



SummitCare Seniors Housing, Jamisontown, Penrith

Aboriginal Cultural Heritage Assessment Report (ACHAR)

Report prepared for Centurion Project Management

November 2024

Acknowledgement of Country

We respect and acknowledge the First Nations peoples of the lands and waterways on which we live and work, their rich cultural heritage and their deep connection to Country, and we acknowledge their Elders past and present. We are committed to truth-telling and to engaging with First Nations peoples to support the protection of their culture and heritage. We strongly advocate social, cultural and political justice and support the Uluru Statement from the Heart.

Cultural warning

Aboriginal and Torres Strait Islander readers are advised that this report may contain images or names of First Nations people who have passed away.

Report register

The following report register documents the development of this report, in accordance with GML's Quality Management System.

Job No.	Issue No.	Notes/Description	Issue Date
24-0100	1	Draft Report	13 September 2024
24-0100	2	Final Report	4 November 2024

Quality assurance

The report has been reviewed and approved for issue in accordance with the GML quality assurance policy and procedures.

It aligns with best-practice heritage conservation and management, *The Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance, 2013* and heritage and environmental legislation and guidelines relevant to the subject place.

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Executive summary

GML Heritage Pty Ltd (GML) was engaged by Centurion Project Management on behalf of The Trustee for the Peter Wohl Family Trust & The Trustee for Wohlen Family Trust to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) for SummitCare Seniors Housing, Jamisontown, Penrith. This report forms part of the Environmental Assessment for the study area prepared under Part 4 of the *Environmental Planning and Assessment Act 1979* (NSW).

This report aims to:

- identify, assess and report on Aboriginal heritage values within the study area;
- involve the Aboriginal community in decisions with respect to its heritage;
- determine how the SummitCare Penrith project may harm these values; and
- establish the mechanism for conservation and mitigation of harm to these values.

This report provides a significance assessment of the identified potential Aboriginal archaeological sites, places, landscapes and other values. It also provides an impact assessment and recommendations to assist the proponent with its future responsibilities for the management of Aboriginal cultural heritage within the study area.

The archaeological assessment, as reported herein, has identified that the study area is underlain by over 7.5m of natural alluvial sediments buried beneath historical fills and hard surfaces. Should this sedimentary sequence include expressions of the 'Richmond Unit' of the Cranebrook Formation and/or A/B horizons of the Richmond soil landscape, these are assessed to hold moderate potential for Aboriginal objects based on the adjacent environmental and archaeological context. These geological units are associated with previously recorded Aboriginal archaeological deposits connected with the cultural landscape of the Hawkesbury-Nepean River.

The study area is situated within an urban area and is almost entirely covered by single-storey buildings associated with the SummitCare Penrith aged-care facility. An analysis of historical developments and geotechnical investigations has found that these developments have partially truncated and levelled the natural landform. Subsurface service pipes and pits are present below the ground surface in some areas. These activities have likely significantly disturbed, if not partially removed, A/B horizons of the Richmond soil landscape, and consequently impacted Aboriginal archaeological remains (if present) within the excavation footprint and immediate surrounds. However, geotechnical investigations demonstrate that these impacts are largely limited to the surficial layers and 7.5m of natural alluvial sediments underlie these impacts. Archaeological excavation is required to validate the nature of the underlying alluvial sediments, coupled with the presence or absence of Aboriginal objects.

The proposed activity requires the wholesale removal of remnant intact alluvial sediments for basement excavation to approximately 3m below current ground levels. These deposits could have potential for Aboriginal objects, and it is recommended that the Aboriginal archaeological excavation methodology, as outlined in the Archaeological research Design (ARD) report (Appendix A) should be implemented. The primary aim for Aboriginal archaeological excavation would be to confirm the nature of natural sediments, determine whether these contain an associated Aboriginal archaeological deposit, understand the integrity of the deposit (leading to an understanding of its cultural and scientific value), and, if necessary, facilitate salvage excavation of these deposits.

The State Significant Development (SSD) approval for the project should include the following conditions of consent:

- SSD approval will be required for Aboriginal archaeological excavation within the study area in accordance with the ARD outlined in Appendix A of this report. The approval will be area-wide for the entire SummitCare Penrith project boundary.
- The approval should cover Aboriginal objects recovered during Aboriginal archaeological excavation and Aboriginal objects identified within disturbed contexts (displaced objects).
- Sufficient time and resources must be allowed for the archaeological excavation to be completed in accordance with the ARD.
- Long-term curation of Aboriginal cultural materials, recovered from the excavation, should be discussed with the Registered Aboriginal Parties (RAPs) once the size and nature of the assemblage is known.
- Post-excavation analysis could include opportunities or engagement and involvement with the project's RAPs.

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1 Introduction to the project

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GML Heritage Pty Ltd (GML) was engaged by Centurion Project Management on behalf of The Trustee for the Peter Wohl Family Trust & The Trustee for Wohlen Family Trust to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) for SummitCare Seniors Housing, Jamisontown, Penrith. This report forms part of the Environmental Assessment for the study area prepared under Part 4 of the *Environmental Planning and Assessment Act 1979* (NSW).

This report has been prepared in response to the relevant requirements outlined within the Secretary's Environmental Assessment Requirements (SEARs) issued on 21 March 2024 for application SSD-68603709. SEARs Key Issue 19 (Aboriginal cultural heritage) requires the preparation of an ACHAR.

The purpose of this report is to identify whether the study area possesses or has the potential to possess Aboriginal heritage archaeological sites, places, objects, landscapes and/or values, in accordance with the Heritage NSW guidelines for Aboriginal heritage assessment.

This report provides a significance assessment of the identified archaeological Aboriginal sites, places, landscapes and/or other values. An impact assessment and management recommendations are provided to assist the proponent with their future responsibilities for the management of Aboriginal cultural heritage within the study area.

1.1 The project and study area

The study area is SummitCare Penrith Aged Care Home, located at 366 Jamison Road, Jamisontown (Figure 1.1 and Figure 1.2). It is within the City of Penrith local government area (LGA) and lies within the Deerubbin Local Aboriginal Land Council (LALC) boundary. The study area encompasses Lot 10/DP804382.

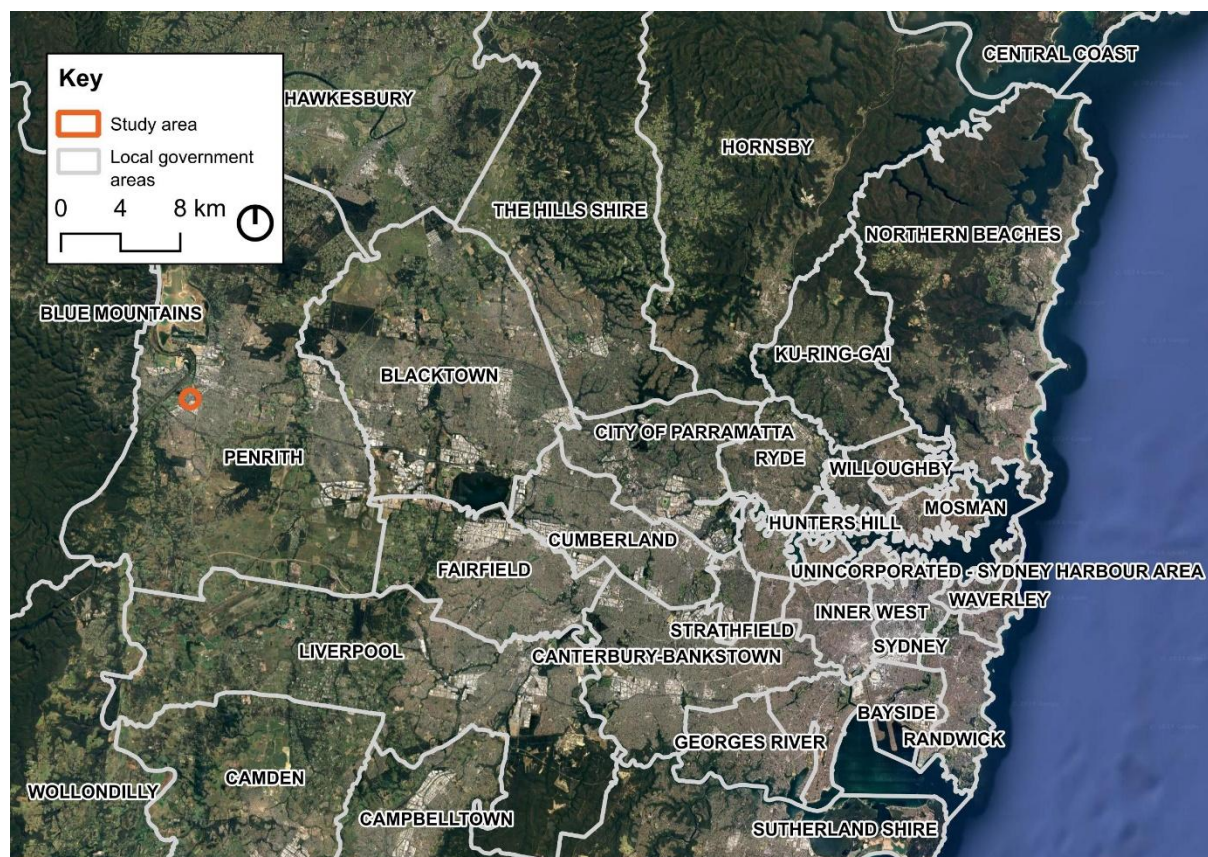


Figure 1.1 Location of the study area in the region. (Source: Google Earth with GML overlay)

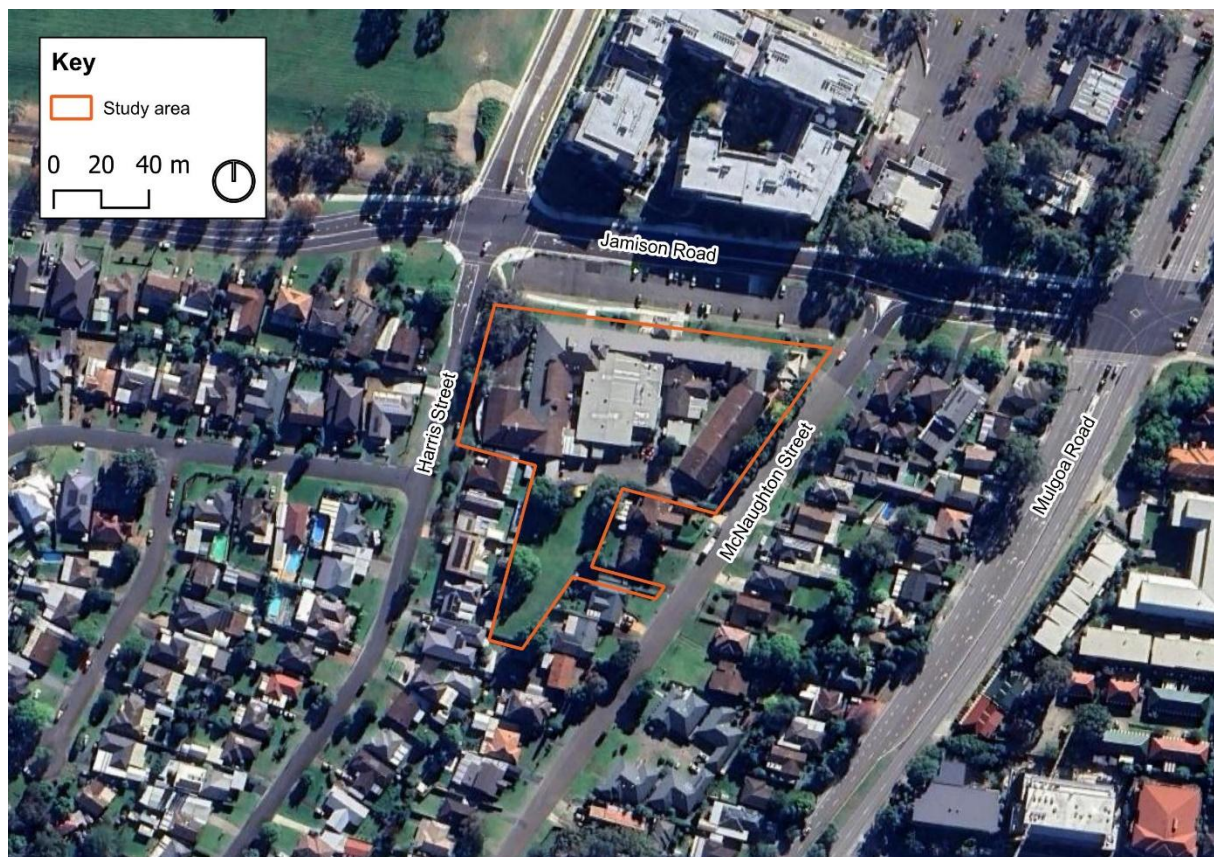


Figure 1.2 The study area identified within a landscape context. (Source: Google Earth with GML overlay)

1.2 Proposed works

The proponent proposes to redevelop SummitCare Penrith. This will involve the demolition of all existing buildings within the study area and the construction of:

- four multi-storey apartment buildings (Buildings A, B, C and D) for residential aged care;
- a central administration building; and
- a one-level basement carpark beneath Buildings A, B, C and the central administration building.

1.3 Objectives of this Aboriginal cultural heritage assessment

Our objectives for the assessment were to:

- identify and consult with local Aboriginal community members who can speak for Country;
- understand and record Aboriginal heritage places and values, and determine whether these are part of a larger Aboriginal cultural landscape and/or Aboriginal traditions;
- involve the local Aboriginal community in the cultural heritage values assessment process and determine best practice options for the future management of the identified Aboriginal cultural heritage;
- determine how the proposed project may impact the identified Aboriginal cultural heritage values, aiming to minimise impacts through sensible and pragmatic site and land management; and
- provide clear recommendations for the conservation of Aboriginal heritage values and relevant impact mitigation strategies that benefit both Aboriginal cultural heritage and the proponent.

1.4 Statutory context

In NSW, Aboriginal heritage is principally protected under two Acts:

- the *National Parks and Wildlife Act 1974* (NSW) (NPW Act); and
- the *Environmental Planning and Assessment Act 1979* (NSW) (EPA Act).

1.4.1 National Parks and Wildlife Act 1974

Statutory protection for all Aboriginal 'objects' (consisting of any material evidence of the Indigenous occupation of New South Wales) is provided under Section 90 of the NPW Act, and that for 'Aboriginal Places' (areas of cultural significance to the Aboriginal community) is provided under Section 84 of the NPW Act. Aboriginal objects and places are afforded automatic statutory protection in New South Wales whereby it is an offence (without the Minister's consent) to harm an Aboriginal object or declared Aboriginal Place.

The NPW Act defines an Aboriginal object as:

any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains.

The protection provided to Aboriginal objects and places applies irrespective of the level of their significance or issues of land tenure. Sites of traditional significance that do not necessarily contain material remains may be gazetted as 'Aboriginal Places' and thereby protected under the NPW Act. However, areas are only gazetted if the Minister is satisfied that sufficient evidence exists to demonstrate that the location was and/or is of special significance to Aboriginal culture.

A strict liability offence applies for harm to or desecration of an Aboriginal object or declared Aboriginal Place.¹ The definition of 'harm' includes destroying, defacing, damaging or moving an Aboriginal object or declared Aboriginal Place. The strict liability offence of harming Aboriginal objects has a number of defences. As the Project is classified as SSD, impacts to Aboriginal objects arising from the proposed works do not require approvals under the NPW Act. All future management, works and impacts are guided and approved under the Project's conditions of approval.

The potential for Aboriginal objects, sites, places and/or values within the study area, and for the proposed development to impact such objects, has been assessed and the results are presented in this report.

1.4.2 Environmental Planning and Assessment Act 1979

Projects declared a State Significant Development (SSD) under Part 4 of the EPA Act require heritage and archaeology to be managed in accordance with the project approval documents, including conditions of the development consent. Section 4.41(d) of the EPA Act states that an AHIP under Section 90 of the NPW Act is not required for an SSD project that is authorised by an SSD development consent. Once this project has been declared an SSD, the requirement to obtain an AHIP will not apply. Furthermore, Section 4.41(3) of the EPA Act outlines that any reference to SSD under Section 4.41 that is authorised by a development consent extends to "any investigative or other activities that are required to be carried out for the purpose of complying with any environmental assessment requirements". This implies that archaeological excavation required under the SEARs could be carried out prior to SSD consent being issued without the need for an AHIP.

The EPA Act provides a statutory framework for the determination of development proposals. It provides for the identification, protection and management of heritage items through inclusion in schedules to planning instruments such as Local Environmental Plans (LEPs) or Regional Environmental Plans (REPs). Heritage items in planning instruments are usually historic sites but can include Aboriginal objects and places. The EPA Act requires that appropriate measures be taken for the management of potential archaeological resources by means consistent with practices and standards meeting the requirements of the NPW Act.

The study area is in the City of Penrith LGA and comes under the *Penrith Local Environmental Plan 2010*. There are no items of Aboriginal cultural heritage listed within the study area.

1.4.3 Approach to Aboriginal heritage management

In NSW, Aboriginal heritage assessment and management is underpinned by several guidelines and policies. Our approach is based on the following guidelines:

- *Guide to Determining and Issuing Aboriginal Heritage Impact Permits* (2009);²
- *Operational Policy: Protecting Aboriginal Cultural Heritage* (2009);³
- *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (2010);⁴
- *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (2010) (the Due Diligence Code);⁵
- *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (2010) (the Code of Practice);⁶
- *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (2011);⁷ and
- *The Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance 2013* (the Burra Charter).⁸

1.4.4 The Burra Charter process

The Burra Charter process (Article 6) outlines a three-stage process for the assessment and management of heritage. The three stages are:

- 1 develop an understanding of heritage significance;
- 2 develop policy that is appropriate to the significance; and
- 3 undertake management in accordance with the policy.

The Burra Charter's explanations for heritage provide the basis for definitions used in this report. The Burra Charter's Indigenous Practice Note provides further guidance for application of the Burra Charter to Aboriginal heritage. We have used the following definitions:

Article 1.1—Place

Place means a geographically defined area. It may include elements, objects, spaces and views. Place may have tangible and intangible dimensions.⁹

'Place' includes locations that embody spiritual value (such as Dreaming places, sacred landscapes, and stone arrangements), social and historical value (such as massacre sites), and scientific value (such as archaeological sites). The same place may be all of these things or embody all of these values at the same time.¹⁰

Article 1.2—Cultural significance

Cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations. Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects. Places may have a range of values for different individuals or groups.¹¹

Article 1.10—Use

Use means the functions of a place, including the activities and traditional and customary practices that may occur at the place or are dependent on the place.¹²

Article 1.11—Compatible use

Compatible use means a use which respects the cultural significance of a place. Such a use involves no, or minimal, impact on cultural significance.

Article 8—Setting

Conservation requires the retention of an appropriate setting. This includes retention of the visual and sensory setting, as well as the retention of spiritual and other cultural relationships that contribute to the cultural significance of the place.¹³

Places of significance to Indigenous people require a holistic approach to 'setting'. 'Setting' may encompass the broadest of experiential factors including a sense of 'intrusion' occasioned when people of the 'wrong' gender, age or level of initiation trespass on defined areas, as well as auditory and visual intrusion.

For some Indigenous peoples, nature and culture are indivisible. The social and spiritual significance of a place for Indigenous people may be wholly or partly dependent on the natural environment that the place forms a part of, including aspects such as biodiversity, and totemic and resource species.¹⁴

Application to the current assessment

To implement the Burra Charter process, we have undertaken the following steps:

Step 1—Understand the place

This involved investigation into the environment, archaeology, history and literature. Field survey was undertaken in collaboration with the Aboriginal community. The outcome of the Step 1 investigations was the development of archaeological and landscape maps and plans that show the known sites, places and values connected to the study area. The approach followed the notion that the study area is part of an Aboriginal cultural landscape, and the study area represents a small zone within this landscape.

Step 2—Assess cultural significance

A preliminary assessment of cultural significance considered aesthetic, historic, scientific and social aspects of the study area. This preliminary assessment should be used for future assessments, noting both that 'cultural significance may change'¹⁵ and 'tangible heritage should not be emphasised at the expense of intangible heritage'.¹⁶

Step 3—Identify factors and issues

The results from Steps 1 and 2 were used to identify key future management factors and/or issues. The issues and factors define future needs, opportunities and constraints connected with possible future compatible use.

Step 4—Develop policy

The outcome from Step 3 was applied to develop appropriate management policy, in consultation with the Aboriginal community and in accordance with relevant NSW statutory processes.

1.5 Who undertook the project

This project has been undertaken by the following people. Each person's role and affiliations are detailed.

Table 1.1 Investigators and contributors.

Person	Affiliation	Role
Dr Tim Owen	GML	Project Director and reviewer
Jacob Kiefel	GML	Project Manager and author
Registered Aboriginal Parties		Input into cultural heritage values assessment

1.6 Endnotes

- ¹ Department of Environment, Climate Change and Water 2010, *National Parks and Wildlife Act 1974* (NSW), 'Fact sheet 1', September 2010.
- ² Department of Environment and Climate Change, *Guide to Determining and Issuing Aboriginal Heritage Impact Permits 2009*.
- ³ Department of Environment and Climate Change, *Operational Policy: Protecting Aboriginal Cultural Heritage 2009*, Department of Environment and Climate Change (NSW),

- ⁴ Department of Environment Climate Change and Water NSW 2010, *Aboriginal Cultural Heritage Consultation Requirements for Proponents*, Department of Environment, Climate Change and Water (NSW).
- ⁵ Department of Environment Climate Change and Water NSW 2010, *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales*, Department of Environment, Climate Change and Water NSW, Sydney.
- ⁶ Department of Environment Climate Change and Water NSW, *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales*, 2010.
- ⁷ Office of Environment and Heritage NSW, *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW 2011*, Office of Environment and Heritage, Department of Premier and Cabinet, Sydney South,
- ⁸ Australia ICOMOS Inc, *The Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance 2013*, Australia ICOMOS Inc, Burwood, VIC,
- ⁹ Australia ICOMOS Inc, *The Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance 2013*, Australia ICOMOS Inc, Burwood, VIC, Article 1.1.
- ¹⁰ Australia ICOMOS Inc, *The Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance 2013*, Australia ICOMOS Inc, Burwood, VIC, p 2.
- ¹¹ Australia ICOMOS Inc, *The Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance 2013*, Australia ICOMOS Inc, Burwood, VIC, Article 1.2.
- ¹² Australia ICOMOS Inc, *The Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance 2013*, Australia ICOMOS Inc, Burwood, VIC, Article 1.10.
- ¹³ Australia ICOMOS Inc, *The Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance 2013*, Australia ICOMOS Inc, Burwood, VIC, Article 8.
- ¹⁴ Australia ICOMOS Inc, *The Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance 2013*, Australia ICOMOS Inc, Burwood, VIC, p 5.
- ¹⁵ Australia ICOMOS Inc, *The Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance 2013*, Australia ICOMOS Inc, Burwood, VIC, p 4.
- ¹⁶ Australia ICOMOS Inc, *The Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance 2013*, Australia ICOMOS Inc, Burwood, VIC, pp 2 and 4.

2 Understanding the project area

2 Understanding the project area

The purpose of this chapter is to provide contextual information to inform our understanding of Aboriginal occupation, use, and connections within the project area.

This section is separated into the following parts:

- Section 2.1 identifies the traditional Aboriginal connections with the project area;
- Section 2.2 presents the outcomes of relevant prior Aboriginal heritage work;
- Section 2.3 provides an overview of the existing environmental setting;
- Section 2.4 details the recent history of land use; and
- Section 2.5 outlines a predictive model of the archaeological potential for the study area that synthesises the information from Sections 2.1 to 2.4.

2.1 Aboriginal cultural background

The study area is situated on the traditional lands of the Darug (also spelt Dharug), a major language group that extended across Sydney's Cumberland Plain. The Darug were made up of numerous clans (or mobs). The land surrounding Jamisontown is generally considered to have been occupied by the Mulgoa clan, named after the mulgo, meaning black swan. Their lands comprised much of modern-day Penrith bounded by South Creek to the south (Gommerrigal Country) and Castlereagh to the north (Boorooberongal Country).

2.1.1 'Deep time' Aboriginal connections

Pleistocene

Aboriginal people today describe their traditions and origins as commencing in the 'deep time'. Archaeological evidence of the long history of Aboriginal connections with the Hawkesbury-Nepean River spans at least 40,000 years, into the Pleistocene epoch.¹

The Pleistocene is a geological epoch lasting from 2.58 million years BP until 11,700 BP. The region's climate and environment have varied dramatically during this period. Across the Pleistocene, there were at least 20 glacial and interglacial cycles; these refer to changes from an ice age, with large and extensive polar ice caps (ie glacial), to warmer conditions when polar ice melted rapidly (ie interglacial), and then back to colder (glacial) conditions again. Of particular importance is the Last Glacial Maximum (LGM; approximately 27,000 to 17,000 BP). The world's climate was considerably colder (temperatures were 5–10 degrees Celsius colder than today's averages²), drier, and

windier.³ Sea levels were around 120m lower than they are today, exposing the now-submerged continental shelf of Australia.⁴

Understanding Aboriginal peoples' connections to the landscape during the Pleistocene is difficult because of the length of time that has passed. Confirmed Pleistocene sites in Sydney tend to be associated with ancient rivers, such as the Hawkesbury-Nepean and Parramatta rivers. Archaeological sites dated to the Pleistocene have consisted of stone artefact and/or hearth sites. Pleistocene stone artefact assemblages are typified by large artefacts created from the reduction of river cobbles. The Hawkesbury-Nepean appears to have been particularly significant as a source of raw indurated mudstone/silicified tuff/chert (IMSTC) materials for lithic production during this period.⁵ These rivers may have been a focus for Aboriginal activities as areas providing rich, consistent freshwater and terrestrial resources. The study area's position atop a terrace of the Nepean River suggests that it is within a landform context associated with consistent occupation and use by Aboriginal people during the Pleistocene.

Terminal Pleistocene

The terminal Pleistocene is defined in this report as the stretch of time following the LGM until the beginning of the Holocene (approximately 17,000–11,700 BP). Following the LGM, the climate warmed, melting icesheets across the planet and causing rapid sea level rise. Sea level rise resulted in the loss of the inner continental shelf, inundating approximately 11,000km² of terrestrial resources. Coastal Aboriginal people were forced far inland as the range of habitable landforms was reduced to formerly raised plains and upper ridgelines. This caused a major reorganisation of social and spatial boundaries.⁶ The terminal Pleistocene therefore represents a time of rapid climatic change to which Aboriginal people were forced to adapt.

The relatively rapid drowning of coastal plains and river valleys meant that a substantial amount of time was required for environments to stabilise and be useful for resource exploitation. It has been suggested that it took Aboriginal societies a significant length of time to recover from these rapid climatic changes.⁷ The Hawkesbury-Nepean River would have been a refuge because of its stable, elevated terraces, which were favoured for occupation, and because much of the surrounding marginal land was unused.

It should be noted that these models are based on the current knowledge and understanding of the archaeological record within Sydney, which largely lacks soil or sedimentary deposits of this age. It is likely that future archaeological research will increase our understanding of Aboriginal occupation during this time.

Holocene

The Holocene began around 11,700 BP and has been characterised by a wetter and warmer climate. Post-LGM sea level rise continued during the early Holocene. Sea levels reached around 7,700 BP and continued to rise to a high point of 1–2m above today's sea level by at least 7,400 BP, only receding to current levels around 1,500 BP.⁸

The Holocene signalled the beginning of a more continuous archaeological record of Aboriginal occupation within the Sydney Basin. A stabilised climate allowed for more consistent ecological communities to develop across much of the Sydney Basin, which presented greater opportunities for resource exploitation. This, in turn, allowed for systematic landform use, which is reflected in the archaeological record, also coinciding with an increase in social and religious complexity. Most of the dated Aboriginal archaeological sites on the Cumberland Plain date to the mid to late Holocene, although it should be noted that the region rarely retains soil or sediment deposits of older ages.

Sydney's archaeological record provides an enduring and extensive assemblage of cultural materials that reflect Aboriginal people's occupation of the region. Sydney Basin had significant sources of raw stone materials: silcrete, IMSTC and quartz. These materials were used by Aboriginal people to manufacture stone artefacts. The presence of materials is linked to their source and changing frequency and preferences for use over the Pleistocene and Holocene. This sequence of stone use is referred to as the Eastern Regional Sequence (ERS), with demonstrated changes over the last 10,000-plus years. Artefact variation across Sydney likely reflects changing clan and language boundaries as well as evolving trade networks throughout the region. Changes in artefact typology, raw material type and density are noted throughout the Cumberland Plain and provide a key record of the nature and character of Aboriginal connections to this landscape.

Archaeological evidence from throughout the Cumberland Plain has found a strong relationship between Aboriginal land use and landforms adjacent to watercourses. This provides an indication that these areas were occupied repeatedly and for extended periods of time for a variety of reasons, for example camping. The freshwater and woodland ecosystems of the area would have provided abundant food, water and timber resources. Archaeological field surveys and excavations within the region have found assemblages of stone artefacts in association with freshwater tributaries of the Nepean River. Given the study area's proximity to an unnamed freshwater tributary, it is possible that the study area was repeatedly occupied by Aboriginal people. Project RAPs have commented on the cultural and social significance of such locations (Section 3).

2.1.2 Post–1788 Aboriginal connections

European colonies established within the Sydney Basin were the earliest indicators of an increasingly forcible imposition of European laws and ways of life on Aboriginal people. Europeans first reached the Penrith area in 1789 during an expedition to the foothills of the Blue Mountains led by Watkin Tench.⁹ Tench observed extensive evidence of Aboriginal occupation along the Nepean River's banks including bark canoes, gunyas (huts), animal traps and tree marks. One of the earliest recorded encounters between local Aboriginal people and Europeans in the Hawkesbury-Nepean region occurred two years later in April 1791. On 14 April 1791, an expedition led by Governor Arthur Philip encountered a group of Boorooberongal people at Bardenarang Creek (now Pitt Town Bottoms). By this time, the local population was already significantly reduced following the 1789 smallpox epidemic during which over half of Sydney's Aboriginal population died. Watkin Tench noted during the 1791 encounter that a Boorooberongal man named Gomboree bore the facial scars characteristic of the disease.

The Darug were amongst the first Aboriginal people to experience the profound disruption and social, cultural and environmental impacts of colonisation. Colonisation caused significant physical and social dislocation through the loss of access to traditional lands and resources, exacerbated by the introduction of new diseases and colonial violence. The colonial settlements of Castlereagh, Pitt Town, Richmond, Wilberforce and Green Hills (Windsor) were the earliest permanent settlements along the Hawkesbury-Nepean and would become the centre for early interactions between colonists and the local Aboriginal peoples. The first land grant in Jamisontown was issued in 1805 as part of 1,000 acres granted to Thomas Jamison. These settlements increasingly alienated Aboriginal people from their lands, most often denying them access to practice laws and ways of life on Country.

Tensions between Aboriginal people and colonists rose with the increasing intensity and expansion of non-Aboriginal land use. Between 1794 and 1816, these tensions occasionally broke out into open conflict, now known as the Hawkesbury-Nepean Wars. Sporadic attacks and raids on settler farms were carried out, usually by Aboriginal people who had been dispossessed from their land trying to obtain food. Attacks on Aboriginal people are seldom recorded because the British principally recorded events when they were aggrieved; however, several violent attacks and raids on Aboriginal people are known to have been carried out. In 1816, Governor Macquarie ordered three punitive expeditions against Aboriginal people, aiming to discourage further raids. This led to the notorious Appin massacre, in which at least 14 Aboriginal men, women and children were killed when soldiers under the command of Captain James Wallis shot at and drove a group of Aboriginal people over the gorge of the Cataract River.

Aboriginal Elders agreed to end their raids on farms along the Hawkesbury-Nepean, possibly in response to the Appin massacre.

Despite holistic changes to traditional Aboriginal lifeways, Aboriginal people maintained their connections with Country, continuing the practice and hand-down of knowledge. For example, initiation 'corroborees' are recorded along the foreshores of the Nepean River at least into the 1850s, and potentially later as recalled by a local man in 1914. Early visitors to the region, notably Charles Darwin in 1836, also recorded large groups of Aboriginal people carrying spears and throwing sticks and other implements, suggesting that they were still living semi-traditionally in the area. Archaeological evidence from sandstone rock shelters in the foothills of the Blue Mountains attest to continued Aboriginal land use and occupation into the 1800s. These sites contain worked glass and ceramic artefacts, demonstrating one way that Aboriginal people adapted to European colonisation by incorporating new materials into traditional tool manufacture. Excavations at the K2 shelter on Shaws Creek, near Yarramundi, recovered pig molars, indicating that Aboriginal people were hunting wild pigs during the early colonial period. Wild peaches also likely became an important source of food as it is recorded that Aboriginal women and children crossed the Dyarubbin (Hawkesbury River) to gather them.

In many instances, Aboriginal people relocated to other areas of Country and formed viable living communities. Such communities were often located on the periphery of colonial settlement. Large camps are recorded in the Ham Common in the Richmond district, and in 1882, three Mooroo Morack (Penrith) people were still camping within a small remnant of the Castlereagh Common. Where they could, Aboriginal people formed relationships with settler colonists. For example, Nurragingy and his family had a long association with the Marsdens at Mamre on South Creek. Aboriginal people moved around Country but often camped on estates, eventually becoming identified with these places. Descriptions of the 'Belmont Tribe' or 'Mulgoa Tribe' are derived from such associations and are not necessarily reflective of traditional clan divides or names. Aboriginal people visited and camped on the estates of the Arndells at Cattai, Jamison at Regentville, the Coxes at Mulgoa (despite the 1816 attacks on the farm and William Cox's leading role in the murderous raids that followed), the Hassalls at Denbeigh and the McCarthurs at Camden.

This period also saw some of the earliest attempts to Europeanise Aboriginal people. In 1814, the Parramatta Native Institution was established by Governor Macquarie. This was the first government-sponsored attempt to 'civilise' Aboriginal people. One of the initial policies enacted was the forcible removal of Aboriginal children from their families to live and be schooled at the institution. The institution, which was moved to Blacktown in 1822, marked the genesis of the ideologies and policies that would later lead to the Stolen Generations.

As the nineteenth century progressed, policies of assimilation and control increasingly characterised interactions between colonial authorities and the Aboriginal community of Parramatta. Many Aboriginal people were forced to relocate to reserves and missions. Run by the Aborigines Protection Board (formed in 1883) and religious groups, these places attempted to Christianise and educate Aboriginal people about Western practices in preparation for work as labourers, farm hands and domestic servants.¹⁰

Aboriginal people remained in Sydney and were joined by other Aboriginal people from across NSW who came to live, work and forge new lives in urban communities. To this day, they maintain their cultural knowledge and connections to Country and continue to thrive in Western Sydney. Darug people live and work in the region and celebrate their culture and solidarity in both old ways and new. Aboriginal people actively contribute to the life of the modern city across a range of fields, including in arts and entertainment and in caring for Country by managing and conserving significant places.

2.2 Previously identified Aboriginal heritage

2.2.1 AHIMS register

A search of the Heritage NSW Aboriginal Heritage Information Management System (AHIMS) database was undertaken on 3 May 2024 (reference number 24-0100_Extensive). The search covered a zone from Easting, Northing 280307, 6258879 to 289950, 6265052. The results of the search are shown in Table 2.1 and Figures 2.1 and 2.2. In total, [REDACTED] Aboriginal sites were identified.

[REDACTED]

These are included in the analysis as they provide information about the distribution of site types throughout the landscape.

There are no previously recorded Aboriginal objects or places located within the study area.

[REDACTED]

[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

The closest registered AHIMS site is [REDACTED], an artefact site located approximately [REDACTED]. This site consists of four isolated stone artefacts identified during a 1989 field survey on surface exposures. Further information is provided in Section 2.2.2.

Over half (67%) of the Aboriginal sites in the AHIMS search results are artefact sites. Artefact sites consist of open artefact scatters, isolated finds and subsurface artefact assemblages found within intact topsoil A-horizons. Flaked-stone tools are the primary artefact type and silcrete is the dominant material, although silicified tuff/chert and quartz are also found. Spatially, they tend to be associated with lower slopes, alluvial terraces and flats bordering waterways, particularly in relatively undisturbed areas. These watercourses provided a reliable source of food and water for Aboriginal people, and previous studies on areas throughout the Cumberland Plain have noted the strong association between artefact sites and permanent watercourses. The study area is within 1km of several creeks, most notably an unnamed creek which flowed immediately southeast of the study area prior to landform modification. Therefore, the study area is in a landform context associated with artefact sites.

Many artefact sites were initially recorded as potential archaeological deposits (PADs). We note that a PAD is not necessarily an Aboriginal site, but an area designated as having potential to contain Aboriginal objects. Therefore, the presence and distribution of PADs reflects the potential for an intact A horizon on landforms with proven archaeological sensitivity (such as alluvial terraces, floodplains and lower slopes).

Also abundant throughout the region are habitation structures, more commonly referred to as shelters (18% of AHIMS sites). Shelters have been recorded in association with Aboriginal art, grinding grooves, ochre quarries and artefact deposits.

They are found in outcrops of sandstone and shale bedrock, particularly on Hawkesbury sandstone ridgelines. However, there are no suitable outcrops in the study area, so this site type cannot be present. Similarly, grinding grooves or rock engravings will not be found because there are no suitable bedrock outcrops within the study area.

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[REDACTED IMAGE]

[REDACTED IMAGE]

2.2.2 Previous heritage investigations

The project area is located in a region that has been subject to some prior Aboriginal heritage assessment. A review of key local Aboriginal archaeological and heritage reports has been undertaken and is provided in this section.

Stockton, ED, Holland, W, 1974—‘Cultural sites and their environment in the Blue Mountains’—Archaeology and Physical Anthropology in *Oceania* 9 (1)

In 1974, Stockton and Holland completed a comprehensive review of known Aboriginal sites in the Blue Mountains. The paper briefly mentions the recovery of a ‘dozen’ core and flaked tools within a gravel bed exposed during quarrying operations approximately 4km north of the study area (now the Sydney International Regatta Centre).

The finds were identified in association with an embedded wooden log which was radiocarbon dated to ~26,700 years ago. In 1987, Gerald Nanson noted that the log was contaminated by water, which would skew radiocarbon dates. Nanson used thermoluminescence dating of individual sand grains to redetermine the gravel bed, ultimately publishing dates of between ~47,000 and 40,000 years ago.¹¹ This would make Stockton and Holland’s finds the oldest in the Sydney Basin.

Unfortunately, the provenance of the finds was poorly recorded, leading many researchers to question the validity of the finds; specifically, whether they were

deposited within the gravel bed or had been 'moved' into it post-deposition.¹² In the early 1980s, Peter White re-examined the location and recovered multiple objects from the gravel bed, bringing the total number to 20. However, re-inspections of the quarry by James Kohen between 1981 and 2004 failed to identify any Aboriginal objects. In any case, today the finds are generally accepted as being the oldest evidence of Aboriginal occupation within the Sydney Basin.

Geomorphological investigations of the Cranebrook Terrace provide a possible explanation for this. In 2004, Stockton and Nanson presented a model for its formation consisting of two primary units: the Richmond and Penrith units. Both units consist of basal gravel beds overlain by up to 20m of sandy clay overburden, yet despite appearing similar, they were formed at different times. The Penrith unit's gravel bed formed between ~110,000 to 75,000 years ago with the overburden deposited between ~100,000 and 50,000 years ago. This means that the Penrith unit formed almost entirely before the currently accepted dates for Aboriginal arrival in Australia (~68,000 years ago). The Richmond unit layers formed between ~50,000 to 40,000 and ~20,000 to 10,000 years ago respectively, concurrently with Aboriginal occupation. The authors concluded that the 1974 finds had been identified within the gravel bed of the Richmond unit. Most archaeological investigations of the terrace would have occurred within the Penrith unit, including Kohen's, and thus it is not surprising that they have not been able to replicate Stockton, Holland and White's findings.

Kohen, JL, 1984—An Archaeological Re-Appraisal of the Jamisons Creek Site Complex, Emu Plains

This paper details several archaeological investigations conducted by James Kohen across sites near Jamisons Creek, approximately 2km west of the study area at their closest point. These investigations were prompted by his discovery of a nearby artefact scatter (LC/1A) consisting of chert flakes, blades, worked glass and ceramic artefacts. The site was destroyed by earthmoving equipment before the artefacts could be collected. Re-inspection of the site confirmed the presence of additional chert flakes and Bondi points (LC/1B). Based on these findings, Kohen concluded that the site had been occupied from the Bondaian phase (~4,000 years ago) until the nineteenth century. Unfortunately, further archaeological investigations were not conducted before the housing development proceeded.

Kohen inspected erosional scars along Jamisons Creek with the intention of identifying an undisturbed assemblage of artefacts such as in the LC/1A site. He recorded three artefact scatters: JC/1, JC/1E and JC/1LT. The former was located on an 'upper' terrace of the creek, the latter two on its 'lower' terrace. Over the following two years, surface collections and archaeological excavations recovered over 10,000 artefacts consisting of

a wide variety of materials and types. Radiocarbon dating confirmed that Aboriginal people had occupied the upper terrace for at least 7,000 years.

Shortly after these investigations, Penrith City Council approved a development application for a sporting complex, unaware of the archaeological significance of the sites or their legal obligations under the *National Parks & Wildlife Act* to protect Aboriginal sites. Kohen was commissioned to re-evaluate the sites shortly after earthworks began. He completed further surface collections and excavations across the three sites. Some 758 artefacts were retrieved during surface collections with approximately 40 artefacts per square metre recovered from the excavations. Chert, silcrete, quartz, basalt and quartzite were all represented in the assemblage. Artefact types included cores, blades, hammerstones, scrapers, Bondi points and an edge-ground axe. Kohen concluded that the upper terrace was more intensely occupied by Aboriginal people.

Pam Dean-Jones 1989—Report of an Archaeological Survey of a 20ha Site Proposed as a Mobile Home Village, near Penrith, NSW

In 1989, Pam Dean-Jones conducted an archaeological survey for a proposed development at the corner of Jamison Road and Blaikie Road, approximately 500m west of the study area.

Ground visibility during the archaeological survey was severely limited by heavy grass cover. Two large dams had been excavated and the material used to infill the northwest portion of the property. Dean-Jones' survey was limited to this northwestern area and the banks of one of the dams, where vegetation had not yet re-established itself.

Four isolated artefacts were recorded along the dam perimeter. Three were exposed at the surface and the other was observed within a reddish-brown sandy loam 'B horizon'. It was considered likely that all four artefacts had initially been deposited within the B horizon layer, a former surface approximately 15cm below ground level, but had been disturbed by dam construction. All appeared to be manufactured from river pebbles likely sourced from the Nepean River. Two were a yellowish chert, one a pale grey/orange chert, and one a black metamorphosed siltstone.

It was recommended that key areas of the property be inspected by an archaeologist and representative of the Dharuk (now Deerubbin) LALC following vegetation removal. It is unknown whether this was completed; no further Aboriginal artefacts are recorded in AHIMS. The possibility for subsurface artefact assemblages was not assessed during the survey.

Insite Heritage 2000—Aboriginal Archaeological Assessment, Penrith Lakeside Village, Cranebrook

In 2000, Insite Heritage (Insite) conducted an Aboriginal archaeological assessment for a proposed residential development in Cranebrook, approximately 3.7km north of the study area on the Cranebrook Terrace. A review of prior geomorphological and archaeological literature, combined with an archaeological field survey, indicated that the proposed development site contained deep alluvial sediment deposits with Aboriginal archaeological potential.

Insite recommended that Aboriginal archaeological test excavations be conducted prior to development. These excavations comprised two 5m by 1m machine-excavated trenches atop the terrace, and an additional trench on a gravelly clay alluvial fan. Most artefacts were recovered from the upper 0.5m of the alluvial fan. Artefact typology indicated that most artefacts dated to the Holocene, with backed artefacts potentially dating to the Pleistocene.

Based on these results, Insite recommended for archaeological monitoring during initial subsurface excavations.

Archaeological & Heritage Management Solutions 2014—Archaeological Technical Report, Peach Tree Creek Stabilisation Works, Penrith, NSW

In 2014, Archaeological & Heritage Management Solutions (AHMS) prepared an Archaeological Technical Report (ATR) for proposed creek stabilisation works along Peach Tree Creek, approximately 800m north of our study area. A desktop assessment identified the potential for Aboriginal objects up to 5m beneath ground level within alluvial sediments. A program of Aboriginal archaeological excavations was recommended to verify the presence or absence of Aboriginal objects.

Due to the depths of excavation required, *Code of Practice* test excavations could not be completed. A site-specific methodology was developed, reviewed by project RAPs and approved under an AHIP. Test excavations comprised three 1m x 1m hand-excavated trenches to 50cm depth, and two machine-excavated trenches to 4m depth. Machine excavation was completed in 20cm spits to ensure that the vertical position of any recovered objects could be determined. Approximately 15% of the machine-excavated material was then dry sieved through a 5mm mesh. If Aboriginal objects were recovered, further sieving would be conducted. One Aboriginal object was recovered from a surficial disturbed topsoil (A) horizon. A further four objects were recovered at depths of 3.5–3.7m below ground level (between 21.62 and 21.82m AHD), within the sandy clay Richmond unit 'overburden'.

Salvage excavations consisted of six contiguous 1m x 1m hand-excavated test trenches from 3.5m bgl. To facilitate safe access, the surrounding area was machine excavated to create a flat platform. Two Aboriginal objects were recovered during salvage excavations, both from Pit 4, Spit 6 (3.8 to 3.9m bgl or 20.55 to 20.65m AHD). The artefact assemblage consisted of four IMT (indurated mudstone/tuff) and two silcrete flakes.

The excavations were undertaken across two broadly defined depositional units. The upper unit consisted of a compact, brown grading to light brown silty clay alluvium to approximately 3.5m bgl. Below this depth, there was a slight increase in sand content and brown chroma, but otherwise the two units appeared largely identical. The upper unit was subsequently OSL dated to ~4,900 years ago and the deeper unit to ~9,400 years ago. All but one Aboriginal object was recovered from the deeper unit.

The results of the archaeological program have been published in the peer-reviewed journal *Australian Archaeology*.¹³

Artefact Heritage 2016—Jane Street and Mulgoa Road Infrastructure Upgrade, Penrith: Aboriginal Archaeological Survey Report

In 2016, Artefact Heritage conducted an archaeological survey for proposed infrastructure upgrades for Jane Street and Mulgoa Road, approximately 100m east of the study area at its nearest point. Background research indicated that the entire area was underlain by deep soils which could retain archaeological evidence. Although extensive surface disturbances were noted across the entire area, Artefact concluded that these would not have entirely removed these soils to the anticipated depth of impacts and recommended that test excavations be completed.

In 2016, Kelleher Nightingale Consulting (KNC) conducted the recommended test excavations. KNCs methodology involved hand excavating seven test pits. No Aboriginal artefacts were recovered, and the soils were noted to have been heavily disturbed by historical activities.

Comber Consultants 2018—Aboriginal Archaeological Assessment, Corner of Mulgoa Street and High Street, Penrith

In 2018, Comber Consultants prepared an Aboriginal archaeological assessment for a proposed residential development on the corner of Mulgoa Street and High Street, approximately 1km north of the study area.

Comber noted the presence of a car yard and parking lot across their entire study area. However, alluvial sediments could remain below these impacts, and these could retain Aboriginal archaeological material. Comber links this potential to Holocene land use associated with its elevated position above a nearby freshwater creek.

Archaeological test excavations were recommended prior to impact. The site is registered on AHIMS as 45-5-3019. No evidence regarding these excavations could be located during the preparation of this report.

AMBS Ecology and Heritage 2021—Mulgoa Road Upgrade, Glenmore Parkway to Jeanette Street, Blaikie Road to Jamison Road and Jamison Road to Union Road: Aboriginal Heritage PACHCI Stage 2 Archaeological Survey

In 2021, AMBS Ecology and Heritage (AMBS) undertook an archaeological survey for proposed road upgrades to Mulgoa Road. The survey included portions of Jamison Road, immediately north of the study area.

The survey was undertaken on 17 February 2021 with a Deerubbin LALC representative. Comprehensive ground disturbances were observed, which AMBS concluded had removed deposits capable of retaining Aboriginal objects. The report does not clearly define what deposits they defined as archaeologically sensitive, but it appears that the assessment assumed any evidence would be limited to surficial topsoils, which formed during the Holocene and have been heavily modified by post-1788 land use (Sections 2.3 and 2.4).

AMBS did not consider the potential for deeper alluvial sedimentary deposits beneath these impacts, despite citing several studies discussed in this section. In fact, they were notably dismissive of nearby assessments which recognised the depth of archaeologically sensitive deposits in the region if not excluding them entirely. The report does not clarify why this is the case; a possible explanation is the anticipated depth of impacts was limited to existing fill layers making assessment of deeper deposits unnecessary.

2.3 Environmental setting of the project area

The project area's 'environment' forms a component of the Darug traditional lands and Country. Understanding the environment through the geology, soils, landforms, water and ecology is important to understand the context of long-term Aboriginal connections to the land. Combining basic environmental information with the history and contemporary connections starts to provide an understanding of the local and regional cultural landscape. Describing and mapping the landscape contextualises the physical data and underpins intangible connections inherent in most Aboriginal cultural landscapes. An overview of the baseline datasets for geology, soil, landforms, water, the climate and ecology is provided in this section.

2.3.1 Geology and soil landscapes

The study area is situated atop the Cranebrook Formation, a Pleistocene-aged alluvial terrace mapped along the Nepean River from Castlereagh to Mulgoa (Figure 2.3).¹⁴ Geomorphological studies have demonstrated that this terrace formed across three primary phases (Figure 2.4).¹⁵ Each phase is closely related to the effects of regional-scale environmental changes on the hydrology of the Nepean River:

- Penrith Unit—consists of a basal gravel layer formed between 110,000 and 75,000 years ago when the Nepean River was a large, braided channel. These gravels are overlain by several metres of sandy clays deposited between 100,000 and 50,000 years ago. This change in depositional regime is likely related to restriction of the Nepean River channel and/or reduced flood-event energy.
- Richmond Unit—comprises an almost identical stratigraphy to the Penrith Unit (basal gravels overlain by sandy clay deposits) but formed between 50,000 and 15,000 years ago. This unit formed as the Nepean River, and its floodplain, adjusted eastwards. Continued flooding simultaneously eroded the Penrith Unit and deposited new, or reworked, material along a new floodplain.
- Holocene-aged (11,700 years ago to present) 'overburden'—consists of sandy clay alluvial sediments deposited along the floodplains of various watercourses that flow across the terrace surface. These sediments are also present along the modern Nepean River floodplain as 'levee bank' deposits. They are deposited atop either the Richmond or Penrith units depending on their location on the terrace. The sediment sources of these watercourses are similar to those of the Nepean River, which means that these layers are often indistinguishable from the earlier Penrith and Richmond units.

During the Holocene, soil formation processes operating within the upper terrace layers resulted in the formation of deep soil profiles characteristic of the Richmond soil landscape. The study area can be characterised as being located on the back of the terrace. Therefore, a typical soil profile would consist of up to 100cm of brown sandy clay loam topsoils (A horizon) overlying 150cm of reddish to yellowish brown light clay subsoil (B horizon). This in turn overlies over 100cm of reddish to yellowish brown heavy clay B horizon. Total soil profile depth can exceed 300cm.

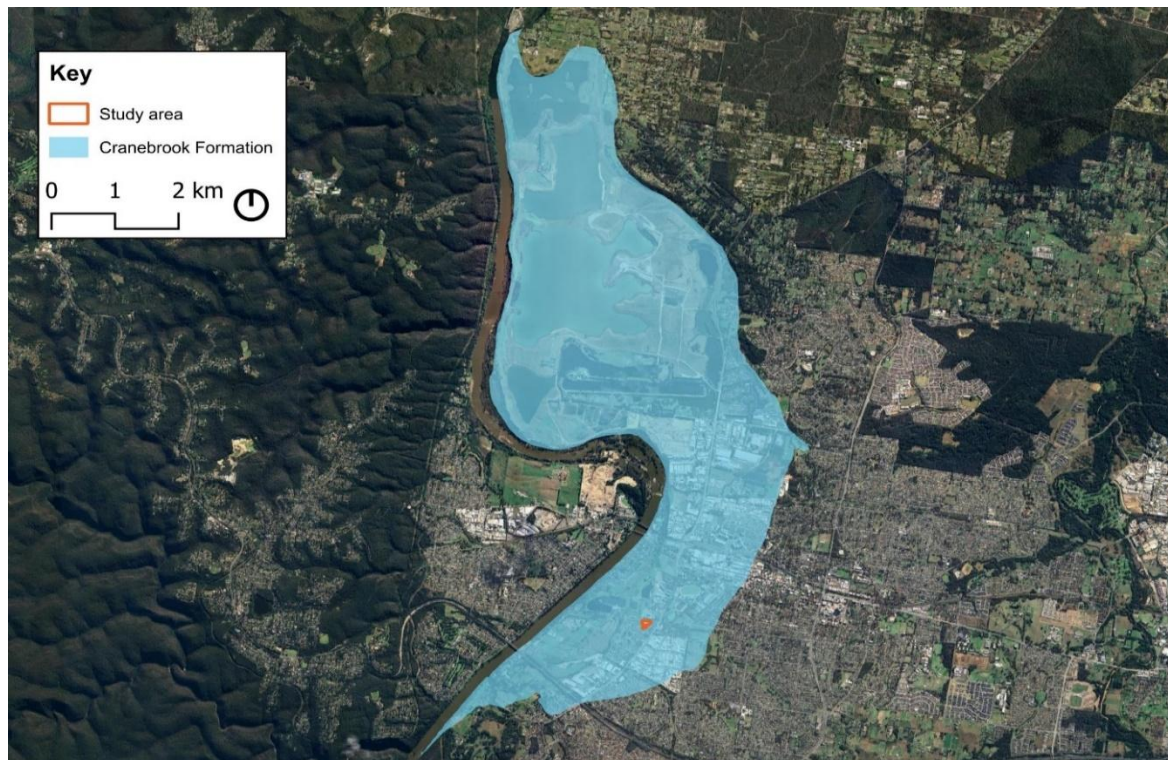


Figure 2.3 Approximate boundary of the Cranebrook Formation. (Source: Troedson, AL 2015, Sydney Area 1:100 000 and 1:25 000, Coastal Quaternary Geology Map Series, Geological Survey of New South Wales, Maitland, with Google Earth basemap and GML overlay)

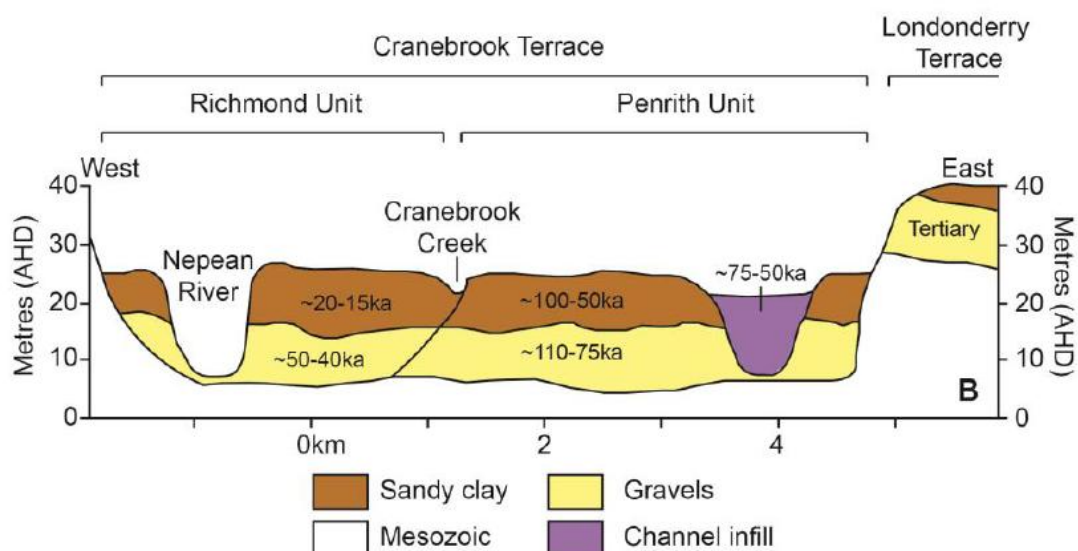


Figure 2.4 Cross-section of the Cranebrook Formation at Cranebrook, showing the spatial relationships between the Penrith and Richmond units. This figure does not include Holocene-aged deposits that can overlie these units. (Source: Williams et al. 2017, Figure 2B,¹⁶ adapted from Stockton and Nanson 2004)

2.3.1 Landforms

The study area is situated on the Cranebrook Terrace in an elevated position north of a former freshwater tributary of the Nepean River. The AHIMS search results show a strong spatial relationship between such landforms and Aboriginal archaeological sites. The study area's proximity to this tributary, in addition to the Nepean River itself, would have facilitated easy access to a wide variety of food, water and raw material resources.

Current and historical imagery shows that this landform has been modified and partially removed by historical activities. The most notable of these is the construction of SummitCare Penrith. The construction of buildings and subsurface services will have involved landscaping, levelling and excavation, and thus partial (if not total) removal of topsoils across the area. This has significant implications for the chances of archaeological material preservation. It is highly likely that most of the natural topsoils, and any archaeological material they contained, have been significantly disturbed or removed altogether. However, geotechnical investigations have demonstrated that several metres of alluvial sediments remain beneath these impacts (Section 4.1).

2.3.2 Water resources

The study area is situated near several waterways, including the Nepean River (1.1km east), Surveyors Creek (350m east), Peach Tree Creek (360m east), and an unnamed creek (160m west) (Figure 2.5). The latter creek has been formalised in a concrete culvert. A 1947 aerial image (Figure 2.6) shows that the creek originally flowed around the south of the study area eventually meeting another unnamed creek southwest of the study area. This creek then flows northwards, eventually coming to confluence with Peach Tree Creek approximately 1km north of the study area. This confluence is associated with AHIMS site 45-5-0541 ('RP5 Penrith Leagues Club') artefact site. It is unclear whether these creeks have been redirected to accommodate early development. In any case, the study area is likely partially underlain by Holocene-aged alluvial sediments associated with this creekline, especially to the east and south.

Previous archaeological assessments and excavations in the region have generally identified two phases of Aboriginal occupation. The first is during the Pleistocene where terrace landforms of the Nepean River, such as the study area, were favoured for Aboriginal occupation due to their proximity to consistent freshwater and raw material resources. During the Holocene, there has been a strong spatial association between Aboriginal sites and landforms associated with Holocene-aged creeks. The study area contains both of these contexts.



Figure 2.5 Modern hydrology and contours within and surrounding the study area. (Source: SIX Maps with GML overlay)

2.3.3 Ecology

The exact nature of the pre-1788 ecology of the study area is difficult to reconstruct because historical activities have had a disastrous effect on the region's ecological communities. Historically, the Jamisontown area has been used for grazing, cropping and hobby farming. Most of the natural ecosystems have been cleared to enable agricultural production and urban development. Aerial imagery shows that the entirety of Jamisontown had been cleared by the 1940s.

The climate has varied considerably across the approximately 40,000 years that Aboriginal people have inhabited the area. For most of the Pleistocene (prior to 11,700 years ago), the climate was far colder, drier and windier than it is today. Grasslands were the predominant ecological type within the Sydney Basin. However, the Hawkesbury-Nepean corridor was likely dominated by forests consisting of ribbon gums (*Eucalyptus viminalis*) with shrub understories of white-flowering tallowood (*Leptospermum polygalifolium*) and drooping cassia (*Cassia arcuate*).

Given the landform and hydrological context, the Alluvial Woodland ecological community is the most likely candidate for the study area at the time of colonisation. These woodlands consist of eucalypt and casuarina species with an understorey consisting of various smaller tree, shrub, herb and grass species. One key species found is basket grass (Bamuru; *Lomandra longifolia*), which was used in a variety of ways. The leaves were used to weave eel nets, the bases of the plant were chewed for energy, and roots were used as a medicine for insect bites.

Nearby watercourses provided an abundance of freshwater resources. Shortfin eel (Burra; *Anguilla australis*) and longfin eel (Burra; *Anguilla reinhardtii*) would migrate from the Pacific upstream into the freshwater rivers of eastern Australia to mature. They served as a staple food source for Aboriginal people throughout Sydney. The Pacific black duck (Yurungay; *Anas superciliosa*) lived on the freshwater tributaries of the Hawkesbury and were also a staple food source.

2.4 History of the recent land use

Prior to colonisation, the study area would have been covered by woodlands and/or forests. Following European arrival at Sydney Cove in 1788, colonists launched expeditions throughout what is now Sydney in search of land for crops and stock. In 1789, an expedition of the Nepean River was the first to traverse the area around Jamisontown. However, it was not until a decade later that Thomas Jamison was granted 1,000 acres across what is now Jamisontown, marking the beginning of successive phases of invasive non-Aboriginal land use. The native vegetation was cleared for grazing land and other agricultural uses. This remained the primary land use of Jamisontown until the twenty-first century.

Initial land clearance and stock grazing would have resulted in minor disturbances to topsoils by leaving soils more vulnerable to erosion. A 1947 aerial shows the entire suburb cleared of woodlands for pasture. The twentieth century also saw more intensive land modifications to support stock grazing and other agricultural uses. The 1947 aerial shows the study area had been subdivided into smaller properties, with small houses, sheds, fences and tracks built across it. Ploughing and other activities associated with market gardening would have churned soils throughout the area, and the construction of buildings would have likely partially truncated topsoils.

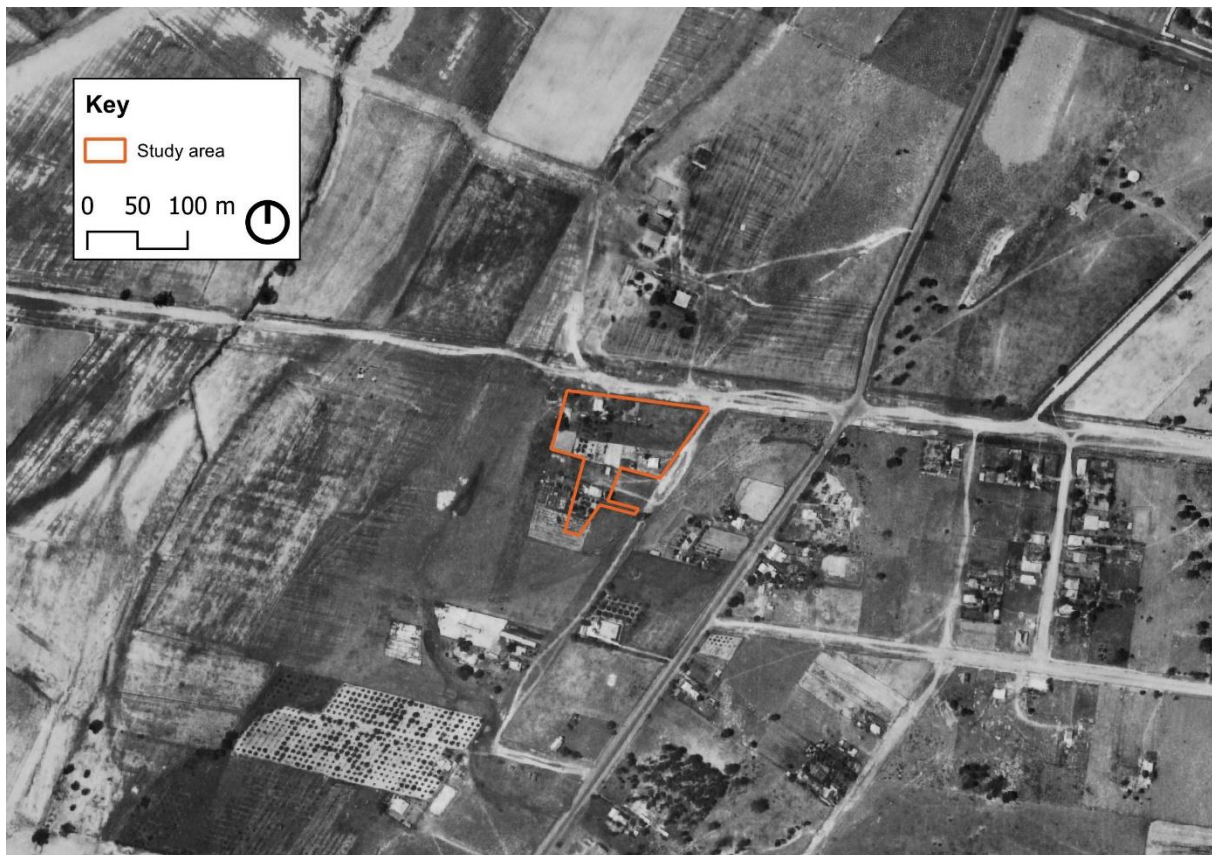


Figure 2.6 1947 aerial. Note the creek which flows south around the study area. (Source: NSW Historical Imagery with GML overlay)

The construction of Jamison Private Hospital (now SummitCare Penrith) in the 1960s required extensive landscaping, excavation and infilling, altering the landforms and soils throughout the study area. The current standing buildings were constructed during the study area's use as a hospital. Further minor developments across the subsequent decades would have involved additional truncation of natural soils. It is possible that historical land uses have removed sedimentary deposits capable of retaining Holocene archaeological signatures.

However, these impacts have not completely removed deposits with Aboriginal archaeological potential. Geotechnical investigations undertaken to inform the project (Section 4.1) have recorded a subsurface stratigraphy composed of imported fills/topsoils overlying up to 7.5m of natural alluvial sandy clays, clayey sands and/or sands with a basal gravel layer.¹⁷ This stratigraphic profile is consistent with both the Penrith and Richmond units and, most importantly, those encountered during nearby archaeological investigations of the Cranebrook Formation.¹⁸ Variation in sedimentary texture could indicate the presence of Holocene-aged alluvial 'overburden', although whether these are A or B horizons of the Richmond soil landscape is difficult to verify.



Figure 2.7 2005 aerial. The study area has remained largely unchanged from an archaeological perspective since the construction of Jamison's Private Hospital. (Source: NSW Historical Imagery with GML overlay)

2.5 Archaeological predictive models

Aboriginal heritage predictive modelling provides an understanding of Aboriginal sites, places and object distribution with a wider landscape.¹⁹ Through a process of landscape characterisation, Aboriginal people and archaeologists are able to infer those locations most frequently visited and used in the past. Such assessment may be used to interpret long term subsistence and habitation patterns. Based upon the landscape context, land use history, and regional and local archaeological patterns, it is possible to provide a predictive statement for the likely occurrence of Aboriginal archaeological sites/places connected with the project area (Table 2.2).

The study area is situated on an alluvial terrace of the Nepean River, elevated above a former freshwater tributary. Its proximity to these watercourses would have facilitated access to abundant water, food and raw stone material resources. The surrounding woodlands would have provided food and timber. It is unknown to what extent Aboriginal

people used the study area for resource collection purposes. No Aboriginal objects or sites have been identified within the study area, and there are no historical records of traditional Aboriginal land use in connection with the study area pre- or post-1788. However, the study area is in a landform context associated with repeated, intensive Aboriginal occupation that leaves an archaeological signature.

The Nepean River terraces have been subject to some prior archaeological excavations. These have identified extensive assemblages of Aboriginal archaeological material, primarily flaked-stone artefacts. The AHIMS database search results show a strong spatial relationship between Aboriginal sites and Holocene-aged floodplains. Artefacts have been recovered from the upper layers of these floodplains, where soil formation processes have resulted in the creation of alluvial soils such as the Richmond soil landscape. Archaeological investigations have recovered Aboriginal artefacts from A and/or B horizons within the Richmond soil landscape.²⁰ The landscape has been modified by historical activities including successive phases of land clearing, agricultural use, construction and other development. These disturbances have resulted in the partial, if not total, removal of topsoil (A) horizons characteristic of the Richmond soil landscape, including any archaeological material they may have contained.

The Cranebrook Formation contains deep alluvial sedimentary sequences dating back tens of thousands of years. The Richmond Unit holds potential for stratified archaeological deposits dating back thousands of years.²¹ Archaeological deposits dating to 9,500 years ago, and potentially up to 40,000 years ago, have been recovered at depths exceeding 3.5m below current ground levels.²² Very few Aboriginal archaeological excavations have been undertaken within the Richmond Unit, which means that spatial relationships between specific depths or locations and artefactual deposits have not been confirmed. Some archaeologists have suggested that the entire unit should be considered archaeologically sensitive until such relationships can be confirmed.²³

Table 2.2 Types of Aboriginal archaeological sites that may be located within the project area.

Archaeological site type	Description and potential location
Stone artefacts	Stone artefact concentrations are collections of stone, frequently brought from other areas, which demonstrate evidence of Aboriginal working, use and/or discard of the stone at a single location. Stone artefact concentrations may be associated with any of the below site types. Where such sites are buried by sediment, they may not be noticeable unless exposed by erosion or disturbed by modern activities. These sites may be found in deep expressions of the Richmond Unit.

Archaeological site type	Description and potential location
Isolated finds	Sites consisting of a single stone artefact, isolated from any other artefacts or archaeological evidence. They are generally indicative of sporadic past Aboriginal use of a location. A distinction should be drawn between isolated finds which are a component of the background distribution of objects and specialised objects such as axes, hammer stones, grinding dishes etc which would have been used repeatedly and may have been carried from place to place. These sites may be found in historical fills, almost certainly removed from their original context, or anywhere within the natural sedimentary profile.
Manuported stone	Manuported stone is a material carried to the site or place by Aboriginal people for a specific use, which could relate to heating, cooking, ochre production, or may be unidentifiable. Archaeological sites in Sydney's sand bodies often hold Pleistocene deposits of manuported stone. This is clustered together, within a single stratigraphic horizon. Carbon may be associated with the stone and can be dated.
Hearths and pits	Sites within Sydney's sand bodies can retain discrete hearths (fireplaces) used for heating, cooking or processing objects. Hearths can be small shallow features, which hold distinguishing properties from natural features such as tree roots. Small pits have also been identified, frequently with a distinct upper cut, and associated fill which is often carbon stained and/or rich.

In summary, predictive modelling indicates that the archaeological potential of the study area is governed by the presence or absence of sedimentary deposits with proven Aboriginal archaeological sensitivity, specifically the Richmond Unit and/or A/B horizons of the Richmond soil landscape. Should these be present, they hold moderate potential for in situ archaeological material. If the study area is underlain by the Penrith Unit, the study area's potential would be nil-to-low, as this unit was formed prior to the generally accepted date of Aboriginal occupation within the Sydney Basin.

2.6 Endnotes

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3 Aboriginal community consultation

3 Aboriginal community consultation

3.1 Introduction

Aboriginal community consultation is required for any assessment of Aboriginal heritage in order to make a valid assessment of Aboriginal (heritage) 'values', especially those Aboriginal memories, stories and associations between the Aboriginal people and their traditional lands or Country. Aboriginal people frequently express an enduring connection to their Country, a connection that transcends generations, both past and present. The connection is frequently expressed as a sense of belonging, which may manifest through physical objects or place; alternatively, it may be presented as an intangible idea, where an appreciation of an unseen quality or non-materialistic value connects a place in the landscape, tradition, observance, custom, lore belief and/or history to the person or group describing the item, event or value. The notion of intangible, social, or community values is essential to Aboriginal people as 'the effective protection and conservation of this heritage is important in maintaining the identity, health and wellbeing of Aboriginal people'.¹

In order to gather social and community views and opinions with respect to Aboriginal heritage and identify and address Aboriginal heritage values, Heritage NSW requires proponents to adhere to the guideline document *Aboriginal cultural heritage consultation requirements for proponents 2010*.² In addition to providing a mechanism for engaging the Aboriginal community, the directives in the guidelines must be followed for any study that might eventually be used to support an application for an AHIP under Part 6 of the NPW Act.

GML recognises and acknowledges the continuing Indigenous ownership of the traditional knowledge, traditional cultural expressions, practices, innovations and intellectual property rights in the materials provided by Aboriginal and Indigenous people, on which research and assessments in our reports may be based, and endeavours to protect the privacy, integrity and wellbeing of participants in this research.

3.2 The process of consultation

These consultation guidelines set out a process involving identification, registration, engagement and consultation with Aboriginal peoples who may hold cultural knowledge relevant to determining the significance of an Aboriginal object and/or place.

Adherence with guidelines involves following a number of stages, which include:

- 1 Informing Aboriginal people about the nature and scope of the proposal.
- 2 Understanding what might be present in the landscape and its cultural significance.
- 3 Determining the potential impacts and the proposed strategies to deal with them.
- 4 Reviewing the report.³

Aboriginal groups are invited to register interest as a party to consultation. This includes placing local press advertisement(s); responses are sought from the RAPs on the proposed assessment methodology, and an opportunity to comment on the assessment reports and recommendations is provided to the RAPs. The guidelines specify timeframes for each stage of the consultation process. Further details pertaining to these stages are described below.

The Aboriginal community consultation for this project has been carried out in accordance with the Office of Environment and Heritage (OEH; now Heritage NSW) guideline. This chapter contains specific details of Aboriginal community consultation with regard to the heritage assessment of the study area.

The complete log of all communications between GML and RAPs and all letters, responses and details pertaining to this consultation are provided in Appendix A.

3.2.1 Stage 1: Notification of project

The aim of Stage 1 is to 'identify, notify and register Aboriginal people who hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and/or places in the area of the proposed project'.⁴ The identification process involves:

- sending letters to select government agencies to determine relevant Aboriginal stakeholder groups to contact; and
- placing notices in local press, inviting Aboriginal people who hold relevant cultural knowledge to register in the process of community consultation.

A letter notifying all Aboriginal people and the Deerubbin LALC about the proposed project must be sent to each individual and group identified through the above stages. Aboriginal people have a minimum of 14 days after the letter is sent or the notice published in the newspaper to register an interest in the project.

The outcome of Stage 1 is a list of Aboriginal people who have registered to be involved in consultation. These are the project's RAPs. The RAPs are to be involved for the remainder of the project; Aboriginal consultation with groups or persons outside of RAPs is not required.

Letters requesting contact details for Aboriginal people or organisations who may hold cultural knowledge and may identify heritage issues relevant to the study area were sent via email on 11 April 2024 to:

- Heritage NSW;
- Deerubbin LALC;
- Office of The Registrar, Aboriginal Lands Right Act 1983;
- National Native Title Tribunal;
- Native Titles Service Corporation;
- Penrith City Council; and
- the Greater Sydney Catchment Management Authority (Greater Sydney Local Land Service).

Responses were received from the following groups:

- Heritage NSW;
- Office of the Registrar;
- National Native Title Tribunal;
- Native Title Services Corporation; and
- Penrith City Council.

Subsequently, those Aboriginal people who were identified during the Step 1 notifications were contacted via letter on 30 April 2024, providing information regarding the project and inviting them to register an interest (Step 2 notifications). A notification was also placed in the *Daily Telegraph* on 30 April 2024, inviting registrations of interest by Aboriginal people with cultural knowledge relevant to the project area.

The project's registered Aboriginal parties

In line with the outcomes of Stage 1 following OEH 2010: Appendix B⁵ the project's RAPs are:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

- Anonymous RAP #1; and
- Anonymous RAP #2.

A copy of the notification and the details of registered Aboriginal parties were provided to OEH and the LALC on 28 May 2024. An update was provided on 17 June 2024 to incorporate a late registration of interest.

3.2.2 Stages 2 and 3: Presentation and gathering of information

A letter has been sent to all RAPs informing them of the project outline, project impacts, timeline and milestones of the project. Included was a methodology for undertaking the project's assessment and a request for any information on culturally sensitive areas of local traditional knowledge relating to the study area. Stages 2 and 3 allowed 28 days for the RAPs to respond.

Each RAP group was provided with written details of the proposed project and assessment methodology, including the ARD (Appendix A), by email on 8 August 2024. All comments received agreed to the proposed methodology whilst also highlighting the study area's position within a culturally significant landscape. Table 3.1 provides these comments and GML's responses.

Table 3.1 RAP responses during Stages 2 and 3 with GML's response.

#	RAP	Date of submission	Comment	GML response
1	Anonymous RAP #1	8 August 2024	After review of the [ARD] we have no objections and as indicated high potential of artefacts may be present. This being noted, does the machine operator have any Aboriginal Cultural training. I have seen numerous sights were artefacts [have been] destroyed by machine excavation works.	The ARD will be updated to specify that the machine excavator for archaeological excavations must have appropriate Aboriginal cultural heritage training.
2	[REDACTED] [REDACTED] [REDACTED] [REDACTED]	13 August 2024	[REDACTED] agrees and supports the recommendations of the ARD for the project of SummitCare Penrith. These premises were built long before there was any	Noted. This response has informed our significance

#	RAP	Date of submission	Comment	GML response
			policy developed for the care of Aboriginal objects or artefacts.	assessment (Section 5.1).
3	[REDACTED]	22 August 2024	I have reviewed the document and support the information and methodology. It is important to make sure testing is complete in this area. Penrith is a very resourceful area for the Indigenous population continuing through to Emu Plains. There has been only a small amount of testing completed in the Penrith area, this should be a very interesting project.	Noted. This response has informed our significance assessment (Section 5.1).
4	[REDACTED]	26 August 2024	The study area is highly significant to us Aboriginal people. The intangible aspects like being connected to land is of importance as we hold a spiritual connection to the land. The site is close to water ways that are utilised by Aboriginal people. The flora and fauna would have been thriving and Aboriginal people utilised their environment to its full potential. Aboriginal people carried out daily activities in this area, hence why it's so important to us. Aboriginal people have walked this land for tens of thousands of years and continue to do so today. They strategically look after the land, plant flora in a way that coexisted with the environment around them. The study area is close to a waterway – Nepean River would have been utilised by Aboriginal Peoples for food, medicine, and a fresh water source. The area is also significant due to how long Aboriginal peoples occupied the land; we are connected to it. We would like to recommend further investigation on this study area	Noted. This response has informed our significance assessment (Section 5.1).

#	RAP	Date of submission	Comment	GML response
			as in the past our cultural heritage has been lost time and time again, we fight to protect it. We would like to agree with your report.	

3.2.3 Stage 4: Review of draft report

The report was sent to all project RAPs on 19 September 2024 for the 28-day review period which closed on 17 October 2024. All comments received agreed with the recommendations of the ACHAR (Sections 6.4 and 6.5).

3.3 Requirements for future Aboriginal consultation

Heritage NSW has defined a number of stages during the Aboriginal consultation process. The following table provides a synopsis of the process to date.

Table 3.2 Cultural heritage assessment program synopsis—progress to date.

Stage	Status
Write to statutory bodies to obtain contact details for Aboriginal people who may have an interest in the project.	Completed on 11 April 2024
Write to identified Aboriginal people, inviting them to register an interest in the project.	Completed on 30 April 2024
Place an advertisement in local print media, inviting Aboriginal people with cultural knowledge of the area to register an interest in the project.	Completed on 30 April 2024
Proponent records names of Aboriginal people who have registered an interest in the project.	Completed on 14 May 2024
Proponent advises LALCs and Heritage NSW of RAPs' details (subject to privacy requests).	Completed on 28 May 2024 and 17 June 2024
Proponent presents information regarding proposed project to RAPs.	Completed on 8 August 2024
Proponent provides methodology for the cultural heritage and archaeological assessment to RAPs.	Completed on 8 August 2024
RAPs invited to provide input for the assessment methodology.	Completed on 8 August 2024

Stage	Status
RAPs invited to identify: whether any Aboriginal objects of cultural value are present within the study area; and whether any places of cultural value are present within the study area.	Completed on 8 August 2024
RAPs invited to comment on potential management outcomes.	Completed on 8 August 2024
Proponent prepares draft ACHAR and provides to RAPs for comment.	Completed on 19 September 2024
RAPs provide comment and proponent incorporates comments into final ACHAR.	Completed on 19 September 2024

Future consultation with the RAPs should include:

- Copies of the final report will be sent to all registered Aboriginal group.
- Any future work relating to the Aboriginal archaeological mitigation, or any significant changes to the development, should include consultation with the relevant Aboriginal stakeholders.

3.4 Endnotes

- ¹ Department of Environment, Climate Change and Water 2010, Aboriginal cultural heritage consultation requirements for proponents 2010, Sydney.
- ² Department of Environment, Climate Change and Water 2010, Aboriginal cultural heritage consultation requirements for proponents 2010, Sydney.
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- ⁴ Department of Environment, Climate Change and Water 2010, Aboriginal cultural heritage consultation requirements for proponents 2010, Sydney, p 10.
- ⁵ Department of Environment, Climate Change and Water 2010, Aboriginal cultural heritage consultation requirements for proponents 2010, Sydney.

4 Investigations into Aboriginal heritage

4 Investigations into Aboriginal heritage

The background investigations have established the nature of the local environment, the extent of prior heritage works, and known Aboriginal connections into the project area. This section presents the results of our current investigations into the Aboriginal heritage of the project area, as far as is possible without archaeological test excavations. The outcomes combine to describe the over-arching cultural landscape and provide the basis for the Aboriginal heritage values assessment.

4.1 Environmental investigations

Martens Consulting Engineers 2021—Preliminary Geotechnical Investigation: Proposed Aged Care Facility at 366 Jamison Road, Jamisontown, NSW

In 2021, Martens Consulting Engineers (Martens) prepared a preliminary geotechnical investigation for the proposed redevelopment of SummitCare Penrith. The investigations included the completion of seven geotechnical boreholes across the study area. Three boreholes were placed in asphalted areas with the remainder in grassed/turfed areas. The subsurface stratigraphy remained consistent between the boreholes, although in the former it is overlain by approximately 0.1m of asphalt. Approximately 0.3m of clayey sandy silt 'topsoil/fill' was identified, overlying alluvial soils composed of:

- **Unit B1**—firm to stiff clayey sandy silt/sandy silty clay/silty clay identified between 0.5m and 4m bgl.
- **Unit B2**—very stiff to hard clayey sandy silt/sandy silty clay/silty clay up to between 2.75m and 6.5m bgl. Was not identified in the northeastern portion of the site.
- **Unit C1**—medium dense silty sand/silty clayey sand with loose, thin banding in some boreholes. Encountered between 6.1m and 7.4m bgl. Was not identified in the northwestern portion of the site.
- **Unit C2**—medium dense to dense gravels and cobbles in a sandy matrix. Identified below Units B2 or C1. Continues to at least 8.5m bgl.

These results confirm the presence of several metres of alluvial sediments across the entire study area. Unfortunately, given the physical similarities between the Richmond and Penrith Units, it is impossible to verify whether these sediments correspond to one or the other.

4.2 Site inspection

A study area inspection was undertaken by Jacob Kiefel on 5 July 2024. Given the known surface construction and conditions across the study area, the inspection aimed to assess the potential for remnant buried Richmond soil landscape A/B horizons. A photographic review of the study area is provided in Figures 4.1 to 4.6. In accordance with Heritage NSW recording guidelines, Table 4.1 provides a description of all survey units, landforms and landscapes. Results and observations from the site inspection are summarised below:

- No evidence of Aboriginal artefacts or natural soil/sedimentary profiles that could contain artefacts were observed during the site inspection.
- The study area is entirely developed with single-storey aged-care facility buildings across the majority of the area. As such, surface visibility and exposures were 0%. Many of the buildings appeared to lay on concrete, or otherwise raised, platforms, suggesting that subsurface excavations may have been minor during construction. Foundations may consist of concrete platforms with small piles. Demountable structures were also observed.
- Multiple grates and vents identify the locations of subsurface services.
- Soil exposures were inspected across the grass turf area, in the southern portions of the study area, confirming this area is underlain by imported topsoil material.

Table 4.1 Survey/landform coverage.

Survey Unit (SU)	Landform	Survey unit area (SUA) (sq m)	Visibility (V) %	Exposure (E) %	Effective coverage area (ECA) (sq m) (=SUA*V%E%)	Effective coverage % (=ECA/SUA*100)
1	Disturbed	1101.848	0	0	0	0



Figure 4.1 West-facing photo at the rear of SummitCare Penrith. Most of the study area is covered by hard surfaces, such as buildings and concrete, making evaluation of subsurface conditions difficult.



Figure 4.2 South-facing photo showing the landscaped grass turf area in the southern portions of the study area. Soil exposures were inspected, confirming the presence of imported topsoils introduced to facilitate landscaping works.



Figure 4.3 East-facing photo showing hard surfaces and raised area associated with buildings.



Figure 4.4 Evidence of subsurface services were observed.



Figure 4.5 East-facing photo showing artificially landscaped and raised landform associated with western portions of the study area.



Figure 4.6 South-facing photo showing hard surfaces. Note the demountable to the right of image.

4.3 Archaeological sensitivity

Geotechnical investigations have confirmed the presence of approximately 7.5m of natural alluvial deposits across the entire study area. These results indicate that the subsurface profile consists of Holocene-aged alluvial 'overburden' unconformably overlying either the Richmond or Penrith units. The Aboriginal archaeological potential of these deposits is largely dependent on whether they include expressions of the Richmond Unit and/or A or B horizons of the Richmond soil landscape. Both hold potential for stratified archaeological deposits dating back thousands of years, potentially to the time of Aboriginal people's arrival in the Sydney Basin.

However, because the unit formed prior to the generally accepted date for Aboriginal occupation within the Sydney Basin, expressions of the Penrith Unit would hold no Aboriginal archaeological potential.¹ Similarly, Holocene-aged alluvial sediments that are not part of a soil profile (ie were too deep for soil formation processes) hold limited archaeological potential.²

Archaeological excavation is required to validate the nature of the underlying alluvial sediments, coupled with the presence or absence of Aboriginal objects.

4.4 Endnotes

- ¹ Quinn, M, Owen, TD, Flanagan, J and Westaway, KE 2023, 'An Aboriginal presence in the Sydney Basin prior to the LGM; further investigations into the age and formation of the Parramatta Sand Body', *Journal of Archaeological Science Reports* 51 (2), pp 104–195.
- ² Williams, AN, Burrow, A, Toms, PS, Brown, O, Richards, M and Bryant, T 2017, 'The Cranebrook Terrace Revisited: Recent Excavations of an Early Holocene Alluvial Deposit on the banks of the Nepean River, NSW, and their Implications for Future Work in the Region', *Australian Archaeology* 83 (3), pp 100–109.

5 Aboriginal heritage significance assessment

The best practice guide to managing heritage places is the Burra Charter. It defines cultural significance as:

Cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations. Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects. Places may have a range of values for different individuals or groups.

An assessment of aesthetic and social/spiritual values of Aboriginal cultural significance can only be made by the relevant Aboriginal community because Aboriginal people are the primary source of information about their cultural heritage values. Consulting with Aboriginal people at an early stage of the assessment process ensures that they have opportunities to fulfil their heritage obligations. Aboriginal people must have control of their cultural knowledge and how it is used and shared. Restriction of cultural knowledge may be an important part of the value of the cultural knowledge. Management of impacts to Aboriginal cultural heritage values must involve the relevant Aboriginal people to ensure that appropriate management is undertaken in accordance with the cultural heritage values.¹

In line with the Burra Charter's four principal values (social, historical, scientific and aesthetic) and the NSW Heritage Office's publication *Assessing Heritage Significance*,² four assessment criteria can be used to assess the Aboriginal heritage values of a study area.³ The four criteria are:

- Social value: 'an item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons';⁴
- Historic value: 'an item is important in the course, or patterning, of NSW's cultural or natural history (or cultural or natural history of the local area)';⁵
- Aesthetic value: 'an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area)';⁶ and
- Scientific value: 'an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area)'.⁷

Following OEH 2011,⁸ values are graded in accordance with a basic ranking of high, moderate or low. The ranking is based upon the research potential, representativeness, rarity and educational potential of each value. The grading is stated at the end of each value assessment below.

5.1 Significance assessment

5.1.1 Social value

During consultation, RAPs agreed that the study area is situated within a culturally and socially significant area. The study area can be considered a component of the wider Hawkesbury-Nepean traditional Aboriginal cultural landscape which holds high social significance and demonstrates connections extending back to the Pleistocene. It is located near the Nepean River which would have been an important resource collection zone for Aboriginal people. Any Aboriginal objects, should they be present, would hold social value as tangible evidence of Aboriginal occupation and land use within the study area. The specific value of the study area in this context is yet to be confirmed.

At the current time (September 2024), the study area is considered to have moderate social value associated with its general position within the Hawkesbury-Nepean traditional cultural landscape. Further community consultation or research could provide additional insight into potential connections with the study area. Evidence that this place contains an Aboriginal archaeological deposit, and that this deposit is associated with a specific period of Aboriginal occupation, would likely increase the study area's connection with social values.

5.1.2 Historical value

The wider area holds historical connections for the local Aboriginal community through the history of land dispossession and continuity of traditional activities. However, the study area is not associated with any location-specific event, person or place from the post-1788 context.

The study area does not meet this criterion.

5.1.3 Scientific value

Because Aboriginal archaeological investigations have yet to be conducted, the scientific value of the study area is based on the assessed potential for Aboriginal archaeological remains.

If Aboriginal archaeological resources were present within the study area and were similar in nature to the nearby Peach Tree Creek site, this deposit would be of scientific significance, primarily for its research and educative potential values. The value of the deposit would be assessed based on its principal characteristics, integrity and comparability to other Hawkesbury-Nepean archaeological sites. If present, and reasonably intact, Aboriginal archaeological remains could provide further insight into Aboriginal people's connections with this region.

In addition, intact alluvial sedimentary profiles could hold pollen or sedimentological characteristics that provide evidence of environmental changes across the Pleistocene and Holocene.

5.1.4 Aesthetic value

The study area and surrounds are a highly modified suburban landscape that contrasts dramatically against the Country managed and occupied by Aboriginal people prior to 1788.

The study area does not meet this criterion.

5.2 Statement of significance

The study area holds Aboriginal social value and may hold scientific value as part of the wider Aboriginal cultural landscape. This cultural landscape holds significance to Aboriginal people as the location of several known resource collection zones and traditional ceremony grounds. Should archaeological material be present, it may allow for a more comprehensive understanding of Aboriginal occupation and land use within the Hawkesbury-Nepean cultural landscape. Any archaeological deposits would also represent a physical demonstration of the social values of the study area as a record of how and why Aboriginal people interacted with this landscape. Paleoenvironmental evidence, particularly sedimentology and palynology, may also provide value in a similar fashion.

The study area is not considered to hold any historic or aesthetic values.

An overview of how these cultural values are manifest within the study area is presented in Table 5.1.

Table 5.1 Summary of Aboriginal cultural heritage values.

Value	Manifest through	Grade of significance
Social	The position of the study area within the larger Aboriginal cultural landscape. Buried alluvial sediments may retain Aboriginal archaeological remains that would be of value to the Aboriginal community. (PAD to be registered in AHIMS).	If evidence were to connect the study area with a specific period of Aboriginal occupation, this value would be high.
Historic	No specific connections have been identified.	None identified.
Scientific	Aboriginal archaeological deposits could hold scientific value. Buried alluvial sediments may provide opportunities to investigate paleoenvironmental signatures from the Pleistocene and Holocene.	To be determined through archaeological excavation.
Aesthetic	No specific connections have been identified.	None identified.

5.3 Endnotes

- ¹ Department of Environment, Climate Change and Water 2010, *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*, Department of Environment, Climate Change and Water, p 2.
- ² NSW Heritage Office 2001, *Assessing Heritage Significance*, NSW Heritage Office, Sydney.
- ³ Office of Environment and Heritage 2011, *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW*, Office of Environment and Heritage, Sydney; this guide provides a background for undertaking an Aboriginal cultural heritage values assessment in accordance with the Burra Charter and NSW Heritage Office's *Assessing Heritage Significance* 2001. The approach recommended by the OEH has been adhered to for this report.
- ⁴ NSW Heritage Office 2001, 'Criteria D' in *Assessing Heritage Significance*, NSW Heritage Office, Sydney.
- ⁵ NSW Heritage Office 2001, 'Criteria A' in *Assessing Heritage Significance*, NSW Heritage Office, Sydney.
- ⁶ NSW Heritage Office 2001, 'Criteria C' in *Assessing Heritage Significance*, NSW Heritage Office, Sydney.
- ⁷ NSW Heritage Office 2001, 'Criteria E' in *Assessing Heritage Significance*, NSW Heritage Office, Sydney.
- ⁸ Office of Environment and Heritage 2011, *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW*, Office of Environment and Heritage, Sydney.

6 The proposed project activity

6 The proposed project activity

This section provides a description of the proposed project activity, timing for the activity, Aboriginal values that may be harmed (directly or indirectly by the activity) and the objectives of the proposed activity. Aboriginal heritage management policy has been developed to guide and minimise impacts to Aboriginal heritage values.

6.1 Impact assessment

6.1.1 Ecologically sustainable development

An objective of the NPW Act is the 'conservation of objects, places and features ... of cultural value within the landscape, including ... places, objects and features of significance to Aboriginal people ...' (s.2A(1(b)(i))).

The publication Operational Policy: Protecting Aboriginal Cultural Heritage provides guidance to proponents in terms of Ecologically Sustainable Development (ESD).¹ The following discussion provides an overview of ESD and its application to the current project.

Avoiding or Reducing Impact to Aboriginal Sites

DECC [OEH] needs to balance the sometimes competing tensions between development activities and environment protection when we make decisions. Although the NPW Act gives a high level of protection to known Aboriginal objects [and since the NPW Amendment Regulation 2010 all unknown Aboriginal sites], recent court decisions have reinforced that Part 6 gives the Director General (DG) express powers to consent to the damage, destruction or defacement of Aboriginal objects by development activities. The powers in Part 6 are not inconsistent with the objects of the Act or a requirement to give effect to ESD.²

The OEH has three policies that provide guidance with respect to avoiding or reducing impact to Aboriginal sites:

Policy 20

Impacts to significant Aboriginal objects and places should always be avoided wherever possible. We [the OEH] will promote the development (or amendment) of proposals to avoid impacts and therefore avoid the need for s.90 AHIPs.

Policy 21

Where impacts to Aboriginal objects and places cannot be avoided, we will require the proponent or AHIP applicant to develop (or amend) proposals so as to reduce the extent

and severity of impacts to significant Aboriginal objects and places through the use of reasonable and feasible measures. Any measures proposed should be negotiated between the proponent or AHIP applicant and the Aboriginal community.

Policy 22

Once all avoidance, minimisation and mitigation options have been adequately explored, we may also consider the appropriateness of any proposed actions having potential Aboriginal cultural heritage benefit. Any actions proposed should be negotiated between the proponent or AHIP applicant and the Aboriginal community.

6.1.2 Principles of ecologically sustainable development

ESD has been defined in Section 6 of the *Protection of the Environment Administration Act 1991* (NSW). This requires the integration of economic and environmental considerations (including cultural heritage) in the decision-making process. In regard to Aboriginal cultural heritage, ESD can be achieved by applying the principle of intergenerational equity and the precautionary principle.³

Intergenerational equity

Intergenerational equity is the principle whereby the present generation should ensure the health, diversity and productivity of the environment for the benefit of future generations.

In terms of Aboriginal heritage, intergenerational equity can be considered in terms of the cumulative impacts to Aboriginal objects and places in a region. If few Aboriginal objects and places remain in a region (for example, because of impacts under previous AHIPs), fewer opportunities remain for future generations of Aboriginal people to enjoy the cultural benefits of those Aboriginal objects and places.

Information about the integrity, rarity or representativeness of the Aboriginal objects and places proposed to be impacted, and how they illustrate the occupation and use of land by Aboriginal people across the region, will be relevant to the consideration of intergenerational equity and the understanding of the cumulative impacts of a proposal.

Where there is uncertainty, the precautionary principle should also be followed.⁴

The precautionary principle

The precautionary principle states that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

In applying the precautionary principle, decisions should be guided by:

- a careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment; and
- an assessment of the risk-weighted consequences of various options.

The precautionary principle is relevant to DECC's consideration of potential impacts to Aboriginal cultural heritage where:

- the proposal involves a risk of serious or irreversible damage to Aboriginal objects or places or to the value of those objects or places; and
- there is uncertainty about the Aboriginal cultural heritage values or scientific or archaeological values, including in relation to the integrity, rarity or representativeness of the Aboriginal objects or places proposed to be impacted.

Where this is the case, a precautionary approach should be taken and all cost-effective measures implemented to prevent or reduce damage to the objects/place.⁵

With respect to the above OEH policies (Policy 20–22) and ESD, the following sections detail specifications for conservation, potential impact, and possible reductions to impact on the identified Aboriginal sites and values in the current study area.

6.2 Proposed activity

The proponent proposes to redevelop SummitCare Penrith (Figure 6.1). This will involve the demolition of all existing buildings within the study area and the construction of:

- four multistorey apartment buildings (Buildings A, B, C and D) for residential aged care;
- a central administration building; and
- a single-level basement carpark beneath Buildings A, B, C and the central administration building.

The construction of the basement carpark will involve significant subsurface excavations up to 3m below current ground levels across most of the study area (Figures 6.2 and 6.3).



Figure 6.1 Site plan showing proposed building locations. (Source: Jackson Teece 2024)

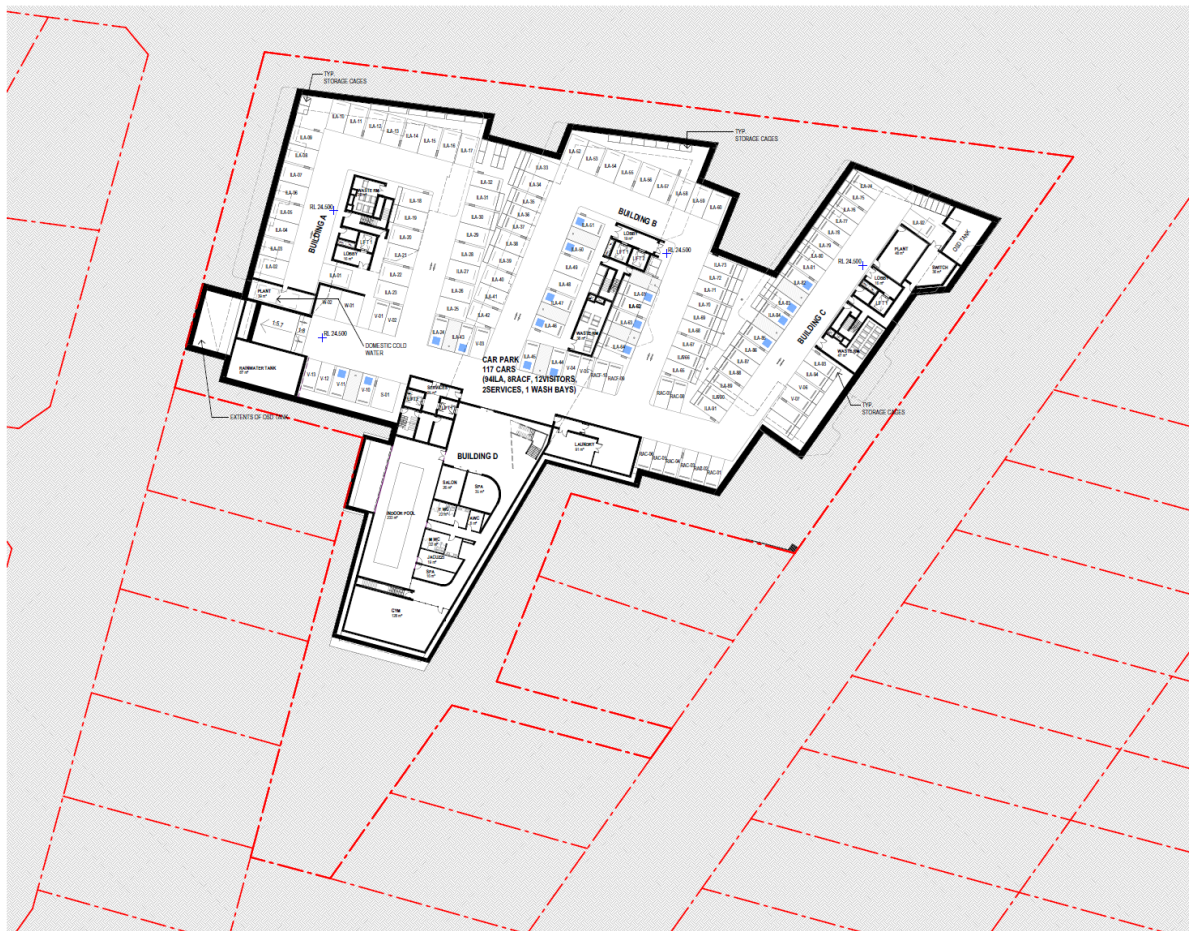


Figure 6.2 Site plan showing extent of proposed basement carpark. (Source: Jackson Teece 2024)

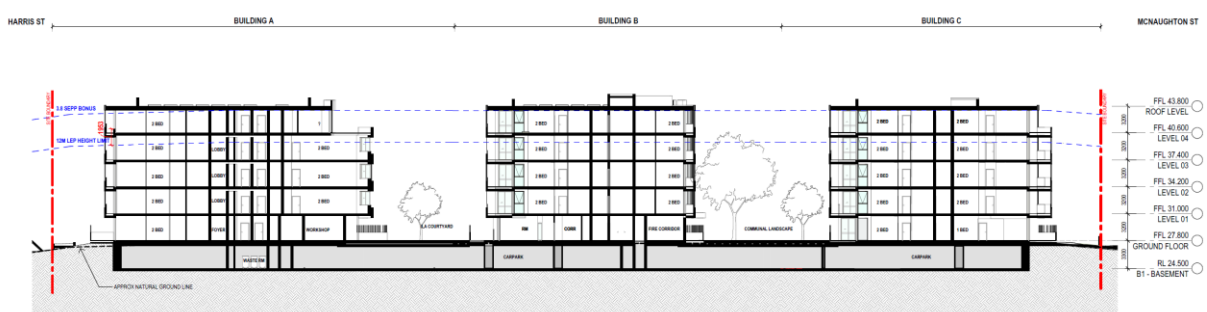


Figure 6.3 East-west site section showing depth and extent of proposed basement carpark underneath Buildings A, B and C. (Source: Jackson Teece 2024)

6.3 Impact assessment

The assessment of Aboriginal heritage in the above sections has identified that the study area retains intact sedimentary deposits which could hold Aboriginal objects in a subsurface buried location. The archaeological potential of these deposits is dependent on their depositional context, which is yet to be verified. They also hold potential to retain paleoenvironmental evidence relating to the Pleistocene and Holocene periods.

6.3.1 Identification of impacts

The proposal involves substantial bulk excavation and reduction of levels for the construction of the basement car park level. Bulk excavation will result in a ground level reduction of approximately 3m within the footprint of the proposed car parking level. This work would result in the removal of natural sedimentary profiles within the excavation footprint and thus could have a significant physical impact on potential Aboriginal archaeological resources within the study area.

The remaining areas will be landscaped, resurfaced and services will be installed. These works will likely not reach the depths of natural sedimentary profiles. Therefore, there is limited potential for impacts to any Aboriginal archaeological resources within this area.

6.3.2 Potential effects arising from proposed impacts

The most direct, substantial impact to potential Aboriginal archaeological deposits would be through excavation of natural sedimentary profiles across the study area for basement car park construction. These activities would likely destroy or remove potential Aboriginal archaeological deposits, if present, within the impacted areas.

The gradual and continuous loss of Aboriginal sites due to historical developments throughout Penrith is resulting in a substantial overall cumulative impact to Aboriginal heritage values in the region. Without appropriate management and mitigation, development within the study area could result in the loss of information that can build further understanding of past Aboriginal people, their culture and lives near the Nepean River.

It is important to implement suitable archaeological excavation methods and appropriate post-excavation scientific study of any recovered Aboriginal objects and associated sediments. Preparation of post-excavation reporting, and then Aboriginal community and public interpretation of the outcomes, should present new information on the use of this specific landscape. Provided that the local Aboriginal community is involved in this work, notably for development of future interpretation, a new body of intergenerational information will be developed.

An assessment of how the various aspects of Aboriginal heritage may be directly or indirectly impacted by the proposed activity is provided in Table 6.1.

Excavation works will involve wholesale removal of natural sedimentary deposits which may result in harm to these values either directly (through the removal of Aboriginal archaeological deposits) or indirectly (through the degradation of social values associated with these archaeological deposits). This analysis assumes a worst-case scenario of harm to these values, unmitigated by the design.

Table 6.1 Overview of impacts to values and identified potential harm.

Value	Manifest through	Degree of harm	Consequence of harm
Social	Remnant natural sediments and their potential to retain Aboriginal archaeological material. Connections associated with the position of the study area within the Hawkesbury-Nepean traditional cultural landscape.	If present, direct	If the site held an Aboriginal archaeological deposit, social values inherent or realised through the deposit would be impacted.
Historic	No specific connection has been identified linking the study area's potential archaeological resource with this aspect.	None	None
Scientific	The potential of the natural sediments and any Aboriginal archaeological material to address specific questions relating to Aboriginal Pleistocene and Holocene in this part of Penrith. The potential for paleoenvironmental evidence in sediments to address specific questions relating to environmental change through the Pleistocene and Holocene.	Direct	Possible total loss of value
Aesthetic	No specific connections have been identified.	None	None

6.4 Aboriginal heritage management policy

Unmanaged and unmitigated impacts resulting from the proposal on Aboriginal heritage are likely to result in a loss of values, and thus impact to the local Aboriginal community. The following management and mitigation statements are based on consideration of:

- legal requirements under the terms of the NPW Act, as amended—which states that it is illegal to harm or desecrate an Aboriginal object without first obtaining an AHIP from the Director-General, Heritage NSW;
- abiding by the Code of Practice for archaeological works connected with heritage mitigation;
- the requirements for considering ESD principals, and applying a cautious approach under the Burra Charter;
- consideration of intergenerational equity and its application to the project area;
- consideration of cumulative impacts to Aboriginal heritage and the consequences of continued loss of Aboriginal heritage values;
- the assessment of the Aboriginal cultural heritage values;
- the interests of the local Aboriginal community members who participated in this project; and
- the size of the project area, the extent of Aboriginal heritage values and likely impacts posed by the project proposal.

6.4.1 Strategy—Aboriginal archaeological excavation

In light of the study area’s potential for Aboriginal archaeological evidence, an ARD has been prepared (Appendix A), which outlines a methodology and research framework for dealing with Aboriginal archaeological material, or sedimentary profiles capable of bearing Aboriginal archaeological material, if identified during the proposed activity. The methodology has been designed to investigate and record any Aboriginal archaeological material that may be impacted by the proposed development. The methodology has been reviewed and endorsed by the RAPs for the project.

The ARD outlines a methodology for the:

- identification of areas of Aboriginal archaeological potential;
- test excavation within areas of Aboriginal archaeological potential;
- triggers and parameters for salvage excavations;
- commencement of development impacts following the completion of the archaeological program; and
- reporting and post-excavation analysis.

Provisions for the unlikely discovery of human remains are also included in the ARD.

This project allows for the preparation of archaeological research that would contribute to the body of evidence and the documentary record concerning deep time Aboriginal occupation of the Hawkesbury-Nepean.

6.4.2 Strategy—Management of recovered Aboriginal objects

Aboriginal objects recovered from the test excavation would be stored temporarily at the GML office or the Deerubbin LALC office. Aboriginal objects would then be analysed and recorded in accordance with the methodology outlined in the ARD.

Long-term curation of Aboriginal cultural materials would be discussed with the RAPs once the size and nature of the assemblage is known. The RAPs would determine whether any identified assemblage could be used for educative and interpretive purposes; however, possible options could include:

- incorporation of the assemblage into the Deerubbin LALCs teaching collection;
- interpretation of the assemblage in an on-site display;
- reburial of artefacts on site; or
- further options which may be suggested by the RAPs.

6.4.3 Strategy—Public information and interpretation

Should an Aboriginal archaeological deposit be present, the following interpretation options should be considered:

- Opportunities to interpret any evidence discovered during Aboriginal archaeological investigations should be considered as part of a holistic approach to interpreting the site.
- Specific opportunities for, and methods of, interpretation of the Aboriginal heritage of the study area should be developed in consultation with the RAPs.
- Public access to the archaeological program, if deemed appropriate, can be achieved through the following:
 - a sign on the hoarding explaining the history of the site and the objectives of the archaeological program;
 - a takeaway leaflet with similar information; or
 - possibly uploads of weekly reports to a website.
- Interpretation should present information about the site and its Aboriginal significance to the public in an engaging manner using a variety of mediums (such as physical, digital, visual or written).

6.4.4 Strategy—Other mitigation strategies

Other mitigation strategies include:

- the provision of Aboriginal employment opportunities during the archaeological excavation; and
- training and engaging community members in Aboriginal archaeological research opportunities.

6.5 Aboriginal heritage—Recommendations and conclusions

The primary findings of the ACHAR include the following:

- The Aboriginal archaeological potential of the study area has been assessed utilising knowledge of historical development, the results of previous geotechnical investigations, and comparison with other similar sites along the Hawkesbury-Nepean.
- The study area could retain Aboriginal archaeological deposits (Aboriginal objects that would likely hold high social and scientific significance). The likelihood of identifying such deposits is dependent on the depositional nature of the buried, natural sediments which underlie the site. The nature of these deposits, coupled with the potential for Aboriginal archaeological material, requires investigation to verify.
- The redevelopment of SummitCare Penrith is not viable without deep basement excavation. Therefore, the removal of any Aboriginal archaeological deposits, if present, would occur across most of the study area.
- An AHIMS card for the SummitCare Penrith PAD has been submitted to Heritage NSW for inclusion in the AHIMS database.
- The SummitCare Penrith PAD (AHIMS ID 45-5-5908) would be impacted by the proposed redevelopment and will require SSD approval for Aboriginal archaeological excavation to allow development impacts to occur.
- Test excavation under the Code of Practice is not possible at SummitCare Penrith due to the current conditions at the site (covered by modern development and hard surfaces) and the depth of PAD deposits expected across the subject site.
- The proposed excavation methodology and mitigation strategies were presented to the RAPs in the form of this report at draft stage.
- A number of mitigation strategies are suggested in Section 6.4 to reduce the impact of the proposed redevelopment on Aboriginal cultural heritage values at the site.

6.5.1 Recommendations

It is recommended that:

- SSD approval will be required for Aboriginal archaeological excavation within the study area in accordance with the ARD outlined in Appendix A of this report. The approval will be area-wide for the entire SummitCare Penrith project boundary.
- The approval should cover Aboriginal objects recovered during Aboriginal archaeological excavation and Aboriginal objects identified within disturbed contexts (displaced objects).
- Sufficient time and resources must be allowed for the archaeological excavation to be completed in accordance with the ARD.
- Long-term curation of Aboriginal cultural materials, recovered from the excavation, should be discussed with the RAPs once the size and nature of the assemblage is known.
- Post-excavation analysis could include opportunities or engagement and involvement with the project's RAPs.

6.6 Endnotes

- ¹ Department of Environment and Climate Change NSW, *Operational Policy: Protecting Aboriginal Cultural Heritage*, Sydney, 2009
<<http://www.environment.nsw.gov.au/resources/cultureheritage/09122ACHOpPolicy.pdf>>.
- ² Department of Environment and Climate Change NSW, *Guide to Determining and Issuing Aboriginal Heritage Impact Permits*, 2009
<<http://www.environment.nsw.gov.au/resources/cultureheritage/09121AHIPGuide.pdf>>, Section 3.8.
- ³ Department of Environment and Climate Change NSW, *Guide to Determining and Issuing Aboriginal Heritage Impact Permits*, 2009
<<http://www.environment.nsw.gov.au/resources/cultureheritage/09121AHIPGuide.pdf>>, p 26.
- ⁴ Department of Environment and Climate Change NSW, *Guide to Determining and Issuing Aboriginal Heritage Impact Permits*, 2009
<<http://www.environment.nsw.gov.au/resources/cultureheritage/09121AHIPGuide.pdf>>, p 26.
- ⁵ Department of Environment and Climate Change NSW, *Guide to Determining and Issuing Aboriginal Heritage Impact Permits*, 2009
<<http://www.environment.nsw.gov.au/resources/cultureheritage/09121AHIPGuide.pdf>>, p 26.

7 Appendices

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7 Appendices

Appendix A

Archaeological Research Design

Appendix B

Records of Aboriginal community consultation

Appendix C

AHIMS Results