two areas within the study area, with an area of 25m^2 excavated in one area and 104m^2 excavated in the other.

A total of 2,204 cultural lithics were recovered from the two salvage areas, with 386 from Area 1 and 1,818 from Area 2. At Area 1, 98 of the cultural lithics were identified to be artefactual. The area was considered to exhibit a slightly tri-modal distribution, with low concentrations identified in spits 2-3, 14 and 17-18. Some size sorting of non-artefactual cultural lithics appeared to have occurred, with the largest items found in spits 16-18 and smaller fragments likely to have been vertically displaced throughout the deposit. The results indicate that the site exhibited evidence of two to three visits or phases of occupation through time, with the two earlier

concentrations containing both artefacts and manuports, and the most recent containing mostly artefacts.

At Area 2, 848 artefacts were identified, along with 224 manuports and fragments of manuports, while 745 were heat shatter and other non-diagnostic fragments. A range of the artefacts were modified including backed artefacts. The distribution of artefacts across the salvage area suggested that different activities were occurring across the area, with some areas having increased counts of lithic material in association with artefactual material, and other areas having higher artefactual counts and lower counts of manuports and non-diagnostic lithics.

The vertical distribution of cultural material indicated a tri-modal occupation model, similar to that at Area 1. The most recent phase was focussed in the upper spits, phase 2 was focussed around spits 13-14 and phase 3, the oldest phase, was identified from spit 16 to the base of the pits. A total of 51 conjoin sets were identified during the analysis, with two or more pieces being refitted, with the largest set having nine conjoining pieces. The distribution indicated that there had been some vertical movement within the deposit, but that a potential sediment accumulation occurred at spit 15, representing a break between visits.

A series of samples were taken for OSL dating. These were sent to the University of Gloucestershire in the United Kingdom for analysis. Samples were taken from a depth of 45-50cm through to a slightly deeper sondage excavated to 160cm, and the dates returned ranged from 4.6-6ka for the shallowest samples through to 106-84ka for the deepest samples. There was a spike of artefact activity with a corresponding age estimate of 11.3-14.3ka, although lithic material was noted to continue down to spit 28 at 140cm, with a single lithic item identified at this depth. Most artefact concentrations were focussed between spits 13 and 19, and had age estimates of between 6.9±0.9ka and 39±8ka.

This deposit was considered likely to be the second of a pair of dunes, with the first closer to the Hawkesbury River, with a large inter-dune swale running between them (AHMS 2012) forming a slackwater deposit, the parent materials of which were likely to have been deposited during MIS 5 (approx. 120-150ka) (AHMS 2012; Williams *et al* 2014; Extent 2018). The basal age of the archaeological deposit at VCP appears to be 39±8ka, at 100cm depth. This is substantially older than deposits identified elsewhere within Pitt Town; with the cultural material at Thornton dated to 25-30ka (AHMS 2012), and ~26ka at 125 Cattai Road (Extent 2018). These dates were obtained from similar depths at these sites. Given the VCP deposit is the highest point in the Pitt Town area, it is possible that this area was occupied at the earliest stage, and then occupation may have subsequently moved closer to the river. This may have been due to use of the higher points as access routes, or the vantage points afforded by the higher elevation.

The crest of the sand body within the Central Precinct was considered to be of high to exceptional scientific significance, due to its high integrity, representativeness, rarity and research potential. Sites of such antiquity and intactness were rare within the local and regional context, and as such the site was considered to have potential for research activities in a number of disciplines. The site was considered to demonstrate evidence of Aboriginal land use practices within the Pleistocene period, which was an uncommon site type within both the local and regional context.

APEX ARCHAEOLOGY 2019

Apex Archaeology were engaged to undertake an ACHA for Stage 3 of the Central Precinct at Pitt Town. As significant archaeological deposits had been identified within adjacent lots, a staged salvage AHIP application was made to permit salvage to be undertaken in three stages. Stage 1 comprised the excavation of seven 1m^2 pits to determine the best location for open salvage pits. A total of 147 items were recovered from the Stage 1 pits, with one pit containing 130 lithic items and all six others containing fewer than 10 lithic items. Pits 3 (eight lithics) and 5 (130 lithics) were selected for further salvage excavation. Stage 2 saw both pits opened to a total of 9m^2 each. Open Area 1 (OA1) was opened around Pit 5, and Open Area 2 (OA2) around Pit 3. OA1 contained a total of 2,195 lithic items while OA2 contained a total of 176 lithic items. As such, further excavation around OA1 was undertaken as Stage 3 of the salvage.

OA1 was excavated to a total area of 48m^2. A total of 8,022 lithic items were recovered. Additionally, an area of 2.5m x 2.5m was excavated within an area required for the installation of a new sewerage pot, with 160 lithic items recovered. Overall, 8,554 lithic items were recovered. All lithics were analysed by Dr Beth White, who concluded the majority (7,845, 92%) were heat shatters and non-diagnostic fragments, while 590 were artefactual and 119 were broken manuports.

Overall, the lithic assemblage was considered to average a lower density of artefacts than other sites within the Pitt Town area, although the distribution of artefacts was similar across the region. A significant number of items were identified as heat shatters, and many were small, which indicated intensive on-breakage. Items identified as artefactual had a relatively low rate of artefact breakage, suggesting the site may not have been subject to the same rate of intensive breakage as the items which fragmented to form other lithics. The assemblage was dominated by IMST items, although silcrete was also noted to be present. Numbers of silcrete items decreased with depth, while numbers of IMST increased with depth.

Unfortunately, formal reporting has not been completed for the excavation, despite this being a requirement of the AHIP issued for the site, due to the client refusing to finance the reporting component.

2.3 Local Assessments

AMAC & Streat Archaeological Services 2018

Archaeological Management & Consulting Group (AMAC) and Streat Archaeological Services were engaged to prepare an ACHA for the proposed State Significant Development (#8614) for the New Hurlstone Highschool. AMAC & Streat's assessment included the parcel of land to the southeast of the current study area, however, within the same lot (Figure 4). As part of the assessment, AMAC & Streat undertook archaeological test excavations between 6 and 13 December 2017. A total of 51 50cm x 50cm test pits were excavated. The excavations revealed that while 'intact' soils were present in the site, no Aboriginal objects and/or deposits of cultural significance were identified. As such, it was recommended that no further works were required, and works could proceed with caution. These recommendations were supported by the Aboriginal representatives on site.

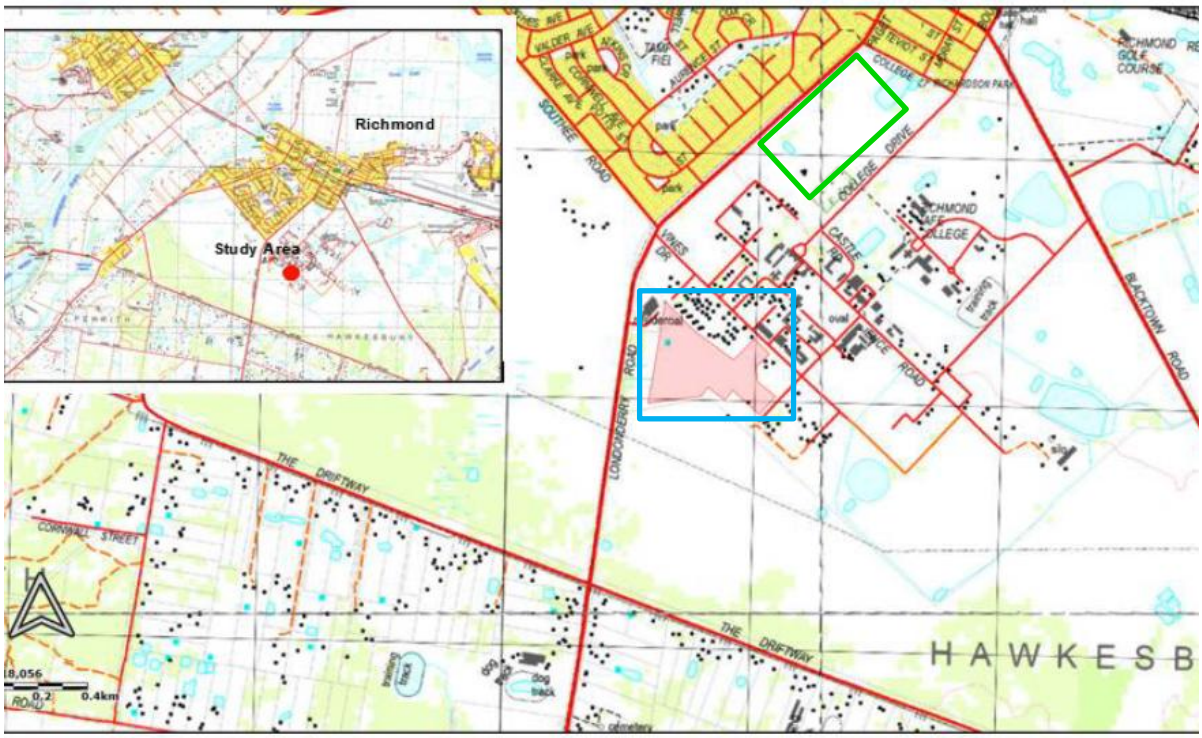

Figure 4: AMAC & Streat's assessment area (blue square) in relation to current study area (green square).

AMAC & Streat Archaeological Services 2021

AMAC & Streat were engaged to prepare an ACHA for the proposed Centre of Excellence (CoE) Agricultural School within the WSU Hawkesbury Campus in 2021. This assessment superseded the 2018 assessment also conducted by AMAC & Streat (detailed above). In 2018, this site was being assessed as part of the SSD submission for Hurlstone Agricultural High School, however, this application was withdrawn and replaced by the SSD application (SSD-15001460) for the new CoE Agricultural School.

AMAC & Streat reviewed the test excavation results of the previous assessment and concluded that the site was found to be of nil-low archaeological significance due to the test excavation resulting in no Aboriginal objects or deposits of cultural or archaeological significance being found. It was redetermined by AMAC & Streat that the previous recommendations were sufficient, and no further work was required.

Kohen 1984 (Cited in AMAC & Streat 2021)

James Kohen undertook an archaeological survey near Londonderry in 1984. Three study locations covering an area of 67.9 hectares identified seven distinct Aboriginal archaeological sites during the survey. These sites were named AB/2 to AB/8.

The sites identified consisted of a chert thumbnail scraper (AB/2), three chert flakes (AB/3), one isolated chert flake (AB/4), a large artefact scatter consisting of 47 stone artefacts (AB/5), one isolated chert flake (AB/6), one isolated chert scraper (AB/7) and two broken chert flakes (AB/8). AB/5 was comprised of one core, two steep scrapers, seven scrapers, two complete flakes, one unifacial pebble and 35 debitage flakes. The recommendations of this report suggested that all sites could be destroyed if a permit was approved under the relevant sections of the NPW Act.

Dallas 1985 (Cited in AMAC & Streat 2021)

Mary Dallas undertook an archaeological survey in north Richmond for a residential housing development in 1985. The survey identified eight Aboriginal archaeological sites, named NR1 to NR7 and ISF 1. Sites NR1 to NR6 and ISF 1 were situated in areas of land designated to be left as open space as part of the development proposal. In result, it was determined that the sites were to be left undisturbed and intact. However, NR7 was located within the development footprint. It was therefore recommended that the was to be preserved, and the development plans should accommodate the site.

Brayshaw and Smith 1986 (Cited in AMAC & Streat 2021)

Helen Brayshaw and Laura Jane Smith were commissioned to undertake an archaeological survey as part of modifications to the rail line between Blacktown and Richmond. Two new Aboriginal archaeological sites (Open Site Vineyard 1 [OSV1] and Isolated Find Vineyard 1 [IFV1]) near Vineyard were identified. OSV1 occupied an area of 3,380 square metres and consisted of 117 stone artefacts. Ninety-six percent of these artefacts were silcrete with the remainder being quartz, mudstone and petrified wood. The assemblage was dominated by flaked pieces (debitage) (n=99) as well as three cores and 15 flakes. IFV1 was a multi-platform banded chert core. It was recommended that IFV1 was able to be destroyed and OSV1 would have to undergo test excavation after receipt of a permit under the relevant sections of the NPW Act.

Koettig 1990 (Cited in AMAC & Streat 2021)

Margrit Koettig undertook archaeological test excavations at the Waste Management depot at Londonderry in 1990. This excavation comprised 23 test

trenches excavated along four transects at two separate PAD sites. One artefact was recovered from this test excavation, and in result it was recommended that no further archaeological work was needed within the study area.

MILLS 1998 (CITED IN AMAC & STREAT 2021)

Robynne Mills was engaged to undertake an archaeological survey for a residential housing development at Parklea. The survey identified nine Aboriginal archaeological sites (OWR-OS-1, PL-OS-1, PL-OS-2, ML-OS-1, ML-OS-2, ML-OS-1 and PAD'S 1-3). OWR-OS-1 and the associated PAD 1 consisted of nine silcrete artefacts (one multi-platformed core, one flake and six flaked pieces), PL-OS-1 consisted of one silcrete artefact (manuport) and one chert flake. It was recommended that sites PL-OS-1, PL-OS-2, ML-OS-1, ML-OS-2, ML-OS-1 were to be salvaged via surface collection and then could be destroyed if a permit were approved under the relevant sections of the NPW Act. PAD's 1 to 3 and site OW-OS-1 be recommended to be left intact and undisturbed.

JMCD CHM 1998 (CITED IN AMAC & STREAT 2021)

Jo McDonald Cultural Heritage Management undertook archaeological test excavations at the Water Reuse Facility at Richmond in 1998. The excavation comprised 40 1m x 1m test pits excavated along five transects. A total of 69 artefacts were recovered. The artefact assemblage indicated that a generalised (not specific) lithic flaking activity was likely carried out at the site. It was recommended that no further archaeological work was needed within the study area, however, a destruction permit under was required under the relevant section of the NPW Act to proceed with the works.

THERIN 2001 (CITED IN AMAC & STREAT 2021)

Michael Therin was engaged to conduct an archaeological survey for the road widening of Windsor Road, Kellyville in 2001. One unrecorded lone silcrete flake (W1) was identified as part of the survey as well as 11 previously recorded sites being four open campsites, four isolated artefacts, one stone quarrying site (sites WBH 1 to WBH 9) and two possible scarred trees were relocated (sites WHST 1 & 2). The recommendations were that site W1 be destroyed after approval under the relevant sections of the NPW Act and that further bulk excavation be monitored by Aboriginal stakeholder groups. Additionally, it was recommended that a preliminary research permit be sought, and test excavation be conducted in the areas of sites WBH 3, WBH 4, WBH 7 and WBH 8. It was also recommended that after the test excavation the sites be destroyed with approval under relevant sections of the NPW Act. Sites WBH 1, WBH 2, WBH 5, WBH 6, WBH 9 and WBST 1 & 2 were not to be impacted by the development and were to be left intact.

THERIN 2004 (CITED IN AMAC & STREAT 2021)

Therin carried out archaeological test excavations as part of the widening of Windsor Road between Rouse Hill and Vineyard in 2004. This excavation involved 34

1m x 1m test pits over four separate PAD locations and one 16 square metre open area excavation. A total of 1,986 artefacts were recovered from this excavation. It was recommended that no further archaeological work was needed within three of the four locations of the study area. However, where the highest artefact density was located, salvage excavation and a destruction with approval under the relevant section of the NPW Act was required.

AHMS 2008 (Cited in AMAC & Streat 2021)

Archaeological and Heritage Management Solutions undertook archaeological test excavations at Windsor Police Station in 2008. A total of 14 1m x 1m test pits and ten 1x1 metre exploratory holes were excavated. The excavations revealed 24 artefacts made of silcrete, quartzite, tuff and chert. It was therefore recommended that no further archaeological work was warranted, and destruction of the sites could take place following approval under the relevant section of the NPW Act.

KNC 2023

Kelleher Nightingale Consulting was engaged by Redbank Communities to prepare an ACHA for the proposed new road infrastructure and bridge crossing between Yarramundi and Grose Wold, on the northwestern side of the Hawkesbury River, NSW in 2021. As part of their assessment, KNC undertook an archaeological survey and subsequent test excavations for the proposed works. The survey identified one previously unrecorded surface site within the study area (Grose River Bridge AFT 1) and two associated PADs. Grose River Bridge AFT 1 comprised an open artefact scatter of silicified tuff artefacts on a vehicle track across a 60-metre area. Artefacts were identified on a high-level terrace, and the adjoining slope leading down to a lower terrace. Artefact types included two cores, a retouched medial flake fragment and a cortical flaked fragment with heat fracturing on the ventral surface. Due to the presence of Aboriginal objects, as well as intact alluvial soils and the elevated stable terrace landform, the area was declared a PAD site and named GRB 1. Additionally, another area of PAD located on a steep simple slope leading up to a level terrace was identified on the south side of the Grose River, this was named GRB 2.

Following the survey, archaeological test excavations were undertaken to assess the extent of the PADs. In total, 23 test pits were excavated in GRB 1, and 16 test pits were excavated in GRB 2. Results established the presence of two subsurface archaeological deposits comprising Aboriginal archaeological sites, with the testing of GRB 1 revealing 121 subsurface artefacts and GRB 2 revealing 23 subsurface artefacts. The analytical results were as follows:

> *Artefacts recovered consisted primarily of chert (79.3%), followed by fine grained siliceous material (13.2%) and silcrete (4.9%), with quartz also identified. Artefacts primarily consisted of complete flakes and distal fragments (around 30% of the assemblage), with seven cores, and various flake fragments also present. Artefacts measured between 5mm and 60mm (a distal fragment). One*

of the largest flakes present was 60mm in maximum dimension. A high proportion of the assemblage (52%) retained cortex, with almost one third of artefacts (n=38) retaining >30%. This likely reflects early stage reduction of materials that were available in the immediate area, from gravel beds around the Nepean/Grose confluence. One artefact was identified as potentially representing formal retouch or modification, and a further thirteen artefacts demonstrated edge damage that could be macroscopically interpreted as usewear. Artefacts were primarily recovered from the upper 10 cm of the soil profile (n=63), with 39 recovered between 10cm and 20cm depth and the remaining 19 artefacts recovered between 20cm and 60cm in depth.

Based on the results of the test excavation, it was determined that GRB 1 was part of the surface recorded site Grose River Bridge AFT 1, and GRB 2 was renamed Grose River Bridge AFT 2.

Additionally, due to a change in design footprint within the study area an additional part of the site was surveyed and subsequently tested for Aboriginal archaeology in 2023. Survey of the new alignment identified a further three areas of archaeological sensitivity to the east of the existing site Grose River Bridge AFT 1 and another two PADs near Nutmans Creek, approximately 100 metres south of Grose River Road, named NC 1 and NC 2. The results of the excavation are as follows:

A total of 214 artefacts were recovered during the program. A total of 25 test pits were excavated, with 17 at Grose River Bridge AFT 1, three at NC 1 and five at NC 2. The additional testing at Grose River Bridge AFT 1 confirmed that subsurface archaeological deposit associated with the site continued onto the eastern portion of the crest, while all pits at the Nutmans Creek test area were found to contain artefacts, with NC 2 yielding the highest mean artefact density of the program. Test area NC 1 was subsequently designated as site Nutmans Creek AFT 1, and test area NC 2 designated as site Nutmans Creek AFT 2. From the additional 3 testing areas, 214 artefacts were identified.

As such, it was determined that Grose River Bridge AFT 1 and Nutmans Creek AFT 2 both had moderate to high levels of archaeological significance, with the remainder of the identified sites, Grose River Bridge AFT 2, Nutmans Creek 1 and Yarramundi 7 assessed as having low archaeological significance.

It was recommended that an AHIP for the entirety of the study area be sought in order to impact the identified sites, however, prior to works commencing the salvage excavation of Grose River Bridge AFT 1 and Nutmans Creek 1 would need to take place.

BIOSIS PTY LTD 2020

Biosis was engaged by Johnstaff on behalf of St John of God to prepare an ACHA for the proposed development at 177-235 Grose Vale Road, North Richmond NSW (Lot 11 DP 1134453). As part of their assessment, Biosis undertook a field survey which identified the Richmond Hill Memorial Gardens as an Aboriginal heritage site.

Consultation with the RAPs identified that the site was significant due to its cultural and aesthetic values, as the site overlooks the Hawkesbury River and has strong associations with healing and the Battle of Richmond Hill. The survey identified that the majority of the study area was located on a terrace landform. As such, multiple areas of moderate and high archaeological potential were identified (Figure 5).

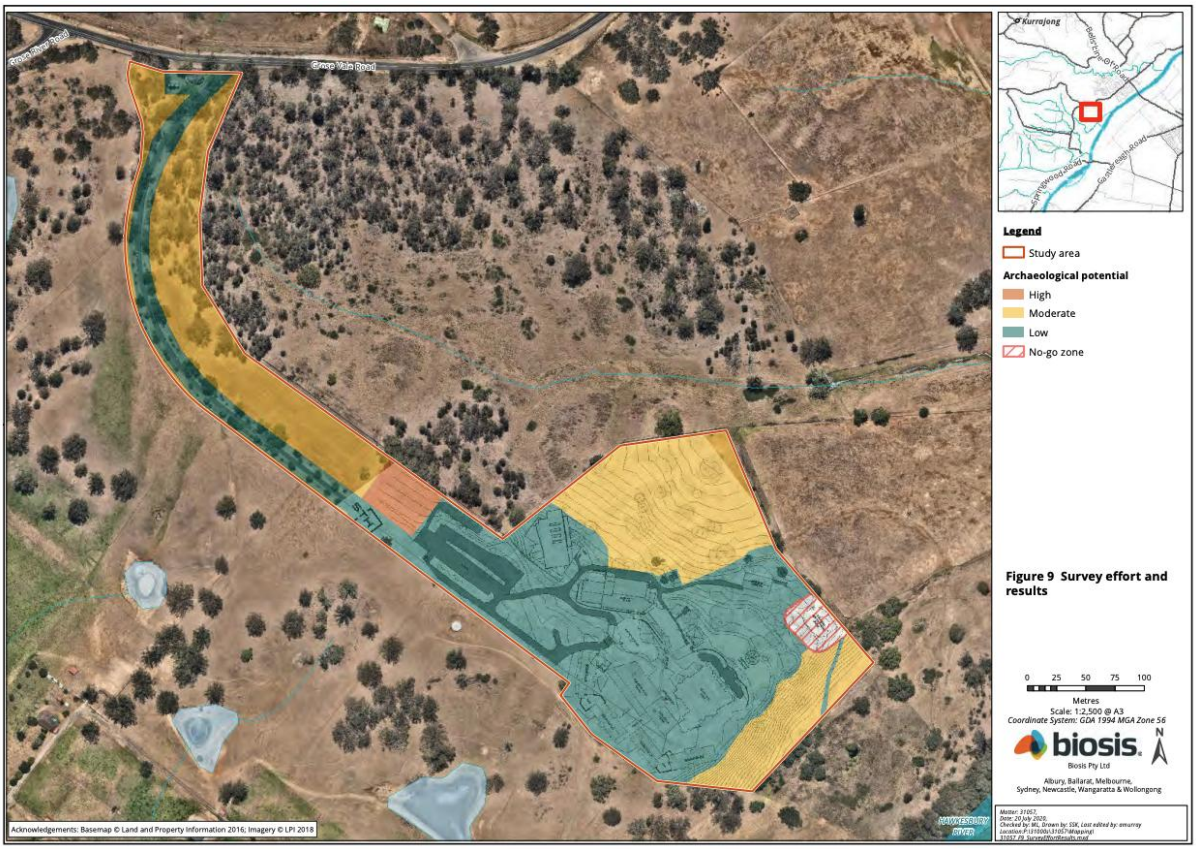

Figure 5: Areas of potential as described by Biosis 2020.

As the proponent confined the development to areas established as being low archaeological potential, it was recommended that the project could proceed with caution. However, if any designs changed that would impact the moderate to high potential areas, test excavations and a subsequent Archaeological Report with updated recommendations would be required.

2.3.1 SUMMARY

In summary, the regional studies have revealed that the very high-density sites surrounding Richmond are mostly located in Pitt Town, with most excavations in Pitt Town revealing deep, Pleistocene, high density deposits (15,000+ artefacts) in a sandy context, all revealing highly significant cultural heritage sites. These sites, however, are located 12 kilometres east of the study area.

Locally, the archaeological studies around Richmond have been consistent in both surveys and excavations, revealing low, moderate and high surface and subsurface

artefact scatters, mostly along elevated terraces, ridgelines and hill crests. Materials and tool types have also been consistent around Richmond, with lithic assemblages consisting mostly of silcrete and chert flakes and geometric microliths. PADs are almost always established along elevated or flat areas adjacent to water sources, and previous identified sites are mostly disturbed due to vehicle use, road use or infrastructure. Other site types such as middens, burials, rock shelters and grinding grooves are not prominent in the area.

2.4 Step 2b: Landscape Features

An assessment of landscape features is required to determine whether Aboriginal objects are likely to be present within the proposed activity area. Certain landscape features are more likely to have been utilised by Aboriginal people in the past and therefore are more likely to have retained archaeological evidence of this use. Focal areas of activity for Aboriginal people include rock shelters, sand dunes, water courses, waterholes and wetlands, as well as ridge lines for travel routes.

The presence of specific raw materials for artefact manufacture, as well as soil fertility levels to support vegetation resources, are also factors to be considered in the assessment of the environmental context of a study area. Geomorphological factors, such as erosion and accretion of soils, affect the preservation of potential archaeological deposits and therefore need to be considered when making an assessment of the potential for archaeological material to be present within a study area. This assessment is predominantly a desktop exercise.

2.4.1 Existing Environment

The study area falls within the Sydney Basin, which is roughly bounded by the Great Dividing Range to the west, the coast to the east, Newcastle to the north and Wollongong to the south. It is the geographic extent of the Hawkesbury sandstone (McDonald 2008). The Cumberland Plain is located within the Sydney Basin, and is formed on shale geology with open plain woodlands, and is surrounded by the Hornsby Plateau to the north, the Woronora Plateau to the south, and the Blue Mountains Plateaux to the west (McDonald 2008). The Cumberland Plain is comprised of generally low gradient, rolling topography, located on shale-dominated Triassic formations, including Tertiary and later alluvial based sediments. The Hawkesbury River has incised a course through an open valley on Hawkesbury Sandstone, with a broad flood plain present.

2.4.2 Geology

The Cumberland Plain features low gradient, rolling topography on shale-dominated Triassic formations, including Tertiary and later alluvial-based sediments. The Hawkesbury River has carved its course through an open valley on Hawkesbury Sandstone, forming a broad flood plain. The study area is situated within the

Cenozoic undifferentiated sediments (Czs) which is comprised of unconsolidated mud, silt, sand and gravel.

2.4.3 Soil Landscapes

The study area is located within the Upper Castlereagh (up) soil landscape. These soils are characterised by deep yellow podzolic loams. Table 2 details the soil composition of the Upper Castlereagh soil landscape.

Table 2: Soil composition of the Upper Castlereagh (up) soil landscape (source: eSPADE v2.2 2024).

Soil landscape	Description
Upper Castlereagh (up)	**up1**—Dull brown apedal sandy clay loam. This is a dull brown apedal single-grained silt loam to sandy clay loam with porous sandy fabric. It occurs as topsoil (A horizon). Munsell: 10YR 4/3 to 7.5YR 3/3. Field pH: 6.0-7.5. Small angular gravel fragments and grass root inclusions.
	up2—Dark brown, fine sandy clay loam. dark brown apedal single-grained silty or fine sandy clay loam with slowly porous sandy fabric. It occurs as topsoil or subsoil (A or B horizon). Munsell: 10YR 4/5 to 7.5YR 3/3. Field pH: 7.0-8.5. No notable inclusions.
	up3—Greyish yellow light medium clay. Weakly structured yellow light clay to medium clay with smooth-faced ped fabric. It occurs as a subsoil (B horizon). Munsell: 10YR 5/6 to 2.5Y 6/4. Field pH: 7.0. No notable inclusions.

2.4.4 Hydrology

The natural environment of Richmond is dominated by the presence of the Hawkesbury River, which is located approximately 3.4 km north of the study area. The site is located just below a loop of the river. This river would have been an important resource for Dharug people in the past, as it would have provided fresh water for drinking, as well as both floral and faunal resources.

Watercourse classification ranges from first order through to fourth order (and above) with first order being the lowest, ie a minor creek or ephemeral watercourse, and fourth or above being a large watercourse such as a river, as defined by the Department of Planning and Environment (DPE; Figure 6).

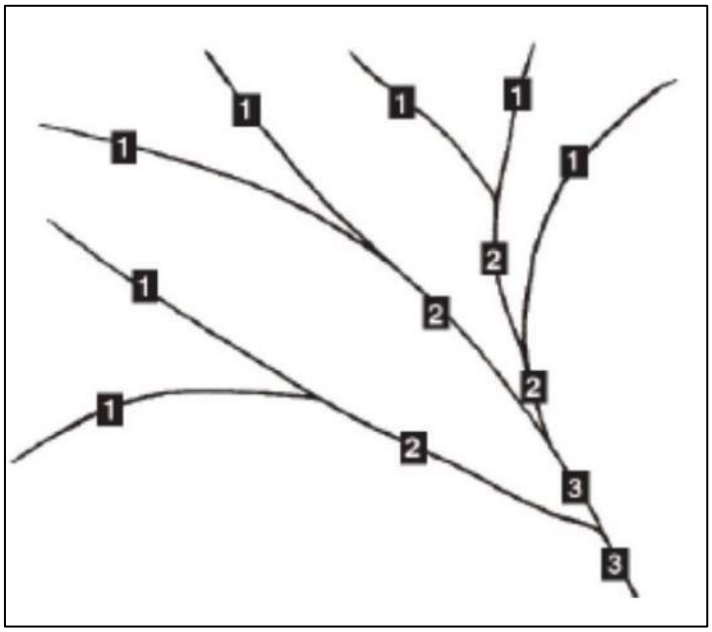

Figure 6: The Strahler system (Source: Department of Planning and Environment 2016).

2.4.5 Flora and Fauna

The Hawkesbury-Nepean floodplain was characterised by "back swamps", which were formed by freshwater riparian wetlands associated with high alluvial levee banks. Prior to widespread clearance of the area, vegetation within this soil landscape is likely to have comprised tall open forest dominated by forest red gum (*Eucalyptus tereticornis*) with tree typically over 30m in height. Understory species would have included grasses such as spear grass (*Stipa verticillata*) and *Microlaena*, shrub species such as Blackthorn (*Bursaria spinosa*) and *Hymenanthera dantata*, ferns including Bracken (*Pteridium esculentum*) and vines such as Sarsparilla (*Smilex* spp). Floodplains typically consisted of solid stands of Swamp Oak (*Casuarina glauca*). Aerial photography shows the study area has been cleared, but many of these species would have provided resources for Aboriginal people in the past.

Historical records made by Captain-Lieutenant Watkin Tench during exploration of the Hawkesbury-Nepean River in 1791 identify a rich landscape dominated by the river. He wrote (Nicol & Sewell 1793):

> *The whole of the country we passed was poor, and the soil within a mile of the river changed to a coarse deep sand, which I have invariably found to compose its banks, in every part, without exception, that I ever saw. The stream at this place is about three hundred and fifty feet wide; the water pure and excellent to the taste; the banks are about twenty feet high, and covered with trees, many of which had been evidently bent by the force of the current... some of them contained rubbish and drift wood in their branches, at least forty-five feet above the level of the stream. We saw many ducks, and killed one, which Colbee [their Aboriginal guide] swam for.*

Based on the descriptions in Tench's report, it is likely that this description of the river relates to the section of river near the subject area.

These vegetation species would have supported a range of fauna species. Both vegetation and faunal resources would have been exploited by the Aboriginal people in the area. Plants would have provided wood for tools and implements such as canoes, shields and coolamons to carry water, and the plants would have provided berries, tubers, seeds, leaves and nectar for food and medicine.

The diet of Aboriginal people also relied on the native wildlife which varied, depending on the animal resources that were available to them within their surrounding environment, or perhaps may have obtained through trade. There would have been abundant food sources, including fish from the river and creeks, as well as small animals such as wallabies, possums, small birds, amphibians and reptiles. The different environments of the Pitt Town area contain a diverse range of plant and animal species. On the Hawkesbury/Nepean River terraces, such as those directly to the northwest of the study area, tall open forest would have supported a wide variety of game. The vegetation communities along the creeks and gullies, primarily wet sclerophyll, would have provided shelter for numerous animal and plant species that could be eaten or used for other purposes such as providing shelter and medicines.

2.4.6 ETHNOHISTORY

Ethnohistorical evidence is based on the reports of colonisers and does not tend to include the Aboriginal perspective, leading to a Eurocentric view of Aboriginality. Additionally, historical records can be contradictory and incomplete regarding the exact tribal boundaries and locations of ceremonial or domiciliary activities of Aboriginal people pre-contact. Boot (2002:58) notes:

> *The problem associated with ethnohistoric documents include their tendency to record unusual, rather than everyday events, and their focus on religious behaviour to the exclusion of woman and children (Attenbrow 1976:34; Sullivan 1983:12.4).*

Aboriginal society was constructed of a hierarchy of social levels and groups, with fluid boundaries (Peterson 1976), with the smallest group comprising a family of a man and his wife/wives, children and some grandparents, referred to as a 'clan (Attenbrow 2010). The next level consists of bands, which were small groups of several families who worked together for hunting and gathering purposes, also known as a 'band' (Attenbrow 2010). The third level comprised regional networks with a number of bands, and these bands generally shared a common language dialect and/or had a belief in a common ancestor. Networks would come together for specific ceremonial purposes. The highest level is described as a tribe, which is usually described as a linguistic unit with flexible territorial boundaries (Peterson

1976); although Attenbrow (2010) argues that "these groups were not tribes in the current anthropological sense of the word".

The original Aboriginal inhabitants of the Hawkesbury region were tribes of the Dharug (Daruk; Darug) language group (Tindale 1974). The Dharug are the traditional owners of the area. The Dharug language group originally extended from the eastern suburbs of Sydney as far south as Botany Bay, west as far as Bathurst and north as far as the Hawkesbury River.

Early recorded accounts of European settlers have shed a light on some aspects of the traditional lifestyles of Aboriginal peoples. By studying these accounts, we can reconstruct portions of the Dharug traditional lifestyle.

The traditional lifestyles of Aboriginal groups such as the Dharug depended largely on the environment in which they lived. Whilst coastal groups utilised marine and estuarine resources, hinterland groups relied on freshwater and terrestrial animals and plants. Animals such as kangaroos, wallabies, possums, gliders, bandicoots, wombats, quolls, fruit bats, echidnas, native rats and mice, emus, ducks, tortoises, snakes and goannas (Attenbrow, 2010), played a major role in the subsistence of hinterland groups.

One specific account was written by Captain-Lieutenant Watkin Tench during his exploration along the Hawkesbury-Nepean River in 1791. During their search for Richmond Hill, Tench and his companions travelled northwest from Rose Hill (Parramatta) following the Hawkesbury River to Cattai Creek. Maps drawn by Tench indicate that the party crossed directly west of the study area. Guided and informed by Colbee, an Aboriginal man from the Cadigal tribe, Tench recorded some information about the local Dharug group living in the area to the north west of Parramatta (Nicol & Sewell, 1793):

> *We asked Colbee the name of the people who lived inland, and he called them boo-roo-ber-on-gal; and said they were bad; whence we conjectured, that they sometimes war with those on the sea coast.....We asked how they lived. He said, on birds and animals, having no fish.*

Inland population densities were assessed by early settlers as being less than those on the coast. Historical sources regarding the Cumberland Plain suggest that there was a minimum population density of 0.5 persons per km². This is comparable to the coastal zone around Port Jackson with estimates being around 0.75 persons per km² (Attenbrow, 2010).

2.4.7 Regional Site Patterning

In general, the dominant site types identified within the Sydney region include rock shelters with archaeological deposit (including middens), rock shelters with art, pictographs (rock engravings), artefact concentrations in open contexts, grinding

grooves and open middens (Attenbrow 2010). The nature and extent of individual sites is closely related to the environmental context in which they are found – for example, rockshelters are found within sandstone escarpments, while middens are generally located close to water bodies including marine, estuarine and freshwater contexts, and grinding grooves are found on flat sandstone platforms in close proximity to water sources.

In 1986, Kohen developed site location patterning predictions based on a study of archaeological investigations undertaken to date on the Cumberland Plain. Proximity to water was an important consideration in site patterning, with 65% of open artefact scatters located within 100m of permanent fresh water sources (Kohen 1986), and only 8% of sites located more than 500m from a permanent water source. He argued that sites increased in size, in complexity and in density with increasing proximity to water, especially permanent waterways such as creeks and rivers.

Further investigations within the Cumberland Plain have identified that Kohen's work was limited by his reliance on available surface evidence. McDonald (1997) undertook further investigations within the Cumberland Plain and identified that 28% of sites excavated had no surface expressions of artefacts prior to their excavation, with the ratio of surface to excavated artefacts being 1:25, and the nature and extent of the excavated sites could not be determined on the basis of surface expressions of artefacts alone. In summary, she found that a lack of surface evidence does not constitute a reliable estimate for subsurface archaeological potential (McDonald 1997).

These results demonstrate how test excavations can assist in the identification of the nature and extent of subsurface archaeological deposits within the Cumberland Plain.

2.4.8 Predictive Model

Based on the results of previous archaeological investigations within the wider area, a number of predictions regarding Aboriginal use of the area can be made. These predictions focus on the nature, extent and integrity of the remaining evidence.

The landscape characteristics of the area influence the prediction of the nature of potential sites within the landscape itself. Isolated finds and small artefact scatters are the most common site type identified within the wider area, and are predicted to be the most likely site type to be identified in future.

Site types associated with sandstone country, such as grinding grooves, rock art sites, petroglyph (rock engravings) and sandstone rockshelters with art/and or archaeological deposit are not considered likely to occur within the study area. Scarred trees are also not considered likely within the study area due to the high levels of historical clearing which have occurred within the landscape.

Distribution of sites is related to the landforms on which sites are known to be located. Generally, sites are focused on elevated landforms and reduce with increasing distance from water sources. This includes both artefact (isolated finds and artefact scatters) and areas of PAD. However, there is some evidence that artefact density within this landscape was not related to proximity to water, with evidence of a more uniform distribution of artefacts across much of the landscape.

Site disturbance and post-depositional processes heavily influence the integrity of archaeological sites. An assessment of these impacts must be considered when predicting the likelihood of Aboriginal sites being present within an area. Consideration of both natural and cultural ground disturbance must be made, and past land use must also be considered. Results of this assessment assist in the prediction of the integrity of potential sites within the study area.

Surface sites are likely to have been impacted by agricultural processes within the area over the historic period. Natural actions such as bioturbation are likely to have impacted at least the upper levels of archaeological deposits, as are cultural activities such as excavation, construction, ploughing, clearing and planting. Whilst these actions may impact the integrity of stratigraphy within the deposit, this does not necessarily mean associated archaeological objects will also be disturbed.

In general, Aboriginal use of an area is based on a number of factors, such as:

- Proximity to permanent water sources – generally permanent or areas of repeat habitation are located within approximately 200m of permanent water;
- Proximity to ephemeral water sources – generally sites near ephemeral water sources were utilised for one-off occupation;
- Ease of travel – ridgelines were often utilised for travel during subsistence activities; and
- The local relief – flatter areas were more likely to be utilised for long term or repeat habitation sites than areas of greater relief, especially if the slopes are at a distance from water.

In terms of the study area, sites are considered more likely to comprise:

- Rock shelters with deposit and/or art within suitable sandstone outcrops;
- Grinding grooves within suitable sandstone outcrops;
- Isolated finds, which may occur anywhere across a landscape; and
- Open sites, in areas of high relief in close proximity to ephemeral or permanent water sources.

2.5 Step 3: Avoid harm

A visual inspection of the land parcels was necessary to identify any surface objects or landforms with potential archaeological deposits (PAD). This inspection would

allow conclusions to be made regarding the probability of archaeological objects occurring within the proposed development areas. This would assist in determining if there was any archaeological potential within the study areas which could potentially be harmed by the proposed words, and in turn, assist in determining if harm to the archaeological resource could be avoided.

The proposed development would impact portions of the study area, either through ground surface disturbance works, associated infrastructure and landscaping works upon completion of works within the site. As such, it would not be possible to avoid impact to Aboriginal cultural values within the study area, should such exist. As such, a visual inspection of the site was undertaken to confirm if any such values exist within the study area.

2.6 Step 4: Visual Inspection

A visual pedestrian inspection of the study area was undertaken in November of 2024 by Leigh Bate, Archaeologist with Apex Archaeology and Lana Wedgewood, Dharug Custodian Aboriginal Corporation (DCAC).

2.6.1 Survey Coverage

Given the small size of the study area, the entire area was inspected by pedestrian survey to identify any surface artefacts or any areas with potential for intact subsurface deposits to be present.

2.6.2 Results

No previously registered archaeological sites on the AHIMS database were located within the study area. A thorough inspection of the area was undertaken. No newly identified archaeological material or sites were identified during the survey. Ground surface visibility (GSV) was low throughout the study area. GSV was rated at 10% overall. No raw material sources were identified within the lot.

The level of disturbance from prior land clearing activities, agriculture, and current land use is prevalent throughout the study area. The area is relatively flat and low lying with no focal points for Aboriginal occupation. Several areas were marshy and wet. Drainage swales have been excavated at numerous areas along the margins and through the central portion of the site. Landscape modification has reduced the potential for any intact archaeological sub-surface deposits within the study area to nil along with the likelihood that this area was not an attractive place for Aboriginal camping to occur.

Plate 1: Looking north east into the site from the south western boundary of the site

Plate 2: Looking along the south eastern boundary of the site bordering College Drive.

Plate 3: Looking north west across the central portion of the site.

Plate 4: Looking north west across the north eastern boundary of the site.

Plate 5: Looking south west along the north western boundary of the site ordering Londonderry Road.

Plate 6: General view north east through the central portion of the site.

Plate 7: General view over the south west corner of the property.

Plate 8: View north east from the south western corner of the property.

Plate 9: View south east across the central portion of the site.

Plate 10: View north east directly through the central portion of the site.

2.6.3 Discussion

In accordance with the Due Diligence Code of Practice, land is considered disturbed if human activities within the area have left clear and observable changes on the landscape.

While ploughing and clearance has occurred in many areas of the Cumberland Plain, this has been shown to only affect the deposit up to 30-40cm deep, and even then, ploughed knapping floors have been located which are still relatively intact (McDonald 1998; Gaynor 2008). However, in this instance the level of disturbance from prior land clearing activities, agriculture and current land use including landscape modification has reduced the potential for any intact archaeological sub-surface deposits to nil.

2.7 Mitigation Measures

The works as assessed are not considered likely to impact on Aboriginal objects and places and as such, no formal mitigation measures are considered necessary. Implementation of an unexpected finds stop works provision is considered appropriate to manage any potential impact on Aboriginal values within the area.

3.0 Conclusions and Recommendations

3.1 Conclusions

- No previously registered Aboriginal sites are located within the study area.
- The study area was assessed as having no sub-surface archaeological potential, based on the results of the visual pedestrian inspection.
- No archaeological material was identified on the ground surface of the study area.
- This assessment was based on identification of landform elements, previous archaeological work undertaken within the wider Richmond region, and a visual inspection of the study area.

3.2 Recommendations

- No further Aboriginal archaeological assessment is required prior to the commencement of works as described in this report.
- This due diligence assessment must be kept by the Richard Crookes Construction so that it can be presented, if needed, as a defence from prosecution under Section 86(2) of the National Parks and Wildlife Act 1974.
- The results of this assessment fulfil the requirement for archaeological assessment in accordance with the OEH 2010 *Guide to Investigation, assessing and reporting on Aboriginal cultural heritage in NSW* and the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (Code of Practice). Works may proceed with caution.
- The proposed works must be contained to the area assessed during this archaeological assessment, as shown on Figure 1. If the proposed location is amended, further archaeological assessment may be necessary to determine if the proposed works will impact any Aboriginal objects or archaeological deposits.
- Should unanticipated archaeological material be encountered during site works, all work must cease and an archaeologist contacted to make an assessment of the find. Further archaeological assessment and Aboriginal community consultation may be required prior to the recommencement of works. Any objects confirmed to be Aboriginal in origin must be reported to Heritage NSW.

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APPENDIX A: AHIMS SEARCH RESULTS

AHIMS Web Services (AWS)
Search Result

Your Ref/PO Number : 24046

Client Service ID : 882799

Apex Archaeology

PO BOX 236

Nowra New South Wales 2541

Attention: Leigh Bate

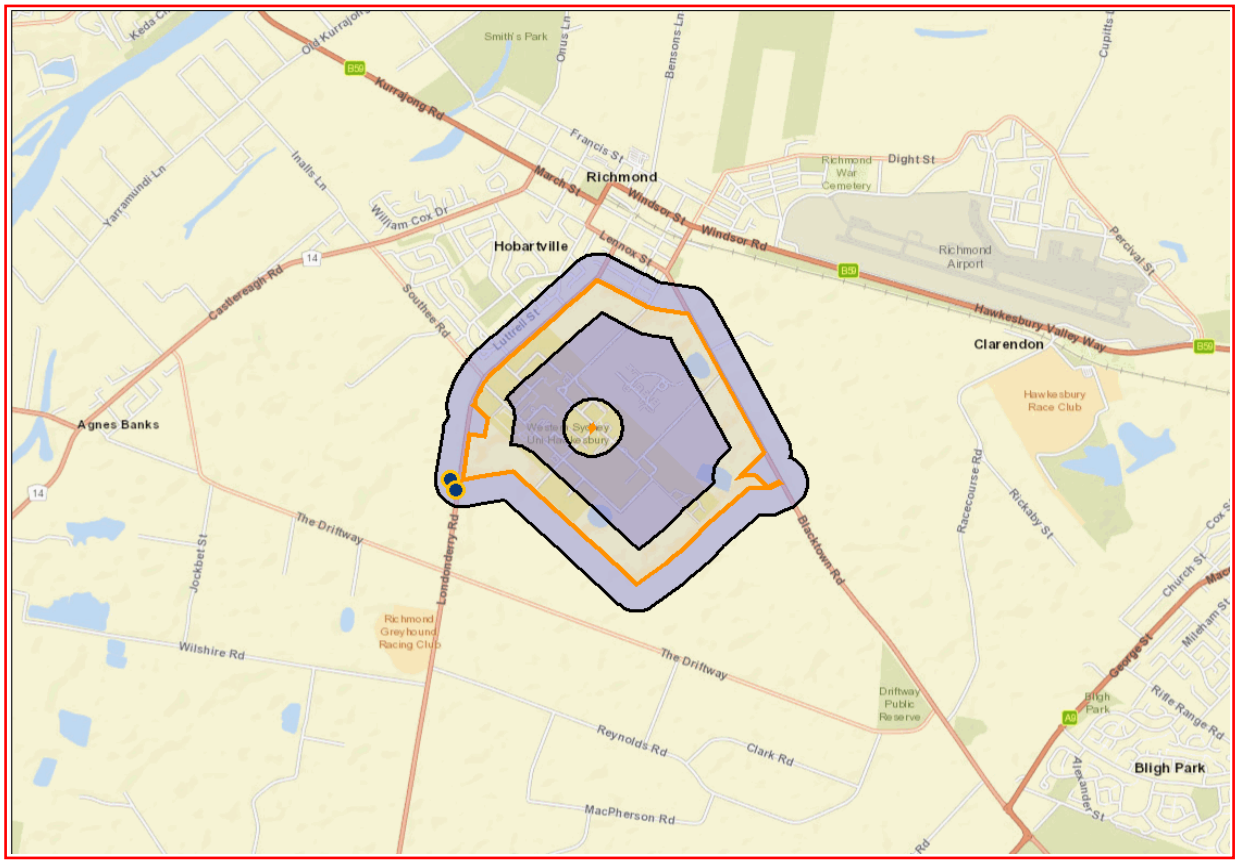
Email: leigh@apexarchaeology.com.au

Date: 11 April 2024

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 2, DP:DP1051798, Section : - with a Buffer of 200 meters, conducted by Leigh Bate on 11 April 2024.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

2	**Aboriginal sites are recorded in or near the above location.**
0	**Aboriginal places have been declared in or near the above location. ***

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the NSW Government Gazette (https://www.legislation.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Heritage NSW upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Heritage NSW and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

Level 6, 10 Valentine Ave, Parramatta 2150
Locked Bag 5020 Parramatta NSW 2124
Tel: (02) 9585 6345

ABN 34 945 244 274
Email: ahims@environment.nsw.gov.au
Web: www.heritage.nsw.gov.au

AHIMS Web Services (AWS)
Search Result

Your Ref/PO Number : 24046

Client Service ID : 935490

Apex Archaeology

PO BOX 236

Nowra New South Wales 2541

Attention: Peta Rice

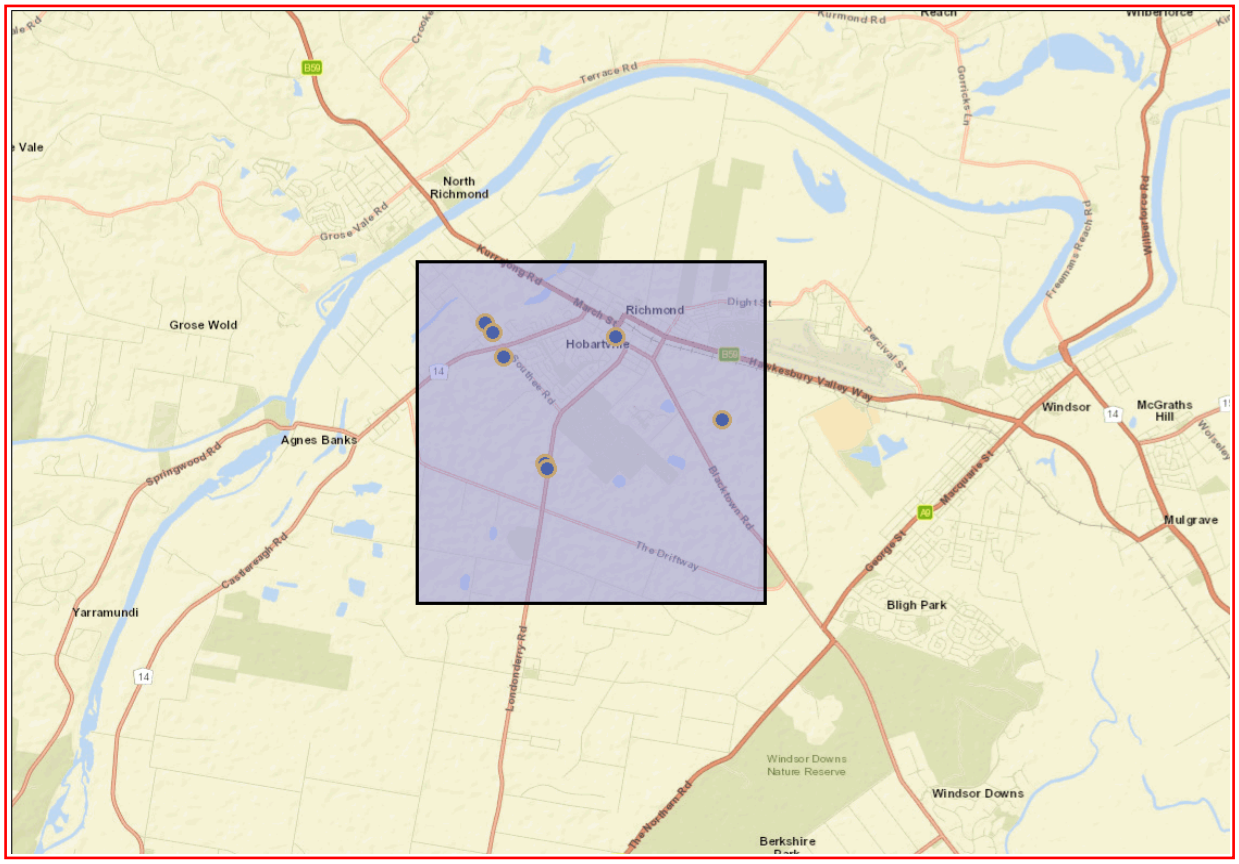
Email: peta@apexarchaeology.com.au

Date: 01 October 2024

Dear Sir or Madam:

AHIMS Web Service search for the following area at Datum :GDA, Zone : 56, Eastings : 288539.0 - 293523.0, Northings : 6275924.0 - 6280905.0 with a Buffer of 0 meters, conducted by Peta Rice on 01 October 2024.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

7	**Aboriginal sites are recorded in or near the above location.**
0	**Aboriginal places have been declared in or near the above location. ***

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the NSW Government Gazette (https://www.legislation.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Heritage NSW upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Heritage NSW and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
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- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

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Tel: (02) 9585 6345

ABN 34 945 244 274
Email: ahims@environment.nsw.gov.au
Web: www.heritage.nsw.gov.au

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : 24046

Client Service ID : 935510

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
45-5-2404	RWP 1;	AGD	56	292850	6278450	Open site	Valid	Artefact : -	Open Camp Site	
	Contact	**Recorders**	Stephanie Garling					**Permits**	938	
45-5-5844	Inalls Lane Richmond AFT 2	GDA	56	289445	6280002	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Mr.Matthew Kelleher,Kelleher Nightingale Consulting Pty Ltd (Generic users)					**Permits**		
45-5-5845	Inalls Lane Richmond AFT 1	GDA	56	289566	6279869	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Mr.Matthew Kelleher,Kelleher Nightingale Consulting Pty Ltd (Generic users)					**Permits**		
45-5-0652	HB14	AGD	56	290260	6277750	Open site	Valid	Artefact : -	Open Camp Site	1380
	Contact	**Recorders**	Laura-Jane Smith					**Permits**		
45-5-5846	Southee Road Richmond AFT 1	GDA	56	289728	6279503	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Mr.Matthew Kelleher,Kelleher Nightingale Consulting Pty Ltd (Generic users)					**Permits**		
45-5-1062	Richmond Markerplace 1;RM 1;	AGD	56	291260	6279650	Open site	Valid	Artefact : -	Open Camp Site	
	Contact	**Recorders**	Doctor.Jo McDonald					**Permits**	838,963	
45-5-0651	HB13	AGD	56	290300	6277670	Open site	Valid	Artefact : -	Open Camp Site	1380
	Contact	**Recorders**	Laura-Jane Smith					**Permits**		

**** Site Status**

Valid - The site has been recorded and accepted onto the system as valid

Destroyed - The site has been completely impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There is nothing left of the site on the ground but proponents should proceed with caution.

Partially Destroyed - The site has been only partially impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There might be parts or sections of the original site still present on the ground

Not a site - The site has been originally entered and accepted onto AHIMS as a valid site but after further investigations it was decided it is NOT an aboriginal site. Impact of this type of site does not require permit but Heritage NSW should be notified

Report generated by AHIMS Web Service on 01/10/2024 for Peta Rice for the following area at Datum :GDA, Zone : 56, Eastings : 288539.0 - 293523.0, Northings : 6275924.0 - 6280905.0 with a Buffer of 0 meters.. Number of Aboriginal sites and Aboriginal objects found is 7