SAAS Aus Pty Ltd

2 & 10 Bowman Rd, Moss Vale

LGA: Wingecarribee Shire Council

Aboriginal Cultural Heritage Assessment (ACHA)
Archaeological Test Excavation

13 February 2025

McCARDLE CULTURAL HERITAGE PTY LTD

ACN 104 590 141 • ABN 89 104 590 141

PO Box 166, Adamstown, NSW 2289
Mobile: 0412 702 396 • Email: penny@mcheritage.com.au

McCARDLE
CULTURAL HERITAGE

Report No: J202484 ACHA	
Approved by:	Penny McCardle
Position:	Director
Signed:	
Date:	13 February 2025

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EXECUTIVE SUMMARY

McCardle Cultural Heritage Pty Ltd (MCH) has been engaged by JEP Environmental & Planning on behalf of SAAS Aus Pty Ltd to prepare an Aboriginal Cultural Heritage Assessment (ACHA), and an Aboriginal Heritage Impact Permit (AHIP), if required, for the proposed industrial subdivision and general industry development at 2 and 10 Bowman Road, Moss Vale, NSW.

The underlying geology of the centre of the project area is Quaternary residual deposits (saprolite – chemically weathered rock). This includes poorly consolidated, deeply weathered bedrock retaining the fabric of the underlying parent material. Greater than 20% of weatherable minerals are altered and the deposits may coincide with the pedogenic 'C' horizon. The northern section consists of alluvial floodplain deposits of silt, very fine to medium grained lithic deposits and quartz rich sand as well as clay deposited through the movement of water. The far south eastern portion of the project area consists of the Bringelly Shale geological formation, consisting of shale, claystone, laminate, sandstone and rare coal occurrences.

The project area consists of a very gentle slopes dissected by 1st order drainage lines in the north and south and geotechnical investigations in the project area identified there is up to 15cm of fill/topsoils (A_1 horizon) that overlays up to 50cm of clayey silt/silty clay (A_2 horizon), that overlays the clay B horizon. In terms of fresh water availability, the project area is situated some distance from reliable water sources. The Wingecarribee River (6th order) is located approximately 3.2 kilometres east of the project area at its closest point. A 1st order creek is located in the north of the project area and flows north into a 2nd order creek approximately 450 from the project area (Figure 3.2). Two 1st order drainage lines are located in the southern end of the project area and joins together along the southern boundary to form a 2nd order creek that continues to flow south into Whites Creek (3rd order) approximately 130 metres south of the project area. The project area has been cleared and exclusively used as rural grazing land, and for dairy (milk) production along with the construction of the structures, infrastructure, utilities, fencing and the dam.

A search of the AHIMS register identified 42 Aboriginal sites recorded within three kilometres of the project area and include 38 artefact sites (AFT), 3 potential archaeological deposits (PAD) and one scar tree (TRE). There are no AHIMNS sites or Aboriginal Places in the project area. A previous archaeological due diligence assessment of the project undertaken by Biosis (2024) identified a PAD in the project area. The PAD, situated on a raised flat landform near two distinct non-perennial watercourses was identified as such following discussions with ILALC representative, who noted the area's well-drained characteristics and the similarity to nearby AHIMS site 52-4-0188.

The identified PAD is situated within a relatively undisturbed elevated region of a low-lying landform, adjacent to a first-order tributary in the Moss Vale Highlands Soil Landscape. This location shows a moderate potential, aligning with prior predictive models for the area. In contrast, the remainder of the study area was evaluated as having low potential due to insufficient suitable landform features and disturbances from cattle grazing and development activities.

A total of 38 test pits were excavated, yielding consistent soil profiles across all locations. The soil profile featured a loamy/clayey A horizon that blended into a B horizon accompanied by an increasing density of medium to small rocks with depth. Site disturbances were uniformly observed and included land clearance, surface disruption from grazing, remnants of past agricultural practices, and an increased presence of rocks, with depth, reaching a distinct layer at the A-B interface. Additional findings included scattered inclusions of plastic, ceramic shards, and metal pieces. No sites were identified and as such there are no impacts on the archaeological record and the following recommendations are provided:

1) The persons responsible for the management of onsite works will ensure that all staff, contractors and others involved in construction and maintenance related activities are made aware of the statutory legislation protecting sites and places of significance. Of particular importance is the National Parks and Wildlife Regulation 2019, under the National Parks and Wildlife Act 1974;

2) An Unexpected Finds Procedure for cultural materials and human remains (Appendix C) will be implemented during all works, and

3) Should any Aboriginal objects be uncovered during works, all work will cease in that location immediately, the Unexpected Finds Procedure followed and the Environmental Line contacted.

GLOSSARY

Aboriginal Cultural Heritage Values: traditional values of Aboriginal people, handed down in spiritual beliefs, stories and community practices and may include local plant and animal species, places that are important and ways of showing respect for other people.

Aboriginal Place: are locations that have been recognised by the Minister (and gazetted under the *National Parks and Wildlife Act 1974*) as having special cultural significance to the Aboriginal community. An Aboriginal Place may or may not include archaeological materials.

Aboriginal Site: an Aboriginal site is the location of one or more Aboriginal archaeological objects, including flaked stone artefacts, midden shell, grinding grooves, archaeological deposits, scarred trees etc.

Artefact: any object that is physically modified by humans.

Assemblage: a collection of artefacts associated by a particular place or time, assumed generated by a single group of people, and can comprise different artefact types.

Axe: a stone-headed axe usually having two ground surfaces that meet at a bevel.

Backed artefact: a stone tool where the margin of a flake is retouched at a steep angle and that margin is opposite a sharp edge.

Background scatter: a term used to describe low density scatter of isolated finds that are distributed across the landscape without any obvious focal point.

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

Bondi point: a small asymmetrical backed artefact with a point at one end and backing retouch.

Core: a chunk of stone from which flakes are removed and will have one or more negative flake scars but no positive flake scars. The core itself can be shaped into a tool or used as a source of flakes to be formed into tools.

Debitage: small pieces of stone debris that break off during the manufacturing of stone tools. These are usually considered waste and are the by-product of production (also referred to as flake piece).

Flake: any piece of stone struck off a core and has a number of characteristics including ring cracks showing where the hammer hit the core and a bulb of percussion. May be used as a tool with no further working, may be retouched or serve as a platform for further reduction.

Flaked piece/waste flake: an unmodified and unused flake, usually the by-product of tool manufacture or core preparation (also referred to as debitage).

Formation processes: human caused (land uses etc) or natural processes (geological, animal, plant growth etc) by which an archaeological site is modified during or after occupation and abandonment. These processes have a large effect on the provenience of artefacts or features.

Grinding stone: an abrasive stone used to abrade another artefact or to process food.

Hammer stone: a stone that has been used to strike a core to remove a flake, often causing pitting or other wear on the stone's surface.

Harm: is defined as an act that may destroy, deface or damage an Aboriginal object or place. In relation to an object, this means the movement or removal of an object from the land in which it has been situated

Holocene: the post-glacial period, beginning about 10,000 B.P.

In situ: archaeological items are said to be "in situ" when they are found in the location where they were last deposited.

Pleistocene: the latest major geological epoch, colloquially known as the "Ice Age" due to the multiple expansion and retreat of glaciers. Ca. 3.000, 000-10,000 years B.P.

Retouched flake: a flake that has been flaked again in a manner that modified the edge for the purpose of resharpening that edge.

Stratified Archaeological Deposits: Aboriginal archaeological objects may be observed in soil deposits and within rock shelters or caves. Where layers can be detected within the soil or sediments, which are attributable to separate depositional events in the past, the deposit is said to be stratified. The integrity of sediments and soils are usually affected by 200 years of European settlement and activities such as land clearing, cultivation and construction of industrial, commercial and residential developments.

Taphonomy: the study of processes which have affected organic materials such as bone after death; it also involves the microscopic analysis of tooth-marks or cut marks to assess the effects of butchery or scavenging activities.

Traditional Aboriginal Owners: Aboriginal people who are listed in the Register of Aboriginal owners pursuant to Division 3 of the *Aboriginal Land Register Act (1983)*. The Registrar must give priority to registering Aboriginal people for lands listed in Schedule 14 of the *National Parks and Wildlife Act 1974* or land subject to a claim under 36A of the *Aboriginal Land Rights Act 1983*.

Traditional Knowledge: Information about the roles, responsibilities and practices set out in the cultural beliefs of the Aboriginal community. Only certain individuals have traditional knowledge and different aspects of traditional knowledge may be known by different people, e.g. information about men's initiation sites and practices, women's sites, special pathways, proper responsibilities of people fishing or gathering food for the community, ways of sharing and looking after others, etc.

Typology: the systematic organization of artefacts into types on the basis of shared attributes.

Use wear: the wear displayed on an artefact as a result of use.

ACRONYMS

ACHA	Aboriginal Cultural Heritage Assessment
ACHMP	Aboriginal Cultural Heritage Management Plan
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit

AHIMS SITE ACRONYMS

ACD	Aboriginal ceremonial and dreaming
AFT	Artefact (stone, bone, shell, glass, ceramic and metal)
ARG	Aboriginal resource and gathering
ART	Art (pigment or engraving)
BOM	Non-human bone and organic material
BUR	Burial
CFT	Conflict site
CMR	Ceremonial ring (stone or earth)
ETM	Earth mound
FSH	Fish trap
GDG	Grinding groove
HAB	Habitation structure
HTH	Hearth
OCQ	Ochre quarry
PAD	Potential archaeological Deposit
SHL	Shell
STA	Stone arrangement
STQ	Stone quarry
TRE	Modified tree (carved or scarred)
WTR	Water hole

1 INTRODUCTION

1.1 INTRODUCTION

McCardle Cultural Heritage Pty Ltd (MCH) has been engaged by JEP Environmental & Planning on behalf of SAAS Aus Pty Ltd to prepare an Aboriginal Cultural Heritage Assessment (ACHA), and an Aboriginal Heritage Impact Permit (AHIP), if required, for the proposed industrial subdivision and general industry development at 2 and 10 Bowman Road, Moss Vale, NSW.

The assessment has been undertaken to meet the Heritage NSWs' Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW 2010), the Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH 2011), the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW 2010b), Councils' requirements and the brief.

1.2 PROPONENT DETAILS

SAAS Aus Pty Ltd

1.3 THE PROJECT AREA

The project area is defined by the proponent and is located at 2 and 10 Bowman Road, Moss Vale (Lot 2, DP 1070888 and Lot 51 DP 130176), and is hereafter referred to as the 'project area'. The location and extent of the project area is illustrated in Figures 1.1 and 1.2.

Figure 1.1 Location of the project area

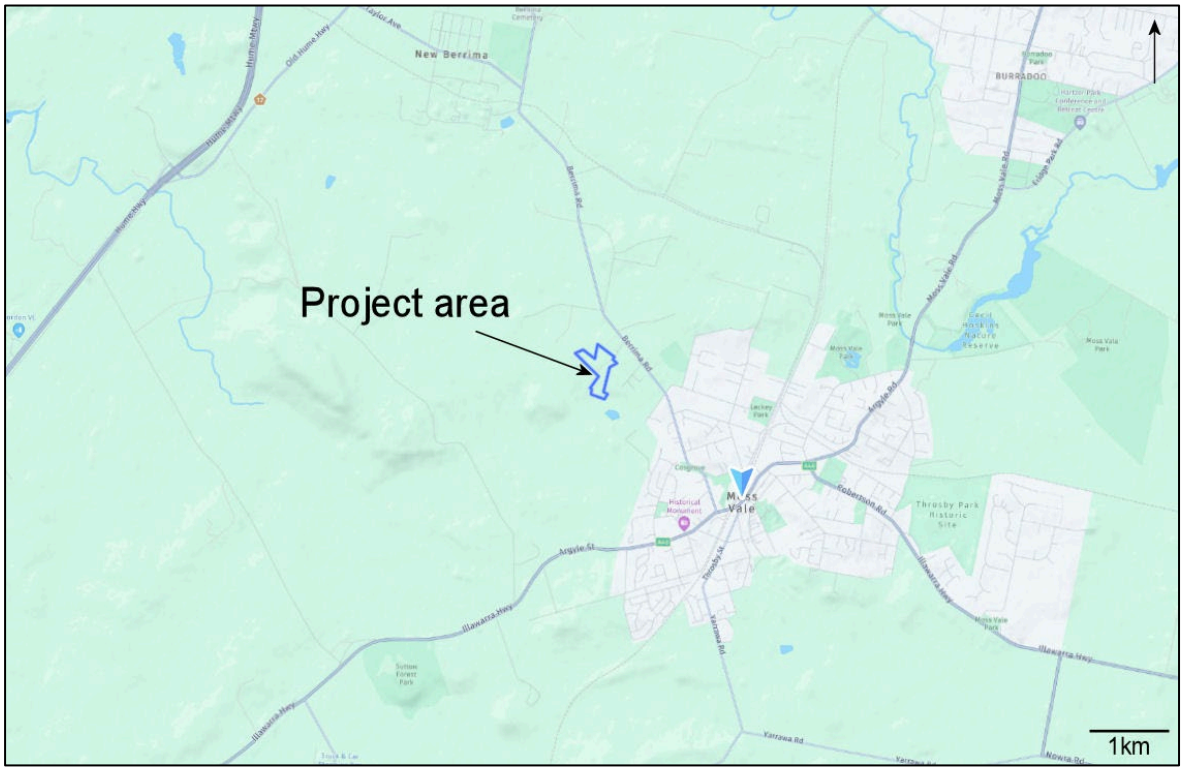


Figure 1.2 Aerial photograph of the project area (Nearmap 2024)

1.4 DESCRIPTION OF THE PROPOSED DEVELOPMENT

SAAS Aus Pty Ltd (SAAS) is seeking to create a subdivision that will include industrial land from the property at 2 Bowman Road, Moss Vale (Lot 2 / DP1070888), and a small portion of the adjacent property at 10 Bowman Road (Lot 51 / DP130176), and the remaining rural land from the properties. Industrial buildings are proposed to be constructed on three of the created lots with industrial land use zoning. The buildings will be used to house SAAS' scaffolding businesses.

Lot 2 covers an area of approximately 14.2ha and is divided into three areas separated by a road and gas pipeline easement. The Lot consists of the following land use zones:

- E4 General Industrial; and
- RU2 Rural Landscape.

The property at 2 Bowman Road also includes Lot 1 / DP103123, a C3 Environmental Management zoned portion of land on the opposite side of Whites Creek (Figure 1). No development is proposed on this portion of land, and it will not be included in the subdivision.

The adjacent property at 10 Bowman Road (Lot 51 / DP130176) is a 48-hectare rural property, adjacent to the western boundary of Lot 2 (Figure 1). An area of approximately 12,500m^2 in the north-east portion of the Lot is zoned E4 and is proposed to be incorporated into the industrial subdivision and general industry development. The remainder of the property is zoned RU2.

Subdivision

The subdivision will result in the creation of four new lots and leave Lot 1 / DP103123 in its current arrangement. The proposed subdivision will result in the following lots:

- Created Lot 1 – approximately 2.88 ha of land zoned E4 General Industrial. Access to the lot will be directly from Bowman Road at the eastern end of the lot. The road frontage will be approximately 157 m, and the depth of the lot will vary from approximately 148 m on the southern boundary, to approximately 224 m on the northern boundary;
- Created Lot 2 – approximately 2.64 ha of land zoned E4 General Industrial. This lot will be formed by adjusting the boundaries of Lot 51 and Lot 2 to match the land use zone boundaries. This lot has a frontage to Bowman Road at the eastern end of the lot approximately 127 m wide. The lot will be approximately 352 m deep, tapering to a width of approximately 35 m at the western boundary. This lot is affected by the gas pipeline easement at the south-eastern end;
- Created Lot 3 – approximately 2.62 ha of land zoned E4 General Industrial. This is an irregularly shaped lot with a frontage to Bowman Road of approximately 388 m. This lot also has a frontage of approximately 132 m to an unformed paper road (Hutchinson Road) on the southern boundary. The northern portion of this lot is affected by the gas pipeline easement; and
- Created Lot 4 – approximately 54.64 ha of RU2 Rural Landscape zoned land. This is the RU2 portion of Lot 2 / DP1070888 separated from the remainder of the lot by the paper road along its northern boundary. The southern boundary of this lot is defined by Whites Creek and is within Wingecarribee Shire Council's Flood Planning Area. This part of the lot is to be merged with the remainder of the RU2 Rural Landscape lot of 51 / DP130176.

General Industry Development

The development proposes the following elements:

- Building 1 – an irregularly shaped industrial building to be located in Created Lot 1 of the proposed subdivision. The north-east corner of the building will accommodate 956 m^2 office and staff amenities area split over the ground floor, first and second floor, outdoor visitor parking along the eastern side of the building, and a basement carpark under the south-east corner of the building. The outdoor hardstand will provide truck parking along the southern lot boundary, an enclosed loading/unloading area along the entire southern side of the building, and a smaller, covered loading/unloading area on the northern side. A fire sprinkler system will be installed within the building. A 200,000L underground tank will be installed to capture rainwater for re-use on site;
- Building 2 – an irregularly shaped building to be located on Created Lot 2 of the subdivision. The building will provide 1,392 m^2 of office space and amenities over a ground and first floor. The building will include a covered outdoor loading area at the north-western end of the building. A fire sprinkler system will be installed within the building. A 200,000L underground tank will be installed to capture rainwater for re-use on site;
- Building 3 – this building will be constructed as a split-level warehouse with the upper and lower levels divided and provided with separate amenities and access. It will be located in the southern portion of Created Lot 3, away from the gas pipeline easement. Building 3A

will be further split into two sections (North and South) and will include offices and staff amenities over a ground and first floor within the north-west corner of the building. Parking and access will be provided at the northern end for Building 3A. Building 3B (also split into North and South sections) will include offices and staff amenities within the south-west corner of the building over a ground and first floor. Parking and access will be provided at the southern end for Building 3B. Fire sprinklers will be installed in all sections of the buildings. A 120,000L underground tank will be installed to capture rainwater for re-use on site;

- Extension of Bowman Road and formation of the paper Hutchinson Rd to provide access to all created lots and buildings. Hutchinson Road will terminate in an industrial cul-de-sac near the south-eastern corner of Created Lot 3. An easement will be created within the northern portion of Created Lot 4 to accommodate this cul-de-sac;
- Internal haul roads to accommodate up to 26m B-Doubles (Buildings 1 and 2); heavy vehicles to use Building 3 will be limited to 19m semi-trailers;
- Outdoor hardstand areas surrounding each building;
- Individual stormwater capture and treatment systems to be provided to each building will include a HumeCeptor® Gross Pollutant Trap to remove suspended solids and hydrocarbons, and a HumeFilter® Universal Pollutant Trap to capture suspended solids, nitrogen, phosphorous and gross pollutants in stormwater runoff. The treatment systems will discharge to below ground on-site detention basin/s with discharge control to manage stormwater flow volumes;
- Stormwater from the proposed development will discharge to the northern portion of Created Lot 4 via an outlet headwall with scour protection. An easement will be created within the lot to facilitate construction and maintenance;
- Solar collection arrays on all building roofs;
- Landscaping along site boundaries and within parking areas; and
- 1.8m high open black palisade fencing for security.

Works typically associated with such developments include clearing and demolition of existing structures, site remediation, bulk earthworks including construction of buildings and roads, services reticulation: WW, PW, NBN, electrical and gas and landscaping.

1.5 PURPOSE OF THE ARCHAEOLOGICAL ASSESSMENT

The purpose of the assessment is to assess any archaeological constraints for the proposal and to provide opportunities and options to ensure any cultural materials present are protected through appropriate mitigation and management.

1.6 OBJECTIVE OF THE ASSESSMENT

The objective of the assessment is to identify areas of Aboriginal cultural heritage value, to determine possible impacts on any Aboriginal cultural heritage identified (including potential subsurface evidence) and to develop management recommendations where appropriate. The assessment employs a regional approach, taking into consideration the landscape of the project area (landforms, water resources, soils, geology etc), the regional archaeological patterning identified by past studies, natural processes (e.g., erosion) as well as land uses and associated impacts across the landscape and any associated cultural that may be present.

1.7 PROJECT BRIEF/SCOPE OF WORK

The following tasks were carried out:

- a review of relevant statutory registers and inventories for indigenous cultural heritage including the Aboriginal Heritage Information Management System (AHIMS) for known archaeological sites, the State Heritage Register, the National Heritage List, the Commonwealth Heritage List, the National Trust Heritage Register and the relevant Local Environmental Plan;
- a review of local environmental information (e.g., topographic, geological, soil, geomorphological, vegetation, hydrology) to determine the likelihood of archaeological sites and specific site types that may be present, prior and existing land uses and associated impacts and site disturbance that may affect site integrity;
- a review of previous investigations to determine the extent of archaeological investigations in the area and identify any archaeological patterns;
- the development of a predictive archaeological model based on the data searches and literature review;
- identification of human and natural impacts in relation to the known and any new archaeological sites and archaeological potential within the project area;
- consultation with the Registered Aboriginal Parties (RAPs) as per the Aboriginal Cultural Heritage Consultation Requirements for Proponents (2010);
- undertake a site inspection with the participation of the RAPs, and
- the development of mitigation and conservation measures in consultation with the RAPs.

1.8 LEGISLATIVE CONTEXT

The following overview of the legislative framework, is provided solely for information purposes for the client, and should not be interpreted as legal advice. MCH will not be liable for any actions taken by any person, body or group as a result of this general overview and MCH recommends that specific legal advice be obtained from a qualified legal practitioner prior to any action being taken as a result of the general summary below.

Land managers are required to consider the effects of their activities or proposed development on the environment under several pieces of legislation. Although there are a number of Acts and regulations protecting Aboriginal heritage, including places, sites and objects, within NSW, the three main ones include:

- National Parks and Wildlife Act (1974, as amended)
- National Parks and Wildlife Regulation (2019)
- Environmental Planning and Assessment Act (1979)

1.8.1 NATIONAL PARKS AND WILDLIFE ACT (1974)

The National Parks and Wildlife Act (1974) is the primary legislation for the protection of Aboriginal cultural heritage in New South Wales. The NPW Act protects Aboriginal heritage (places, sites and objects) within NSW and the protection of Aboriginal heritage is outlined in s86 of the Act, as follows:

- "A person must not harm or desecrate an object that the person knows is an Aboriginal object" s86(1)
- "A person must not harm an Aboriginal object" s86(2)
- "A person must not harm or desecrate an Aboriginal place" s86(4)

Penalties apply for harming an Aboriginal object, site or place. The penalty for knowingly harming an Aboriginal object (s86[1]) and/or an Aboriginal place (s86[4]) is up to $550,000 for an individual and/or imprisonment for 2 years; and in the case of a corporation the penalty is up to $1.1 million. The penalty for a strict liability offence (s86[2]) is up to $110,000 for an individual and $220,000 for a corporation.

Harm under the National Parks and Wildlife Act (1974, as amended) is defined as any act that; destroys defaces or damages the object, moves the object from the land on which it has been situated, causes or permits the object to be harmed. However, it is a defence from prosecution if the proponent can demonstrate that;

1) harm was authorised under an Aboriginal Heritage Impact Permit (AHIP) (and the permit was properly followed), or
2) the proponent exercised due diligence in respect to Aboriginal heritage.

The 'due diligence' defence (s87[2]), states that if a person or company has applied due diligence to determine that no Aboriginal object, site or place was likely to be harmed as a result of the activities proposed for the Project Area, then liability from prosecution under the NPW Act 1974 will be removed or mitigated if it later transpires that an Aboriginal object, site or place was harmed. If any Aboriginal objects are identified during the activity, then works should cease in that area and Heritage NSW notified (DECCW 2010:13). The due diligence defence does not allow for continuing harm or as defence to s.86(1) or (4).

1.8.2 NATIONAL PARKS AND WILDLIFE REGULATION (2019)

The National Parks and Wildlife Regulation 2019 provides a framework for undertaking activities and exercising due diligence in respect to Aboriginal heritage. The Regulation (201909) recognises various due diligence codes of practice, including the Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW, but it also outlines procedures for Aboriginal Heritage Impact Permit (AHIP) applications and Aboriginal Cultural Heritage Consultation Requirements (ACHCRs); amongst other regulatory processes.

1.8.3 ENVIRONMENTAL PLANNING & ASSESSMENT ACT 1979 (EP&A ACT)

The EP&A Act establishes the statutory framework for urban and regional planning in NSW, detailing how development is assessed in accordance with those laws and providing the approval pathways for development. The Minister for Planning and Public Spaces is the minister responsible for the EP&A Act, and is supported by State government authorities and local councils in its implementation. The EP&A Act comprises three key Parts to guide development and planning processes. These parts are summarised below:

- Part 3 of the EP&A Act serves a strategic planning function, dealing with the preparation of local and regional strategic plans, the making of environmental planning instruments (EPI)

(that is, State Environmental Planning Policies (SEPP) and Local Environmental Plans (LEP), and the preparation of Development Control Plans (DCP).

- Part 4 of the EP&A Act establishes the assessment framework for development that requires consent, containing provisions for local development, regionally significant development (RSD), designated development and State significant development (SSD). The consent authority for determining development applications made under Part 4 is typically the local council; however, for more larger scale, contentious or environmentally sensitive projects the consent authority may be the Minister for Planning or a planning panel.
- Part 5 of the EP&A Act deals with the environmental assessment of infrastructure projects (or 'activities') that do not require development consent. Whilst development consent is not required, activities under Part 5 are still required to undergo environmental assessment by a determining authority (usually a public authority) to determine whether a proposed activity will have a significant impact. Part 5 activities are typically supported by a Review of Environmental Factors (REF); however, in circumstances where a significant impact is determined or a proposed activity is classified as State Significant Infrastructure (SSI) and critical SSI, an Environmental Impact Statement (EIS) is required. For SSI and critical SSI, the Minister has the authority for issuing approval.

The applicable approval pathway for development under Part 4 and Part 5 is determined by reference to the relevant EPIs, that are established under Part 3. It is noted that there are several other Parts of the EP&A Act pertaining to certification, infrastructure contributions, reviews and appeal rights, and implementation and enforcement of the Act; however, these are less critical in terms of the assessment and management of Aboriginal heritage, and as such, not covered above.

This project falls under Part 4 of the EP&A Act but is regionally significant development, so the Southern Regional Planning Panel is the consent authority

1.9 QUALIFICATIONS OF THE INVESTIGATOR

Dr. Penny McCardle: Principal Archaeologist & Forensic Anthropologist has 23 years experience in Indigenous archaeological assessments, excavation, research, reporting, analysis and consultation and 20 years in skeletal identification, biological profiling and skeletal trauma identification for NPWS, NSW Police and the NSW Department of Forensic Medicine.

- BA (Archaeology and Palaeoanthropology): Indigenous archaeology, University of New England 1999
- Hons (Archaeology and Palaeoanthropology): Physical Anthropology, University of New England 2001
- Forensic Anthropology Course, University of New England 2003
- Armed Forces Institute of Pathology Forensic Anthropology Course, Ashburn, VA 2008
- Analysis of Bone trauma and Pseudo-Trauma in Suspected Violent Death Course, Erie College, Pennsylvania, 2009
- Documenting Scenes of War and Human Rights Violations. Institute for International Criminal Investigations, 2018
- PhD, University of Newcastle, 2019

1.10 REPORT STRUCTURE

The report includes Section 1 which outlines the project, Section 2 provides the consultation, Section 3 presents the environmental context, Section 4 presents cultural context, Section 5 provides the archaeological background, Section 6 provides a summary of the previous ACHA, Section 7 the test excavation methods, Section 8 provides the results if the test excavation, Section 9 the development impact assessment, Section 10 presents the mitigation strategies and Section 11 presents the management recommendations.

2 CONSULTATION

As per the Heritage NSW Aboriginal Cultural Heritage Consultation Requirements for Proponents (April 2010), MCH followed the four stages of consultation as set out below. All correspondences for each stage are provided in Appendix A.

In relation to cultural significance, MCH recognises and supports the indigenous system of knowledge. That is, that knowledge is not 'open' in the sense that everyone has access and an equal right to it. Knowledge is not always definitive (in the sense that there is only one right answer) and knowledge is often restricted. As access to this knowledge is power, it must be controlled by people with the appropriate qualifications (usually based on age seniority, but may be based on other factors). Thus, it is important to obtain information from the correct people: those that hold the appropriate knowledge of those sites and/or areas relevant to the project. It is noted that only the Aboriginal community can identify and determine the accepted knowledge holder(s) may be not archaeologists or proponents. If knowledge is shared, that information must be used correctly and per the wishes of the knowledge holder.

Whilst an archaeologist may view this information as data, a custodian may view this information as highly sensitive, secret/sacred information and may place restrictions on its use. Thus, it is important for MCH to engage in affective and long-term consultation to ensure knowledge is shared and managed in a suitable manner that will allow for the appropriate management of that site/area. MCH also know that archaeologists do not have the capability nor the right to adjudicate on the spirituality of a particular location or site as this is the exclusive right of the traditional owners who have the cultural and hereditary association with the land of their own ancestors. For these reasons, consultation forms an integral component of all projects and this information is sought from the registered stakeholders to be included in the report in the appropriate manner that is stipulated by those with the information.

2.1 STAGE 1: NOTIFICATION & REGISTRATION OF INTEREST

The aim of this stage is to identify, notify and register Aboriginal people and/or groups who hold cultural knowledge that is relevant to the project area, and who can determine the cultural significance of any Aboriginal objects and/or places within the proposed project area. In order to do this, the sources identified by Heritage NSW (OEH 2010:10) and listed in Table 2.1, to provide the names of people who may hold cultural knowledge that is relevant to determining the significance of Aboriginal objects and/or places were contacted by letter on 12th September 2024 and it was stipulated that if no response was received, the project and consultation will proceed. Information included in the correspondence to the sources listed in Table 2.1 included the name and contact details of the proponent, an overview of the proposed project including the location and a map showing the location.

Table 2.1 Sources contacted

Organisations contacted	Response
Heritage NSW	66 groups
Illawarrah LALC	registered for the project
Wingecarribee Shire Council	1 group
Registrar Aboriginal Land Rights Act 1983	1 group
National Native Title Tribunal	free hold
Native Title Services Corporation Limited	no response
South East Local Land Services	no response

Following this, MCH compiled a list of people/groups to contact (Refer to Appendix A). As per the Aboriginal cultural heritage consultation requirements for proponents (April 2010), archaeologists and proponents must write to all those groups provided asking if they would like to register their interest in the project. Unfortunately, some Government departments written to requesting a list of groups to consult with do not differentiate groups from different traditional boundaries and provide an exhaustive list of groups from across the region including those outside their traditional boundaries.

MCH wrote to all parties identified by the various departments on 14th October 2024, and an advertisement was placed in the Southern Highlands News on 25th September 2024. The correspondence and advertisement included the required information as per the Aboriginal Cultural Heritage Consultation Requirements for Proponents (April 2010) and requested to nominate the preferred option for the presentation of information about the proposed project: an information packet or a meeting and information packet (Refer to Stage 2). The Registered Aboriginal Parties (RAPs) are listed in Table 2.2.

Table 2.2 Registered Aboriginal Parties

RAP	Contact
A&K Cultural Heritage	Ali Maher
Cubbitch Barta	Glenda Chalker &Rebecca Chalker
Gadhungal Marring	Nigel Millgate
Illawarra Local Aboriginal Land Council	Aara
	Thomas Dahlstrom
Woronora Plateau Gundungara Elders Council	Paul Cummins and Kayla Williamson

2.2 STAGE 2: PRESENTATION OF INFORMATION

The aim of this stage is to provide the RAPs with information regarding the scope of the proposed project and the Indigenous cultural heritage assessment process.

As the RAPs did not provide their preferred method of receiving information, an information packet was sent to all RAPs and included the required information as per the Aboriginal Cultural Heritage Consultation Requirements for Proponents (April 2010). The pack included the required information as per the Aboriginal Cultural Heritage Consultation Requirements for Proponents (April 2010) and a written response to the proposed methods was due no later than 11th November 2024.

The information pack also stipulated that consultation was not employment, and requested that in order to assist the proponent in the engagement of field workers, that the groups provide information that will assist in the selection of field staff who may be paid on a contractual basis. This included, but was not limited to, experience in field work and in providing cultural heritage advice and their relevant experience; and to provide a CV and insurance details.

The information pack also noted that failure to provide the required information by the date required (28 days) will result in a missed opportunity for the RAPs to contribute to their cultural heritage and the project will proceed.

2.3 STAGE 3:GATHERING INFORMATION ABOUT CULTURAL SIGNIFICANCE

The aim of this stage is to facilitate a process whereby the RAPs may contribute to culturally appropriate information gathering and the research methodology, provide information that will enable the identification of the cultural significance of any Aboriginal objects and or/places within the proposed project area, and have input into the development of any cultural heritage management and mitigation measures. In order to do his, included in the information pack sent for Stage 2, was information pertaining to the gathering of cultural knowledge. This included the following information;

- MCH noted that information provided by RAPs may be sensitive and MCH and the proponent will not share that information with all RAPs or others without the express permission of the individual. MCH and the proponent extended an invitation to develop and implement appropriate protocols for sourcing and holding cultural information including any restrictions to place on information, as well as the preferred method of providing information;
- request for traditional/cultural knowledge or information associated with ceremonial, spiritual, mythological beliefs, traditions and known sites from the pre-contact period;
- request for traditional/cultural knowledge or information regarding sites or places with historical associations and/or cultural significance which date from the post-contact period and that are remembered by people today (e.g., plant and animal resource use areas, known camp sites); and
- request for traditional/cultural knowledge or information in relation to any sites or places of contemporary cultural significance (apart from the above) which has acquired significance recently.

During this process, the RAPs did not disclose any specific traditional/cultural knowledge or information of sites or places associated with spiritual, mythological, ceremonies or beliefs from the pre contact period, historic and, or, contemporary periods, within the project area or surrounding area. However, it must be noted that traditional/cultural knowledge and/or information regarding sites and/or places of cultural significance may exist that were not divulged to MCH by those consulted.

2.4 TEST EXCAVATION

All RAPs were invited to participate in the test excavation to commence on 13th January 2025. Unfortunately, no RAPs attended and the survey proceeded.

2.5 STAGE 4: REVIEW OF DRAFT CULTURAL HERITAGE ASSESSMENT

Copies of the draft report were forwarded to all RAPs for their review and were asked to provide a written or verbal response no later than 13th February 2025. MCH received no responses and all RAPs were provided a copy of the final report. All documentation regarding the consultation process is provided in Appendix A.

3 LANDSCAPE AND ENVIRONMENTAL CONTEXT

3.1 INTRODUCTION

Documenting and understanding the context of archaeological sites in relation to surrounding terrain features is essential to landscape archaeological studies worldwide (De Reu et al., 2011; De Smedt et al., 2013; Turrero et al., 2013) and the nature and distribution of Aboriginal cultural materials in a landscape are strongly influenced by environmental factors such as topography, geology, landforms, climate, geomorphology, hydrology and the associated soils and vegetation (Hughes and Sullivan 1984). These factors influence the availability of plants, animals, water, raw materials, the location of suitable camping places, ceremonial grounds, burials, and suitable surfaces for the application of rock art. As site locations may differ between landforms due to differing environmental constraints that result in the physical manifestation of different spatial distributions and forms of archaeological evidence, these environmental factors are used in constructing predictive models of Aboriginal site locations, based on the assumption that the environment provided constraints and opportunities that influenced such behaviour in relation to site selection and use.

Environmental factors also effect the degree to which cultural materials have survived in the face of both natural and human influences and affect the likelihood of sites being detected during ground surface survey. Site detection is dependent on a number of environmental factors including surface visibility (which is determined by the nature and extent of ground cover including grass and leaf litter etc) and the survival of the original land surface and associated cultural materials (by flood alluvium, erosion etc). It is also dependant on the exposure of the original landscape and associated cultural materials by human impacts (e.g., Aboriginal fire stick farming, clearing, logging, agricultural activities, construction works, mining etc), (Hughes and Sullivan 1984). Combined, these processes and activities are used in determining the likelihood of both surface and subsurface cultural materials surviving and being detected.

It is therefore necessary to understand the environmental factors, processes and activities, all of which affect site location, preservation and detection during surface survey and the likelihood of in situ subsurface cultural materials being present. The environmental factors, processes and disturbances of the surrounding environment and specific project area are discussed below.

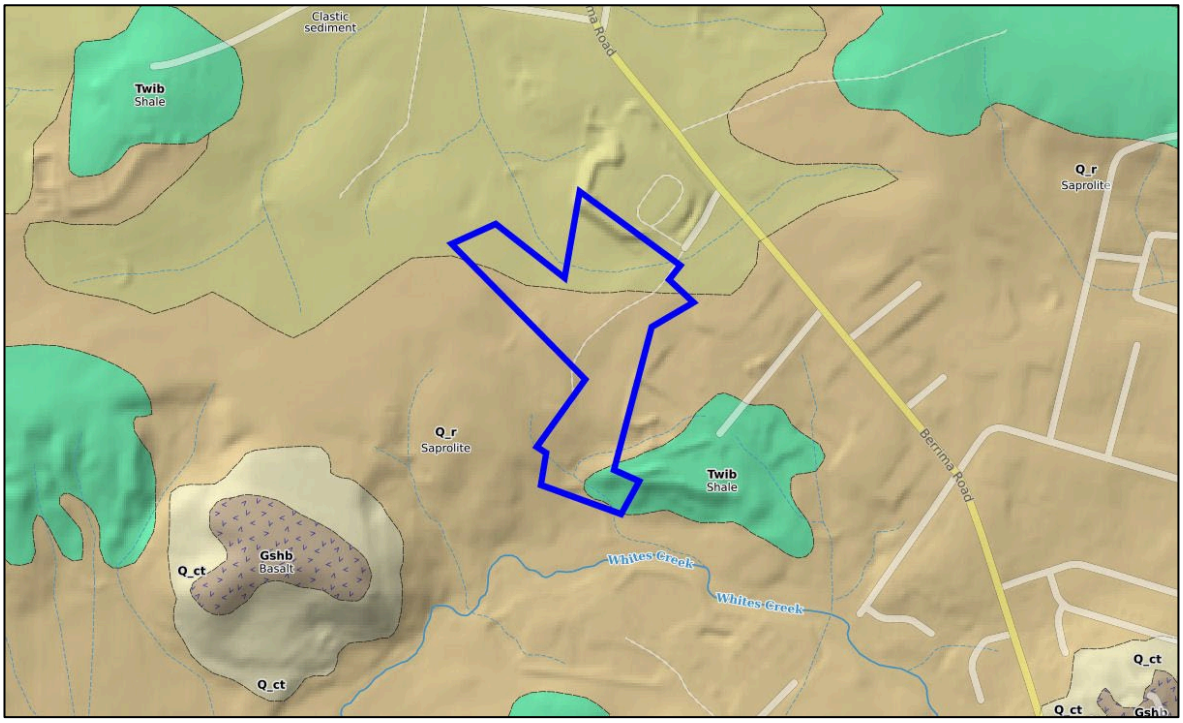
3.2 GEOLOGY

The underlying regional geology plays a major role in the structure of the surrounding environment (e.g., landforms, topography, geomorphology, vegetation, climate, hydrology etc), and also influences patterns of past occupation and their manifestation in the archaeological record. This is primarily relevant to past Aboriginal land use in regard to the location of stone resources or raw materials and their procurement for the manufacturing and modification of stone tools.

The processes of sedimentation, uplift, ongoing physical and chemical weathering, re-deposition and volcanic activity have resulted in the formation of a complex landscape in the regional area that incorporates diversity in topography, vegetation and wildlife. For its Aboriginal inhabitants, these processes have resulted in the presence of caves and ledges suitable for shelter/occupation and the application of rock art, deposits of raw materials essential to the manufacture of stone tools as well as locations that provide the rocky creek bed outcrops utilised in the production of ground-edge implements.

As illustrated in Figure 3.1, the underlying geology of the majority of the project area consists of the Quaternary residual deposits (saprolite – chemically weathered rock). This includes poorly consolidated, deeply weathered bedrock retaining the fabric of the underlying parent material. Greater than 20% of weatherable minerals are altered and the deposits may coincide with the pedogenic 'C' horizon. The northern section consists of alluvial floodplain deposits that include silt, very fine to medium grained lithic deposits and quartz rich sand as well as clay deposited through the movement of water. The far south eastern portion of the project area consists of the Bringelly Shale geological formation, consisting of shale, claystone, laminate, sandstone and rare coal occurrences (NSW Seamless Geology).

Figure 3.1 Geology of the project area (NSW Seamless Geology)

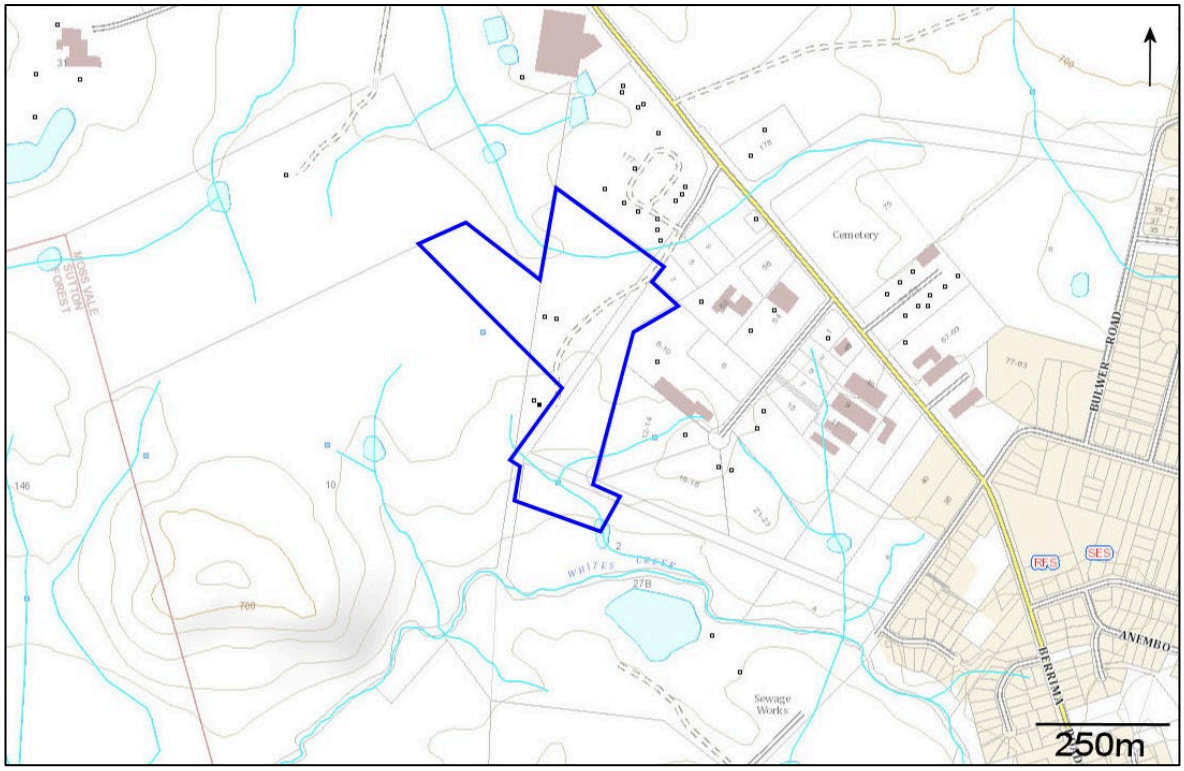


3.3 TOPOGRAPHY

The topographical context is largely determined by the geology and is important to identify potential factors relating to past Aboriginal land use patterns as not all landforms are suitable camping locations, suitable for the application of rock art etc. Land systems, along with a range of environmental factors (e.g., geology, soils, hydrology, impacts) are used in developing predictive models of past Aboriginal land use and site selection.

The project area consists of a very gentle slopes dissected by 1st order drainage lines in the north and south (Figure 3.2).

Figure 3.2 Topography of the project area (NSW Spatial Map Viewer)



3.4 SOILS

The nature of the surrounding soil landscape also has implications for Aboriginal land use and site preservation, mainly relating to supporting vegetation and the preservation of organic materials, the location and age of cultural materials.

Past human actions impact the soil record, as seen through changes in soil characteristics, changes to sedimentation, and the presence of archaeological features and artefacts preserved within modern soils. Soil and sediment conditions control what survives in the burial environment, what decomposes, and consequently influence all archaeological sites, artefacts, and biological remains. Soils have formed under the continuous influence of people, up to the present day, when most land is actively managed for agriculture, pastoral, forestry, extraction or construction.

Soils may also be impacted on by natural agencies. The deposit of alluvial and aeolian sediments and colluvium movement of fine sediments (including artefacts) results in the movement and burying of archaeological materials. The increased movement in soils by this erosion is likely to impact upon cultural materials through the post-depositional movement of materials, specifically small portable materials such as stone tools, contained within the soil profiles.

According to the Descriptions for NSW Landscapes (Mitchell 2002, pp. 117), the project area consists of the Moss Vale Highlands erosional soil landscape. It consists of rolling hills and rounded peaks with deep channel incision on horizontal Triassic quartz sandstone and shale. There are widespread yellow and grey texture-contrast soils, deep yellow earth on friable sandstone often with concretionary ironstone and accumulations of quartz sand in valleys (Mitchell 2002, pp. 117). Erosional soil landscapes are generally subject to movement of shallow soils, which can result in poor preservation of the archaeological record. Additionally, when the land is cleared of vegetation,

the soils can be subjected to more extensive levels of erosion. As this soil type is characterised as highly erosional, the soils can be shallow, highly permeable, and have low levels of soil fertility.

Geotechnical investigations in the project area (Consulting Earth Scientists 2023) included BH1 – BH 8 spread throughput the project area. The results are summarised in Table 3.2. Basically, there is up to 15cm of fill/topsoils (A_1 horizon) that overlays up to 50cm of clayey silt/silty clay (A_2 horizon), that overlays the clay B horizon.

Table 3.1 Results of Geotechnical Investigations (Consulting Earth Sciences 2023)

Unit	Geotechnical Unit	Approximate Depth Unit (m)	Material Description
Unit 1	Topsoil/ Fill	0.00 - 0.15	FILL: Clayey SILT, dark brown, fine to medium grained, low plasticity silt, with organics and rootlets. Soft. Moist.
Unit 2	Clayey SILT/ Silty CLAY	0.15 - 0.50	Clayey SILT/ Silty CLAY: grey/brown, medium plasticity, fine grained. Soft to firm, moist. Inferred Residual Soil.
Unit 3a	CLAY	0.50 - 3.50	CLAY, medium to high plasticity, grey to brown. Stiff to very stiff. Moist to dry. Becoming Silty Clay with depth (approx.2.00m). Inferred Residual Soil.

3.5 GEOMORPHOLOGY

Geomorphology is the study of landscapes, their evolution and the processes operating within earth systems. Cultural remains are part of these systems, having being deposited on, and in part, resulting from interactions within landscapes of the past. An understanding of geomorphological patterning and alterations is therefore essential in assessing and interpreting the archaeological record.

The soils throughout the region reflect the influence of a range of factors including the parent geological material, topography, climate, organisms and length of formation time. These soils consist of an upper soil Horizon A and underlying B (referred to as duplex soils), (Bishop, Mitchell and Paton 1980). Unit A and Unit B are interpreted as being Holocene and Pleistocene in age respectively. Within the region, sites tend to occur on or within soil Horizon A or are often present at the interface of the A and B horizons. Within the A horizon the lowermost (in terms of vertical positioning) artefact assemblages tend to contain artefacts that are typically attributed to the mid-Holocene, as characterised by an increase in the number of backed artefacts. Based on geomorphological grounds, A horizon soils in this context are generally considered as dating to the mid-late Holocene.

All of the natural soil profiles examined in the field consisted of an active biomantle (sensu, Johnson 1989, Paton et al., 1995, and Johnson 2002) over weathered rock or subsoil material derived from weathered rock. Mitchell (2007) has stressed the importance of recognizing the biomantle (the organic-rich bioturbated upper part of the soil, including the topsoil) an important profile characteristic as it has implications for the distribution of artefacts on open sites as follows (Dean-Jones and Mitchell 1993):

- Artefacts will be confined to the biomantle.

- Artefacts will have been subject to surface dispersion, limited down slope movement, and differential burial or exposure by bioturbation agents (ants, worms, termites, tree fall etc.) and they will contribute to the formation of a stone layer between the A and B-horizon where artefacts of all ages accumulate.
- In mechanically disturbed and/or sheet eroded area a lateral pattern of artefact dispersal can be expected as erosion processes strip the biomantle and incise the B-horizon. In depositional areas artefact burial is likely to be common.
- Despite the taphonomic processes affecting artefact distribution in the soil some site use patterns, such as knapping floors, may survive in attenuated plan form with an extended vertical and down-slope distribution of their components and possible mixing with artefacts from other events. For examples of the complexities of this process see Cahen and Moeyersons (1977), and Balek (2002).
- Because artefact burial is an ongoing process their surface visibility will be poor except where occasional flakes have been returned to the surface by landuses, tree fall, or where erosion rates are higher than average.
- Archaeological sites on texture contrast and fabric contrast soil profiles are unlikely to be stratified in a chronologically useful sense.
- The only means of dating any sites in this landscape will be by recognition of cultural sequences of artefacts, or from the recovery of intact "hearths" or burials. All other dates, especially those based on detrital charcoal, and including those based on thermo-luminescence, will be spurious because artefacts can move through soil material of any age.

Where artefacts are present, they are only likely to occur in the biomantle of the soil profiles and excavation will generally be shallow. Investigation will assist in the identification of the nature of the disturbance across the project area.

3.6 CLIMATE

Climatic conditions would also have played a part in past occupation of an area as well as impacted upon the soils and vegetation and associated cultural materials. The summers of the Moss Vale area are comfortable and partly cloudy and the winters are short, cold, and mostly clear. Over the course of the year, the temperature typically varies from 2°C to 24°C and is rarely below -1°C or above 30°C The driest month is July, with 34 mm of rain and in February, the precipitation reaches its peak, with an average of 91 mm (Bureau of Meteorology 2024).

3.7 WATERWAYS

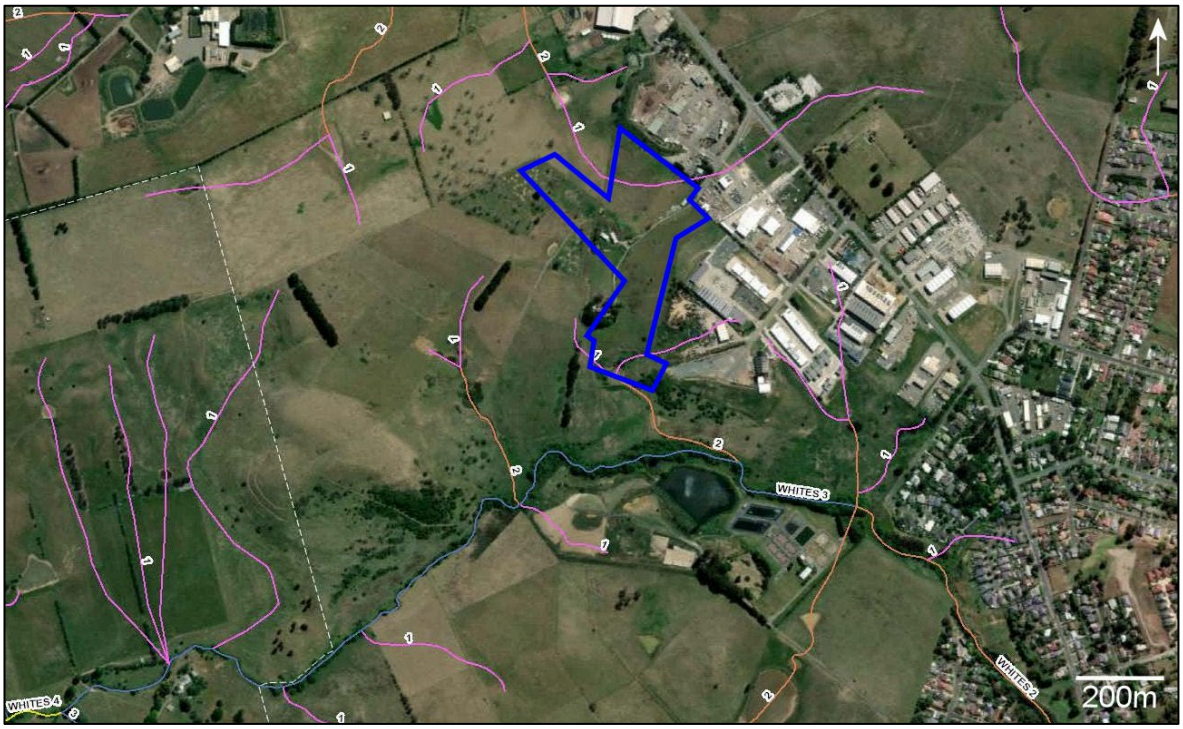
One of the major environmental factors influencing human behaviour is water as it is essential for survival and as such people will not travel far from reliable water sources. In those situations where people did travel far from reliable water, this indicates a different behaviour such as travelling to obtain rare or prized resources and/or trade. Proximity to water not only influences the number of sites likely to be found but also artefact densities. The highest number of sites and the highest density are usually found in close proximity to water and usually on an elevated landform. This assertion is undisputedly supported by both the regional and local archaeological, where by such patterns have been identified and sites are typically within 50 metres of a reliable water source in the valley landforms and up to 100 metres in the sandstone country.

The main types of water sources include permanent (rivers and soaks), semi-permanent (large streams, swamps and billabongs), ephemeral (small stream and creeks) and underground (artesian). Stream order assessment is one way of determining the reliability of streams as a water source. Stream order is determined by applying the Strahler method to 1:25 000 topographic maps. Based on the climatic analysis, the project area will typically experience comparatively reliable rainfalls under normal conditions and thus it is assumed that any streams above a third order classification will constitute a relatively permanent water source.

The Strahler method dictates that upper tributaries do not exhibit flow permanence and are defined as first order streams. When two first order streams meet, they form a second order stream. Where two-second order streams converge, a third order stream is formed and so on. When a stream of lower order joins a stream of higher order, the downstream section of the stream will retain the order of the higher order upstream section (Anon 2003; Wheeling Jesuit University 2002).

In terms of fresh water availability, the project area is situated some distance from reliable water sources. The Wingecarribee River (6th order) is located approximately 3.2 kilometres east of the project area at its closest point. A 1st order creek is located in the north of the project area and flows north into a 2nd order reek approximately 450 from the project area (Figure 3.2). Two 1st order drainage lines are located in the southern end of the project area and joins together along the southern boundary to form a 2nd order creek that continues to flow south into Whites Creek (3rd order) approximately 130 metres south of the project area.

Figure 3.3 Water courses in the local area



As fresh water is necessary for survival and played a major role in past Aboriginal land use patterns and site selection, the absence of reliable fresh water in the project area indicates that the project area was not suitable for large scale long-term camping but may have been used for transitory activities

such as hunting and gathering activities with camping by small groups of people over short periods of time following heavy rain when fresh water would have been available.

3.8 FLORA AND FAUNA

The availability of flora and associated water sources affect fauna resources, all of which are primary factors influencing patterns of past Aboriginal land use and occupation. The assessment of flora has two factors that assist in an assessment including a guide to the range of plant resources used for food and medicine and to manufacture objects including nets, string bags, shields and canoes which would have been available to Indigenous people in the past. The second is what it may imply about current and past land uses and to affect survey conditions such as visibility, access and disturbances.

The project area has been completely cleared of all vegetation. The drainage throughout the project area would have supported a limited range of faunal populations including kangaroo, wallaby, goanna, reptiles and a variety of birds. A wider variety of resources would have been available in areas to the east and south where more reliable water would have been available.

3.9 LANDUSES AND DISTURBANCES

Heritage NSW (DECCW 2010) defines disturbed lands as land that has been the subject of human activity that has changed the lands' surface and, or the subsurface, these changes being changes that remain clear and observable. Examples may include ploughing, construction works (roads, tracks, fire trails, dams, fences, clearing, utilities and infrastructure). This definition is based on the types of disturbances classified in The Australian Soil and Land Survey Field Handbook (CSIRO 2010) and Table 3.1 provides a scale formulated by the CSIRO of the levels of disturbances and their classification, which will assist in determining the level of disturbance across the project area and its impact on potential cultural material that may be present. These disturbances on the landscape have been thoroughly examined and recorded through numerous experiments (see below) in a variety of landforms throughout the world, along with the impacts on objects within the deposits.

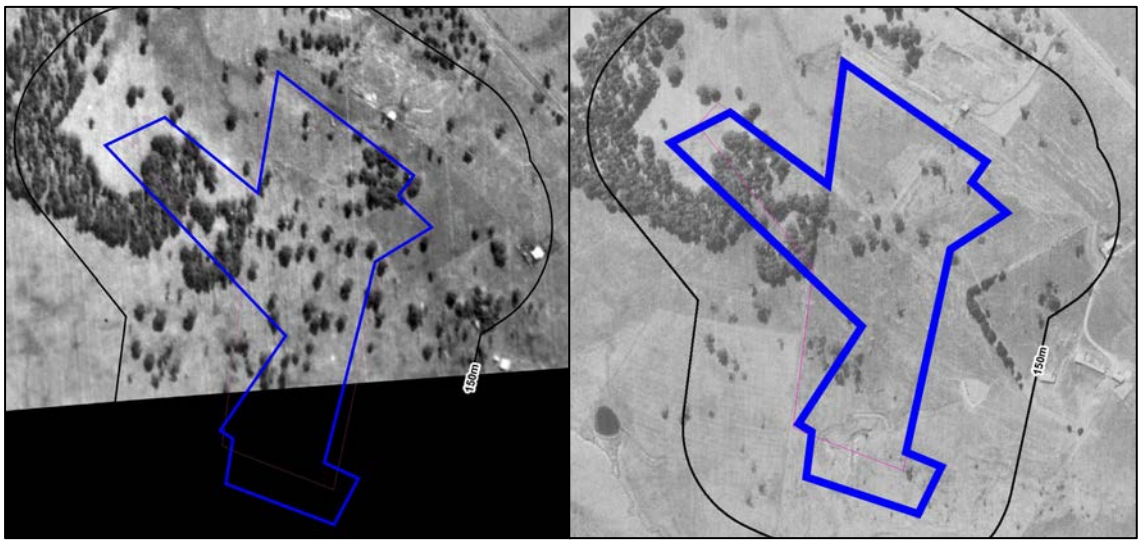
Table 3.2 Land use scale (CSIRO 2010)

Minor disturbance		Moderate disturbance		Major disturbance	
Cleared and/or grazed at some time, but apparently never ploughed		Cleared and/or grazed at some time, with ploughing also attested		Severe disturbance to natural soil profiles; complete-to-near complete topsoil loss/disturbance	
0	No effective disturbance; natural	3	Extensive clearing (e.g., poisoning and ringbarking	6	Cultivation: grain fed
1	No effective disturbance other than grazed by hoofed animals	4	Complete clearing: pasture native or improved, but never cultivated	7	Cultivation: irrigated, past and present
2	Limited clearing (e.g., selected logging)	5	Complete clearing: pasture native or improved, cultivated at some stage	8	Highly disturbed: e.g., quarry, road works, mining, landfill, urban

Based upon archaeological evidence, the occupation of Australia extends back some 40,000 years (Mulvaney and Kamminga 1999). Although the impact of past Aboriginal occupation on the natural landscape is thought to have been relatively minimal, it cannot simply be assumed that 20,000 years of land use have passed without affecting various environmental variables. The practice of 'firestick farming' whereby the cautious setting of fires served to drive game from cover, provide protection and alter vegetation communities significantly influenced seed germination, thus increasing diversity within the floral community.

Following European settlement of the area in the 1820s, the regional landscape has been subjected to a range of different modifactory activities including extensive logging and clearing, agricultural cultivation (ploughing), pastoral grazing, residential developments and mining (Turner 1985). The associated high degree of landscape disturbance has resulted in the alteration of large tracts of land and the cultural materials contained within these areas. Based on NSW Government Historical Aerial Imagery and Nearmap and Consulting Earth Scientists (2023), the project area has been subject to a range of both moderate and high landuses disturbances and impacts. As shown in Figure 3.3, in the 1949 aerial photograph the project area has been largely cleared grazing land with scattered trees and is more heavily timbered on the western section. Berrima Road is present however Bowman Road does not exist; one small building is present, just to the north of the project area. By 1963 (Figure 3.3) more of the project area has been cleared in the northern and southern sections of the project area, and a small dam is located on the southern edge and all surrounding land remains as grazing land.

Figure 3.4 1949 (left) and 1963 (right) aerial photographs of the project area

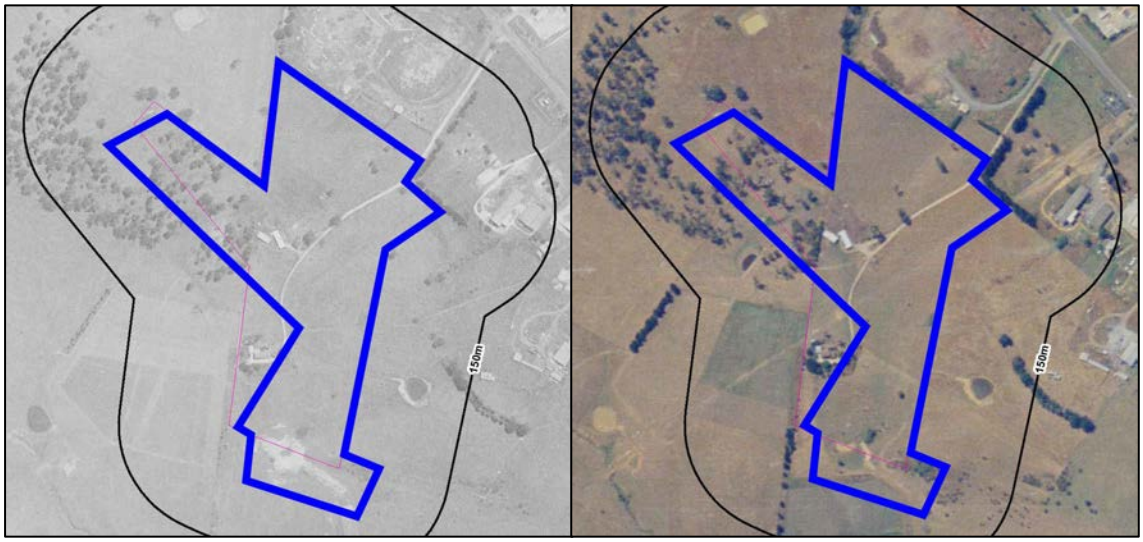


The 1969 aerial photograph (Figure 3.4) shows very little change with the small dam appearing to have expanded. By 1979 (Figure 3.4) the house in the southern part is now present, with access tracks from Berrima Road, some trees remain in the western section. Some industrial development exists to the north-east and the adjacent site to the north is partly cleared.

Figure 3.5 1969 (left) and 1979 (right) aerial photographs of the project area

As shown in Figure 3.5, by 1989 a milking shed and farm shed (dairy farming) are located in the centre of the project area and Bowman Road is now formed. There are no changes evident in the project area in the 1997 aerial photograph (Figure 3.5) except that more land clearing and industrial development has occurred to the north, between the project area and Berrima Road.

Figure 3.6 1989 (left) and 1997 (right) aerial photographs of the project area



There are no obvious changes until the 2013 aerial photograph (Figure 3.6) that shows that the western side of the project area is now also largely cleared and the area is still be utilised for grazing activities and the 2018 aerial photograph (Figure 3.6) more trees are established around the house and the dam in the south. There are no further obvious changes to the project area.

Figure 3.7 2013 (left) and 2018 (right) aerial photographs of the project area

In summary, the project area has been cleared and exclusively used as rural grazing land, and for dairy (milk) production along with the construction of the structures, infrastructure, utilities, fencing and the dam. These landuses and how they impact on the landscape and deposits are discussed. In terms of these land uses and impacts on the landscape and cultural materials that may be present, early vegetation clearing included the uprooting of trees by chaining which disturbed or destroyed that may be present near, or underneath trees and vegetation (Wood 1982). Alternatively, timber was harvested manually, using axes and hand saws and generally, only the trees that were wanted for timber were felled (selective logging). However, after the 1950s, there was an increase in mechanisation in the logging industry, and clear-felling became widely practised whereby the best logs were removed for processing, but nearly every other tree was bulldozed and burnt, and had increased impacts to the landscape.

Farming and agricultural activities also disturbed the landscape. Although pastoralism is a comparatively low impact activity, it does result in disturbances due to vegetation clearance and the trampling and compaction of grazed areas. These factors accelerate the natural processes of sheet and gully erosion, which in turn can cause the horizontal and lateral displacement of artefacts. Furthermore, grazing by hoofed animals can affect the archaeological record due to the displacement and breakage of artefacts resulting from trampling (Yorston et al 1990). Pastoral land uses are also closely linked to alterations in the landscape due to the construction of dams, fence lines and associated structures.

Excavation works required for developments, including but not limited to business, residential, industrial, abattoir, aviation, works depos, mining, dams and associated infrastructure and utilities, require excavation, cut and fill methods. Remediation works also result in additional impacts and typically involve the removal of soils. These direct impacts to the land and associated cultural materials that may be present are easy to see and understand. Any form of construction or resource exploitation that involves the removal of, relocation of or compaction or soils sediments or minerals, requires the modification of the topography, thus displacing and/or destroying any cultural materials that may have been present (Wood 1982).

In terms of everyday land uses, vehicular movements on sites have been well documented and based on several experiments (DeBloois, Green and Wylie 1974, Gallagher 1978), have shown that vehicle movements over an archaeological site are extremely destructive to the site through compaction and

movement, thus altering the spatial relationship and location of the artefacts. Based on general observations it is expected that the creation of dirt tracks for vehicle access would also result in the loss of vegetation and therefore will enhance erosion and the associated relocation of cultural materials. As fence construction require the removal of soils for the post holes, this would also have resulted in the disturbance and possible destruction of any cultural materials. All of which result in loss of vegetation and erosion to some extent.

3.10 NATURAL DISTURBANCES

Natural processes can affect the disturbance of cultural materials. Deposition and erosion patterns in a locality can influence the formation and destruction of archaeological sites. In environments with high sediment accumulation rates, artifacts are quickly buried after abandonment. Frequent depositional events can lead to well-stratified cultural deposits. (Waters 2000:538,540)

In a stable landscape with limited deposition and moderate erosion, soils will form and cultural materials will remain on the surface until burial. Extended periods of stability will compress the archaeological record, with multiple occupational episodes found on one surface prior to burial. Artefacts in duplex soils are typically located within the A horizon at the A and B horizon interface. (Waters 2000:538-539).

If erosion occurs after cultural material is deposited, it can significantly disrupt or destroy archaeological sites, regardless of their initial state of preservation. The frequency and severity of erosional events directly impact the level of disturbance or destruction. Repeated and severe episodes can lead to complete removal of older sediments, soils, and cultural deposits, resulting in the loss of archaeological material within a region. (Waters 2000:539; Waters and Kuehn 1996:484).

Bioturbation plays a crucial role in the formation of the archaeological record, impacting the preservation, redistribution, and mixing of cultural materials. Earthworms, ants, and other burrowing animals can disturb and relocate artifacts through their activities. Artefacts may also be displaced through root holes, settling by gravity, or translocation caused by tree falls (Balek 2002:41-42; Peacock and Fant 2002:92). The depth of artifact burial and movement due to bioturbation is limited by the extent of biological activity (Balek 2002:43).

Burrowing and mounding activities by animals and insects can lead to the burial and movement of artifacts, disrupting the stratigraphic integrity. Size-sorting occurs, with smaller artifacts being moved upwards and deposited in mounds, while larger artifacts move downward due to gravity and burrowing activities. This can create concentrations of artifacts that may be mistaken for cultural layers (Balek 2002:46). The rate of artifact burial through burrowing and mounding can be significant, up to 2.7 meters in 5000 years. (Balek 2002:45, 46). Experiments to assess the degree that bioturbation can affect material have been undertaken. In abandoned cultivated fields in South Carolina, Michie (summarised in Balek 2002:42-43) found that over a 100-year period 35% of shell fragments that had been previously used to fertilise the fields were found between 15 and 60 centimetres below the surface, inferred to be as a result of bioturbation and gravity.

Earthworms can disrupt soil stratification within approximately 450 years (Balek 2002:48). The impact on cultural materials varies based on the species of earthworm present (Armour-Chelu and Andrews 1994; Canti 2003; Fowler et al. 2004; Stein 1983). Different earthworm species exhibit distinct behaviours, with some dwelling deep in soils and moving vertically, while others reside in the top layers and move horizontally (Fowler et al. 2004:453). Earthworms can excavate up to six meters under favourable conditions (Stein 1983:278), altering soil horizons through burrowing and consumption of organic matter (Fowler et al. 2004:457, 461; Stein 2003:139). Earthworms can impact

cultural deposits by altering artefact concentrations and stratigraphy, displacing artefacts during burrowing, burying artefacts through faecal deposition, and blurring natural and cultural boundaries. They may also consume and destroy organic remains. In Australia, earthworm species typically require neutral pH levels around 7 and are intolerant of pH levels below 4.5 (Stein 1983:280). Artefacts may also be moved as a result of an oscillating water table causing alternate drying and wetting of sediments, and by percolating rainwater (Villa 1982:279).

3.11 DISCUSSION

The project area is located within an environment that provided limited resources. Without a fresh water supply to enable camping, the project area may have been utilised for more transitory activities such as travel and hunting and gathering on the way to reliable water and associated subsistence resources. Such past Aboriginal land uses are manifest in the archaeological record as a background scatter of discarded artefacts (such as isolated artefacts and/or very low-density artefact scatters). In relation to modern alterations to the landscape, the previous large-scale clearing and long-term grazing activities are expected to have low impacts to the landscape but the construction works for the structures, driveways and dam are expected to have significantly high impacts to the landscape any cultural materials that may be present.

4 CULTURAL CONTEXT

Although ethnographic accounts do not consider or discuss Aboriginal relationships to the land and its significance, they do provide insights into some past Aboriginal activities, some of which leave evidence in the landscape (tangible sites) and can be confirmed through archaeological investigations. Intangible sites, such as mythological, storytelling etc., cannot be confirmed by archaeological investigations and are rarely recorded by early explores and such traditional knowledge is vital in understanding the cultural landscape.

Anthropologists and ethnographers have attempted to piece together a picture of past Aboriginal societies throughout the Hunter Valley. Although providing a glimpse into the past, one must be aware that information obtained on cultural and social practices were commonly biased and generally obtained from informants including white settlers, bureaucrats, officials and explorers. Problems encountered with such sources are well documented (e.g., Barwick 1984; L'Oste-Brown et al 1998). There is little information about who collected information or their skills. There were language barriers and interpretation issues, and the degree of interest and attitudes towards Aboriginal people varied in light of the violent settlement history. Access to view certain ceremonies was limited. Cultural practices (such as initiation ceremonies and burial practices) were commonly only viewed once by an informant who would then interpret what he saw based on his own understanding and then generalise about those practices.

4.1 GANDANGARA COUNTRY

The Moss Vale area is recognised as being the within the traditional lands of the Gundangarra people. The Gandangara (also spelt Gundungara and Gundungurra) were described by Matthews and Everitt as having been located in "the coastal district… from the Hawkesbury River to Cape Howe, extending inland to the Blue Mountains, and thence southerly" (Matthews & Everitt, 1900:262). Tindale defined their traditional country as: "at Goulburn and Berrima; down Hawkesbury River (Wollondilly) to about Camden," also stating that, "their tribal name incorporates terms meaning west and east" (Tindale, 1974). Horton's map of Aboriginal Australia (Horton, 1996) based on the boundaries of language groups, shows them to be located in the Southern Highlands, stretching from Bowral in the east, past Goulburn and almost to Young in the west. The coastal Tharawal (or Dharawal) language group was to the east of them, Dharug (also spelt Darug and Dharuk) were to the north, Wiradjuri to the east and Ngunawal and Yuin to the south.

Attenbrow has urged caution in defining prehistoric Australia based only on post-contact source material. She noted that the names Darug, Tharawal and Gandangara were only used in sources from the 1870s onwards. Boundaries between language groups were not precise lines on the landscape and they also shifted over time. As a result, Attenbrow has suggested these areas should be interpreted as indicative only (Attenbrow, 2010). Tindale also commented on this, stating that a previous study would: "record their later-day movements rather than their original tribal limits" (Tindale, 1974). Certainly, the post-contact period greatly altered where Aboriginal groups were located, as settlers denied them access to traditional resources and population numbers were diminished through conflict and disease. Conflict between different Aboriginal groups competing for diminished resources changed in some cases, as the survivors of conflict and disease sometimes chose to band together in order to survive the common enemy of encroaching European settlers.

4.1.1 MATERIAL CULTURE AND RESOURCES

One of the foods regularly gathered by the Gandangara people was the fern root, which was washed in the river and beaten with a tool called a Katoom stone. Fern harvesting was likely to have primarily been a summer activity, allowing them to "exploit the maximum starch levels in the roots" (Smith, 2009). Tools were made from wood and stone, including hunting implements used on kangaroo, wallaby and possum. Both plant and animal resources were gathered from higher mountain areas in Spring and Summer, but in colder months the group would often move to lower lying areas. There they often competed for resources with neighbouring groups.

Bark huts were utilised as shelter, as explorer Francis Barrallier noted when he encountered the Gundangara, stating that they: "build huts for the strangers they wish to receive as friends" (Barrallier, 1802). Another part of their tool assemblage was the bullroarer, an item made from wood. This was also referred to as a dharamulan, based on a mythological story; the sound of the bullroarer intended to represent the voice of Dharamulan (Kohen, 1993).

4.1.2 BELIEFS

Some of the mythology of the Gandangara included shape-changing animal people called burringilling who dwelt in high places such as clouds, mountains and trees. A creator figure that was one of the burringilling was Dharamulan, whose story was used as a part of initiation rites. The dead of the Gandangara people were buried in an upright position, which was a custom also used by their neighbours, the Tharawal language group. In addition to the burial practise, internments of importance were marked by the body being wrapped in bark and the surrounding trees being carved or scarred (Kohen, 1993).

4.1.3 CONFLICT

First contact with the Gandangara people occurred in 1802 as explorer Francis Barrallier travelled from The Cowpastures to the Nattai, Wollondilly River and what is now known as Yerranderie (Barrallier, 1802). It was to be the beginning of many years of conflict and disease and marked the start of the end of traditional culture for this Aboriginal language group.

The Gandangara people were predominantly based in the mountain highlands, but seasonally they would venture into the Campbelltown and Liverpool areas in search of food. At times this led to conflict with neighbouring Aboriginal groups like the Dharawal and Dharuk. There is some evidence to suggest that the Dharawal may have attempted to use the Europeans to deal with the encroaching Gandangara, who were traditional rivals in the hunt for diminishing resources. This form of manipulation was short lived however, as the majority of Europeans were unable to distinguish between individual Aborigines, let alone varied groups or clans. As a result, European attacks were indiscriminate and a threat to all Aboriginal people, a threat that increased with each new conflict (Liston, 1990).

Although Governor Macquarie generally sought peace between settlers and Aboriginal people, he was not above ordering punitive expeditions following attacks. In May 1814 the Veteran Corps clashed with Aboriginal people near Appin and several men in the Corps were killed. This led to an expedition of vengeance that saw the family of a Gandangara man named Bitugally brutally murdered. His two children were killed while they slept, one having their skull caved in by the butt of a musket. His wife's arm was cut off and her head scalped. All three bodies were left for Bitugally and the Gandangara people to find upon their return. Another Gandangara man named Yellooming also had his child murdered by Europeans. As a direct result, widespread violence occurred

throughout the winter of 1814, with the children of a Bringelly settler named Daley murdered by Aboriginal people. On 21st July 1814 Governor Macquarie ordered a punitive expedition to capture "five wild mountain natives", holding the Gandangara responsible for the murder of the two European children. Settler Charles Throsby was concerned that there would be indiscriminate attacks against innocent Aboriginal people. The 1814 hunting parties returned without having located any Aborigines and as Spring arrived the Gandangara returned to their traditional mountain highland area (Liston, 1990).

In March 1816 however the Gandangara returned from the mountain areas in search of food and resources. When some European servants were killed a group of approximately forty settlers armed with muskets and pitchforks went hunting for the Gandangara at Upper Camden. The resulting battle saw settlers letting off a volley of shots from their firearms, which the Gandangara responded to with a shower of spears and stones. Being located on higher ground, the Aboriginal group had an advantage and were able to drop during musket volleys, then rise up to launch more spears and stones. The settlers retreated in defeat and in the aftermath those who had been living in more isolated areas moved closer to existing settlements for safety. In April 1816, under Governor Macquarie's orders, Captain James Wallis led a detachment of the 46th Regiment to the Airds and Appin Districts. Locating an Aboriginal group camping at Broughton's farm in Appin, the soldiers advanced in a line firing upon them. Some were shot while others were forced over a rocky gorge, falling to their deaths. The bodies of two men were pulled back up the cliff and hung from trees at Broughton's farm, intended to act as a warning to other Aboriginal people (Liston, 1990).

The Appin Massacre is generally regarded as the event that ended traditional life for the Aboriginal people of Campbelltown and Camden. By then numbers had been diminished by both disease and conflict and the more populated area of Liverpool was avoided. Surviving members of both the Dharawal and Gandangara groups stayed in Campbelltown, the Cowpastures and Picton from the 1830s onwards. The threat of European attack, reduced numbers and increasingly diminishing resources meant that one-time rival groups were forced to make new alliances with each other in order to survive (Liston, 1990). In 1846 and 1847 a severe epidemic of influenza spread across the area, reducing the remaining Gandangara numbers still further. By 1848 it was estimated that the remaining population in the Goulburn area consisted of only 25 Aboriginal people (Goulburn City Council, 1981).

Despite the horrors of their history, descendants of the Gandangara people continue to reside in the region to this day. The long history of their presence is marked by the many Aboriginal archaeological sites located across the area, listed in the Aboriginal Heritage Information Management System (AHIMS) database (NSW Office of Environment & Heritage, 2013).

5 ARCHAEOLOGICAL CONTEXT

A review of the archaeological literature of the region, and more specifically the local area and the results of an AHIMS search provide essential contextual information for the current assessment. Thus, it is possible to obtain a broader picture of the wider cultural landscape highlighting the range of site types throughout the region, frequency and distribution patterns and the presence of any sites within the project area. It is then possible to use the archaeological context in combination with the review of environmental conditions to establish an archaeological predictive model for the project area.

5.1 REGIONAL ARCHAEOLOGICAL CONTEXT

The definition of site curtilages in NSW are guided by the requirements for site registration in the AHIMS database, leading to geographically discrete sites as individual entities, existing in isolation. Such an approach is understandable, as it grows from the need to define sites as per legislatively guided parameters. This is further reinforced by the geographically focussed work of consultant archaeologists, limiting their analysis to a specific geographically constrained area based on individual project specifications. While this is the common practice for recording individual sites, it is important to contextualise them within a broader archaeological and cultural landscape that links them together. In this way assemblages may be understood as a continuous scatter of cultural material across the landscape and the nature of activities and occupation can be identified through the analysis of artefact distributions across a landscape.

A number of previous assessments in the region (e.g., Sefton 1980, Koettig 1981, Rich 1988, Barton and Dallas 1997, Dibden 2000, 2005, Kelton and Mills 2003, Navin 2003, 2010, 2012, AMBS 2007, Biosis 2020) have provided spatial and distribution analysis of Aboriginal objects (evidence of past Aboriginal land use) in relation to fresh water sources and landform types. The results indicate similar trends throughout NSW, that there is a relationship between proximity to fresh water and landform in site location and land uses by past Aboriginal people. The Archaeological research throughout the Southern Highlands has established a set of generalised criteria for predicting the location of Aboriginal sites within the landforms represented in this upland environment.

The Southern Highlands region provided an extensive resource base associated with the multitude of water sources. As stone is durable, it is not surprising that the majority of sites contain stone artefacts. Sites are likely to occur on level, well-drained ground adjacent to sources of freshwater (creeks or swamps). These sites are often buried in alluvial or colluvial deposits and only become visible when subsurface deposits are exposed by erosion or other types of ground disturbance. Scarred trees may occur in areas of remnant vegetation which contain trees of sufficient age; however, scarred trees will only survive if they have escaped logging and bushfire damage. Most sites identified are associated with shallow deposits, and potential archaeological deposits (PADs) are often identified on elevated, flat or low-gradient landform elements (suitable for camping) associated with drainage lines and the crest of spur lines, close to water.

Habitats associated with fresh water supplies would have supported a wide range of animals, fish, birds and mammals. Due to such an ideal environmental setting, landscapes with a fresh water supply would have been subject to a variety of past Aboriginal land uses such as camping, hunting, gathering, cooking, ceremonies, and other cultural activities.

However, it is important to note that conclusions based on geographical landform models only are not concrete justifications or criteria for site distribution and characteristics (AMBS 1997). The existing distribution and characteristics of sites manifest through past Aboriginal land uses over the past 30,000 years throughout a landscape is the result of the complex interplay of numerous factors such as periods of occupation, site type, environmental impacts, erosional events and the impacts of modern activities.

5.1.1 SUMMARY OF REGIONAL ARCHAEOLOGICAL PATTERNING

Within the region, a broad range of site types are represented including isolated artefacts, open campsites, grinding grooves, and scar trees. A wide range of landforms have been sampled and it is evident that site distribution is closely linked to topography and hydrology, with site increase in numbers and densities with higher order creeks which reduce in number and size with a decrease in stream order. Previous archaeological investigations conducted within the region have produced a significant volume of information in relation to the distribution and nature of archaeological material within this region. These previous assessments have identified a number of trends that can be identified as follows:

- a wide variety of site types are represented in the project area with artefact scatters and isolated artefacts by far the most common;
- artefact scatters and isolated finds are most likely to occur as background scatter on all landforms, however, concentration of artefacts are most likely to occur on elevated landforms or raised areas of lower lying landforms adjacent to ephemeral and perennial streams;
- elevated landforms near the confluence of streams are particularly sensitive to open artefact scatters;
- rock shelters are likely to occur along rocky scarps and cliff lines;
- grinding grooves and engraving sites are most likely to be present on outcropping sandstone in stream beds or adjacent to streams;
- modified trees will occur in areas that have not been cleared and are of sufficient age to bear marks of traditional Aboriginal scarring or carving;
- due to vegetation coverage and the nature of sand deposits, the detection of sites is directly related to levels of exposure and visibility; and
- sites are typically disturbed through past and present land uses.

Distance to water is a common and an important factor in the distribution of Aboriginal sites. Water is essential for survival and areas with access to abundant water was often the preferred location for occupation. Within the local area the following has been recognised:

- sites in proximity to ephemeral water sources or located in the vicinity of headwaters of upper tributaries (1st order streams) have a sparse distribution and density and contain little more than a background scatter;
- sites located in the vicinity of the upper reaches of minor tributaries (2nd order streams) also have a relatively sparse distribution and density and may represent evidence of localised one-off behaviour;

- sites located in the vicinity of the lower reaches of tributaries (3rd order creeks) have an increased distribution and density and contain evidence that may represent repeated occupation or concentration of activity;
- sites located in the vicinity of major tributaries (4th and 5th order streams/rivers) have the highest distribution and densities. These sites tend to be extensive and complex in landscapes with permanent and reliable water and contain evidence representative of concentrated activity; and
- sites located within close vicinity at the confluence of any order stream may be a focus of activity and may contain a relatively higher artefact distribution and density.

5.2 HERITAGE REGISTER LISTINGS

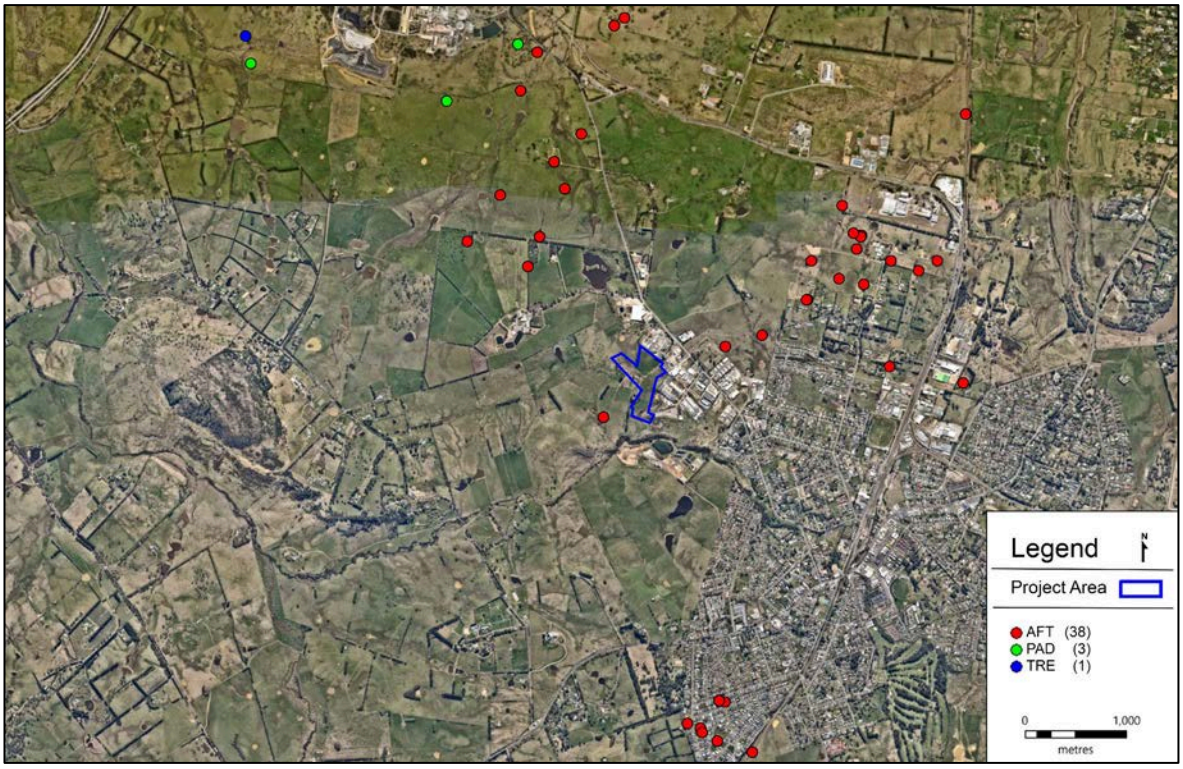
The State Heritage Register, the National Heritage List, the Commonwealth Heritage List, the National Trust Heritage Register and the relevant Local Environmental Plan have no Aboriginal objects, sites or places listed.

5.3 ABORIGINAL HERITAGE INFORMATION MANAGEMENT SYSTEM

MCH note that there are many limitations with an AHIMS search. Firstly, site coordinates are not always correct due to errors and changing of computer systems over the years that failed to correctly translate old coordinate systems to new systems. Secondly, AHIMS will only provide up to 110 sites per search, thus limiting the search area surrounding the project area and enabling a more comprehensive analysis and finally, few sites have been updated on the AHIMS register to notify if they have been subject to a s87 or s90 and as such what sites remain in the local area and what sites have been destroyed, to assist in determining the cumulative impacts, is unknown. Additionally, terminology for site names including (amongst many) an 'artefact' site encompasses stone, bone, shell, glass, ceramic and/or metal and combines both open camps and isolated finds into the one site name. Unfortunately, this greatly hinders in the predictive modelling as different sites types grouped under one name provided inaccurate data.

A search of the AHIMS register (Appendix A) has identified 42 known Aboriginal sites currently recorded within three kilometres of the project area and include 38 artefact sites (AFT), 3 potential archaeological deposits (PAD) and one scar tree (TRE) (Figure 5.1). There are no AHIMNS sites or Aboriginal Places in the project area.

Figure 5.1 Approximate location of AHIMS sites



5.4 LOCAL ARCHAEOLOGICAL CONTEXT

All archaeological surveys throughout the local area have been undertaken in relation to environmental assessments for developments. The most relevant investigations indicate differing results and observations based on surface visibility and exposure, alterations to the landscape (including mining, industrial and residential development), proximity to water sources and geomorphology. The reports available from AHIMS are discussed below.

Navin Officer Heritage Consultants Pty Ltd. 2008. Chesley Pastoral Land Moss Vale.

Navin Officer Heritage Consultants (2008) was commissioned to undertake a cultural heritage review of a study area of 600 hectares in size located in Moss Vale in the southern highland's region of New South Wales. The client was seeking to dispose of the land and the current review of the known and potential cultural heritage resources was required to assist in making informed decisions regarding the sale of the land. Past disturbance activity included the clearance of original vegetation, construction of adjacent roads, tracks, contour banks, railway lines and fences, with adjacent housing developments and the placement of water and sewerage pipelines and electricity cables also to occur through the area.

The topography of the study area was gently sloping with minor spur lines. The geology consisted of Quaternary alluvium and Tertiary gravels. The soils were derived from silts and clays with some areas of high humic content. A minor drainage line and the north flowing course of Stony Creek both flowed through the study area. Extensive vegetation clearance had resulted in only scattered stands of tall open forest species remaining extant, including mountain grey gum. Within swampy areas the extant vegetation included common reed, sedge and bulrushes.

A search of the AHIMS register identified three previously recorded sites within the study area. All three were grinding groove sites, one of which also had an associated artefact scatter and a PA). It was predicted that there was a high potential for the presence of additional sites and subsurface archaeological deposits to be present. It was noted that no previous European heritage assessments had been undertaken within the study area and one European historic site, "Chesley Park" homestead and associated structures and features, was noted as occurring within the study area. This historic site had local significance and was listed on the Wingecarribee Shire Council LEP 1989.

This assessment was desktop only and did not include any field surveys or further investigation. Based on the results of the desktop assessment it was predicted that further artefact sites could occur on locally elevated ground adjacent to water sources. Larger sites would most likely be associated with larger and more permanent water sources. Sites in low contexts, if present, were predicted to have been buried under the deposition of alluvium during floods. It was concluded that there was a high potential for unrecorded Aboriginal archaeological sites to occur within topographic contexts of predicted sensitivity within the study area, but with appropriate management and mitigation strategies in place, there would be no long-term constraints to development proceeding. Based on the available data and predictive models, it was considered unlikely that cultural heritage issues would preclude development within the study area. It was recommended that the identified sites be avoided from any future impacts and that further archaeological investigation should occur to determine the nature, extent and integrity of any potential archaeology within the study area.

Biosis Pty Ltd. 2020. Chesley Park Brick Making Plant (Site 2) 416 Berrima Road, New Berrima.

Biosis Pty Ltd (2020) undertook an archaeological assessment of a proposed brick making plant to be located at 416 Berrima Road, New Berrima, New South Wales. The study area was 2.1 kilometres south east of Berrima and 7.5 kilometres south west of Bowral. It encompassed part of Lot 1 DP 785111, which consisted of approximately 57 hectares of private land. The proposed development was for a brick making plant and associated infrastructure on a 14.8-hectare area within the north-east portion of Lot 1 DP 78511.

The topography of the study area included slopes, steeper slopes with minor terracing, as well as broad and convex crests. The underlying geology was Wianamatta Group comprised of Bringelly Shales with mudstones with interbedded lithic sandstones as well as finer grained siltstones and claystone. The swamp and numerous creeks in the area would have provided permanent water and food resources such as fish, snakes, eels, platypus, waterfowl and yabbies, with edible plants growing abundantly. The tall open forests would have provided areas to hunt kangaroo, possums, wallabies and birds, while closer to the escarpment, smaller trees, plants and bushes would have provided yet another source of food as well as natural overhangs for shelter.

A search of the AHIMS register identified 90 previously recorded Aboriginal archaeological sites within a five-kilometre search area, centred on study area. Three of these sites were located within the bounds of the study area. These consisted of a broken grinding stone, an isolated artefact and a grinding groove site. In the broader area it was noted that artefact sites comprised of 75.79% of all previously recorded sites. It was predicted that further sites could occur within the bounds of the study area.

A meandering pedestrian transect was walked across all accessible parts of the study area, with two surveyors walking two metres apart. Ground surface visibility across the study area was generally low (20%) due to extensive grass cover. Following the results of the field survey, a test excavation program was undertaken to characterise the extent, nature and archaeological value of Aboriginal

cultural heritage. Test pits measuring 50 by 50 centimetres were excavated within an area of high archaeological potential, spaced 20 metres apart, and areas of moderate potential were spaced 40 metres apart. A total of 137 test pits were excavated within areas of moderate and high potential and 14 new sites were identified. The investigation results are summarised below in Table 5.1.

Table 5.1 Summary of sites (Biosis 2020)

Site	Site type	Landform	Distance to water	Stream order	Artefacts /features	Disturbance	Subsurface potential
CPark A02 AHIMS 52-4-0691	isolated artefact	crest	not provided	not provided	1 broken grinding stone	fence	no
CPark A03 AHIMS 52-4-0692	isolated artefact	not provided	not provided	not provided	1 proximal silcrete flake	homestead	no
Stoney Creek 1 AHIMS 52-4-0196	grinding groove site with artefact scatter	creek channel	0m	not provided	three axe grinding grooves and 15 artefacts	water flow	yes
CPark A04 PAD AHIMS 52-4-0701	artefact scatter	terrace	not provided	Stony Creek	34	test excavation	yes
CPark A05 AHIMS 52-4-0696	artefact scatter	not provided	not provided	Stony Creek	3	test excavation	yes
CPark A06 AHIMS 52-4-0695	isolated artefact	not provided	not provided	Stony Creek	1	test excavation	yes
CPark A07 AHIMS 52-4-0694	isolated artefact	not provided	not provided	Stony Creek	1	test excavation	yes
CPark A08 AHIMS 52-4-0693	isolated artefact	not provided	not provided	Stony Creek	1	test excavation	yes
CPark A09 AHIMS 52-4-0702	isolated artefact	not provided	not provided	Stony Creek	1	test excavation	yes
CPark A10 AHIMS 52-4-0703	isolated artefact	not provided	not provided	Stony Creek	1	test excavation	yes

CPark A11 AHIMS 52-4-0698	artefact scatter	not provided	not provided	Stony Creek	2	test excavation	yes
CPark A12 AHIMS 52-4-0697	isolated artefact	not provided	not provided	Stony Creek	1	test excavation	yes
CPark A13 AHIMS 52-4-0699	isolated artefact	not provided	not provided	Stony Creek	1	test excavation	yes
CPark A14 AHIMS 52-4-0700	isolated artefact	not provided	not provided	Stony Creek	1	test excavation	yes

Biosis recommended that there should be conservation of part of AHIMS 52-4-0196 (Stoney Creek 1), that an Aboriginal cultural heritage management plan should be produced and that consultation should be ongoing with the Registered Aboriginal Parties.

OzArk. 2021. Aboriginal Cultural Heritage Assessment Report Proposed Plastics Recycling Centre Moss Vale, NSW.

OzArk (2021) undertook an Aboriginal cultural heritage assessment of a proposed plastics recycling centre at Moss Vale in the Southern Highlands region of New South Wales. The study area was defined as 74-76 Beaconsfield Road, Moss Vale (Lots 10 and 11 DP1084421). Past disturbances in the study area included construction of several dams along the creek lines, construction of road surfaces in isolated areas, construction of farm infrastructure such as fencing and cattle yards, as well as cattle grazing. The topography of the study area was predominantly elevated landforms associated with seasonal watercourses. This included a broad, gently sloping spur with a seasonal waterway on the western side and a seasonal drainage pathway on the eastern side, as well as to its north. The western waterway was a tributary of the Wingecarribee River. The underlying geology was of the Wianamatta Group containing mudstones with interbedded lithic sandstones, as well as finer grained siltstones and claystone. Due to extensive past vegetation clearance, there were no mature native trees extant within the study area at the time of this investigation.

A search of the AHIMS register identified artefact sites as making up 84.3% of previously recorded sites, followed by grinding grooves (7.8%), areas of Potential Archaeological Deposit (PAD) (5.9%) and modified trees (2%). There were two previously recorded sites present within the study area. These were both isolated artefacts located on an unformed vehicle track. It was predicted that further artefact sites could be present within the study area in both surface and subsurface contexts. A test excavation was undertaken within the bounds of previously defined areas of PAD to determine the presence or absence of site bearing subsurface deposits. Test pits were excavated at 10 metre intervals along eight transects, with six test pits excavated per transect. This resulted in a total of 48 test pits being excavated, each measuring 0.5 metres by 0.5 metres. The investigation works resulted in the identification of four sites. The investigation results are summarised below in Table 5.2.

Table 5.2 Summary of sites (OzArk 2021)

Site	Site type	Landform	Distance to water	Stream order	Artefacts /features	Disturbance	Subsurface potential
Beaconsfield Rd IF-1 (52-4-0715)	isolated artefact	midslope	not provided	Wingecarribee River	1 silcrete flake	track, earthworks, and animal grazing	no
Beaconsfield Rd OS-1 (52-4-0713)	artefact scatter	crest	not provided	Wingecarribee River	3	secondary context	no
Beaconsfield Rd OS-2 (52-4-0714)	artefact scatter	spur	0m	ephemeral drainage line	4	clearance	no
Beaconsfield Rd IF-2 (52-4-0716)	isolated artefact	not provided	not provided	Wingecarribee River	1	clearance	no

OzArk concluded that, based on the low density of finds, no further archaeological investigation was warranted. It was recommended that the identified sites be avoided from impacts and, following project approval, an Aboriginal Cultural Heritage Management Plan should be developed in consultation with Registered Aboriginal Parties.

Bradley, K., and Barber, M. 2016. Aboriginal Cultural Heritage Assessment: Broughton Street Moss Vale Subsurface Testing.

Bradley and Butler (2016) undertook an archaeological test excavation at a study area proposed for residential subdivision located at Lot 36/DP 1202638 on Broughton Street in Moss Vale. The proposed development of the study area was to include housing infrastructure and services such as roads, power, water and sewerage. The topography of the study area consisted of lower, mid and upper slopes, ridgeline and crest. The study area was underlain by Triassic Wianamatta Group shales with pockets of Tertiary basalt. A first order drainage line was present within the study area; the drainage line ran in a north-westerly direction within the eastern part of the property before turning to the north and exiting the property. The nearest permanent water source was Whites Creek, located approximately 1.6 kilometres to the north-east of the study area. The natural vegetation across the study area had predominantly been cleared, but would originally have consisted of tall forests of peppermint, black ash and brown barrel trees with a ground cover of native grasses. A search of AHIMS identified 15 sites within a six-by-six-kilometre search area, centred on the study area. These consisted of 13 artefact scatters, one modified tree and one PAD. Although registered as a site within AHIMS in this instance, it should be noted that a PAD is not a site but rather an area with the potential to contain cultural material in subsurface deposits. The study area contained four previously recorded sites, being an artefact scatter and three isolated artefacts. A previous due diligence assessment had identified that the study area had subsurface potential, which triggered the test excavation undertaken for this assessment. A total of 35 test pits were excavated along linear transects placed at 50 metre intervals. Each test pit was 50 by 50 centimetres in size and all excavated material was sieved through a five-millimetre mesh. Fourteen of the 35 excavated test pits were found to contain Aboriginal cultural material. In total 16 stone artefacts were recovered and one test

pit was found to contain pieces of burnt clay. No surface artefacts were recorded within the study area. The finds were assessed as likely to be indicative of transitory use of the area by Aboriginal people moving through this area in the past, rather than it being a consistent habitation site. The area of sensitivity that had been designated as a PAD was updated to an artefact scatter site following the findings of the test excavation. The site, BSMV PAD1 is an artefact scatter located on a slope 1.6 kilometres from Whites Creek and has been disturbed through clearing. It was recommended that opportunities be sought to preserve a portion of the ridge crest as open space to preserve a sample of the site and that an Aboriginal Heritage Impact Permit (AHIP) be sought for any identified site areas that could not be avoided from impacts. It was further recommended that stop work procedures be enacted for any works outside authorised AHIP areas and that further assessment be undertaken should works be required beyond the defined study area that had been subject to assessment.

NGH Environmental Pty Ltd. 2017. Aboriginal Cultural Heritage Assessment: Broughton Street Moss Vale PAD2 Subsurface Testing.

NGH Environmental Pty Ltd (2017) completed an Aboriginal cultural heritage assessment of a proposed residential subdivision known as Darraby Stage 4. The study area for this assessment was defined as Lot 123 DP 1227969 on Broughton Street in Moss Vale, in the southern highland's region of New South Wales. The proposed works were to develop housing infrastructure and associated services such as roads, power, water and sewerage, all requiring ground disturbance. The topography of the study area was comprised of an elevated spur crest above an ephemeral drainage line. The underlying geology was comprised of Triassic Wianamatta Group shales with pockets of Tertiary basalt. The native vegetation across the study area had been cleared, with only some isolated eucalypts extant at the time of this assessment. A search of the Aboriginal Heritage Information Management System (AHIMS) register identified 15 previously recorded sites within a six-by-six-kilometre search area centred on the study area. The predominant site type was artefact scatter, accounting for 13 of the sites, with one modified tree and a PAD also present. Five of these sites were within the bounds of the study area and it was predicted that further sites could be present in either surface or subsurface contexts.

A pedestrian survey was undertaken of the study area and one isolated artefact and an area of PAD were identified. These results led to the recommendation for test excavation to be undertaken within the area of identified PAD (BSMV PAD2). A total of six test pits were excavated across this area of PAD and all spoil material was sieved through a three-millimetre gauge mesh. One artefact was identified during the test excavation, being a broken chalcedony flake, measuring 10 by seven by two millimetres in size. The PAD site was reclassified as an isolated artefact. As the test excavation only identified one artefact it was determined that further investigation and archaeological salvage were not warranted at this location. It was recommended that the proposed development proceed following the successful application of an Aboriginal Heritage Impact Permit (AHIP) to allow the required site impacts.

5.5 LOCAL & REGIONAL CHARACTER OF ABORIGINAL LAND USE & ITS MATERIAL TRACES

The following is a summary of the previous investigations detailed in Section 5.3 and 5.4. It must be remembered, however, that there are various factors which will have skewed the results discussed

in Section 5.3. Therefore, the summary provides an indication of what may be expected in terms of site location and distribution.

- the majority of sites are located on elevated landforms within 50 metres of a reliable water source with a drop of site number and densities from 50 metres of water;
- the likelihood of finding sites of any size increases with proximity to water and the likelihood of finding large artefact scatters also increases markedly with proximity to water;
- the main site types are artefact scatters and isolated finds;
- the data suggests that slopes were the preferred location, however, this does not account for vertical movement of artefacts or sites being moved from flooding, flowing creeks etc.;
- mudstone, silcrete and tuff are by far the most common raw material types represented at sites in the region. Quartz and chert are the next most frequently in artefact assemblages followed by volcanic materials, porphyry and petrified wood. Siltstone, rhyolite and porcellanite are relatively rare;
- flakes, broken flakes and flaked pieces are the most common artefact types recorded;
- the stone artefacts are usually relatively dated to within the last 5,000 years;
- the vast majority of artefactual material in the region was observed on exposures with good to excellent ground surface visibility; and
- the majority of sites have been significantly impacted on by past and present land uses.

5.6 MODELS OF PAST ABORIGINAL LAND USE

The objective of this assessment is to define the nature and extent of occupation in the area by analysing landform units and sites. The focus will be on identifying variations between sites, assemblages, landforms, and resources, treating assemblages as a continuous scatter of cultural material. By examining stone artifact distributions, we aim to pinpoint variations in land use, activities, and occupation patterns across the landscape.

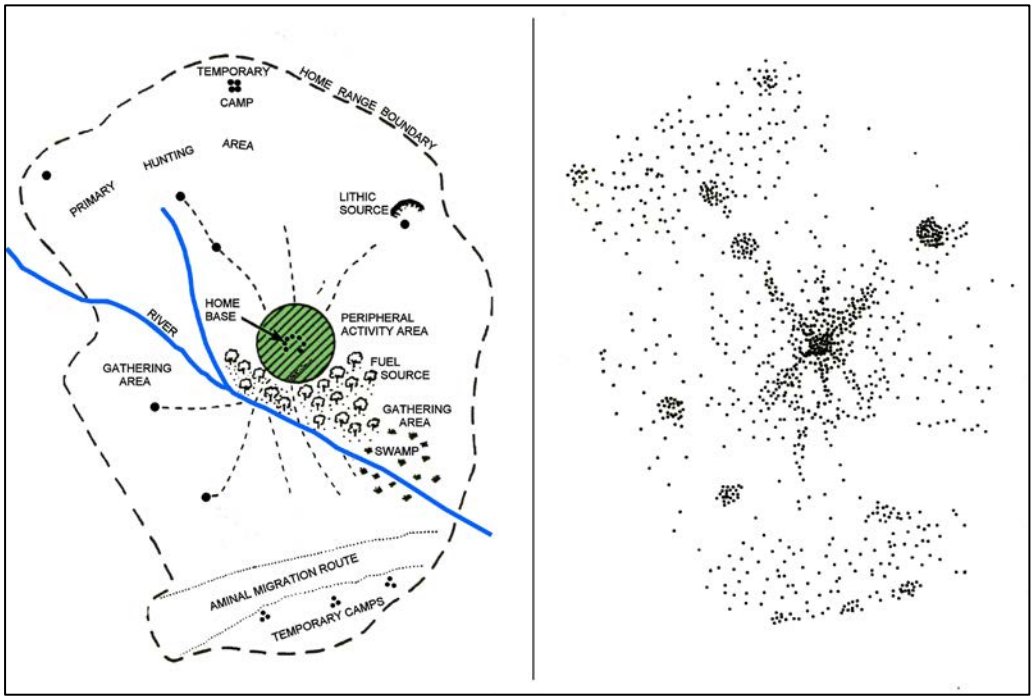
A general model of forager settlement patterning in the archaeological record has been established by Foley (1981). This model outlines forager settlement patterning, defining a residential "home base" site and peripheral "activity locations". The home base serves as the primary hub for various activities, while activity locations are situated away from the home base and cater to specific tasks like tool manufacturing. This pattern is illustrated in Figure 5.2.

Home base sites are typically located in areas with reliable access to essential resources like water and raw materials, influencing the rate of return and complexity of evidence. Home base sites generally show a greater diversity of artefacts and raw material types (which represent a greater array of activities performed at the site and immediate area). Activity locations, on the other hand, occur within the foraging radius of a home base camp (approximately 10 km); (Renfrew and Bahn 1991).

Based on the premise that the activity locations outside the home base, served as a focus of a specific activity, they will show a low diversity in artefacts and are not likely to contain features reflecting a base camp (such as hearths). However, it is also possible that the location of certain activities cannot be predicted or identified, adding to the increased dispersal of cultural material across the landscape. For example, if people were opting to carry stone tools during hunting and gathering journeys

throughout the area (rather than manufacturing tools at task locations), an increased number of used tools should be recovered from low-density and dispersed assemblages across the landscape.

Figure 5.2 Foley's model (L) and its manifestation in the archaeological record (R), (Foley 1981).



5.7 MODEL OF OCCUPATION FOR THE REGION

Work throughout NSW has aimed to understand the nature of Aboriginal occupation and determine the nature of land use. This theme often aims to identify and explain archaeological patterning in site type, content and distribution. General theories have been developed outlining the relationship between land use patterns and the resulting archaeological evidence. A number of models developed for the region have been reviewed (McBryde 1976; Koettig 1994; Dean-Jones and Mitchell 1993; Rich 1995; Kuskie and Kamminga 2000; McDonald and White 2010). All models state that the primary requirements for repeated, concentrated or permanent occupation is access to reliable fresh water. Brief and possible repeated occupation may be represented in areas that have unreliable access to ephemeral water sources, however, these areas will not contain high archaeological evidence or potential (Goodwin 1999).

Kuskie and Kamminga (2000) developed a model of occupation strategies based on ethnographic research. The model makes a general set of predictions for the region that is consistent with other studies (e.g., Nelson 1991) and distinguishes between short-term or extended long-term occupation and makes some predictions about the likely location of different foraging and settlement activities. Combining this information with a general review of assemblage contents from a sample of excavated sites within the region, a baseline of settlement activities may be determined (Barton 2001).

The model offers various archaeological expectations that can be empirically tested. For example, the presence of features requiring a considerable labour investment such as stone-lined ovens or heat-treatment pits are likely to occur at places where occupation occurred for extended periods of

time. The presence of grindstones is also a reliable indicator of low mobility and extended occupation as seed grinding demands significant time and effort. Ethnographic evidence shows that seed grinding typically requires a full day to yield sufficient energy returns (Cane 1989; Edwards and O'Connell 1995).

In contexts of high group mobility and shifting campsites, artefact assemblages are not expected to contain elements such as grindstones, heat-treatment pits, ovens and the diversity of implements frequently discarded at places of extended occupation. Rather, activities may be unpredictably located, leading to low-density background scattering of discarded artefacts across the landscape. If individuals carry and maintain stone tools for multiple tasks rather than making new ones, the proportion of used tools to unworn flakes in these assemblages is likely to be high.

Table 5.1, adapted from Kuskie and Kamminga (2000), utilises the analysis of lithic assemblages to identify specific activity areas and may be utilised for this assessment. Excavated materials were used for this analysis due to their higher level of preservation and reduced disturbances, removal, and breakages.

Table 5.3 Site descriptions (Kuskie & Kamminga 2000).

Occupation pattern	Activity location	Proximity to water	Proximity to food	Archaeological expectations
Transitory movement	all landscape zones	not important	not important	• assemblages of low density & diversity • evidence of tool maintenance & repair • evidence for stone knapping
Hunting &/or gathering without camping	all landscape zones	not important	near food resources	• assemblages of low density & diversity • evidence of tool maintenance & repair • evidence for stone knapping • high frequency of used tools
Camping by small groups	associated with permanent & temporary water	near (within 100m)	near food resources	• assemblages of moderate density & diversity • evidence of tool maintenance & repair • evidence for stone knapping & hearths
Nuclear family base camp	level or gently undulating ground	near reliable source (within 50m)	near food resources	• assemblages of high density &diversity • evidence of tool maintenance & repair & casual knapping • evidence for stone knapping • heat treatment pits, stone lined ovens • grindstones
Community base camp	level or gently undulating ground	near reliable source (within 50m)	near food resources	• assemblages of high density & diversity • evidence of tool maintenance & repair & casual knapping • evidence for stone knapping • heat treatment pits, stone lined ovens • grindstones & ochre • large area >100sqm with isolated camp sites

Navin (1987) further developed earlier archaeological models for the Illawarra area and considers the relevant aspects of previous region-wide models while also considering the additional resources offered by the proximity of Lake Illawarra. In this model, Navin accepts that Lake Illawarra offers a

large variety of micro-environmental zones and was capable of supporting sedentary habitation year-round, with coastal resources to the east and floodplains to the west.

Undertaking a survey of both Lake Illawarra and the surrounding hinterlands, Navin examined several landforms associated with many of the Aboriginal site types found around the Illawarra region and identified that the lake foreshore and estuary are most likely to contain middens, while artefact scatters are more common in the hinterland, along river terraces and on minor creeks. Scarred trees are present around the lake but only in substantial stands of native vegetation, while grinding grooves are only present where suitable rock outcrops are found.

5.8 PREDICTIVE MODEL FOR THE PROJECT AREA

Due to issues surrounding ground surface visibility and the fact that the distribution of surface archaeological material does not necessarily reflect that of sub-surface deposits, it is essential to establish a predictive model.

Previous archaeological studies undertaken throughout the region, the AHIMS register and the environmental context provide a good indication of site types and site patterning in the area. This research has shown that occupation sites (artefact scatters, isolated finds and shell middens) are the most frequently recorded site type and are commonly located along or adjacent to watercourses, and on relatively flat to gently sloping topography in close proximity to reliable water. Sites with higher artefact densities are similarly concentrated within fifty metres of watercourses. Within the local area, previous assessments within a similar environmental context indicate that, within a well-watered context, there is high potential for archaeological material to be present on level, typically well-elevated landforms that provide ready access to low-lying waterlogged areas and the associated resources.

Based on the AHIMS results, local and regional archaeological investigations as well as the environmental context, given that fresh water was necessary for survival and the project area is located 3.2 Kilometres from Wingecarribee River (6th order), and the project area containing two 1st order drainage lines and a 2nd order creek along the southern boundary, the absence reliable of fresh water indicates the project area and immediate surrounds may have been used for hunting and gathering opportunities rather that large-scale long-term camping. Evidence of such past Aboriginal land uses manifest in the archaeological record as low-density artefact scatters and isolated finds.

5.9 ARCHAEOLOGICAL POTENTIAL IN THE PROJECT AREA

Based on archaeological sites registered in the region and the results of past archaeological studies, two site types are likely to occur throughout the project area:

- **Artefact scatters**

Also described as open campsites, artefact scatters have been defined as two or more stone artefacts within 50 metres of each other and will include archaeological remains such as stone artefacts and may be found in association with hunting and gathering activities (manifests in the archaeological record as lo-density discarded artefacts across the landscape) or camping where other evidence may be present such as shell, hearths, stone lined fire places and/or heat treatment pits. These sites are usually identified as surface scatters of artefacts in areas where ground surface visibility is increased due to lack of vegetation and land uses. Erosion, agricultural activities (such as ploughing, grazing), construction and mining activities and access ways can also expose surface campsites. Artefact scatters may represent evidence of;

- Large camp sites, where everyday activities such as habitation, maintenance of stone or wooden tools, manufacturing of such tools, management of raw materials, preparation and consumption of food and storage of tools has occurred;
- Medium/small camp sites, where activities such as minimal tool manufacturing occurred;
- Hunting and/or gathering events;
- Other events spatially separated from a camp site, or
- Transitory movement through the landscape.

Artefact scatters are a common site type in the locality and the broader region. There is potential for artefact scatters to occur within the project area. However, there is also the potential for such sites to be impacted on through past land uses.

- **Isolated finds**

Isolated artefacts are usually identified in areas where ground surface visibility is increased due to lack of vegetation and land uses. Erosion, agricultural activities (such as ploughing), construction and mining activities and access ways can also expose surface artefacts. Isolated finds may represent evidence of;

- Hunting and/or gathering events; or
- Transitory movement through the landscape.

Isolated finds are a common site type in the locality and the broarder region. There is potential for isolated artefacts to occur across the project area and across all landforms. There is also the potential for such sites to be impacted on through past land uses.

6 SUMMARY OF THE RESULTS OF THE PREVIOUS ASSESSMENT

This Section provides a summary of the previous archaeological due diligence assessment undertaken by Biosis in 2024, the results of which led to this ACHA and archaeological test excavation.

6.1 METHODOLOGY

Biosis (2024) report that the identification of natural soil deposits within the study area was undertaken. Photographs and recording techniques were incorporated into the survey including representative images of survey units, landforms, vegetation coverage, GSV and the recording of soil information for each survey unit were feasible. Any potential Aboriginal objects observed during the survey were to be documented and photographed.

6.2 RESULTS

Several factors significantly affect the effectiveness of archaeological surveys, particularly concerning the likelihood of identifying sites. In the context of the current project area, two primary factors were identified as major contributors to reduced survey efficacy. Firstly, the presence of an extensive network of electrified fences impeded easy access and mobility within the area. Secondly, the overall visibility was compromised due to dense vegetation cover and the accumulation of livestock manure, further limiting the potential to detect archaeological sites.

The study area exhibited areas of exposure attributable to livestock movement. Notably, a significant section was identified within a securely fenced livestock corridor situated on a gentle slope. This exposure occurred due to disturbances from cattle movement, which led to the removal of vegetation cover and the exposure of subsurface soils. There were no artefacts within these exposed areas.

Biosis identified that disturbances were widespread in the project area, significantly affecting extensive portions of the land surface. The contributing factors encompass residential developments, including landscaping and the construction of housing. Agricultural activities are also notable, with initial vegetation clearance for paddock creation, fencing, and livestock grazing. Additionally, light industrial practices are evidenced by the establishment of dams in the southernmost section of the study area. Unfortunately, survey units are not identified, landforms are not identified and no GSV is provided. Additionally, there are no overall photographs of the project area but photographs of areas of disturbances are provided.

6.3 ARCHAEOLOGICAL SITES

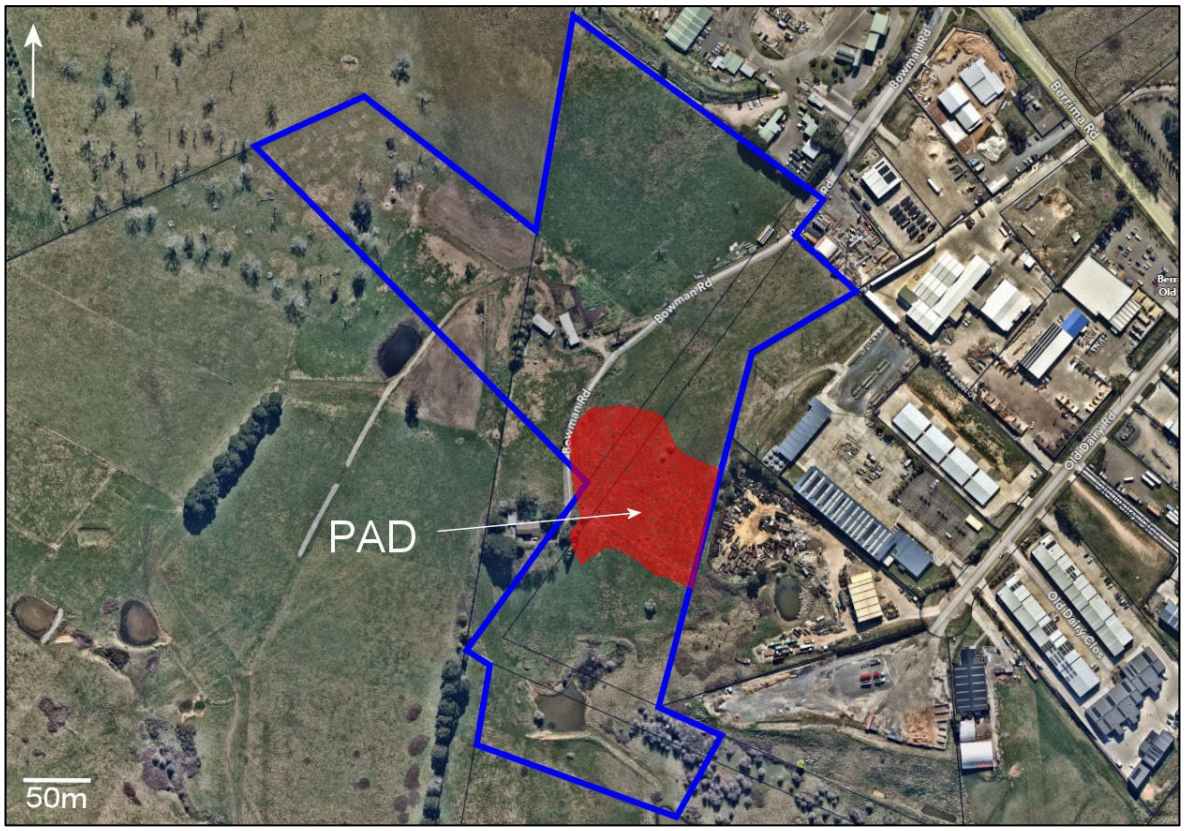
No sites were identified in the project areas during the survey and this Biosis attribute this to the low GSV and levels of exposure throughout the project t area.

6.4 POTENTIAL ARCHAEOLOGICAL DEPOSIT

The terms “potential archaeological deposit (PAD)” and “area(s) of archaeological sensitivity” are used to describe areas that are likely to contain sub-surface cultural deposits. These sensitive landforms or areas are identified based upon the results of fieldwork, the knowledge gained from previous studies in or around the subject area and the resultant predictive models. Any or all of these attributes may be used in combination to define an area of potential archaeological sensitivity.

The likelihood of a landscape having been used by past Aboriginal societies and hence containing archaeologically sensitive areas is primarily based on the availability of local natural resources for subsistence, artefact manufacture and ceremonial purposes. The likelihood of surface and subsurface cultural materials surviving in the landscape is primarily based on past land uses and preservation factors. A PAD was identified during the survey (Figure 6.1), situated on a raised flat landform near two distinct non-perennial watercourses. The identification of the PAD followed discussions with ILALC representative Paul Bell, who noted the area's well-drained characteristics and the similarity to nearby AHIMS site 52-4-0188.

Figure 6.1 Location of PAD



Biosis observed that the PAD aligns with the predictive statement established by EMM (2017) and Total Earth Care (2007), as well as the predictive models developed by Biosis (2019a, 2019, 2020, 2021). These analyses indicated that a significant proportion of archaeological sites occur within 200 meters of first- and second-order non-perennial watercourses within the Moss Vale Highlands Soil Landscape, particularly on raised flat landforms.

The identified PAD is located within a relatively undisturbed elevated area of a low-lying landform adjacent to a first-order tributary in the Moss Vale Highlands Soil Landscape. This area exhibits moderate potential for the presence of subsurface artefacts, consistent with previous predictive modelling conducted for the region. The remainder of the study area was assessed with low potential due to the lack of suitable landforms features and disturbances form cattle grazing and development within the study area

Biosis recommended archaeological test excavations of the PAD and this assessment details the test excavations of the PAD.

7 TEST EXCAVATION METHODS

7.1 OBJECTIVES

The purpose of archaeological test excavation was to collect information regarding the nature and extent of sub-surface Aboriginal objects, based on the sample obtained from these sub-surface investigations. The test excavation will contribute to the understanding of site characteristics and local and regional prehistory and was used to inform conservation goals and harm mitigation measures for the proposed activity. The test excavation also determined if an Aboriginal Heritage Impact Permit (AHIP) is required and what type of controlled salvage works may be required, if necessary, under the AHIP.

7.2 DATE OF COMMENCEMENT AND COMPLETION

13th January 2025

7.3 LOCATION OF TEMPORARY STORAGE OF CULTURAL MATERIALS

McCardle Cultural Heritage Pty Ltd
PO Box 166
Adamstown NSW 2289

At the completion of the test excavation and analysis of any identified artefacts will be handed to the Aboriginal representative selected by the RAPs (yet to be derermined) for further temporary storage until the registered stakeholders agree to a suitable re-burial location or obtain a Care Agreement from Heritage NSW to keep the artefacts.

7.4 PROPOSED TEST EXCAVATION METHODOLOGY

The test excavation methodology will be in accordance with the Heritage NSW - Code of Practice for Archaeological Investigations of Aboriginal Objects in New South Wales 2010, Section 2.2. This proposed methodology is subject to variation due to unforeseen field conditions/constraints. The area to be subject to a test excavation program will include the area clarified as having archaeological potential and will include:

- the test excavation units will be placed on a 15m x 15m systematic grid system across the part of the PAD (110m x 110m) that will be impacted on by the development (ensuring that the maximum surface area of all test excavation pits is no greater than .5% the PAD areas;
- test excavations will cease when enough information has been recovered to adequately characterise the objects/site(s) present with regard to their nature and significance;
- the test excavation will be pegged by a surveyor who will also provide a plan and coordinates of each test pit;
- test excavations units will be excavated using hand tools only;
- test excavations will be excavated in 50 cm x 50 cm units. If the pits are deeper than 1m, due to safety, the pits will be battered to allow safe access and batters excavated and sieved as the test excavation;

- the first excavation unit will be excavated and documented in 5 cm spits. Based on the evidence of the first excavation unit, 10 cm spits or sediment profile/stratigraphic excavation (whichever is smaller) will then be implemented;
- all material excavated from the test excavation units will be sieved using a 5-mm wire-mesh sieve;
- test excavation units will be excavated to the base of the identified Aboriginal object-bearing units, or until the B horizon is reached;
- if more than 10 artefacts are uncovered in one pit, then additional test pits will be located north, south, east and west of that pit and placed at 5m from the original pit so long as the total area excavated did not exceed 0.5% of the PAD;
- photographic and scale-drawn records of the stratigraphy/soil profile, features and informative Aboriginal objects will be made for each excavation point;
- test excavations units will be backfilled as completed; and
- all artefacts will be removed at the end of each day for security and held with MCH until the artefact analysis is complete and will be handed to the RAPs (care and control to be determined).

Test excavation will cease when the nature and extent of any subsurface deposits are identified. Following the completion of the salvage excavations and community collections, an artefact analysis will be undertaken if required and the details of the methods used are described below.

7.5 RESEARCH QUESTIONS

The test excavation and analysis were designed to address a number of research hypotheses. The research questions listed below derive from Kuskies (2005) detailed work in the region and are used here for consistency in analysis and discussions as well as local and regional comparative research.

- What past Aboriginal activities occurred within the project area?
- What types of past Aboriginal occupation occurred within the project area (e.g., transitory movement, hunting, gathering, camping etc)?
- Were the types of activity and nature of occupation related to environmental factors (e.g., landforms, proximity to reliable water)?
- Does spatial patterning of activity areas occur within the project area?
- Did single or multiple episodes of occupation occur within the project area?
- Did episodes of occupation occur at different times over the whole time-span of occupation in the region within the project area?
- Is there potential for older evidence of occupation (i.e., early Holocene)?
- How intensive was occupation of the sites, in both a local and regional context?
- Did microblade and microlith production occur on the sites?

  The was no evidence of microlith or microblade production.
- Were other tools manufactured on the sites?

- Was maintenance of tools conducted on site?
- What raw materials were favoured for use on site within the project area and why?
- Where were the raw material procured from?
- Did thermal alteration of raw materials occur within the project area?
- How does the evidence and inferred human behaviour represented within the project area compare with evidence from other locations in the region?
- How does the evidence relate to the regional and local models of occupation?

8 TEST EXCAVATION RESULTS AND DISCUSSION

The results of the test excavation, the analysis and discussion of these results are presented in this Section. The high-pressure gas pipeline easement located in the north western corner of the PAD was excluded from the test excavation to prevent any impacts to the pipeline integrity. A total of 38 test pits were completed and the results and analysis are presented below.

8.1 PAD1

Although Biosis (2024) identified the PAD as consisting of a raised flat landform near two distinct non-perennial watercourses, this is not the case. The PAD consists of a slope, the water courses were drainage depressions, and Figure 8.1 illustrates the test pit locations.

Figure 8.1 Test excavation plan showing test pits excavated at PAD1

8.1.1 DISTURBANCES

The disturbances observed were consistent throughout the site. These disturbances included wholesale clearing, a highly disturbed and uneven surface caused by grazing animals, evidence of previous agricultural activity (evidenced by deteriorated ridges and furrows, some of which extended into the B horizon), the presence of small to medium-sized rocks that increased in density with depth to a discrete layer at the interface of the A and B horizons, and a few other inclusions such as pieces of plastic, broken ceramic and metal pieces.

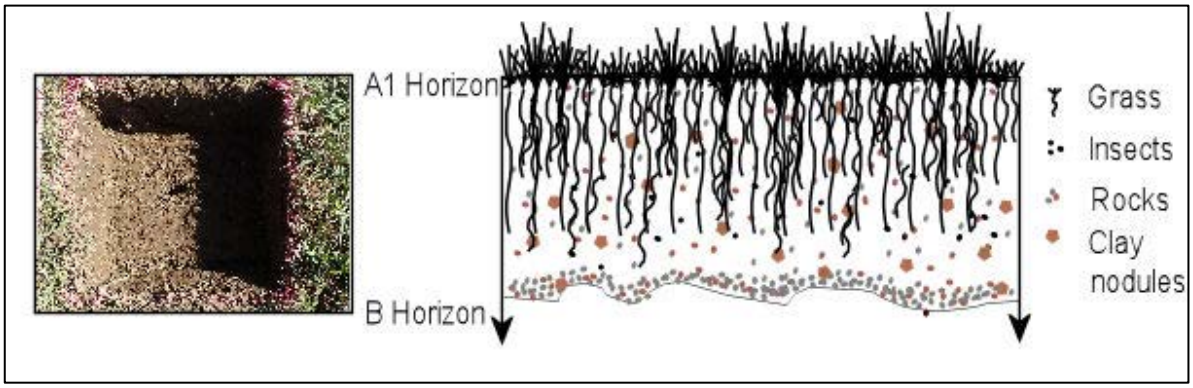
Furthermore, natural surface drainage and topsoil erosion resulting from sheet wash were evident across the site with test pits being deeper downslope. The B horizon exhibited mixing with the lower portions of the A horizon, without a sharp boundary between the two. In terms of biological activity, a significant amount of insect bioturbation was observed throughout the deposit, consistently across

the site. This included the presence of an abundance of worms and reduced amounts of curl grubs, spiders, and beetles.

8.1.2 SOIL PROFILE & STRATIGRAPHY

The soil profile of all test pits excavated remained consistent with changes in depth. Each test pit contained a topsoil layer consisting of a loamy/clayey A horizon that mixed with the B horizon at depth with medium to small sized rocks that grew in density with an increase in depth and a distinct layer at the interface of the A and B horizons. Soil horizon A was present from the surface to the maximum depth of the test pits, within a single stratigraphic layer and the soil profile observed in Figure 8.2 can be considered representative of all the excavated pits within the PAD. Detailed data for each individual pit can be found in Appendix C.

Figure 8.2 Representation of PAD stratigraphy



The A horizon was consistent across the entire PAD and consisted of a mixed loamy/clay (7.5YR 2.5/1) that was neutral (pH 6.5) with inclusions of grass, roots, insects and low to moderate density small to medium sized rubble and gravels that increased in density with depth. There was no clear transition between soil horizons A and B as the B horizon clays (clay nodules) were mixed with the A horizon loamy/clays towards the base along with an occasional eroded plough ridges and furrows.

8.2 ARCHAEOLOGICAL SITE

No archaeological sites were identified. This is not a PAD.

8.2.1 SITE INTEGRITY

Site integrity can be examined through three main factors including land use history and natural processes, the horizontal and vertical distribution of artefacts and conjoins of artefacts and inferred associations between individual artefacts. The initial assessment identified that previous and present land uses and their impacts as well as natural impacts (such as bioturbation, erosion etc) within the investigation area were assessed as generally low to moderate. The potential effects of land use and their impacts on cultural heritage can be considered.

Soil horizon A and top of horizon B contained evidence of past land uses with the mixing of the A horizon with the clays of the B horizon (clay nodules present in the A horizon). Small to medium sized rocks were also present throughout the deposit with a distinct layer of rocks/rubble at the interface of the A and B horizon with significant bioturbation activity.

There was no evidence of stratigraphy and the evidence indicates the PAD area had been subject to impacts from clearing, ploughing, grazing and a previous access road to the house (personal discussion with the tenant) and as such the PAD is identified as a highly disturbed deposit with little to no likelihood of in situ deposits.

8.3 REGIONAL CONTEXT

Due to the disturbed nature of the area and no sites identified, the area subject to test excavation cannot be reassessed or compared to other assessments.

8.4 RESEARCH QUESTIONS

The test excavation program sought to address a number of specific research questions. These questions are answered below to the extent possible given the absence of evidence.

- *What past Aboriginal activities occurred within the project area?*

  No sites were identified.

- *What types of past Aboriginal occupation occurred within the project area (e.g. transitory movement, hunting, gathering, camping etc)?*

  No sites were identified.

- *Were the types of activity and nature of occupation related to environmental factors (e.g., landforms, proximity to reliable water)?*

  No sites were identified.

- *Does spatial patterning of activity areas occur within the project area?*

  No sites were identified.

- *Did episodes of occupation occur at different times over the whole time-span of occupation in the region within the project area?*

  No sites were identified.

- *Is there potential for older evidence of occupation (i.e. early Holocene)?*

  No sites were identified.

- *How intensive was occupation of the sites, in both a local and regional context?*

  No sites were identified.

- *Did microblade and microlith production occur on the sites?*

  No sites were identified.

- *Were other tools manufactured on the sites?*

  No sites were identified.

- *Was maintenance of tools conducted on site?*

  No sites were identified.

- *What raw materials were favoured for use on site within the project area and why?*

  No sites were identified.

- *Where were the raw material procured from?*

  No sites were identified.

- *How does the evidence and inferred human behaviour represented within the project area compare with evidence from other locations in the region?*

  No sites were identified.

- *How does the evidence relate to the regional and local models of occupation?*

  No sites were identified.

9 ASSESSMENT OF IMPACTS

The archaeological record is a non-renewable resource that is affected by many processes and activities. As outlined in Section 3 and 6, the various natural processes and human activities would have impacted on archaeological deposits through both site formation and taphonomic processes. Section 6 describes the impacts within the project area, showing how these processes and activities have disturbed the landscape and associated cultural materials in varying degrees.

9.1 IMPACTS

Detailed descriptions of the impacts are provided in Section 1.5 and the results of the survey in Section 6. The Heritage NSW Code of practice for the archaeological investigation of Aboriginal objects in New South Wales (2010:21) describes impacts to be rated as follows:

1) Type of harm: is either direct, indirect or none

2) Degree of harm is defined as either total, partial or none

3) Consequence of harm is defined as either total loss, partial loss, or no loss of value

No archaeological sites were identified and as such there are no impacts on the archaeological record.

10 MITIGATION AND MANAGEMENT STRATEGIES

Specific strategies, as outlined through the Heritage NSW Code of practice for archaeological investigation of Aboriginal objects in New South Wales (DECCW 2010b) and the Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW (OEH 2011) are considered below for the management of the identified site within the project area.

One of the most important considerations in selecting the most suitable and appropriate strategy is the recognition that Aboriginal cultural heritage is very important to the local Aboriginal community. Decisions about the management of sites and potential archaeological deposits should be made in consultation with the appropriate local Aboriginal community.

10.1 CONSERVATION/PROTECTION

Heritage NSW is responsible for the conservation/protection of Indigenous sites and they therefore require good reason for any impact on an indigenous site. Conservation is the first avenue and is suitable for all sites, especially those considered high archaeological significance and/or cultural significance. Conservation includes the processes of looking after an indigenous site or place so as to retain its cultural and scientific significance and are managed in a way that is consistent with the nature of peoples' attachment to them.

As no sites have been identified in the project area, conservation/protection is not required.

10.2 FURTHER INVESTIGATION

With the exception of shell middens and burials, an Aboriginal Heritage Impact Permit (AHIP) is not required to undertake test excavations (providing the excavations are in accordance with the Code of Practice for Archaeological Investigations in NSW and consultation with the RAPs). Subsurface testing is appropriate when a PAD has been identified, and it can be demonstrated that sub-surface Aboriginal objects with potential conservation value have a high probability of being present, and that the area cannot be substantially avoided by the proposed activity.

As no sites have been identified and the PAD is not a PAD, no further investigations are required.

10.3 AHIP

If harm will occur to an Aboriginal object or Place, then an AHIP is sought from Heritage NSW as a defence to that harm. If a systematic excavation of the known site could provide benefits and information for the Aboriginal community and/or archaeological study of past Aboriginal occupation, a salvage program, and, or community collection, may be an appropriate strategy to enable the salvage of cultural objects.

As no sites have been identified in the project area, an AHIP is not required.

11 RECOMMENDATIONS

11.1 GENERAL

1) The persons responsible for the management of onsite works will ensure that all staff, contractors and others involved in construction and maintenance related activities are made aware of the statutory legislation protecting sites and places of significance. Of particular importance is the National Parks and Wildlife Regulation 2019, under the National Parks and Wildlife Act 1974;

2) An Unexpected Finds Procedure for cultural materials and human remains (Appendix D) will be implemented during all works, and

3) Should any Aboriginal objects be uncovered during works, all work will cease in that location immediately, the Unexpected Finds Procedure followed and the Environmental Line contacted.

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APPENDIX A

Aboriginal Stakeholder Consultation

Date	Consultation type	Heritage NSW requirement	Consult stage	RAP/Agency	Contact person	Description
12/9/24	Letter/email	4.1.2	1	MCH contacted Heritage NSW		Letter to identify Aboriginal parties. Requested response no later C.O.B. 26/9/2024
12/9/24	Letter/email	4.1.2	1	MCH contacted the Local Aboriginal Land Council (LALC)		Letter to identify Aboriginal parties. Requested response no later C.O.B. 26/9/2024
12/9/24	Letter/email	4.1.2	1	MCH contacted Registrar of Aboriginal Owners (RAO)		Letter to identify Aboriginal parties. Requested response no later C.O.B. 26/9/2024
12/9/24	Letter/email	4.1.2	1	MCH contacted Wingecarribee Shire Council		Letter to identify Aboriginal parties. Requested response no later C.O.B. 26/9/2024
12/9/24	Letter/email	4.1.2	1	MCH contacted Native Title Tribunal (NNTT)		Letter to identify Aboriginal parties. Requested response no later C.O.B. 26/9/2024
12/9/24	Letter/email	4.1.2	1	MCH contacted NTSCORP Ltd		Letter to identify Aboriginal parties. Requested response no later C.O.B. 26/9/2024
12/9/24	Letter/email	4.1.2	1	MCH contacted South East Local Land Services (SELLS)		Letter to identify Aboriginal parties. Requested response no later C.O.B. 26/9/2024
12/9/24	Letter/email	4.1.2	1	NNTT		Free hold
12/9/24	Letter/email	4.1.2	1	RAO		Identified Aboriginal parties: 1
13/9/24	Letter/email	4.1.2	1	Council		Identified Aboriginal parties: 1
16/9/24	Letter/email	4.1.2	1	LALC		Registered for the project
23/9/24	Letter/email	4.1.2	1	Heritage NSW		Identified Aboriginal parties: 66
NA		4.1.2	1	NTSCORP	Do not provide lists of possible stakeholders	
NA		4.1.2	1	SELLS	Do not provide lists of possible stakeholders	
26th September 2024 C.O.B. Request for groups to consult with closed						
25/9/24	Public notice	4.1.3	1	All registered Aboriginal parties (RAPs)		Public notice in Southern Highlands News and requested registration no later than 9/10/2024
27/9/24	Letter & email	4.1.3, 4.1.4, 4.1.5, 4.2.1	1	All RAPs	those provided from sources above	Formal letter to identified RAPs requesting registration of interest in the project, project outline, maps and asking for the preferred method to receive information (meeting/mail/email). Required registration by C.O.B. 11/10/2014
27/9/24	Email	4.1.7, 4.1.8	1	A&K Cultural Heritage	Ali Maher	Registered for the project
27/9/24	Email	4.1.7, 4.1.8	1	Cubbitch Barta	Kristy	Registered for the project
Date	**Consultation type**	**Heritage NSW requirement**	**Consult stage**	**RAP/Agency**	**Contact person**	**Description**

28/9/14	Email	4.1.7, 4.1.8	1	Woronora Plateau Gundungara Elders Council	Kayla Williamson	Registered for the project
30/9/24	Email	4.1.7, 4.1.8	1	Gadhungal Marring	Nigel Millgate	Registered for the project
30/9/24	Email	4.1.7, 4.1.8	1		Thomas Dahlstron	Registered for the project
11th October 2024 C.O.B. Registration for project closed						
14/10/24	Email & letter	1; s 4.1.6		Heritage NSW		Letter notifying Heritage NSW of RAPs
14/10 /24	Email & letter	1; s 4.1.6		LALC		Letter notifying LALC of RAPs
14/10/24	Letter	4.2.1, 4.2.2, 4.2.3, 4.3.1, 4.3.2, 4.3.3, 4.3.4, 4.3.5, 4.3.6, 4.3.7	2 & 3	All RAPs		Formal letter and information packet sent to identified RAPs. Information packet included project outline, project area, critical timelines, impacts, brief cultural, environmental and archaeological context, proposed methods of investigation, proposed methods of gathering cultural knowledge, and maps. A response the proposed methodology was required registration by C.O.B. 11/11/2024
29/10/24	E-mail & letter	4.2.1, 4.2.2, 4.2.3, 4.3.1, 4.3.2, 4.3.3, 4.3.4, 4.3.5, 4.3.6, 4.3.7	2 & 3	A&K Cultural Heritage	Ali Maher	Responded to the information packet and supported the methods
3/11/24	E-mail & letter	4.2.1, 4.2.2, 4.2.3, 4.3.1, 4.3.2, 4.3.3, 4.3.4, 4.3.5, 4.3.6, 4.3.7	2 & 3	Woronora Plateau Gundungara Elders Council	Kayla Williamson	Responded to the information packet and supported the methods
11/11/24	E-mail & letter	4.2.1, 4.2.2, 4.2.3, 4.3.1, 4.3.2, 4.3.3, 4.3.4, 4.3.5, 4.3.6, 4.3.7	2 & 3	Cubbitch Barta	Kristy Chalker	Responded to the information packet and supported the methods
11/11/24	E-mail & letter	4.2.1, 4.2.2, 4.2.3, 4.3.1, 4.3.2, 4.3.3, 4.3.4, 4.3.5, 4.3.6, 4.3.7	2 & 3	ILALC		Responded to the information packet and supported the methods
11th November 2024 C.O.B. Response to information packet closed						
3/12/24	Letter / email		3	All RAPs		All RAPs sent a letter of invitation to attend and participate in the test excavation
Date	**Consultation type**	**Heritage NSW requirement**	**Consult stage**	**RAP/Agency**	**Contact person**	**Description**
13th January 2025 test excavation						
16/1/25	Email	4.3.5; 4.3.6; 4.3.7 4.4.1; 4.4.2; 4.4.3	3 & 4	All RAPs		Draft report sent to all RAPs for review
13th February 2025 C.O.B. Response to Draft Report Closed						

14/2/25	Email	4..4.4; 4.4.5	4	All RAPs		Final report, final ACHMP and final AHIP sent to all RAPs
14th February 2025 C.O.B. Assessment Complete						

penny@mcheritage.com.au

From: penny@mcheritage.com.au
Sent: Thursday, 12 September 2024 12:31 PM
To: 'heritagemailbox@environment.nsw.gov.au'; 'enquiry.southeast@lls.nsw.gov.au'; 'GeospatialSearch@NNTT.gov.au'; 'admin@ilalc.org.au'; 'mail@wsc.nsw.gov.au'; 'aboriginalowners@oralra.nsw.gov.au'
Subject: List of RAPs

RE: Written notification of project proposal and registration of interest as required under Heritage NSW Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 1)– Proposed industrial subdivision and development at Moss Vale

McCardle Cultural Heritage (MCH) have been engaged by Park Hill Property on behalf of the Proponent (SAAS AUS Pty Ltd, PO Box 399 Moorebank NSW 1875) to undertake an Aboriginal Cultural Heritage Assessment (ACHA) and prepare an Aboriginal Heritage Impact Permit (AHIP) application if required for a proposed industrial subdivision and development at 2 and 10 Bowman Road (Lot 2, DP 1070888 and Lot 51 DP 130176), Moss Vale, NSW, Wingecarribee Shire Council Local Government Area (LGA).

As per the Heritage NSW - Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010, (Stage 1, s4.1.1 to 4.1.2), MCH and the proponent are seeking community consultation with indigenous knowledge holders relevant to the project area who can determine the cultural significance of Aboriginal objects and/or places in the area of the proposed project.

Location of the project area

To comply with the Heritage NSW - Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010, specifically Stage 1 (s4.1.2), we are notifying you of our proposal and requesting information on any Aboriginal groups or individuals known to your organization who may have an interest in the investigation area and hold knowledge relevant to determining the cultural significance of Aboriginal objects and/or places in the area of the proposed project.

Please provide the names and contact details of any Aboriginal people/organisations within 14 working days by emailing penny@mcheritagecom.au. Please note that in order to adhere to time constraints, and the minimal time requirements as stated in the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010, the absence of a response by the prescribed timeline, will be taken by the proponent as your indication that your organisation is not aware of any such interested parties.

Should you wish to discuss this matter, please do not hesitate to contact me on 0412 702 396.

Kind regards,

Dr. Penny McCardle
Principal & Forensic Archaeologist
Forensic Anthropologist

McCARDLE
CULTURAL HERITAGE

PO Box 166,
Adamstown 2289 NSW
P: 0412 702 396
mcheritage.com.au

penny@mcheritage.com.au

From: penny@mcheritage.com.au
Sent: Thursday, 12 September 2024 12:32 PM
To: GeospatialSearch@NNTT.gov.au
Subject: Search
Attachments: GeospatialSearch2023.pdf

RE: Written notification of project proposal and registration of interest as required under Heritage NSW Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 1)– Proposed industrial subdivision and development at Moss Vale

McCardle Cultural Heritage (MCH) have been engaged by Park Hill Property on behalf of the Proponent (SAAS AUS Pty Ltd, PO Box 399 Moorebank NSW 1875) to undertake an Aboriginal Cultural Heritage Assessment (ACHA) and prepare an Aboriginal Heritage Impact Permit (AHIP) application if required for a proposed industrial subdivision and development at 2 and 10 Bowman Road (Lot 2, DP 1070888 and Lot 51 DP 130176), Moss Vale, NSW, Wingecarribee Shire Council Local Government Area (LGA).

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Should you wish to discuss this matter, please do not hesitate to contact me on 0412 702 396.

Kind regards,

Dr. Penny McCardle
Principal & Forensic Archaeologist
Forensic Anthropologist

M
McCARDLE
CULTURAL HERITAGE

PO Box 166,
Adamstown 2289 NSW
P: 0412 702 396
mcheritage.com.au

Request for Spatial Search of Tribunal Registers

National Native Title Tribunal

1: Your details

Your name:	Penny McCadle		
Your company:	McCadle Cultural Heritage Pty Ltd		
E-mail address:	penny@mcheritage.com.au	Phone:	0412 702 396
Your reference:	Moss Vale	Your state:	NSW
☑	*I have read and acknowledge the terms and conditions on the previous page.*		

2: Areas to be searched

Jurisdiction to be searched:	NSW	Tenure to be searched:	Land parcel

Parcel or tenement identifiers (add up to 20 separate identifiers). **Please see previous page for parcel identifiers.**

Parcel 1:	Lot 2, DP 1070888	Parcel 2:	
Parcel 3:	Lot 51 DP 130176	Parcel 4:	
Parcel 5:		Parcel 6:	
Parcel 7:		Parcel 8:	
Parcel 9:		Parcel 10:	
Parcel 11:		Parcel 12:	
Parcel 13:		Parcel 14:	
Parcel 15:		Parcel 16:	
Parcel 17:		Parcel 18:	
Parcel 19:		Parcel 20:	

If your search area is not a parcel or mining or petroleum tenement, you can enter other tenure or administrative regions here (e.g. local government area, townsite or county). Please provide as much detail as you can.

E-mail the completed form to GeospatialSearch@NNTT.gov.au

penny@mcheritage.com.au

From: penny@mcheritage.com.au
Sent: Thursday, 12 September 2024 12:34 PM
To: 'notifications@ntscorp.com.au'
Subject: List of RAPs

RE: Written notification of project proposal and registration of interest as required under Heritage NSW Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 1)– Proposed industrial subdivision and development at Moss Vale

McCardle Cultural Heritage (MCH) have been engaged by Park Hill Property on behalf of the Proponent (SAAS AUS Pty Ltd, PO Box 399 Moorebank NSW 1875) to undertake an Aboriginal Cultural Heritage Assessment (ACHA) and prepare an Aboriginal Heritage Impact Permit (AHIP) application if required for a proposed industrial subdivision and development at 2 and 10 Bowman Road (Lot 2, DP 1070888 and Lot 51 DP 130176), Moss Vale, NSW, Wingecarribee Shire Council Local Government Area (LGA).

As per the Heritage NSW - Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010, (Stage 1, s4.1.1 to 4.1.2), MCH and the proponent are seeking community consultation with indigenous knowledge holders relevant to the project area who can determine the cultural significance of Aboriginal objects and/or places in the area of the proposed project.

Location of the project area

To comply with the Heritage NSW - Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010, specifically Stage 1 (s4.1.2), we are notifying you of our proposal and requesting information on any Aboriginal groups or individuals known to your organization who may have an interest in the investigation area and hold knowledge relevant to determining the cultural significance of Aboriginal objects and/or places in the area of the proposed project.

Please provide the names and contact details of any Aboriginal people/organisations within 14 working days by emailing penny@mcheritagecom.au. Please note that in order to adhere to time constraints, and the minimal time requirements as stated in the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010, the absence of a response by the prescribed timeline, will be taken by the proponent as your indication that your organisation is not aware of any such interested parties.

Should you wish to discuss this matter, please do not hesitate to contact me on 0412 702 396.

Kind regards,

Dr. Penny McCardle
Principal & Forensic Archaeologist
Forensic Anthropologist

McCARDLE
CULTURAL HERITAGE

PO Box 166,
Adamstown 2289 NSW
P: 0412 702 396
mcheritage.com.au

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

3 May 2024

By email: penny@mcheritage.com.au

Dr Penny McCardle
McCardle Cultural Heritage
PO Box 166
ADAMSTOWN NSW 2289

Dear Penny

Aboriginal Cultural Heritage Assessment - Proposed industrial subdivision and development at 2 and 10 Bowman Road (Lot 2 DP 1070888 and Lot 51 DP 130176) Moss Vale NSW: request for list of potential Aboriginal stakeholders

We refer to your email to this Office dated 12 September 2024 requesting contact information for Aboriginal organisations, stakeholders and/or people who may have cultural knowledge relevant to the proposed industrial subdivision and development at 2 and 10 Bowman Road (Lot 2 DP 1070888 and Lot 51 DP 130176) Moss Vale NSW, as part of an Aboriginal Cultural Heritage Assessment (ACHA).

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

The proposed subdivision and development area falls within the boundary of Illawarra Local Aboriginal Land Council. We suggest you contact them (contact details provided below), as they may wish to participate or contribute.

Yours sincerely

KCarter

Karen Carter
Project Officer
Office of the Registrar, Aboriginal Land Rights Act 1983

Illawarra Local Aboriginal Land Council
PO Box 1306
WOLLONGONG BC NSW 2500
(02) 4226 3338

penny@mcheritage.com.au

To: Geospatial Search Requests; heritagemailbox@environment.nsw.gov.au; enquiry.southeast@lls.nsw.gov.au; admin@ilalc.org.au; mail@wsc.nsw.gov.au; aboriginalowners@oralra.nsw.gov.au
Subject: RE: SR24/1566 - List of RAPs [SEC=OFFICIAL]

OFFICIAL

Our ref: *SR24/1566*

Dear Dr. Penny McCardle

Thank you for your search request, please find your results below.

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

- Schedule of Native Title Determination Applications
- Register of Native Title Claims
- Native Title Determinations
- Indigenous Land Use Agreements (Registered and notified)

Results for overlapping native title matters in NSW:

Feature ID	Tenure	Cadastre Data As At	Feature Area SqKm	Overlapping Native Title Feature				
2//DP1070888	FREEHOLD	8/03/2024	0.1406	**NNTT File Number**	**Name**	**Category**	**Overlap Area SqKm**	**% Selected Feature**
				NI2014/001	Gundungurra Area Agreement	ILUAs	0.1406	100.00%
51//DP130176	FREEHOLD	8/03/2024	0.4872	**NNTT File Number**	**Name**	**Category**	**Overlap Area SqKm**	**% Selected Feature**
				NI2014/001	Gundungurra Area Agreement	ILUAs	0.4872	100.00%

For more information about the Tribunal's registers or to search the registers yourself and obtain copies of relevant register extracts, please visit our website.

Information on native title claims and freehold land can also be found on the Tribunal's website here: Native title claims and freehold land .

Please note: There may be a delay between a native title determination application being lodged in the Federal Court and its transfer to the Tribunal. As a result, some native title determination applications recently filed with the Federal Court may not appear on the Tribunal's databases.

The search results are based on analysis against external boundaries of applications only. Native title applications commonly contain exclusions clauses which remove areas from within the external boundary. To determine whether the areas described are in fact subject to claim, you need to refer to the "Area covered by claim" section of the relevant Register Extract or Schedule Extract and any maps attached.

Search results and the existence of native title
Please note that the enclosed information from the Register of Native Title Claims and/or the Schedule of Applications is **not** confirmation of the existence of native title in this area. This cannot be confirmed until the Federal Court makes a determination that native title does or does not exist in relation to the area. Such determinations are registered on the National Native Title Register.

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

If you have any further queries, please do not hesitate to contact us via GeospatialSearch@NNTT.gov.au

Regards,

Geospatial Searches
National Native Title Tribunal | Perth
Email: GeospatialSearch@nntt.gov.au **|** **www.nntt.gov.au**

penny@mcheritage.com.au

To: Nichole Harper
Subject: RE: response to a request from Wingecarribee council

From: Nichole Harper <Nichole.Harper@wsc.nsw.gov.au>
Sent: Friday, 13 September 2024 10:56 AM
Cc: penny@mcheritage.com.au
Subject: response to a request from Wingecarribee council

Good Morning

I am responding to your request, seeking community consultation with indigenous knowledge holders.
Auntie Sharyn will be able to assist, please see her contact details below.

Auntie Sharyn Halls
0428 270 594
Ghal6522@bigpond.net.au

Nichole Harper
Aboriginal Community Development Officer
02 4868 0888
Nichole.Harper@wsc.nsw.gov.au

Wingecarribee SHIRE COUNCIL

www.wsc.nsw.gov.au 68 Elizabeth St, Moss Vale NSW 2577 PO Box 141 Moss Vale NSW 2577

We acknowledge the Gundungurra and Tharawal people as the traditional custodians of this place we now call the Wingecarribee Shire. We recognise the continuous and deep connection for Gundungurra and Tharawal people to their Ngurra (Country) and its great cultural significance to First Nations people, both locally and in the region. We pay respect to Elders past and present, and extend that respect to all First Nations people.

penny@mcheritage.com.au

To: Heritage Services
Subject: RE: ACHA - Stage 1 - Industrial Subdivision and Development - Moss Vale, NSW - 12 September 2024.

Hey Penny,

ILALC would like to register an interest in this project.

Kind regards,

Aara

Illawarra Local Aboriginal Land Council

Level 2, 38 Young Street

Wollongong DC NSW 2500

Telephone: 4226 3338

Postal address:
PO Box 1306
Wollongong NSW 2500

ILLAWARRA
LOCAL ABORIGINAL
LAND COUNCIL

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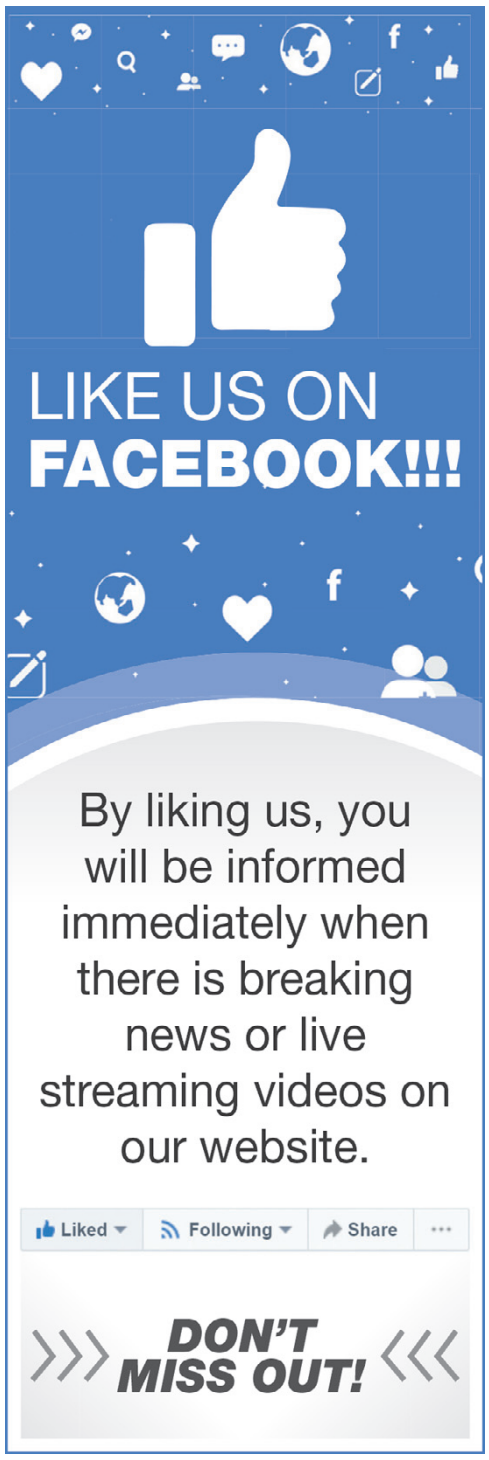

Deaths & Funerals

Colleen Marea Teresa Bower
(nee O'Brien)
08.09.1947 ~ 07.09.2024.

Loving wife to Brian.
Beloved mother to Aimee and Shaun.
Sister to Robert, Patrick, Kelly, Toby (dec), Tim & Jeremy.

Family and friends of Colleen are invited to attend her funeral service to be held 1pm Tuesday 1st of October at St Thomas Aquinas Church, Cnr. Bendooley & Merrigang Streets, Bowral.

In lieu of flowers please consider donating to CMT Australia.

LADY ROSE FUNERALS
36 Bowral Street, Bowral
4862 1833 **Consultant: Joadi Webb**

ROWLAND, John Martin
18.06.1928 ~ 14.09.2024.

Adored husband of Norma.
Loving father of June (dec) & Rodger, Graham & Glenda and Annette.
Loved Grandfather to Amanda & Miki, Timothy, Hallom & Amy, Ellie & Geoffrey.
Loved Great Grandfather of Hayden, Jeremy, Riley, Alyshia, Milyana, Chelsea, Mikayla, Henry and Vincent.

Family and friends are invited to attend a Funeral Service for John to be held at St. Aidens Anglican Church, Exeter Road, Exeter on Friday 27th September, 2024 commencing at 11.00am.

G. BEAVAN
FUNERALS OF BOWRAL
A TRUSTED PART OF THE COMMUNITY SINCE 1883
02 486 17351

Public Notices

Notification of project proposal and registration of interest under Heritage NSW Aboriginal Cultural Heritage Consultation Requirements for Proponents SAAS AUS Pty Ltd – Proposed industrial subdivision and development at Moss Vale

McCardle Cultural Heritage (MCH) have been engaged by JEP Environment & Planning on behalf of the Proponent (SAAS AUS Pty Ltd, PO Box 399 Moorebank NSW 1875) to prepare an Aboriginal Cultural Heritage Assessment (ACHA) and Section 90 Aboriginal Heritage Impact Permit (AHIP) application, if required, for the proposed industrial subdivision and development at 2 and 10 Bowman Road (Lot 2, DP 1070888 and Lot 51 DP 130176), Moss Vale, NSW.

The purpose of community consultation with Aboriginal people is to assist the proposed applicant in the preparation of the AHIP application if required and to assist Heritage NSW, Department of Planning and Environment in their consideration and determination of the application should an AHIP be required.

In compliance with the Heritage NSW policy - Aboriginal Cultural Heritage Consultation Requirements for Proponents SAAS AUS Pty Ltd, MCH would like to extend an invitation to Aboriginal people who hold cultural knowledge relevant to the proposed project area and who can determine the significance of Aboriginal object(s) and/or place(s) in the area of the proposed project to register an interest in the consultation process for this project.

Written registrations must be forward to MCH (P.O. Box 166 Adamstown, NSW, 2289; **penny@mcheritage.com.au** no later than C.O.B. 9th October 2024.

All registered parties will then be contacted to discuss the project in compliance with Heritage NSW policy. If you register your interest in this project, please also nominate your preferred option to receive the initial information. You may wish to attend a non-paid meeting and receive an information pack, or receive an information packet through the mail or email.

Any parties who register are advised that, unless otherwise requested, their details will be forward to Heritage NSW and the relevant LALC within 28 days of the closing date of registration and in compliance with Heritage NSW policy.

Service Feature 1

Deaths & Funerals

penny@mcheritage.com.au

From: penny@mcheritage.com.au
Sent: Friday, 27 September 2024 8:01 AM
Subject: Proposed industrial subdivision and development at Moss Vale

RE: Written notification of project proposal and registration of interest as required under Heritage NSW Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 1)– Proposed industrial subdivision and development at Moss Vale

McCardle Cultural Heritage (MCH) have been engaged by Park Hill Property on behalf of the Proponent (SAAS AUS Pty Ltd, PO Box 399 Moorebank NSW 1875) to undertake an Aboriginal Cultural Heritage Assessment (ACHA) and prepare an Aboriginal Heritage Impact Permit (AHIP) application if required for a proposed industrial subdivision and development at 2 and 10 Bowman Road (Lot 2, DP 1070888 and Lot 51 DP 130176), Moss Vale, NSW, Wingecarribee Shire Council Local Government Area (LGA).

As per the Heritage NSW policy - Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010, Stage 1 (s1.3 to 4.1.8), MCH and the proponent are seeking community consultation with indigenous knowledge holders relevant to the project area who can determine the cultural significance of Aboriginal objects and/or places in the area of the proposed project.

Location of the project area

The purpose of community consultation with Aboriginal people is to assist the proposed applicant in the preparation of an application for an AHIP (if required) and to assist Heritage NSW in their consideration and determination of the application should an AHIP be required.

This is an invitation for **Aboriginal people who hold cultural knowledge relevant to the proposed project area (registration is not to be based on where an individual or company works across NSW)** and who can determine the significance of Aboriginal object(s) and/or place(s) in the area of the proposed project to register an interest in a process of community consultation. As per the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (s 4.1.5, 4.1.7 and 4.1.8), you are advised of the following:

- unless otherwise specified, if you register your interest, your details will be provided to Heritage NSW and the LALC;
- the LALC's who hold cultural knowledge relevant to the proposed project area that is relevant to determining the significance of Aboriginal objects and/or places within the proposed project area who wish to register, must do so as an Aboriginal organisation not an individual;
- where an Aboriginal organisation representing Aboriginal people, who hold cultural knowledge relevant to the proposed project area and that is relevant to determining the significance of Aboriginal objects and/or places within the proposed project area who wish to register, must nominate a contact person and provide written confirmation and contact details of this person or persons.

MCH understands it is the Indigenous custom to elect knowledge holders and it is traditionally the Indigenous people who are nominated who speak for country. Unfortunately, some RAPs and Government Departments have placed the onus of identifying traditional knowledge holders onto proponents and archaeologists. In order to do this, MCH are guided by the Aboriginal Cultural Heritage Consultation Requirements for Proponents (2010) which provides guidelines to identify traditional knowledge holders. Should you wish to register your interest in this project, please register in writing no later than C.O.B. 11th October 2024 to:

Dr. Penny McCardle
McCardle Cultural Heritage
PO Box 166
Adamstown, NSW, 2289

If you register your interest in this project, please also nominate your preferred option to receive the project information. You may wish to have a non-paid meeting and receive an information pack, or receive information packet through the mail or e-mail. If a preferred method is not nominated, all information will be forward by mail or e-mail.

Please note that in order to adhere to time constraints, the absence of a response by the prescribed timeline, will be taken by the proponent as your indication that your organisation does not wish to register for this project.

As all communications, including phone calls, faxes, letters, and e-mails must be included in the consultation component of the report as per the Heritage NSW requirements, please ensure that any items that you or your group deem confidential are either stated at the beginning of a conversation or stamped/written on each piece of paper communicate.

Kind regards,

Dr. Penny McCardle
Principal & Forensic Archaeologist
Forensic Anthropologist

McCARDLE
CULTURAL HERITAGE

PO Box 166,
Adamstown 2289 NSW
P: 0412 702 396
mcheritage.com.au

penny@mcheritage.com.au

From: Ali Maher <aandkculturalheritage@gmail.com>
Sent: Friday, 27 September 2024 9:07 AM
To: penny@mcheritage.com.au
Subject: Re: Proposed industrial subdivision and development at Moss Vale

Hi Penny,

I would like to register A & K Cultural Heritage for the above project.

Kind regards
Ali Maher
0423027074

On Fri, 27 Sept 2024 at 08:10, <penny@mcheritage.com.au> wrote:

> RE: **Written notification of project proposal and registration of interest as required under Heritage NSW Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 1)– Proposed industrial subdivision and development at Moss Vale**
>
> McCardle Cultural Heritage (MCH) have been engaged by Park Hill Property on behalf of the Proponent (SAAS AUS Pty Ltd, PO Box 399 Moorebank NSW 1875) to undertake an Aboriginal Cultural Heritage Assessment (ACHA) and prepare an Aboriginal Heritage Impact Permit (AHIP) application if required for a proposed industrial subdivision and development at 2 and 10 Bowman Road (Lot 2, DP 1070888 and Lot 51 DP 130176), Moss Vale, NSW, Wingecarribee Shire Council Local Government Area (LGA).
>
> As per the Heritage NSW policy - Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010, Stage 1 (s1.3 to 4.1.8), MCH and the proponent are seeking community consultation with indigenous knowledge holders relevant to the project area who can determine the cultural significance of Aboriginal objects and/or places in the area of the proposed project.
>
> Location of the project area
>
> 
>

penny@mcheritage.com.au

From: kgchalker@bigpond.com
Sent: Friday, 27 September 2024 11:58 AM
To: penny@mcheritage.com.au
Subject: RE: Proposed industrial subdivision and development at Moss Vale

Hello Penny,

Thank you for the opportunity to register Cubbitch Barta's Interest in the project. We would like to be involved in the community consultation process.

It's Kirsty Here, Glenda's Granddaughter I'm currently monitoring her e-mails until she returns on the 16th of October, I believe Nan would like all project information mailed to her 55 Nightingale Rd Pheasants Nest 2574 NSW. She may give you a call upon her return to discuss further.

Kind Regards,
Kirsty

From: penny@mcheritage.com.au <penny@mcheritage.com.au>
Sent: Friday, 27 September 2024 8:01 AM
To: penny@mcheritage.com.au
Subject: Proposed industrial subdivision and development at Moss Vale

RE: Written notification of project proposal and registration of interest as required under Heritage NSW Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 1)– Proposed industrial subdivision and development at Moss Vale

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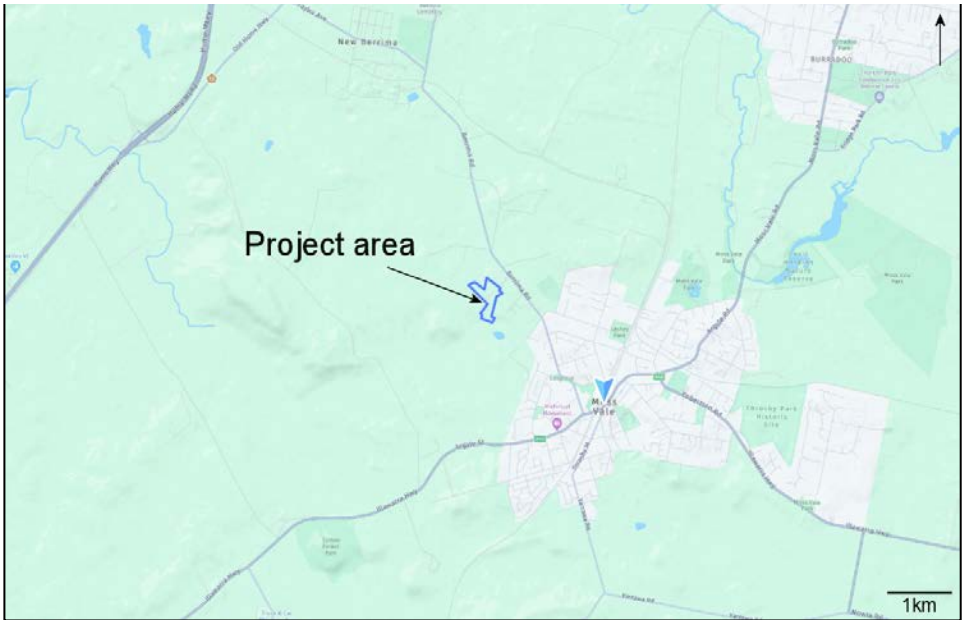
As per the Heritage NSW policy - Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010, Stage 1 (s1.3 to 4.1.8), MCH and the proponent are seeking community consultation with indigenous knowledge holders relevant to the project area who can determine the cultural significance of Aboriginal objects and/or places in the area of the proposed project.

Location of the project area



penny@mcheritage.com.au

From: Kayla Williamson <kayla_87_@hotmail.com>
Sent: Saturday, 28 September 2024 2:00 PM
To: penny@mcheritage.com.au
Subject: Re: Proposed industrial subdivision and development at Moss Vale

Hi Penny,

Woronora Plateau Gundungara Elders Council would like to register for consultation for the proposed development at 2 and 10 Bowman Road, Moss Vale.

Please send all correspondence to:

11 Garnett Grove
FLINDERS NSW 2529

Or

Kayla_87_@hotmail.com

We would like to receive correspondence via email.

Kind regards
Kayla
0414438744

On 27 Sep 2024, at 8:01 AM, penny@mcheritage.com.au wrote:

RE: Written notification of project proposal and registration of interest as required under Heritage NSW Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 1)– Proposed industrial subdivision and development at Moss Vale

McCardle Cultural Heritage (MCH) have been engaged by Park Hill Property on behalf of the Proponent (SAAS AUS Pty Ltd, PO Box 399 Moorebank NSW 1875) to undertake an Aboriginal Cultural Heritage Assessment (ACHA) and prepare an Aboriginal Heritage Impact Permit (AHIP) application if required for a proposed industrial subdivision and development at 2 and 10 Bowman Road (Lot 2, DP 1070888 and Lot 51 DP 130176), Moss Vale, NSW, Wingecarribee Shire Council Local Government Area (LGA).

As per the Heritage NSW policy - Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010, Stage 1 (s1.3 to 4.1.8), MCH and the proponent are seeking community consultation with indigenous knowledge holders relevant to the project area who can determine the cultural significance of Aboriginal objects and/or places in the area of the proposed project.
<image006.png>

<image007.jpg>

penny@mcheritage.com.au

From: Nigel Millgate <nigelm@gadhungalmarring.com.au>
Sent: Monday, 30 September 2024 12:56 PM
To: penny@mcheritage.com.au
Subject: Fwd: Proposed industrial subdivision and development at Moss Vale
Attachments: image002.jpg; image005.emz

Good morning, Thank you for your email. Gadhungal Marring would like to formally register our interest in participating in the Aboriginal Cultural Heritage Assessment (ACHA) for the proposed industrial subdivision and development at 2 and 10 Bowman Road, Moss Vale, NSW. We look forward to being involved in the consultation process and contributing to the assessment of the cultural significance of the area.

Nigel Millgate
Operations Manager
0435 616 352

GADHUNGAL MARRING
4 Cumberland Ave, South Nowra NSW 2541
gadhungalmarring.com.au
Facebook | Instagram

---------- Forwarded message ---------
From: **Gadhungal Marring** <admin@gadhungalmarring.com.au>
Date: Mon, 30 Sep 2024 at 12:48 PM
Subject: Fwd: Proposed industrial subdivision and development at Moss Vale
To: Nigel Millgate <nigelm@gadhungalmarring.com.au>

Minnie Lloyd-Bolt
Executive Assistant
0478 750 461

GADHUNGAL MARRING
4 Cumberland Ave, South Nowra NSW 2541
gadhungalmarring.com.au
Facebook | Instagram

Gadhungal Marring

Saltwater People

2024 Local Government Regional NAIDOC Award Winner

---------- Forwarded message ---------
From: <penny@mcheritage.com.au>
Date: Fri, 27 Sept 2024 at 08:01
Subject: Proposed industrial subdivision and development at Moss Vale
To: <penny@mcheritage.com.au>

RE: **Written notification of project proposal and registration of interest as required under Heritage NSW Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 1)– Proposed industrial subdivision and development at Moss Vale**

McCardle Cultural Heritage (MCH) have been engaged by Park Hill Property on behalf of the Proponent (SAAS AUS Pty Ltd, PO Box 399 Moorebank NSW 1875) to undertake an Aboriginal Cultural Heritage Assessment (ACHA) and prepare an Aboriginal Heritage Impact Permit (AHIP) application if required for a proposed industrial subdivision and development at 2 and 10 Bowman Road (Lot 2, DP 1070888 and Lot 51 DP 130176), Moss Vale, NSW, Wingecarribee Shire Council Local Government Area (LGA).

As per the Heritage NSW policy - Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010, Stage 1 (s1.3 to 4.1.8), MCH and the proponent are seeking community consultation with indigenous knowledge holders relevant to the project area who can determine the cultural significance of Aboriginal objects and/or places in the area of the proposed project.

penny@mcheritage.com.au

From: Thomas Dahlstrom <gamila_roi@yahoo.com.au>
Sent: Monday, 30 September 2024 3:23 PM
To: penny@mcheritage.com.au
Subject: Re: Proposed industrial subdivision and development at Moss Vale

Gday Penny

Thank you for your email. Can you please register myself as an individual RAP with knowledge specific on Aboriginal objects in but not limited to New South Wales.

Have a great day.

Regards

Thomas Dahlstrom

On 27 Sep 2024, at 8:01 am, penny@mcheritage.com.au wrote:

RE: Written notification of project proposal and registration of interest as required under Heritage NSW Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 1)– Proposed industrial subdivision and development at Moss Vale

McCardle Cultural Heritage (MCH) have been engaged by Park Hill Property on behalf of the Proponent (SAAS AUS Pty Ltd, PO Box 399 Moorebank NSW 1875) to undertake an Aboriginal Cultural Heritage Assessment (ACHA) and prepare an Aboriginal Heritage Impact Permit (AHIP) application if required for a proposed industrial subdivision and development at 2 and 10 Bowman Road (Lot 2, DP 1070888 and Lot 51 DP 130176), Moss Vale, NSW, Wingecarribee Shire Council Local Government Area (LGA).

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<image006.png>

<image007.jpg>

McCARDLE
CULTURAL HERITAGE

PO Box 166
Adamstown 2289 NSW
penny@mcheritage.com.au
P: 0412 702 396

mcheritage.com.au

14 October 2024

Heritage NSW, Department of Premier & Cabinet
heritagemailbox@environment.nsw.gov.au

Dear Sir/madam,

RE: Written notification of project proposal and registration of interest as required under Heritage NSW Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (s4.1.6): provision of Registered Aboriginal Parties (RAPs): Proposed industrial subdivision and development at Moss Vale

In compliance with the Heritage NSW policy - Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 1; s 4.1.6), please find attached records of Registered Aboriginal Parties (RAPs) for the above-named project.

Also, in compliance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 1: s 4.1.3 and 4.1.6), please also find attached a copy of the public notification placed in the Southern Highland News.

If you have any questions or would like any additional information please don't hesitate to contact me on 0412 702 396 or via e-mail at penny@mcheritage.com.au.

Yours sincerely,
for McCardle Cultural Heritage Pty Ltd

Dr. Penny McCardle
Principal Archaeologist
Forensic Anthropologist

Registered Aboriginal Parties

Company	Contact
A&K Cultural Heritage	Ali Maher
Cubbitch Barta	Glenda Chalker &Rebecca Chalker
Gadhungal Marring	Nigel Millgate
Illawarra Local Aboriginal Land Council	Aara
	Thomas Dahlstrom
Woronora Plateau Gundungara Elders Council	Paul Cummins and Kayla Williamson

McCARDLE
CULTURAL HERITAGE

PO Box 166
Adamstown 2289 NSW
penny@mcheritage.com.au
P: 0412 702 396

mcheritage.com.au

14 October 2024

Illawarra Local Aboriginal Land Council
admin@ilalc.org.au

Dear Sir/madam,

RE: Written notification of project proposal and registration of interest as required under Heritage NSW Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (s4.1.6): provision of Registered Aboriginal Parties (RAPs): Proposed industrial subdivision and development at Moss Vale

In compliance with the Heritage NSW - Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 1; s 4.1.6), please find attached records of Registered Aboriginal Parties (RAPs) for the above-named project.

Also, in compliance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 1: s 4.1.3 and 4.1.6), please also find attached a copy of the public notification placed in the Southern Highland News.

If you have any questions or would like any additional information please don't hesitate to contact me on 0412 702 396 or via e-mail at penny@mcheritage.com.au.

Yours sincerely,
for McCardle Cultural Heritage Pty Ltd

Dr. Penny McCardle
Principal Archaeologist
Forensic Anthropologist

Registered Aboriginal Parties

Company	Contact
A&K Cultural Heritage	Ali Maher
Cubbitch Barta	Glenda Chalker &Rebecca Chalker
Gadhungal Marring	Nigel Millgate
Illawarra Local Aboriginal Land Council	Aara
	Thomas Dahlstrom
Woronora Plateau Gundungara Elders Council	Paul Cummins and Kayla Williamson

penny@mcheritage.com.au

From: penny@mcheritage.com.au
Sent: Monday, 14 October 2024 10:16 AM
To: 'aandkculturalheritage@gmail.com'; 'kgchalker@bigpond.com'; 'admin@gadhungalmarring.com.au'; 'heritage@ilalc.org.au'; 'gamila_roi@yahoo.com.au'; 'kayla_87_@hotmail.com'
Subject: Proposed industrial subdivision and development at Moss Vale - info pack
Attachments: ACHAR Info Pack.pdf

Dear all,

RE: Heritage NSW Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 2 & 3) – Presentation of information about the proposed project and request for comment on the proposed methods of investigation – Proposed industrial subdivision and development at Moss Vale

McCardle Cultural Heritage (MCH) would like to thank you for registering your interest in this project. We previously offered the option for a meeting or an information pack, but did not receive your preference. As a result, we are providing the information packet via email/post.

To comply with the cultural heritage consultation requirements outlined in the Heritage NSW policy, an Aboriginal Cultural Heritage Assessment Information Packet has been enclosed. This packet contains detailed information about the proposed project, including maps, impact assessment process, cultural, environmental, and archaeological contexts, site-specific predictive model, proposed methodology, roles and responsibilities, and an opportunity for feedback on cultural concerns and assessment requirements.

MCH requests your input on the proposed methodology for the heritage assessment, any information on any Aboriginal objects or culturally significant places in the investigation area, along with any known issues of cultural significance you are aware of. Please specify any protocols or restrictions you wish to apply to the information shared and please consider any other relevant factors for the assessment.

Please make your written submission to MCH by close of business 11th November 2024. The absence of a response by the requested timeline will be taken as your indication that your organisation has no comments regarding the above.

The proponent intends to engage a number of RAPs (relative to the scale and nature of the investigations) to participate in the field work. If you wish to be considered for paid participation in the field investigations please review and complete the Aboriginal stakeholder site officer application form attached to the information packet provided. Aboriginal representatives will be selected by the proponent based upon merits of the applications received with respect to the selection criteria. Late application will not be accepted by the proponent.

The number of individuals engaged and the duration of their involvement will be at the sole discretion of the proponent and communicated to MCH. Successful applicants will be notified by MCH and all RAPs are invited to join field investigations, irrespective of remuneration, and contingent upon meeting Occupational Health and Safety and operational requirements. Please note that regardless of participation in the field investigations, RAPs will be consulted in accordance with the Heritage NSW policy - Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 for the remainder of the assessment. As all communications, including phone calls, faxes, letters, and e-mails must be included in the consultation component of the report as per the Heritage NSW requirements, please ensure confidential information is clearly indicated at the start of a conversation or noted on each written communication. MCH looks forward to your response and working with you on this project. Please do not hesitate to contact myself on 0412 702 396 should you have any questions.

Kind regards,

Dr. Penny McCardle

Principal & Forensic Archaeologist
Forensic Anthropologist

McCARDLE
CULTURAL HERITAGE

PO Box 166,
Adamstown 2289 NSW
P: 0412 702 396
mcheritage.com.au

2 & 10 Bowman Rd, Moss Vale

LGA: Wingecarribee Shire Council

Aboriginal Cultural Heritage Assessment Information Packet

14 October 2024

McCARDLE CULTURAL HERITAGE PTY LTD

ACN 104 590 141 • ABN 89 104 590 141

PO Box 166, Adamstown, NSW 2289
Mobile: 0412 702 396 • Email: penny@mcheritage.com.au

McCARDLE
CULTURAL HERITAGE

Report No: J202484 Info Pack	
Approved by:	Penny McCardle
Position:	Director
Signed:	
Date:	14 October 2024

CONTENTS

LIST OF FIGURES

GLOSSARY

Aboriginal Cultural Heritage Values: traditional values of Aboriginal people, handed down in spiritual beliefs, stories and community practices and may include local plant and animal species, places that are important and ways of showing respect for other people.

Aboriginal Place: are locations that have been recognised by the Minister for Climate Change and the Environment (and gazetted under the *National Parks and Wildlife Act 1974*) as having special cultural significance to the Aboriginal community. An Aboriginal Place may or may not include archaeological materials.

Aboriginal Site: an Aboriginal site is the location of one or more Aboriginal archaeological objects, including flaked stone artefacts, midden shell, grinding grooves, archaeological deposits, scarred trees etc.

Harm: is defined as an act that may destroy, deface or damage an Aboriginal object or place. In relation to an object, this means the movement or removal of an object from the land in which it has been situated

Traditional Aboriginal Owners: Aboriginal people who are listed in the Register of Aboriginal owners pursuant to Division 3 of the *Aboriginal Land Register Act (1983)*. The Registrar must give priority to registering Aboriginal people for lands listed in Schedule 14 of the *National Parks and Wildlife Act 1974* or land subject to a claim under 36A of the *Aboriginal Land Rights Act 1983*.

Traditional Knowledge: Information about the roles, responsibilities and practices set out in the cultural beliefs of the Aboriginal community. Only certain individuals have traditional knowledge and different aspects of traditional knowledge may be known by different people, e.g., information about men's initiation sites and practices, women's sites, special pathways, proper responsibilities of people fishing or gathering food for the community, ways of sharing and looking after others, etc.

1 INTRODUCTION

McCardle Cultural Heritage Pty Ltd (MCH) has been engaged by JEP Environmental and Planning to prepare an Aboriginal Cultural Heritage Assessment (ACHA), and an Aboriginal Heritage Impact Permit (AHIP), if required, for the proposed industrial subdivision and development at 2 and 10 Bowman Road, Moss Vale.

The assessment will determine the potential impacts upon the indigenous cultural heritage within the development area. It is intended that any areas of indigenous cultural heritage and archaeological values will be identified and appropriate management recommendations will be established through consultation with the Registered Aboriginal Parties (RAPs).

In compliance with the Heritage NSW - Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 2, s4.21 to 4.2.4 and Stage 3 s4.3.1 to 4.3.7), this Aboriginal Cultural Heritage Information Packet provides information about the proposed project including, but not limited to, details of the proposed the project including maps, an outline of the assessment process, summary of the environmental, cultural and archaeological contexts, the proposed methodology, the roles and responsibilities of all parties, and provides an opportunity for you to identify and raise any cultural concerns, perspectives and assessment requirements you may have.

The assessment has been undertaken to meet the Heritage NSW, Department of Premier & Cabinet Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010a, the Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW 2011, the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales 2010b, and the brief.

1.1 CONSULTATION

Consultation will be undertaken as per the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 and will be detailed in the ACHA.

1.2 PROJECT AREA

The project area is defined by the proponent and is located at 2 and 10 Bowman Road, Moss Vale (Lot 2, DP 1070888 and Lot 51 DP 130176). The location and extent of the project area is illustrated in Figures 1.1 and 1.2.

Figure 1.1 Location of the project area

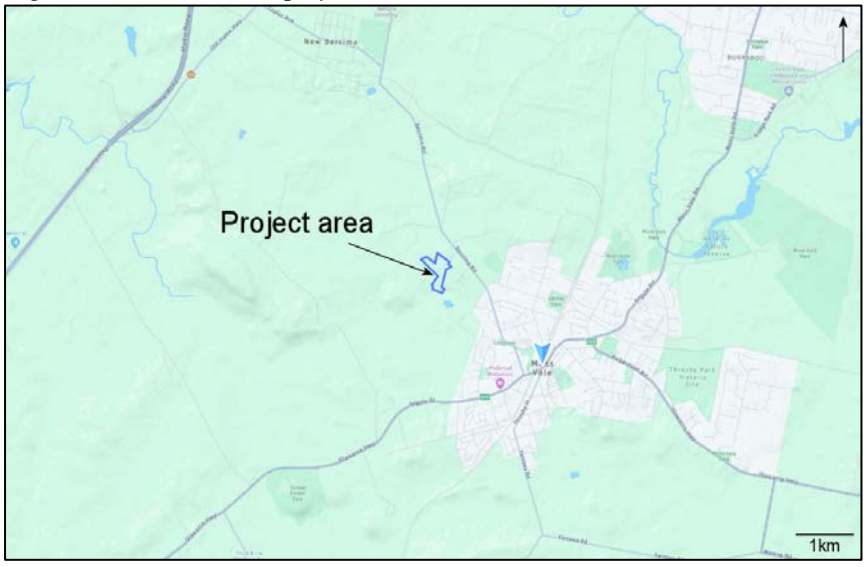


Figure 1.2 Aerial photograph of the project area

1.3 PROJECT OUTLINE AND IMPACTS

The project will include the creation of an industrial subdivision of the project area. Works typically associated with residential developments include clearing and demolition of existing structures, site remediation, bulk earthworks including construction of dwellings and roads, services reticulation: WW, PW, NBN, electrical and gas and landscaping.

1.4 CRITICAL DEVELOPMENT TIME LINES

The proponent wishes to commence works as soon as possible but also acknowledges the need to undertake cultural heritage and archaeological investigations on the site. Ideally these would be undertaken prior to any works commencing on the site, however, it would be possible to stage the development to exclude areas identified for investigation until the investigations are complete.

1.5 CRITICAL ARCHAEOLOGICAL TIMELINE

The following Table indicates the timelines critical for the archaeological assessment. However, please note that consultation may be increased or decreased depending on response times and knowledge sharing.

1.1 Archaeological timeline

	Week														
Stages	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
Stage 1: consultation	Gov. letters		RAP letters		Information pack				2 weeks' notice for survey & survey			Draft report review			
Stage 2: gathering of knowledge															
Stage 2: contextual research															
Stage 3: survey															
Stage 4: reporting															
Stage 5: finalisation															

2 ENVIRONMENTAL CONTEXT

The environmental context provides an understanding of the landscape and environmental factors as well as potential resources that may have been available in the past. The land uses also assists in an understanding of potential impacts they would have had on the landscape and associated cultural materials. This information is utilised with the archaeological context in order to ascertain a reliable predictive model of not only sit location and site type, but also the likelihood of survivability within that landscape.

The underlying geology of the centre of the project area is Quaternary residual deposits (saprolite – chemically weathered rock). This includes poorly consolidated, deeply weathered bedrock retaining the fabric of the underlying parent material. Greater than 20% of weatherable minerals are altered and the deposits may coincide with the pedogenic 'C' horizon. The northern section consists of alluvial floodplain deposits of silt, very fine to medium grained lithic deposits and quartz rich sand as well as clay deposited through the movement of water. The far south eastern portion of the project area consists of the Bringelly Shale geological formation, consisting of shale, claystone, laminate, sandstone and rare coal occurrences.

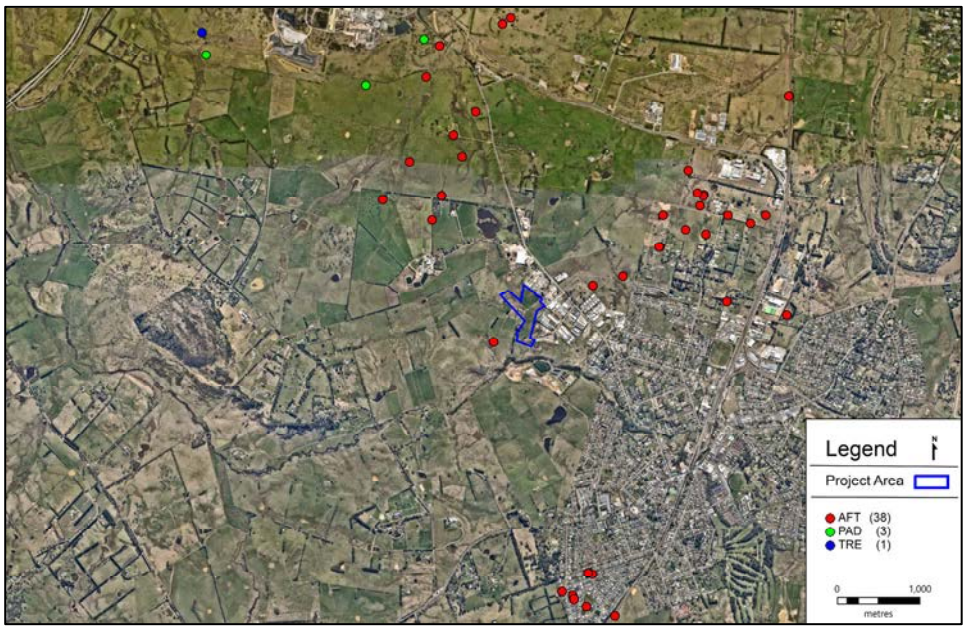
The project area consists of a very gentle slopes dissected by 1st order drainage lines in the north and south and geotechnical investigations in the project area identified there is up to 15cm of fill/topsoils (A_1 horizon) that overlays up to 50cm of clayey silt/silty clay (A_2 horizon), that overlays the clay B horizon. In terms of fresh water availability, the project area is situated some distance form reliable water sources. The Wingecarribee River (6th order) is located approximately 3.2 kilometres east of the project area at its closest point. A 1st order creek is located in the north of the project area and flows north into a 2nd order reek approximately 450 from the project area (Figure 3.2). Two 1st order drainage lines are located in the southern end of the project area and joins together along the southern boundary to form a 2nd order creek that continues to flow south into Whites Creek (3rd order) approximately 130 metres south of the project area. the project area has been cleared and exclusively used as rural grazing land, and for dairy (milk) production along with the construction of the structures, infrastructure, utilities, fencing and the dam.

3 ARCHAEOLOGICAL CONTEXT

The archaeological background provides context to the project area and wider cultural landscape in which the project area is situated. It identifies known sites, their landform location and proximity to subsistence resources. It also provides the nature and extent of known sites as well as their distribution across the landscape, thereby enabling a site-specific predictive model to be developed.

A search of the AHIMS register identified 42 Aboriginal sites recorded within three kilometres of the project area and include 38 artefact sites (AFT), 3 potential archaeological deposits (PAD) and one scar tree (TRE). There are no AHIMNS sites or Aboriginal Places in the project area (Figure 3.1).

Figure 3.1 Approximate location of AHIMS sites



A previous archaeological due diligence assessment of the project undertaken by Biosis (2024) identified a PAD in the project area (Figure 3.2). The PAD, situated on a raised flat landform near two distinct non-perennial watercourses was identified as such following discussions with ILALC representative, who noted the area's well-drained characteristics and the similarity to nearby AHIMS site 52-4-0188. The identified PAD is situated within a relatively undisturbed elevated region of a low-lying landform, adjacent to a first-order tributary in the Moss Vale Highlands Soil Landscape. This location shows a moderate potential, aligning with prior predictive models for the area. In contrast, the remainder of the study area was evaluated as having low potential due to insufficient suitable landform features and disturbances from cattle grazing and development activities.

Figure 3.2 Location of the PAD

Just as the environmental context and the results of the regional and local archaeological contexts have assisted in formulating a predictive model, the predictive modeling has assisted in formulating the field investigation methodology (Sections 4 and 5).

4 METHODS OF INVESTIGATION

There are two methods of investigation including the gathering of cultural significance knowledge and archaeological assessment. These are outlined below.

4.1 GATHERING OF INFORMATION OF CULTURAL SIGNIFICANCE

MCH and the proponent understand that unlike the written word, Aboriginal cultural knowledge is not static, but responds to change through absorbing new information and adapting to its implications. Aboriginal cultural knowledge is handed down through oral tradition (song, story, art, language and dance) from generation to generation, and preserves the relationship to the land (DECCW 2010).

Specific details and parts of cultural knowledge are usually held and maintained by individuals or within particular family groups. Although the broader community may be aware of the general features of that knowledge, it is not a common practice within Aboriginal society for detailed cultural knowledge to be known in the broader community or within Aboriginal community organisations. However, at times these organisations may defer to particular individuals or family groups as being the knowledge-holders of particular sets of cultural knowledge about places or the environment (DECCW 2010).

All responses to the information packet will be considered in the final methods which will adapt accordingly. Any other changes to the methods may occur on site in order adapt to unforeseen field conditions.

4.1.1 PROPOSED METHODS: GATHERING INFORMATION ABOUT CULTURAL SIGNIFICANCE

The aim of gathering of cultural knowledge and understanding any cultural significance in relation to the project rea and its surrounds is to facilitate a process whereby RAPs can;

a) Contribute culturally appropriate information
b) Contribute to the proposed methodology
c) Provide information that will enable the cultural significance of Aboriginal objects and/or places within the project area to be determined.

4.1.2 IDENTIFYING KNOWLEDGE HOLDERS

The aim is to identify Traditional Owners/traditional knowledge holders who have knowledge that is relevant to the project area so that any potential effects of the project or activity on the Indigenous cultural heritage values of objects and/or places can be identified.

It also aims to identify Indigenous people who may not necessarily be Traditional Owners/traditional knowledge holders but who do have interests in the area so that any effects of the project or activity on the Indigenous heritage values of objects and/or places, such as mission stations and historic buildings, will be identified.

MCH understands it is the Indigenous custom to elect knowledge holders and it is traditionally the Indigenous people who nominate who speak for country. Unfortunately, some RAPs and Government Departments have placed the onus of identifying traditional knowledge holders onto proponents and archaeologists. In order to do this, MCH are guided by the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010) which provides guidelines to identify traditional knowledge holders. Knowledge holders are defined as follows:

a) Traditional knowledge holder of specific, detailed knowledge passed directly by a traditional knowledge holder in a traditional manner
b) Traditional knowledge holder of general knowledge passed directly by a traditional knowledge holder in a traditional manner

c) Knowledge holder of recent information obtained through other means (such as, but not limited to, ethnographic sources, internet searches, assessment reports, personal experience etc).

Knowledge holders have been initially identified through the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010), Stage 1 (S. 4.1.1 to 4.1.2) that seeks 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.

Additionally, knowledge holders were sought to be identified through the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010), Stage 1 (S. 4.1.3 to 4.1.8) that sought to identify, notify and register Aboriginal people who identify as knowledge holders (using the above defined knowledge holder criteria) who hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and/or places in the area of the proposed project.

Native Title Claimant Groups/individuals are acknowledged as knowledge holders due to the requirements through the Native Title Registration process. Native Title Claimant groups/individuals are also asked to further define the knowledge holder using the above defined knowledge holder criteria.

This process ensures consistent consultation for all RAPs and adheres to the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010).

4.1.3 IDENTIFYING CULTURAL SIGNIFICANCE

Cultural significance is embodied in the place—in its fabric, setting, use, associations and meanings. It may exist in: objects at the place or associated with it; in other places that have some relationship to the place; and in the activities and traditional and customary practices that may occur at the place or that are dependent on the place. A place may be of cultural significance if it satisfies one or more of these criteria. Satisfying more criteria does not mean a place is necessarily more significant.

Only Aboriginal people who are descendants of the people from the traditional lands in which the project is situated can identify the cultural significance of their own cultural heritage.

The cultural significance of a place is assessed by analysing evidence gathered through the physical investigation of the place, research and consultation for this project in line with the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010), Code of Practice for Archaeological Investigations of Aboriginal Objects in New South Wales (DECCW 2010) and the ICOMS Burra Charter (2013). Part of the process is to evaluate its qualities against a set of criteria that are established for this purpose. The criteria used include those set out by the Burra Charter (see below).

4.1.4 VALUES AND QUESTIONS TO CONSIDER

The following values and questions are derived from the Burra Charter (2913) to facilitate your consideration when providing information on the cultural significance of any Aboriginal objects(s) and/or place(s). The criteria discussed below are a means to assess cultural significance in order to meet the Government Departmental requirements. MCH understands that the method of assessing cultural significance presented may not be culturally appropriate and considered offensive to some; it is not intended to be so.

There are five terms or values, which are listed alphabetically in the Burra Charter, and are often included in Australian heritage legislation. Criteria are also used to help define cultural and natural significance, and there is now a nationally agreed set of heritage assessment criteria and each of these criteria may have tangible and intangible aspects and it is essential that both are acknowledged.

The five criteria include Aesthetic value, Historic value, Scientific value, Social value and Spiritual value. These are discussed below along with some questions for consideration when you consider reporting on the cultural significance.

AESTHETIC SIGNIFICANCE

Aesthetic value includes aspects of sensory perception for which criteria can and should be stated. It is how we respond to visual and non-visual aspects such as sounds, smells and other factors that can have a strong impact on your thoughts, feelings and attitudes. It may also include consideration of the form, scale, colour, texture and material and its beauty (Australia ICOMOS 2013). When considering the aesthetic value and significance of a site and/or PAD, some questions to consider may include:

- Does the object or place have special compositional or uncommonly attractive qualities involving combinations of colour, textures, spaces, massing, detail, movement, unity, sounds, scents?
- Is the object or place distinctive within the setting or a prominent visual landmark?
- Does the object or place have qualities which are inspirational or which evoke strong feelings or special meanings?
- Is the object or place symbolic for its aesthetic qualities: for example, does it inspire artistic or cultural response, is it represented in art, photography, literature, folk art, folk lore, mythology or other imagery or cultural arts?
- Does the object or place display particular aesthetic characteristics of an identified style or fashion?
- Does the object or place show a high degree of creative or technical achievement?

HISTORIC SIGNIFICANCE

The historic value encompasses all aspects of history. For example, it may include the history of aesthetics, art, science, society and spirituality. A place may have historic value because it has influenced, or has been influenced by, an historic figure, event, phase or activity. It may also have historic value as the site of an important event. For any given place the significance will be greater where evidence of the association or event survives in situ, or where the settings are substantially intact, than where it has been changed or evidence does not survive. However, some events or associations may be so important that the place retains significance regardless of subsequent treatment (Australia ICOMOS 2013). When considering the historic value and significance of a site and/or PAD, some questions to consider may include:

- Is the object or place associated with an important event or theme in your history?
- Is the object or place important in showing patterns in the development of your history locally, in a region, or on a state-wide, or national or global basis?
- Does the object or place show a high degree of creative or technical achievement for a particular period?
- Is the object or place associated with a particular person or cultural group important in the history of the local area, state, nationally or globally?

SCIENTIFIC SIGNIFICANCE

The scientific value refers to the information content of a place and its ability to reveal more about an aspect of the past through examination or investigation of the place, including the use of archaeological techniques. The relative scientific value of a place is likely to depend on the importance of the information or data involved, on its rarity, quality or representativeness, and its potential to contribute further important information about the place itself or a type or class of place or to address important research questions (Australia ICOMOS 2013). Whilst the scientific value and significance will be discussed in detail in the Archaeological Heritage Impact Assessment report, it is important to consider this value when

assessing the cultural values and significance of an object and/or place. When considering the scientific value and significance of a site and/or PAD, you may consider:

- Would further investigation of the place have the potential to reveal substantial new information and new understandings about people, places, processes or practices which are not available from other sources?

SOCIAL VALUE

Social value refers to the associations a place has for a particular community or cultural group and the cultural or social meaning it has for that community or cultural group (Australia ICOMOS 2013). When considering the social value and significance of a site and/or PAD, some questions to consider may include:

- Is the object or place important as a local marker or symbol?
- Is the object or place important as part of your community identity or the identity of another particular cultural group?
- Is the object or place important to you, your community or other cultural group because of associations and meanings developed from long use and association?

SPIRITUAL VALUE

Spiritual value embraces the intangible values and meanings embodied in or evoked by a place which gives importance to the spiritual identity, or traditional knowledge, art and practices of a cultural group. Spiritual value may also be reflected in the intensity of aesthetic and emotional responses or community associations, and be expressed through cultural practices and related places (Australia ICOMOS 2013). The qualities of the place may inspire a strong and/or spontaneous emotional or metaphysical response in people, expanding their understanding of their place, purpose and obligations in the world, particularly in relation to the spiritual realm (Australia ICOMOS 2013). When considering the spiritual value and significance of a site and/or PAD, some questions to consider may include:

- Does the object or place contribute to the spiritual identity or belief system of you, your community or another cultural group?
- Is the place a repository of knowledge, traditional art or lore related to spiritual practice for you, your community or another a cultural group?
- Is the object or place important in maintaining the spiritual health and wellbeing of you, your community people or another culture or group?
- Do the physical attributes of the object or place play a role in recalling or awakening an understanding of an individual or a group's relationship with the spiritual realm?
- Do the spiritual values of the object or place find expression in Awabakal cultural practices or human-made structures, or inspire creative works?

4.1.5 PROVIDING YOUR KKNOWLEDGE AND CULTURAL SIGNIFICANCE INFORMATION

It is difficult to provide options that will ensure every individual's needs are met. In light of this, the following proposed options are provided are in no way the only options available. If you have alternative ways of providing your knowledge and cultural significance information, please notify MCH to ensure we can facilitate your requirements where appropriate.

It is acknowledged and understood that the methods and options discussed are not traditional customs and some may take offence. MCH sincerely apologise for any offence taken as none is intended.

1) Discussion in the field during the field work
2) Written documentation (letter, e-mail)
3) Meeting to discuss and/or provide written documentation
4) Formal interview with specific questions/answers and/or discussions
5) Phone conversation
6) Internet video conversation
7) Using the attached form/questioner

4.2 ARCHAEOLOGICAL INVESTIGATION METHODS

4.2.1 OBJECTIVES

The objective of the investigation is to determine whether surface and, or, subsurface cultural material exists in the areas identified as having archaeological potential. The detection of surface material will drive the management recommendations and mitigation measures to ensure that any significant cultural resources are identified and protected where possible or is subject to minimal impact by the proposed development.

4.2.2 ABORIGINAL CULTURAL HERITAGE ASSESSMENT METHODOLOGY & REPORT

Overall, the ACHA will include, but not limited to, the following;

- Project background, including project description, detailed maps, legislative context, qualifications of the investigator
- Consultation outlining the process as per the Heritage NSW Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010
- Landscape context including, landforms, soils, geology, geomorphology, water sources, fauna and flora, history of land use and impacts and, natural impacts
- Archaeological context including review of previous regional and local work in the area, AHIMS search, summary and discussion of the local and regional character of Aboriginal land use and its material traces, occupation model and site-specific predictive model
- Results that will include the field work results (see below for proposed methodology), detailed descriptions of landforms (survey units), vegetation cover, exposures, land uses and disturbances, site(s) and PAD(s). It will also include any analysis and discussion
- An assessment of scientific values and significance assessment
- An impact assessment
- Management and mitigation measures
- Recommendations
- References
- Appendices will include the AHIMS results and community consultation log and communications

4.2.3 PROPOSED TEST EXCAVATION METHODOLOGY

Following the survey and clarification of the previously identified areas of potential, the test excavation methodology will be in accordance with the Heritage NSW, Department of Premier & Cabinet policy - Code of Practice for Archaeological Investigations of Aboriginal Objects in New South Wales 2010, Section 2.2. This proposed methodology is subject to variation due to unforeseen field conditions/constraints. The

area to be subject to a test excavation program will include the area clarified as having archaeological potential and will include:

- the test excavation units will be placed on a 15m x 15m systematic grid system (49 test pits) across the part of the PAD (110m x 110m) that will be impacted on by the development (ensuring that the maximum surface area of all test excavation pits is no greater than .5% the PAD areas;
- test excavations will cease when enough information has been recovered to adequately characterise the objects/site(s) present with regard to their nature and significance;
- the test excavation will be pegged by a surveyor who will also provide a plan and coordinated of each test pit;
- test excavations units will be excavated using hand tools only;
- test excavations will be excavated in 50 cm x 50 cm units. If the pits are deeper than 1m, due to safety, the pits will be battered to allow safe access and batters excavated and sieved as the test excavation;
- the first excavation unit will be excavated and documented in 5 cm spits. Based on the evidence of the first excavation unit, 10 cm spits or sediment profile/stratigraphic excavation (whichever is smaller) will then be implemented;
- all material excavated from the test excavation units will be sieved using a 5-mm wire-mesh sieve;
- test excavation units will be excavated to the base of the identified Aboriginal object-bearing units, or until the B horizon is reached;
- if more than 10 artefacts are uncovered in one pit, then additional test pits will be located north, south, east and west of that pit and placed at 5m from the original pit so long as the total area excavated did not exceed 0.5% of the PAD;
- photographic and scale-drawn records of the stratigraphy/soil profile, features and informative Aboriginal objects will be made for each excavation point;
- test excavations units will be backfilled as completed; and
- all artefacts will be removed at the end of each day for security and held with MCH until the artefact analysis is complete and will be handed to the RAPs (care and control to be determined).

Following the completion of the salvage excavations and community collections, an artefact analysis was undertaken and the details of the methods used will include, but not limited to, the block method of measuring artefacts (measures the greatest length from the platform and perpendicular to the platform), the greatest width perpendicular to the length and the greatest thickness). Artefact will be classified based on the materialist approach as opposed to the typological approach. Materialist classifications do not concentrate on the purpose or intention of the artefact maker but focus on how morphological features came into being. Raw materials will also be noted as well as heat treatment of artefacts, use-wear and re-touch. Artefact counts will be made, cortex and breakage will also be included in the analysis. Any other cultural materials uncovered will also be analysed and included in the report.

4.2.4 TEST EXCAVATION RESEARCH QUESTIONS

The assessment is designed to address a number of research hypothesis. The research questions listed below derive from Kuskies (2005) detailed work in the region and are used here for consistency in analysis and discussions as well as local and regional comparative research.

- What past Aboriginal activities occurred within the project area?
- What types of past Aboriginal occupation occurred within the project area (e.g., transitory movement, hunting, gathering, camping etc)?

- Were the types of activity and nature of occupation related to environmental factors (e.g., landforms, proximity to reliable water)?
- Does spatial patterning of activity areas occur within the project area?
- Did single or multiple episodes of occupation occur within the project area?
- Did episodes of occupation occur at different times over the whole time-span of occupation in the region within the project area?
- Is there potential for older evidence of occupation (i.e., early Holocene)?
- How intensive was occupation of the sites, in both a local and regional context?
- Did microblade and microlith production occur on the sites?
- Were other tools manufactured on the sites?
- Was maintenance of tools conducted on site?
- Was knapping of flakes largely casual and opportunistic, meeting requirements on 'as needed' basis?
- What raw materials were favoured for use on site within the project area and why?
- Did thermal alteration of raw materials occur within the project area?
- How does the evidence and inferred human behaviour represented within the project area compare with evidence from other locations in the region?
- How does the evidence relate to the regional and local models of occupation?

4.3 FORMS

You will find forms attached for your connivance. However, if you prefer to use your own, please feel free to do so. Please ensure that these are either filled out in full or your own forms/letters answer the questions and return to MCH no later than 11th November 2024.

5 ROLES, RESPONSIBILITIES AND FUNCTIONS OF PARTIES

The roles, responsibilities and functions of all parties are outlined below and is taken from DECCW (2010).

5.1 HERITAGE NSW, DEPARTMENT OF PREMIER AND CABINET

The Chief Executive of Heritage NSW, Department of Premier & Cabinet is the decision-maker who decides to grant or refuse an Aboriginal Heritage Impact Permit (AHIP) application. If an AHIP is issued, conditions are usually attached and Heritage NSW, Department of Premier & Cabinet is responsible for ensuring the AHIP holder complies with those conditions. When considering an application under Part 6 of the NPW Act, the Chief Executive will review the information provided by proponents in line with its internal policies and procedures to assess potential or actual harm to Aboriginal objects or places (DECCW, 2009).

The Environment Protection and Regulation Group (EPRG) of Heritage NSW, Department of Premier & Cabinet is responsible for administering the regulatory functions under Part 6 of the NPW Act. Heritage NSW, Department of Premier & Cabinet expects that proponents and Aboriginal people should:

- be aware that Part 6 of the NPW Act establishes the Chief Executive or delegate of Heritage NSW, Department of Premier & Cabinet as the decision-maker; and
- recognise that the Chief Executive's (or delegates) decisions may not be consistent with the views of the Aboriginal community and/or the proponent. However, Heritage NSW, Department of Premier & Cabinet will consider all relevant information it receives as part of its decision-making process.

5.2 PROPONENT

All proponents operate within a commercial environment which includes:

- strict financial and management issues, priorities and deadlines;
- the need to gain community support in order to secure any necessary approval/consent/ licence/permit to operate;
- the need for clearer processes and certainty of outcomes;
- the need for suitable access to land for the purpose of their development project;
- the need to work efficiently within the project's time, quality and cost planning and management parameters; and
- the need for culturally appropriate assessment findings relevant to their project.

Under these requirements, proponents should undertake the following:

- bring the RAPs or their nominated representatives together and be responsible for ensuring appropriate administration and management of the consultation process;
- consider the cultural perspectives, views, knowledge and advice of the RAPs involved in the consultation process in assessing cultural significance and developing any heritage management outcomes for Aboriginal object(s) and/or place(s);
- provide evidence to Heritage NSW, Department of Premier & Cabinet of consultation by including information relevant to the cultural perspectives, views, knowledge and advice provided by the registered Aboriginal parties; and
- accurately record and clearly articulate all consultation findings in the final ACHA report.

5.3 REGISTERED ABORIGINAL STAKEHOLDERS

The interests and obligations of Aboriginal people relate to the protection of Aboriginal cultural heritage. It is only Aboriginal people who can determine who is accepted by their community as being authorised to speak for Country and its associated cultural heritage. Where there is a dispute about who speaks for Country, it is appropriate for Aboriginal people, not Heritage NSW, Department of Premier & Cabinet or the proponent, to resolve this dispute in a timely manner to enable effective consultation to proceed.

Aboriginal people who can provide information about cultural significance are, based on Aboriginal lore and customs, the traditional owners or custodians of the land that is the subject of the proposed project area. Traditional owners or custodians with appropriate cultural heritage knowledge necessary to make informed decisions who wish to register as an Aboriginal party are those people who:

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

The registered Aboriginal parties should undertake the following;

- ensure the appropriate cultural knowledge holder is providing the appropriate information;
- uphold and respect the traditional rights, obligations and responsibilities of Aboriginal people within their own boundaries and not to infringe in other areas or Aboriginal people outside their own boundaries;
- consider and provide the proponent the cultural perspectives, views, knowledge and advice during the consultation process, assessing cultural significance and developing any heritage management outcomes for Aboriginal object(s) and/or place(s); and
- need to work efficiently within the project's time and provide feedback in a timely manner.

5.4 LOCAL ABORIGINAL LAND COUNCILS

The NSW Aboriginal Land Council (NSWALC) and Local Aboriginal Land Councils (LALCs) have statutory functions relevant to the protection of Aboriginal culture and heritage under the NSW Aboriginal Land Rights Act 1983. These requirements do not extend the role of NSWALC and LALCs in the significance assessment process. That is, these requirements do not provide NSWALC and/or LALCs any additional or specific decision-making role in the assessment of significance of Aboriginal object(s) and/or place(s) that are subject to an AHIP application under Part 6 of the NPW Act.

LALCs may choose to register an interest to be involved in the consultation process, or may assist registered Aboriginal parties to participate in the consultation process established by these requirements. In order to ensure effective consultation and the subsequent informed heritage assessment, LALCs are encouraged to identify and make contact with Aboriginal people who hold cultural knowledge in their area.

5.5 EMPLOYMENT

The proponent may engage a number of Aboriginal representatives from the registered parties (based on the size and nature of the project) to participate and assist in the fieldwork component of this project. Renumeration for any fieldwork is not part of the consultation process and MCH do not get involved in any such issues. However, please note that any renumeration offered by the proponent for any field work component of the assessment may be based on a number of factors, including but not limited to, the overall

project budget, job description, receipt of CVs and insurance certificate of currencies, and will be above the industry standard rate of pay for the specific work.

If you would like to be considered for paid field work, please answer the selection criteria attached and ensure you attach certificates of currency for the relevant insurances, CV(s), any certificates and references. MCH will then pass this information onto the proponent for their consideration to make the selection for fieldwork participants should they wish to do so. MCH will ensure all Aboriginal parties are invited to participate in fieldwork regardless of renumeration. Paid participation is determined by the proponent not MCH.

5.6 FORMS

You will find forms attached for your connivance. However, if you prefer to use your own, please feel free to do so. Please ensure that these are either filled out in full or your own forms/letters answer the questions and return to MCH no later than 11th November 2024.

Appendix A

MCH would like to clearly state that, should you wish to provide feedback in another form, you are encouraged to do so. You are under no obligation to complete the current form.

However, should you wish to use this form, please complete, sign and return to MCH using one of the following;

E-mail: penny@mcheritage.com.au

Postal address: MCH

PO Box 166

Adamstown, NSW 2289

ABORIGINAL STAKEHOLDER SITE OFFICER APPLICATION

Position description (site officers are selected by the proponent and based on the information provided by you (CV, experience, reference check, insurances, rates).

A site officer must demonstrate that they have satisfactorily participated in previous archaeological fieldwork with an archaeologist. A trainee site officer does not need to demonstrate previous archaeological experience. Site officers must be able to:

- undertake direction from the project archaeologist
- work in a range of climates wearing the required PPE
- work in teams with a wide range of people
- identify a broad range of Aboriginal objects across the landscape

To qualify as a site officer, appropriate training in identifying Aboriginal objects must have been undertaken (such as the NPWS sites awareness training course, or other relevant secondary or tertiary studies) or equivalent knowledge or experience must be demonstrated. The duties of the site officer under the direction of the project archaeologist may include, but not limited to:

- assist with set up and pack up, excavate/dig test pits, carry heavy buckets, sieve, backfill
- meeting general and site-specific Occupational Health and Safety requirements

Selection criteria

The proponent will offer positions based on the following key selection criteria:

- an individual's ability to undertake the tasks specified above
- an individual's availability to undertake the activity (physically able to undertake field work)
- an individual's experience in undertaking similar activities. Applications may be subject to a reference check
- individuals with demonstrated cultural knowledge relevant to the local area
- individuals who can demonstrate they can communicate the results of the field work back to their managers and RAPs
- in addition to a consideration of the key selection criteria, the Proponent may give preference to applicants who live locally

The proponent is under no obligation to offer site officer positions based on an individual's association with a cultural group or area. The proponent makes no guarantee that registered parties will be engaged to undertake archaeological field activities. The number of site officer positions available will be based on need as described in the archaeological methodology. However, MCH will ensure all registered stakeholders are invited to participate in the fieldwork regardless of engagement arrangements between the stakeholder(s) and the proponent. Applicants will be notified whether they have been successful or unsuccessful in their application for renumeration for fieldwork.

Engagement & Payment

The Proponent selects and has final approval on who will be engaged as a site officer. Successful applicants will be engaged to provide the services through a written contract that will be provided at a later date. The proponent will only engage Service Providers with NSW workers compensation insurance, public liability insurance, and comprehensive motor vehicle insurance or third-party property damage insurance. Engagement of the Service Provider will be a rate that may be based on a number of factors, including but not limited to, the overall project budget, job description, receipt of CVs and insurance certificate of currencies, offered rates of the RAPs and will be above the industry standard rate of pay for the specific work.

The quoted rate is the rate to be paid by the Proponent to the Service Provider - not to the individual site officer/trainee site officer. Payment will only be made for the provision of the services (actual hours worked), not for the time spent travelling to and from site, and there is no daily or half daily rate. Payment will be made upon the receipt of a cultural heritage report and receipt of your response to the draft report.

ABORIGINAL SITE OFFICER APPLICATION FORM

Moss Vale

An Aboriginal site officer application form must be filled out for each individual seeking engagement as a site officer.

Name of organisation (if relevant)	
Name	
Contact number	
Mailing address	
Email address	
Position applied for	Site officer ☐ Trainee Site Officer ☐
Please list any formal qualifications or relevant experience to the position applied for (attach documentation as required)	
Please list any previous archaeological, sites, survey, excavation or other relevant experience (attach additional sheets)	
Please provide the contact details of at least one archaeologist who can be contacted as a referee	

INSURANCES

Public Liability	Expiry date:	(attach certificate of currency)
Worker Compensation	Expiry date:	(attach certificate of currency)
Comprehensive Motor Vehicle	Expiry date:	(attach certificate of currency)

Failure to provide up to date Certificate of Currencies will prevent you participating in any fieldwork. MCH may have received copies previously, however, they must be provided for each project.

FINANCIAL (do not fill out GST column if you are not registered for GST)

Hourly rate	Excluding GST	Including GST	Other Information
$	$	$	

OCCUPATIONAL HEALTH & SAFETY (OH&S)

All participants are required to comply with MCH and the proponents OH&S requirements, including PPE requirements (long pants, long sleeved shirt, high visibility clothing, hat, sunscreen and steel caped boots). You will be advised of any additional requirements. All fieldworkers will arrive on time at the meeting location and stay for the duration of the fieldwork. All fieldworkers will need to bring lunch, snacks and drinking water.

This also includes appropriate and acceptable behaviour at all times and be fit and ready for work (including being alcohol, drug and fatigue free).

Failure to comply will prevent you from participating in the field work.

COMMENTS ON PROPOSED METHODOLOGY

Moss Vale

I, _____ (*please insert your name*) of _____ (*please insert the name of your group*), **agree to the methodology** outlined by MCH in the information packet for the above-named project.

_____

_____

Signed: _____ Date: _____

Position within organisation: _____

I, _____ (*please insert your name*) of _____ (*please insert the name of your group*), **do not agree to the methodology** outlined by MCH in in the information packet for the above-named project for the following reasons (*please explain your reasons for disagreeing):*

_____

_____

I would like to suggest the following (please provide your reasoning):

_____

_____

Signed: _____ Date: _____

Position within organisation: _____

PROVIDING KNOWLEDGE ABOUT CULTURAL SIGNIFICANCE

Moss Vale

Company Name):_____

Contact:_____

Postal address:_____

_____

Mobile No:_____

E-Mail:_____

Date:_____

I would like to provide knowledge about cultural significance using the following method(s). Please tick your preferred method(s):

1) Discussion in the field during field work
2) Written documentation (letter, e-mail)
3) Meeting to discuss and/or provide written documentation
4) Formal interview with specific questions/answers and/or discussions
5) Phone conversation
6) Internet video conversation
7) Using the attached form/questioner

Other: Please provide details:

_____

ABORIGINAL SITE OFFICER APPLICATION FORM

Moss Vale

An Aboriginal site officer application form must be filled out for each individual seeking engagement as a site officer.

Name of organisation (if relevant)	A $ K Cultural Heritage
Name	Ali Maher
Contact number	0423027074
Mailing address	67 Semaphore Road, Berkeley NSW 2506
Email address	aanakculturalheritage@gmail.com
Position applied for	Site officer ☒ Trainee Site Officer ☐
Please list any formal qualifications or relevant experience to the position applied for (attach documentation as required)	Have been working in this industry for 20+ years
Please list any previous archaeological, sites, survey, excavation or other relevant experience (attach additional sheets)	Calderwood, Tullimbar, etc worked over the whole of illawarra in the last 20 years
Please provide the contact details of at least one archaeologist who can be contacted as a referee	Jamie Reeves - 0488 224 888 Reene Regal - 0400594 580 Will Middleton - 0408 852 268

INSURANCES

Public Liability	Expiry date: 28/04/2025	(attach certificate of currency)
Worker Compensation	Expiry date: 31/12/2024	(attach certificate of currency)
Comprehensive Motor Vehicle	Expiry date:	(attach certificate of currency)

Failure to provide up to date Certificate of Currencies will prevent you participating in any fieldwork. MCH may have received copies previously, however, they must be provided for each project.

FINANCIAL (do not fill out GST column if you are not registered for GST)

Hourly rate	Excluding GST	Including GST	Other Information
$ 150 ph	$	$	

OCCUPATIONAL HEALTH & SAFETY (OH&S)

All participants are required to comply with MCH and the proponents OH&S requirements, including PPE requirements (long pants, long sleeved shirt, high visibility clothing, hat, sunscreen and steel caped boots). You will be advised of any additional requirements. All fieldworkers will arrive on time at the meeting location and stay for the duration of the fieldwork. All fieldworkers will need to bring lunch, snacks and drinking water.

This also includes appropriate and acceptable behaviour at all times and be fit and ready for work (including being alcohol, drug and fatigue free).

Failure to comply will prevent you from participating in the field work.

COMMENTS ON PROPOSED METHODOLOGY

Moss Vale

I, Ali Maher (*please insert your name*) of AJR cultural Heritage (*please insert the name of your group*), **agree to the methodology** outlined by MCH in the information packet for the above-named project.

Signed: [signature] Date: 22.10.24

Position within organisation: Senior archaeologist

I, _____ (*please insert your name*) of _____ (*please insert the name of your group*), **do not agree to the methodology** outlined by MCH in in the information packet for the above-named project for the following reasons (*please explain your reasons for disagreeing):*

I would like to suggest the following (please provide your reasoning):

Signed: _____ Date: _____

Position within organisation: _____

PROVIDING KNOWLEDGE ABOUT CULTURAL SIGNIFICANCE

Moss Vale

Company Name): A & K cultural Heritage

Contact: Ali Maher

Postal address: 67 semaphore Road, Berkeley NSW, 2506

Mobile No: 0423027074

E-Mail: aandkculturalheritage@gmail.com

Date: 22.10.2024

I would like to provide knowledge about cultural significance using the following method(s). Please tick your preferred method(s):

(1) Discussion in the field during field work
2) Written documentation (letter, e-mail)
3) Meeting to discuss and/or provide written documentation
4) Formal interview with specific questions/answers and/or discussions
5) Phone conversation
6) Internet video conversation
7) Using the attached form/questioner

Other: Please provide details:

ABORIGINAL SITE OFFICER APPLICATION FORM

Moss Vale

An Aboriginal site officer application form must be filled out for each individual seeking engagement as a site officer.

Name of organisation (if relevant)	Woronora Plateau Gundungara Elders Council
Name	Paul Cummins
Contact number	0418971660
Mailing address	11 Garnett Grove, Flinders NSW 2529
Email address	kayla_87_@hotmail.com
Position applied for	Site officer ☒ Trainee Site Officer ☐
Please list any formal qualifications or relevant experience to the position applied for (attach documentation as required)	26 years experience as an Aboriginal site officer NPWS certified site officer See attached CV
Please list any previous archaeological, sites, survey, excavation or other relevant experience (attach additional sheets)	As above
Please provide the contact details of at least one archaeologist who can be contacted as a referee	Renee Regal Regal Heritage 0400594580

INSURANCES

Public Liability	Expiry date: 29.06.2025	(attach certificate of currency)
Worker Compensation	Expiry date: 31.05.2025	(attach certificate of currency)
Comprehensive Motor Vehicle	Expiry date:	(attach certificate of currency)

Failure to provide up to date Certificate of Currencies will prevent you participating in any fieldwork. MCH may have received copies previously, however, they must be provided for each project.

FINANCIAL (do not fill out GST column if you are not registered for GST)

Hourly rate	Excluding GST	Including GST	Other Information
$ $150.00	$ $150.00	$	WPGEC is not registered for GST

OCCUPATIONAL HEALTH & SAFETY (OH&S)

All participants are required to comply with MCH and the proponents OH&S requirements, including PPE requirements (long pants, long sleeved shirt, high visibility clothing, hat, sunscreen and steel caped boots). You will be advised of any additional requirements. All fieldworkers will arrive on time at the meeting location and stay for the duration of the fieldwork. All fieldworkers will need to bring lunch, snacks and drinking water.

This also includes appropriate and acceptable behaviour at all times and be fit and ready for work (including being alcohol, drug and fatigue free).

Failure to comply will prevent you from participating in the field work.

COMMENTS ON PROPOSED METHODOLOGY

Moss Vale

I, Paul Cummins (*please insert your name*) of Woronora Plateau Gundungara Elders Council (*please insert the name of your group*), **agree to the methodology** outlined by MCH in the information packet for the above-named project.

Signed: PCumms Date: 3.11.2024

Position within organisation: Director

I, _____ (*please insert your name*) of _____ (*please insert the name of your group*), **do not agree to the methodology** outlined by MCH in in the information packet for the above-named project for the following reasons (*please explain your reasons for disagreeing):*

I would like to suggest the following (please provide your reasoning):

Signed: _____ Date: _____

Position within organisation: _____

PROVIDING KNOWLEDGE ABOUT CULTURAL SIGNIFICANCE

Moss Vale

Company Name): Woronora Plateau Gundungara Elders Council

Contact: Paul Cummins

Postal address: 11 Garnett Grove Flinders, NSW, 2529

Mobile No: 0418 971 660

E-Mail: kayla_87_@hotmail.com

Date: 3.11.2024

I would like to provide knowledge about cultural significance using the following method(s). Please tick your preferred method(s):

1) Discussion in the field during field work ✓
2) Written documentation (letter, e-mail)
3) Meeting to discuss and/or provide written documentation ✓
4) Formal interview with specific questions/answers and/or discussions
5) Phone conversation
6) Internet video conversation
7) Using the attached form/questioner

Other: Please provide details:

Name: Woronora Plateau Gundungara Elders Council Incorporated
Postal Address: 11 Garnett Grove, Flinders NSW 2529
ABN: 72663440644

Projects for W.P.G.E.C

Jillian Comber
82A Cliff Road, Wollongong
1 Week– July 2023
- Wet Sieving
- Excavating 50 x 50 test pits
- Identifying and bagging artefacts
- Digging 50X50 pits
- working within a team

Access Archaeology
101 Cleveland Road, Huntley
4 Weeks– June 2023
- Wet Sieving
- Excavating 50 x 50 test pits
- Identifying and bagging artefacts
- Digging 50X50 pits
- working within a team

AECOM
386 Marshall Mount Road, Marshall Mount
1 Week – December 2022
- Wet Sieving
- Excavating 50 x 50 test pits
- Identifying and bagging artefacts
- Digging 50X50 pits
- working within a team

EMM Consulting
Shellharbour Hospital
2 Weeks – December 2022
- Wet Sieving
- Excavating 50 x 50 test pits
- Identifying and bagging artefacts
- Digging 50X50 pits
- working within a team

Biosis Pty Ltd on Behalf of NSW Transport

Picton Road upgrade
2 Weeks – August 2022

- Wet Sieving
- Excavating 50 x 50 test pits
- Identifying and bagging artefacts
- Digging 50X50 pits
- working within a team

Austral – Archaeology
North Macquarie Road, Calderwood
10 Weeks – November 2021 – January 2022

- Dry Sieving
- Excavating 50 x 50 test pits
- Identifying and bagging artefacts
- working within a team

GML Heritage on behalf of Stockland
360 Cleveland Road, Huntley
8 Week Salvage – September 2021

- Wet Sieving
- Identifying artefacts
- Working in large groups/teams
- Digging 1X1 pits
- Correctly labelling and moving buckets

Austral – Archaeology
144 Calderwood Road, Calderwood
3 weeks – May-June 2021

- Dry Sieving
- Excavating 50 x 50 test pits
- Identifying and bagging artefacts
- working within a team

Austral Archaeology
2-18 Centennial Road, Bowral
Salvage – September 2020 – February 2021

- Wet Sieving
- Identifying artefacts
- Working in large groups/teams
- Conducting open area salvages in multiple locations
- Assisting archaeologist in determining test pit locations

Niche – on behalf of Illawarra Coal Holdings Pty Ltd

Cordeaux Dam, Picton Road
2018 – Current - ongoing monitoring

- Locating rock shelter sites from GPS coordinates
- Assisting with photographs of rock shelters
- Locating grinding grooves
- Walking through thick bushland

Kelleher & Nightengale Consulting – Western Sydney Airport
6 Months February – August 2020

- Wet Sieving
- Working in large groups/teams
- Conducting open area salvages in multiple locations
- Assisting archaeologist in determining test pit locations

Kayandel Archaeological Services – on behalf of Waterbrook Bowral Pty Ltd
2-18 Centennial Road, Bowral
40 Days July – September 2020

- Wet Sieving
- Excavating 50 x 50 test pits
- Setting up test pits
- Identifying and bagging artefacts
- Working in a team

Navin Officer Badgerys Creek – Western Sydney Airport
5 Days in total from 2017 - 2018

- Wet Sieving
- Setting up test pits
- Excavating 100 x 100 test pits using shovels, mattocks and trowels
- Identifying and bagging artefacts for analysis
- Working in a team

Kelleher Nightingale Consulting on behalf of Calderwood Heights Pty Ltd
5 Days (6.08.2018 – 10.08.2018)

- Assisting archaeologist determining test pit locations
- Pegging out test pits
- Dry sieving
- Identifying artefacts and bagging them
- Hand excavation of test pits in 10cm increments using shovels & mattocks
- Working as part of a team

Kelleher & Nightingale Consulting on behalf of Lendlease Pty Ltd
Calderwood Road, Calderwood

5 Days (July 2017)

- Bulk salvage excavation
- Wet sieving
- Assisting with paperwork and bag tagging
- Working within a small team

Archaeological Management and Consulting Group Pty Ltd on behalf of Renshall Consulting

401 West Dapto Road, Horsley

1 Day (12.06.2018)

- Wet sieving
- Hand excavation using shovels, trowels and mattocks
- Transporting buckets of soil using wheelbarrows
- Assisting in bagging artefacts for future analysis

Kelleher Nightingale Consulting on behalf of Shellharbour Developments

Dunmore Road, Dunmore

4 Days (19.06.2018 – 21.06.2018)

- Assisting archaeologist with setting out the initial test excavation areas
- Hand excavation and associated dry sieving of excavated deposits
- Moving buckets to sieving areas
- Working within a team
- Identifying and recording aboriginal objects

Kayendel – on behalf of Sir James Fairfax Estate

Retford Park, Aryshire Parade & Betty Close Bowral

10 Days Excavation (30.05.2018 to 15.06.2018)

- Salvage excavation
- Wet sieving
- Identifying artefacts
- Assisting with recording and bagging artefacts
- Working within a team

Biosis on behalf of Illawarra Local Aboriginal Land Council

81 Escarpment Drive, Calderwood

2 Days 21.05.2018 to 22.05.2018

- Wet sieving of excavated materials
- Working within a team
- Undertake direction of archaeologist
- Identifying and bagging artefacts
- Hand excavation using shovels mattocks and trowels

GML Heritage on behalf of Stockland Development Pty Ltd
Cleveland Road, West Dapto
18 days (31.08.2015 - 25.09.2015)

- Field survey inspection
- Assisting archaeologist with setting out the initial test excavation areas
- Hand excavation and associated wet sieving of excavated deposits

Biosis Pty Ltd on behalf of Thiess Services Pty Ltd
NBN – Proposed Development Bulli, NSW
2 days (2.09.2015 - 3.09.2015)

- Field survey inspection
- Test excavation of cultural materials

Niche Environment and Heritage on behalf of Peabody
Metro Coal Mine Longwall Assessment Monitoring
Helensburg, NSW
2010 – Current (ongoing every 6 months)

- Ongoing monitoring of aboriginal rock art & impacts from coal mining
- Walk through thick condense bushland searching for rock shelters and grinding grooves

Archeological and Heritage Management Solutions Pty Ltd
West Dapto Road and Shone Avenue, Horsley
4 Days (19.10.2015 – 22.10.2015)

- Test excavation of cultural materials
- Excavation, sieving and recording

Eco Logical Australia Pty Ltd
Calderwood Residential Development Stage 3
1 day (10.11.2015)

- Field Survey

GML Heritage on behalf of Stockland Development Pty Ltd
McPhails / Brooks Reach Salvage Excavation
11 days (4.12.2015 – 18.12.2015)

- Field survey
- Assisting archaeologist with setting out the initial test excavation areas
- Hand excavation and associated wet sieving of excavated deposits

Employees – Traditional owners of the Illawarra – Wodi Wodi & Eloura Clan

- Paul Cummins – 25 years experience – NSW N.P.W.S Qualified Site Officer
- Kayla Williamson – 18 years experience & successful completion of Diploma in Indigenous Archaeology with University of New England
- Mark Pietruszewski – 20 years experience

All former employees of NIAC (Northern Illawarra Aboriginal Cooperative)

Referees

Samantha Keats
Archaeologist
Biosis Pty Ltd
Phone: (02) 42011061
Mobile: 0439376720

Renee Regal
Senior Archaeologist / Team Leader
Regal Heritage
Mobile: 0400 594 580

PROVIDING KNOWLEDGE ABOUT CULTURAL SIGNIFICANCE

Moss Vale

Company Name): Cubbitch Barta Native Title Claimants Aboriginal Corporation

Contact: Glenda Chalker

Postal address: 55 Nightingale Rd
Pheasants Nest 2574

Mobile No: 0427218425

E-Mail: kgchalker@bigpond.com

Date: 11-11-24

I would like to provide knowledge about cultural significance using the following method(s). Please tick your preferred method(s):

1) Discussion in the field during field work
2) Written documentation (letter, e-mail)
3) Meeting to discuss and/or provide written documentation
4) Formal interview with specific questions/answers and/or discussions
5) Phone conversation
6) Internet video conversation
7) Using the attached form/questioner

Other: Please provide details:

icare™ | Workers Insurance

Certificate of currency

Issue date:
14/11/2023

000528 014 2262 02
Glenda Chalker
CUBBITCH BARTA NATIVE TITLE CLAIMANTS ABORIGINA
L CORPORATION
55 Nightingale Road
PHEASANTS NEST NSW 2574

Statement of coverage

The following policy of insurance covers the full amount of the employer's liability under the *Workers Compensation Act 1987 (NSW)*.

Employer name:	Policy number:	Valid:
CUBBITCH BARTA NATIVE TITLE CLAIMANTS ABORIGINAL CORPORATION	122427701	31/12/2023 - 31/12/2024

Business name:	ABN:
CUBBITCH BARTA NATIVE TITLE	95 342 836 445

Industry classification number (WIC)[3]	Number of workers[1]	Wages/units[2]
782200 Surveying Services	5	$194,224.38

1. Number of workers includes contractors/deemed workers
2. Total wages/units estimated for the current period
3. The policy covers all workers employed by the entity named on this certificate in the course of its primary business activity or any other activities ancillary to its primary business activity as required.

Important information

Principals relying on this certificate should ensure it is accompanied by a statement under section 175B of the *Workers Compensation Act 1987 (NSW)*. Principals should also check and satisfy themselves that the information is correct and ensure that the proper workers compensation insurance is in place, i.e. compare the number of employees on site to the average number of employees estimated; ensure that the wages are reasonable to cover the labour component of the work being performed; and confirm that the description of the industry/industries noted is appropriate. A principal contractor may become liable for any outstanding premium of the sub-contractor if the principal has failed to obtain a statement or has accepted a statement where there was reason to believe it was false.

Yours faithfully,

Peter Meighan
Underwriting Operations Manager
icare Workers Insurance

1000528 02

BUSINESS INSURANCE

Certificate of Currency

Issue Date
14 February 2024

INSURER: Insurance Australia Limited
ABN 11 000 016 722
AFSL 227681
Trading as CGU Insurance
181 WILLIAM ST,
MELBOURNE VIC 3000

The policy referred to is current as at the date of issue of this certificate and whilst an expiry date has been indicated it should be noted that the policy may be cancelled in the future. Accordingly, reliance should not be placed on the expiry date.

Policy Details

Policy Number: 15T7281384
Type of Policy: Business Insurance
Expiry Date: 7 February 2025
Insured: CUBBITCH BARTA NATIVE TITLE CLAIMANTS

Cover Details

Section 5 - Liability	**Sum Insured**
Public Liability	$ 10,000,000
Products Liability	$ 10,000,000

This is to certify cover has been granted in terms of the Company's Standard Policy, a copy of which is available on request. This certificate is not a substitute for the Policy of Insurance issued to you. The Policy, not this certificate, details your rights and obligations and the extent of your insurance cover.

ABORIGINAL SITE OFFICER APPLICATION FORM

Moss Vale

An Aboriginal site officer application form must be filled out for each individual seeking engagement as a site officer.	
Name of organisation (if relevant)	Cubbitch Barta
Name	Kiahni Chalker
Contact number	0422 045 107
Mailing address	19b Elphin St, Tahmoor
Email address	
Position applied for	Site officer ☑ Trainee Site Officer ☐
Please list any formal qualifications or relevant experience to the position applied for (attach documentation as required)	working as a Site Officer for 7 years
Please list any previous archaeological, sites, survey, excavation or other relevant experience (attach additional sheets)	Bradfield City Dendrobium (BHP) Mt Gilead Metropolitan Colliery Picton Road Northern Road
Please provide the contact details of at least one archaeologist who can be contacted as a referee	Renee Regal. 0400 594 580

INSURANCES		
Public Liability	Expiry date: 7.2.2025	(attach certificate of currency)
Worker Compensation	Expiry date: 31.12.2024	(attach certificate of currency)
Comprehensive Motor Vehicle	Expiry date:	(attach certificate of currency)

Failure to provide up to date Certificate of Currencies will prevent you participating in any fieldwork. MCH may have received copies previously, however, they must be provided for each project.

FINANCIAL (do not fill out GST column if you are not registered for GST)

Hourly rate	Excluding GST	Including GST	Other Information
$ $150	$ ex GST.	$ ~~$150~~	85c klm

OCCUPATIONAL HEALTH & SAFETY (OH&S)

All participants are required to comply with MCH and the proponents OH&S requirements, including PPE requirements (long pants, long sleeved shirt, high visibility clothing, hat, sunscreen and steel caped boots). You will be advised of any additional requirements. All fieldworkers will arrive on time at the meeting location and stay for the duration of the fieldwork. All fieldworkers will need to bring lunch, snacks and drinking water.

This also includes appropriate and acceptable behaviour at all times and be fit and ready for work (including being alcohol, drug and fatigue free).

Failure to comply will prevent you from participating in the field work.

ABORIGINAL SITE OFFICER APPLICATION FORM

Moss Vale

An Aboriginal site officer application form must be filled out for each individual seeking engagement as a site officer.	
Name of organisation (if relevant)	Cubbitch Barta
Name	Tyrone Pal.
Contact number	0406 431 441
Mailing address	19B Elphin Street Tahmoor
Email address	
Position applied for	Site officer [X] Trainee Site Officer [ ]
Please list any formal qualifications or relevant experience to the position applied for (attach documentation as required)	
Please list any previous archaeological, sites, survey, excavation or other relevant experience (attach additional sheets)	Picton Road. Dendrobium (BHP) Kemps Creek Birling Bradfield City
Please provide the contact details of at least one archaeologist who can be contacted as a referee	

INSURANCES

Public Liability	Expiry date: 7.2.2025	(attach certificate of currency)
Worker Compensation	Expiry date: 31.12.24	(attach certificate of currency)
Comprehensive Motor Vehicle	Expiry date:	(attach certificate of currency)

Failure to provide up to date Certificate of Currencies will prevent you participating in any fieldwork. MCH may have received copies previously, however, they must be provided for each project.

FINANCIAL (do not fill out GST column if you are not registered for GST)

Hourly rate	Excluding GST	Including GST	Other Information
$ $150	$ EX GST	$	85c/km

OCCUPATIONAL HEALTH & SAFETY (OH&S)

All participants are required to comply with MCH and the proponents OH&S requirements, including PPE requirements (long pants, long sleeved shirt, high visibility clothing, hat, sunscreen and steel caped boots). You will be advised of any additional requirements. All fieldworkers will arrive on time at the meeting location and stay for the duration of the fieldwork. All fieldworkers will need to bring lunch, snacks and drinking water.

This also includes appropriate and acceptable behaviour at all times and be fit and ready for work (including being alcohol, drug and fatigue free).

Failure to comply will prevent you from participating in the field work.

From: admin@ilalc.org.au on behalf of Heritage Services
To: penny@mcheritage.com.au; Stuart Laidlaw
Subject: Re: Proposed industrial subdivision and development at Moss Vale - info pack
Date: Monday, 11 November 2024 2:13:04 PM
Attachments: image001.png

Hi Penny,

Thank you for sending through the draft methodology for review and comment.

At this stage, we support the proposal for a comprehensive survey of the area. We would like to prioritise the conservation of the previously identified Potential Archaeological Deposit (PAD). If conservation cannot be achieved, an extensive test excavation programme should be undertaken over this PAD and any other areas identified as having archaeological potential. This approach would enhance our understanding of the nature and extent of the archaeological deposit and should inform sensitive design solutions for the proposed development.

It's important to note that salvage should be considered a last resort and only proposed after all conservation options have been thoroughly explored.

ILALC would like to participate in all field work for this project. Stuart is away today - but will send through the relevant information tomorrow.

Kind regards,

Aara

Illawarra Local Aboriginal Land Council

Level 2, 38 Young Street

Wollongong DC NSW 2500

Telephone: 4226 3338

Postal address:
PO Box 1306
Wollongong NSW 2500

On Mon, 14 Oct 2024 at 10:16, <penny@mcheritage.com.au> wrote:

ABORIGINAL SITE OFFICER APPLICATION FORM

Moss Vale

An Aboriginal site officer application form must be filled out for each individual seeking engagement as a site officer.	
Name of organisation (if relevant)	Illawarra Local Aboriginal Land Council
Name	Leeton Jackson (Site Officer)
Contact number	0432 280 660
Mailing address	PO Box 1306, Wollongong NSW 2500
Email address	heritage@ilalc.org.au
Position applied for	Site officer [X] Trainee Site Officer [ ]
Please list any formal qualifications or relevant experience to the position applied for (attach documentation as required)	No formal qualifications. Extensive experience in Aboriginal site surveys, test excavations etc.
Please list any previous archaeological, sites, survey, excavation or other relevant experience (attach additional sheets)	See attached
Please provide the contact details of at least one archaeologist who can be contacted as a referee	Aara Welz, 0409 660 183

INSURANCES		
Public Liability	Expiry date: 10/07/2025	(attach certificate of currency)
Worker Compensation	Expiry date: 28/02/25	(attach certificate of currency)
Comprehensive Motor Vehicle	Expiry date: N/A	(attach certificate of currency)

Failure to provide up to date Certificate of Currencies will prevent you participating in any fieldwork. MCH may have received copies previously, however, they must be provided for each project.

FINANCIAL (do not fill out GST column if you are not registered for GST)

Hourly rate	Excluding GST	Including GST	Other Information
$ 150	$ 150	$ 165	

OCCUPATIONAL HEALTH & SAFETY (OH&S)

All participants are required to comply with MCH and the proponents OH&S requirements, including PPE requirements (long pants, long sleeved shirt, high visibility clothing, hat, sunscreen and steel caped boots). You will be advised of any additional requirements. All fieldworkers will arrive on time at the meeting location and stay for the duration of the fieldwork. All fieldworkers will need to bring lunch, snacks and drinking water.

This also includes appropriate and acceptable behaviour at all times and be fit and ready for work (including being alcohol, drug and fatigue free).

Failure to comply will prevent you from participating in the field work.

COMMENTS ON PROPOSED METHODOLOGY

Moss Vale

I, _____ (*please insert your name*) of _____ (*please insert the name of your group*), **agree to the methodology** outlined by MCH in the information packet for the above-named project.

_____

_____

Signed: _____ Date: _____

Position within organisation: _____

I, _____ (*please insert your name*) of _____ (*please insert the name of your group*), **do not agree to the methodology** outlined by MCH in in the information packet for the above-named project for the following reasons (*please explain your reasons for disagreeing):*

_____

_____

I would like to suggest the following (please provide your reasoning):

_____

_____

Signed: _____ Date: _____

Position within organisation: _____

PROVIDING KNOWLEDGE ABOUT CULTURAL SIGNIFICANCE

Moss Vale

Company Name):_____

Contact:_____

Postal address:_____

_____

Mobile No:_____

E-Mail:_____

Date:_____

I would like to provide knowledge about cultural significance using the following method(s). Please tick your preferred method(s):

1) Discussion in the field during field work
2) Written documentation (letter, e-mail)
3) Meeting to discuss and/or provide written documentation
4) Formal interview with specific questions/answers and/or discussions
5) Phone conversation
6) Internet video conversation
7) Using the attached form/questioner

Other: Please provide details:

_____

_____

_____

_____

Project	From	To	Days	Type
Calderwood Sekisul House	08/05/23	08/05/23	1	Salvage
West Dapto Package 3	09/05/23	19/05/23	5	Test Excavations
West Dapto Road	15/06/23	15/06/23	1	Test Excavations
Cleveland Road	11/07/23	14/07/23	4	Test Excavations
Longwall 308	02/08/23	03/08/23	2	Monitoring
Metropolitan Mine	14/09/23	05/10/23	4	Monitoring
Bombo Quarry	09/10/23	09/10/23	1	Site Survey
Calderwood Stage 7	10/10/23	13/10/23	4	Test Excavations
Metropolitan Mine	17/10/23	17/10/23	1	Base Line recording
Wingello State Forest	18/10/23	18/10/23	1	Site Survey
Hill 60	19/10/23	20/10/23	2	Monitoring
Bellambi Boat Ramp	23/10/23	31/10/23	6	Monitoring
Dendrobium Longwall 19	08/11/23	15/11/23	3	Site Survey
Croome Road Sporting Complex	14/11/23	14/11/23	1	Site Survey
Woonona IRT	21/11/23	21/11/23	1	Site Survey
Dapto Greyhounds	27/11/23	27/11/23	1	Site Survey
Ellis Studio	27/11/23	27/11/23	1	Site Survey
Bulli Beach Encat	12/12/23	12/12/23	1	Monitoring
Burradoo	19/01/24	05/02/24	14	Test Excavations
Tullimbar	14/02/24	24/04/24	19	Salvage
Willow Vale	22/02/24	22/02/24	1	Site Survey
Coledale Site Card	22/03/24	22/03/24	1	Monitoring
Joadja Shale Mine	27/03/24	28/03/24	3	Site Survey
Tongarra Road	17/04/24	17/04/24	1	Site Survey
Picton Road	15/05/24	31/05/24	9	Test Excavations
Kemblawarra Community Hall	29/08/24	17/09/24	6	Monitoring
Picton Road	06/09/24	06/09/24	1	Test Excavations

MCCARDLE
CULTURAL HERITAGE

PO Box 166
Adamstown 2289 NSW
penny@mcheritage.com.au
P: 0412 702 396

mcheritage.com.au

3 December 2024

Illawarra Local Aboriginal Land Council
heritage@ilalc.org.au

Dear Aara,

RE: Heritage NSW Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 3) –Survey invitation and letter of engagement- Proposed industrial subdivision and development at Moss Vale

The proponent (SAAS AUS Pty Ltd) has received a number of applications and after careful consideration has selected whom they wish to engage in a paid capacity. The proponent and MCH would like to advise that your application for paid participation has been successful. MCH would like to organise the test excavation for the above-named project for the 13th January 2025 starting at 8am at the entrance to 2 Bowman Rd, Moss Vale. We anticipate work will be complete within four days, however, please be advised this time may change.

As part of the assessment process the proponent require an appropriate person from your organisation to participate in the survey of the study area to identify known or potential cultural heritage features. A cultural heritage report must be prepared following the survey and receipt of the draft archaeological report within the required 28 days review period. The cultural heritage report will identify known or potential Aboriginal objects or places and/or any other cultural heritage matters that may be affected by the project.

SAAS AUS Pty Ltd and MCH wishes to reiterate our intent to positively engaging with the local Aboriginal community. In this spirit an invitation has been extended to all registered applicants to attend the survey. If you accept the terms outlined in the Letter of Engagement (attached) please sign the Letter of Engagement and return to MCH. Participation in the program is dependent on the receipt of the Letter of Engagement and insurance certificate of currencies (Workers Comp, Public Liability and Comprehensive Motor vehicle).

As all communications, including phone calls, faxes, letters, and e-mails must be included in the consultation component of the report as per the Heritage NSW requirements, please ensure that any items that you or your group deem confidential are made apparent to your field representative prior to field work to ensure that information remains confidential if required. Failure to disclose that information is confidential may result in the information being included in the report.

Should you have any questions regarding these terms and conditions or the project please contact myself on 0412 702 396.

Yours sincerely,
for McCardle Cultural Heritage Pty Ltd

Dr. Penny McCardle
Principal Archaeologist
Forensic Anthropologist

Aboriginal Site Officer/Trainee Site Officer

Letter of Engagement

SAAS AUS Pty Ltd wishes to engage «Company» (Service Provider) to provide one Site Officer to undertake an archaeological test excavation of the proposed development at Moss Vale.

The proponent and Service Provider agree to the terms and conditions of the engagement as follows:

Services
The Service Provider will engage one Site Officer to undertake the following:

- Test excavation, digging, heavy lifting
- a cultural heritage report and invoice within 28 days of receiving the draft report from MCH

Fees
The proponent has determined the rate of pay based on the overall project budget, job description and responses from the RAPs. The proponent will pay the following Fees to the Service Provider for Services:

- $150.00 + GST per person per hour for work undertaken by a Site Officer (inclusive of travel)

Payment will be within 28 days of receipt of a correct invoice and cultural heritage report. Invoices are to be provided at the end of the month.

Invoices are to be addressed to:
SAAS AUS Pty Ltd
C/o- MCH
penny@mcheritage.com.au

Time sheets
The Service provider must ensure that the Site Officers sign a time sheet at the start and finish of each day the Services are provided. Fees will not be paid unless time sheets for each Site Officer has been completed. The archaeologist will have a time sheet that may be used.

Work performance
The Service Provider must ensure that the Site Officers are fit for work, undertake the Services in a timely manner, with reasonable care, skill and professionalism and in accordance with all applicable laws and any reasonable directions or requirements made by the proponent and/or MCH.

Absences
All field staff must call MCH the evening before work to notify their absence for the following day and organise for a replacement. If no notice is provided, that staff members place in the field team will be suspended until MCH are notified they will be back at work. It is the responsibility of the Service Provider to organise a replacement site officer from the list of persons provided to MCH at the start of the project.

Proponent and MCH property
All materials and equipment provided by MCH or the proponent during the term of engagement remain the property of MCH or the proponent and must be returned upon completion of the Services or termination of the agreement.

Confidentially
All information provided by MCH or the proponent to the Service Provider and/or Site Officer in relation to the services or the business or operations of the proponent and MCH are confidential. The Service Provider will ensure the Site Officer keep such information confidential at all times (including after the completion of the Services) and must not disclose it to any other person without the prior written consent from the proponent and/or MCH.

OH&S Requirements
Before commencement of work, you must provide MCH with certificate of currencies for Workers Comp, Public Liability and Comprehensive Motor Vehicle insurances. Field representatives participating in the field work will be required to wear PPE including steel cap boots, long pants and long shirt (hi-visibility) with appropriate sun protection including a hat. It is recommended that participants bring adequate amounts of food and water for the day. If field staff attend the site without the required PPE, they will not be permitted on site or to participate in the field work. It is the responsibility of the Service Provider to ensure all field staff are made aware of this.

Bullying, harassment and unacceptable behaviour
All field staff are required to treat others with dignity, courtesy and respect at all times. Behaviours that are unacceptable and may be against the law, include (but not limited to) discrimination, bullying, sexual harassment, racial and religious vilification are unacceptable and are covered by federal and state legislation, abusive language and threats in any form. Field staff found to have engaged in such conduct will be asked to leave the site immediately and their manager contacted. Failure to leave the site may result in the local Police being contacted. It is the responsibility of the Service Provider to ensure all field staff are made aware of this.

Early termination
The proponent reserves the right to terminate this agreement at any time by giving 1-week written notice to the Service Provider. If the proponent terminates this agreement under this clause, then, subject to satisfactory performance of the Services, the proponent will pay the Service provider a proportionate part of the Fee according to the amount or proportion of Services supplied up to the date of termination.

No subcontracting
The Service Provider must not subcontract the provision of the Services without the proponent's prior written consent.

Insurances
The Service Provider must provide certificates of currency for Workers Comp, Public Liability and Comprehensive Motor Vehicle insurances prior to the Services being provided.

Indemnity and release
The Service Provider undertakes the Services at its sole risk and the proponent and MCH will not be liable for any loss, damage, injury or death sustained by any person as a result of the Services being

provided. The Service provider indemnifies and releases the proponent and MCH against any loss the proponent or MCH suffers or any claims made against the proponent or MCH by any person arising out of the provisions of the Services except to the extent that any loss or claims arise from any negligence by the proponent or MCH.

Variations
No changes to these terms can be made without the prior written agreement with the proponent.

Exclusion of other terms
This letter contains the sole agreement of the parties and all other terms are excluded.

If you agree that the contents of this letter correctly set out the terms of engagement between the proponent and your organisation then please sign two copies, keep one for yourself, and return the other signed copy to MCH within 10 days.

Acceptance (Test Excavation at Moss Vale)

Signed by «Company»
I/we agree to the terms set out in this letter and acknowledge that it forms a binding legal contract. **I/we declare that I/we are authorised to sign this letter on behalf of «Company».** **Please provide your ABN:**

Signature of Witness	**Signature of authorised person**
Print name of Witness	**Print name of authorised person**
	Print title and position of authorised person
Date:	**Date:**

From:	penny@mcheritage.com.au
To:	"aandkculturalheritage@gmail.com"; "kgchalker@bigpond.com"; "kayla_87_@hotmail.com"
Subject:	Moss Vale
Date:	Tuesday, 3 December 2024 11:27:00 AM
Attachments:	image001.png

RE: Heritage NSW Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 3) –Survey invitation - Proposed industrial subdivision and development at Moss Vale

The proponent received a number of applications and after careful consideration we regret to advise that your application for paid participation has been unsuccessful. We do appreciate the time taken to submit an application and wish to reconfirm our intention to positively engage with the local Aboriginal community. In this spirit, if you wish to still participate in the survey on an unpaid basis, or be kept up-to-date on the progress of the survey, please contact Penny McCardle. Please note that if you intend to participate in the site survey then:

- Before commencement you must notify MCH for access arrangements and notification and provide MCH with a Certificate of Currency for Workers Compensation, Public Liability and Comprehensive Motor Vehicle insurances. MCH will also provide you with our OH&S requirements for field staff and request that you ensure all field staff participating in the project have read and understood the document fully prior to going out on site; and

- All field participants must wear covered shoes, long pants and long shirt (hi-visibility) with appropriate sun protection including hat. It is recommended that participants bring adequate amounts of food and water for the day.

As all communications, including phone calls, faxes, letters, and e-mails must be included in the consultation component of the report as per the Heritage NSW requirements, please ensure that any items that you or your group deem confidential are made apparent to your field representative prior to field work to ensure that information remains confidential if required. Failure to disclose that information is confidential may result in the information being included in the report.

Following the completion of the field work, a draft copy of the assessment will be made available to you for comment. Should you have any further questions, please do not hesitate to contact Penny McCardle on 0412 702 396.

Kind regards,

Dr. Penny McCardle
Principal & Forensic Archaeologist
Forensic Anthropologist

McCARDLE
CULTURAL HERITAGE

PO Box 166,
Adamstown 2289 NSW
P: 0412 702 396
mcheritage.com.au

From: penny@mcheritage.com.au
To: "admin@gadhungalmarring.com.au"; "gamila_roi@yahoo.com.au"
Subject: Moss Vale
Date: Tuesday, 3 December 2024 11:28:00 AM
Attachments: image001.png

RE: Heritage NSW Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 3) –Survey invitation – Proposed industrial subdivision and development at Moss Vale

The proponent thoroughly evaluates all responses submitted by the RAPs in relation to the information packets. This includes reviewing CVs, references, experience, insurance details, and proposed rates of pay. Such careful consideration enables the proponent to make an informed decision when it comes to selecting participants who will receive renumeration for their participation in the survey.

Regrettably, your group did not provide any response to the information pack, thereby leaving the proponent without any knowledge or information about your group, experience, or qualifications. Consequently, the proponent is unable to offer your group renumeration for participation in the survey.

If your group is still interested in participating in the survey on an unpaid basis, or if you would like to stay updated on the progress of the survey, please contact Penny McCardle. Please note that if you intend to participate in the site survey then:

- Before commencement you must notify MCH for access arrangements and notification and provide MCH with a Certificate of Currency for Workers Compensation, Public Liability and Comprehensive Motor Vehicle insurances. MCH will also provide you with our OH&S requirements for field staff and request that you ensure all field staff participating in the project have read and understood the document fully prior to going out on site; and

- All field participants must wear covered shoes, long pants and long shirt (hi-visibility) with appropriate sun protection including hat. It is recommended that participants bring adequate amounts of food and water for the day.

As all communications, including phone calls, faxes, letters, and e-mails must be included in the consultation component of the report as per the Heritage NSW requirements, please ensure that any items that you or your group deem confidential are made apparent to your field representative prior to field work to ensure that information remains confidential if required. Failure to disclose that information is confidential may result in the information being included in the report.

Following the completion of the field work, a draft copy of the assessment will be made available to you for comment. Should you have any further questions, please do not hesitate to contact Penny McCardle on 0412 702 396.

Kind regards,

Dr. Penny McCardle

Principal & Forensic Archaeologist
Forensic Anthropologist

McCARDLE
CULTURAL HERITAGE

PO Box 166,
Adamstown 2289 NSW
P: 0412 702 396
mcheritage.com.au

From:	penny@mcheritage.com.au
To:	"aandkculturalheritage@gmail.com"; "kgchalker@bigpond.com"; "admin@gadhungalmarring.com.au"; "heritage@ilalc.org.au"; "gamila_roi@yahoo.com.au"; "kayla_87_@hotmail.com"
Subject:	Proposed industrial subdivision and development at Moss Vale - Draft report
Date:	Thursday, 16 January 2025 10:49:00 AM
Attachments:	2 & 10 Bowman Rd, Moss Vale DRAFT 16 1 2025.pdf image001.png

Dear All,

RE: Heritage NSW Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 3 & 4 –Review of Draft Cultural Heritage Assessment - Proposed industrial subdivision and development at Moss Vale

Please find enclosed a copy of the draft Aboriginal Cultural Heritage Assessment (ACHA) for the above-named project for your review.

The ACHA includes information provided by the knowledge holders and is included with their permission. As required by the Heritage NSW - Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010), Stage 3 (S. 4.3.5; 4.3.6; 4.3.7) and Stage 4 (S. 4.4.1; 4.4.2; 4.4.3) and based on the information provided by knowledge holders throughout the project, the cultural significance will be included in the final report.

MCH would like to provide further opportunity to provide your further input and request your comments on the draft ACHA. Additionally, any concerns you may have, are also important, and we would like to provide another opportunity to address any concerns you may have.

As outlined in the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010), Stage 4 (S. 4.4.3) MCH would appreciate your input and your comments on the draft report no later than C.O.B. 13th February 2025.

As all communications, including phone calls, faxes, letters, and e-mails must be included in the consultation component of the report as per the Heritage NSW requirements, please ensure that if any response to the draft report is deemed confidential that this is either stated at the beginning of a conversation or stamped/written on each piece of paper communicate.

Please note that in order to adhere to time constraints, the absence of a response by the requested timeline, will be taken by the proponent as your indication that your organisation has no comments.

Kind regards,

Dr. Penny McCardle
Principal & Forensic Archaeologist
Forensic Anthropologist

M
McCARDLE
CULTURAL HERITAGE

PO Box 166,
Adamstown 2289 NSW
P: 0412 702 396
mcheritage.com.au

M
McCARDLE
CULTURAL HERITAGE

PO Box 166
Adamstown 2289 NSW
penny@mcheritage.com.au
P: 0412 702 396

mcheritage.com.au

14 February 2025

Via email

Dear all,

RE: Heritage NSW Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 4 –Final Cultural Heritage Assessment - Proposed industrial subdivision and development at Moss Vale

MCH and SAAS AUS Pty Ltd (Proponent) would like to take this opportunity to thank you for your involvement in the above-named project. Your time and input have been instrumental throughout the project

As outlined in the Heritage NSW Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010), Stage 4 (S. 4.4.5), please find attached a copy of the final report for your records.

We look forward to continue working with you in the future.

Yours sincerely,
for McCardle Cultural Heritage Pty Ltd

Dr. Penny McCardle
Principal Archaeologist
Forensic Anthropologist

APPENDIX B

AHIMS search results

AHIMS Web Services (AWS)
Search Result

Your Ref/PO Number : Moss Vale

Client Service ID : 929771

Penny Mccardle

Po Box 166

Adamstown New South Wales 2289

Attention: Penny Mccardle

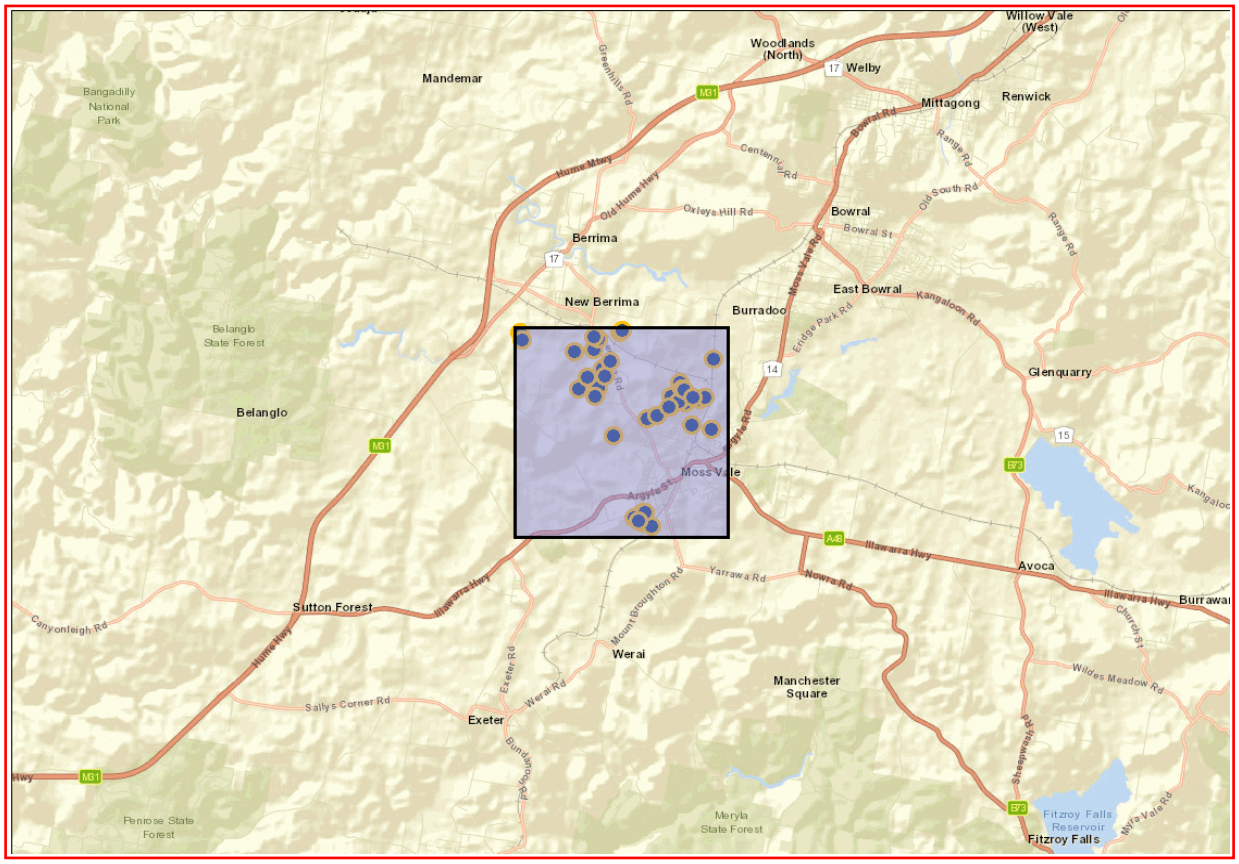
Email: penny@mcheritage.com.au

Date: 12 September 2024

Dear Sir or Madam:

AHIMS Web Service search for the following area at Datum :GDA, Zone : 56, Eastings : 254000.0 - 260000.0, Northings : 6172000.0 - 6178000.0 with a Buffer of 0 meters, conducted by Penny Mccardle on 12 September 2024.

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



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

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

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

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

Important information about your AHIMS search

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

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

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

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : Moss Vale

Client Service ID : 929771

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
52-4-0171	MVSW AO3	GDA	56	257552	6172443	Open site	Valid	Artefact : -		103681,104993
	Contact Searle	**Recorders** Total Earth Care Pty Ltd						**Permits**	4070	
52-4-0172	MVSW AO2	GDA	56	257452	6172480	Open site	Valid	Artefact : -		103681,104993
	Contact Searle	**Recorders** Total Earth Care Pty Ltd						**Permits**	4070	
52-4-0173	MVSW A01	GDA	56	257742	6172648	Open site	Destroyed	Artefact : -		
	Contact Searle	**Recorders** Total Earth Care Pty Ltd						**Permits**	4117	
52-4-0174	MVSW1	GDA	56	257685	6172342	Open site	Valid	Artefact : -		103681,104993
	Contact T Russell	**Recorders** Total Earth Care Pty Ltd,Mr.Matthew Barber,NGH Heritage - Fyshwick						**Permits**	4070	
52-4-0176	MVEnt Art 58	GDA	56	259622	6177233	Open site	Valid	Artefact : -		
	Contact Searle	**Recorders** Total Earth Care Pty Ltd						**Permits**		
52-4-0177	MVEnt Art 57	GDA	56	259619	6177232	Open site	Valid	Artefact : -		
	Contact Searle	**Recorders** Total Communications Infrastructure P/L						**Permits**		
52-4-0178	MVEnt Art 16	GDA	56	256298	6176275	Open site	Valid	Artefact : -		
	Contact Searle	**Recorders** Total Earth Care Pty Ltd						**Permits**		
52-4-0179	MVEnt Art 42	GDA	56	258388	6175784	Open site	Valid	Artefact : -		
	Contact Searle	**Recorders** Total Earth Care Pty Ltd						**Permits**		
52-4-0180	MVEent Art 43	GDA	56	258416	6176086	Open site	Valid	Artefact : -		
	Contact Searle	**Recorders** Total Earth Care Pty Ltd						**Permits**		
52-4-0181	MVEnt Art 41	GDA	56	258379	6175782	Open site	Valid	Artefact : -		
	Contact Searle	**Recorders** Total Earth Care Pty Ltd						**Permits**		
52-4-0182	MVEnt Art 34	GDA	56	256495	6176650	Open site	Valid	Artefact : -		
	Contact Searle	**Recorders** Total Earth Care Pty Ltd						**Permits**		
52-4-0183	MVEnt Art 15	GDA	56	256624	6177078	Open site	Valid	Artefact : -		
	Contact Searle	**Recorders** Total Earth Care Pty Ltd						**Permits**	3945	
52-4-0184	MVEnt Art 14	GDA	56	256208	6176043	Open site	Valid	Artefact : -		
	Contact Searle	**Recorders** Total Earth Care Pty Ltd						**Permits**		
52-4-0186	MVEnt Art 12	GDA	56	256151	6177414	Open site	Valid	Artefact : -		
	Contact Searle	**Recorders** Total Earth Care Pty Ltd						**Permits**	3945	
52-4-0187	MVEnt Site 7	GDA	56	259399	6176087	Open site	Valid	Artefact : -		
	Contact Searle	**Recorders** Total Earth Care Pty Ltd						**Permits**		
52-4-0188	MVEnt Site 6	GDA	56	256797	6174871	Open site	Valid	Artefact : -		
	Contact Searle	**Recorders** Total Earth Care Pty Ltd						**Permits**		
52-4-0189	MVEnt Site 5	GDA	56	255736	6176238	Open site	Valid	Artefact : -		
	Contact Searle	**Recorders** Total Earth Care Pty Ltd						**Permits**		

Report generated by AHIMS Web Service on 12/09/2024 for Penny Mccardle for the following area at Datum :GDA, Zone : 56, Eastings : 254000.0 - 260000.0, Northings : 6172000.0 - 6178000.0 with a Buffer of 0 meters.. Number of Aboriginal sites and Aboriginal objects found is 42

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : Moss Vale

Client Service ID : 929771

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
52-4-0190	MVEnt Site 4	GDA	56	255991	6176600	Open site	Valid	Artefact : -		
	Contact Searle	**Recorders** Total Earth Care Pty Ltd						**Permits**		
52-4-0191	MVEnt Site 3	GDA	56	256413	6176860	Open site	Valid	Artefact : -		
	Contact Searle	**Recorders** Total Earth Care Pty Ltd						**Permits**	3945	
52-4-0192	MVEnt Site 2	GDA	56	256280	6177715	Open site	Valid	Artefact : -		
	Contact Searle	**Recorders** Total Earth Care Pty Ltd						**Permits**		
52-4-0169	MVSW A18	GDA	56	257957	6172256	Open site	Valid	Artefact : -		
	Contact Searle	**Recorders** Total Earth Care Pty Ltd						**Permits**		
52-4-0170	MVSW AO4	GDA	56	257566	6172410	Open site	Valid	Artefact : -		103681,104993
	Contact Searle	**Recorders** Total Earth Care Pty Ltd						**Permits**	4070	
52-4-0449	HC_148	GDA	56	254046	6177627	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact	**Recorders** EMGAMM-St Leonards (previously EMGA),Mr.Ryan Desic						**Permits**	3945	
52-4-0459	HC_158	GDA	56	254007	6177841	Open site	Valid	Modified Tree (Carved or Scarred) : -		
	Contact	**Recorders** EMGAMM-St Leonards (previously EMGA),Mr.Ryan Desic						**Permits**		
52-4-0477	HC_176	GDA	56	256131	6177778	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact	**Recorders** EMGAMM-St Leonards (previously EMGA),Mr.Ryan Desic						**Permits**		
52-4-0478	HC_177	GDA	56	255574	6177334	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact	**Recorders** EMGAMM-St Leonards (previously EMGA),Mr.Ryan Desic						**Permits**	3945	
52-4-0386	BR-IF1;	GDA	56	258825	6175904	Open site	Valid	Artefact : -		
	Contact	**Recorders** Mr.Lance Syme						**Permits**		
52-4-0387	BR-IF2	GDA	56	258633	6175948	Open site	Valid	Artefact : -		
	Contact	**Recorders** Mr.Lance Syme						**Permits**		
48-4-0369	BSMV PAD2	GDA	56	257699	6172658	Open site	Valid	Artefact : -		104993
	Contact	**Recorders** Mr.Matthew Barber,NGH Heritage - Fyshwick						**Permits**	4117	
52-4-0699	CPark A13	GDA	56	256960	6177983	Open site	Valid	Artefact : -		104804,105001
	Contact	**Recorders** Biosis Pty Ltd - Wollongong,Mrs.Samantha Keats						**Permits**		
52-4-0700	CPark A14	GDA	56	256881	6177922	Open site	Valid	Artefact : -		104804,105001
	Contact	**Recorders** Biosis Pty Ltd - Wollongong,Mrs.Samantha Keats						**Permits**		
52-4-0712	MVRec IF1	GDA	56	258807	6176286	Open site	Valid	Artefact : -		

Report generated by AHIMS Web Service on 12/09/2024 for Penny Mccardle for the following area at Datum :GDA, Zone : 56, Eastings : 254000.0 - 260000.0, Northings : 6172000.0 - 6178000.0 with a Buffer of 0 meters.. Number of Aboriginal sites and Aboriginal objects found is 42

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : Moss Vale

Client Service ID : 929771

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
	Contact	**Recorders**	Biosis Pty Ltd - Wollongong,Mrs.Samantha Keats					**Permits**		
52-4-0713	Beaconsfield Rd OS-1	GDA	56	259253	6176010	Open site	Destroyed	Artefact : -		104831
	Contact	**Recorders**	OzArk Environmental and Heritage Management - Dubbo,OzArk Environmental an					**Permits**		
52-4-0714	Beaconsfield Rd OS-2	GDA	56	258802	6176274	Open site	Destroyed	Artefact : -		104831
	Contact	**Recorders**	OzArk Environmental and Heritage Management - Dubbo,OzArk Environmental an					**Permits**		
52-4-0715	Beaconsfield Rd IF-1	GDA	56	259038	6176087	Open site	Valid	Artefact : -		104831
	Contact	**Recorders**	OzArk Environmental and Heritage Management - Dubbo,Mr.Ben Churcher					**Permits**		
52-4-0716	Beaconsfield Rd IF-2	GDA	56	258771	6176178	Open site	Destroyed	Artefact : -		104831
	Contact	**Recorders**	OzArk Environmental and Heritage Management - Dubbo,OzArk Environmental an					**Permits**		
52-4-0717	Beaconsfield Rd IF-3	GDA	56	258745	6176303	Open site	Destroyed	Artefact : -		104831
	Contact	**Recorders**	OzArk Environmental and Heritage Management - Dubbo,OzArk Environmental an					**Permits**		
52-4-0732	Douglas Rd OS-1	GDA	56	258658	6176517	Open site	Valid	Artefact : -		
	Contact	**Recorders**	OzArk Environmental and Heritage Management - Dubbo,Mr.Ben Churcher					**Permits**		
52-4-0762	MVB AS2	GDA	56	259600	6175133	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Austral Archaeology,Austral Archaeology,Miss.Taylor (austral arch) Foster,Miss.Ka					**Permits**		
52-4-0763	MVB AS3	GDA	56	257747	6175417	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Austral Archaeology,Austral Archaeology,Miss.Taylor (austral arch) Foster,Miss.Ka					**Permits**		
52-4-0764	MVB AS4	GDA	56	259026	6175261	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Austral Archaeology,Austral Archaeology,Miss.Taylor (austral arch) Foster,Miss.Ka					**Permits**		
52-4-0765	MVB IF1	GDA	56	258032	6175506	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Austral Archaeology,Austral Archaeology,Miss.Taylor (austral arch) Foster,Miss.Ka					**Permits**		

**** Site Status**

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

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

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

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

Report generated by AHIMS Web Service on 12/09/2024 for Penny Mccardle for the following area at Datum :GDA, Zone : 56, Eastings : 254000.0 - 260000.0, Northings : 6172000.0 - 6178000.0 with a Buffer of 0 meters.. Number of Aboriginal sites and Aboriginal objects found is 42

APPENDIX C

Test pit data

Pit No	Strat. Unit	Depth	Spit #	Average depth	Soil pH	Munsell	Disturbances
611	1	19	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	19			
612	1	18	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon. Piece of plastic present
			2	18			
613	1	17	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	17			
614	1	19	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, pieces of metal, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	19			
615	1	18	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	18			
616	1	16	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, piece of wire, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	16			
617	1	16	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	16			
618	1	15	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	15			
619	1	16	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	16			
620	1	19	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, broken ceramic pieces, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	19			
621	1	16	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	16			
622	1	16	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	16			
623	1	18	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	18			
624	1	17	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	17			
625	1	15	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	15			
626	1	19	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	19			
627	1	14	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	14			

Pit No	Strat. Unit	Depth	Spit #	Average depth	Soil pH	Munsell	Disturbances
628	1	14	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	14			
629	1	14	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	14			
630	1	16	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	16			
631	1	17	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	17			
632	1	18	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, metal screw and nails, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	18			
633	1	19	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	19			
634	1	19	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	19			
635	1	19	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	19			
636	1	12	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	12			
637	1	13	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	13			
638	1	14	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	14			
639	1	12	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	12			
640	1	16	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	16			
641	1	15	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	15			
642	1	10	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	10			
643	1	10	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, piece of matal and broken glass pieces, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	10			
644	1	12	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	12			
645	1	19	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	19			

Pit No	Strat. Unit	Depth	Spit #	Average depth	Soil pH	Munsell	Disturbances
646	1	19	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	19			
647	1	19	1	10	6	7.5YR 2.5/1	grass roots, abundance of worms, small to medium sized rock that increased with depth and formd a disticct layer at the interface of the A and B horizon. Some clay nodules throuogh the A horizon.
			2	19			

APPENDIX D

Unexpected finds procedure

Unexpected finds procedures

Unexpected find protocols have been developed to provide procedures for unexpected finds including Aboriginal objects and the discovery of human remains. These protocols must be followed throughout all stages of the development.

Unexpected Aboriginal objects

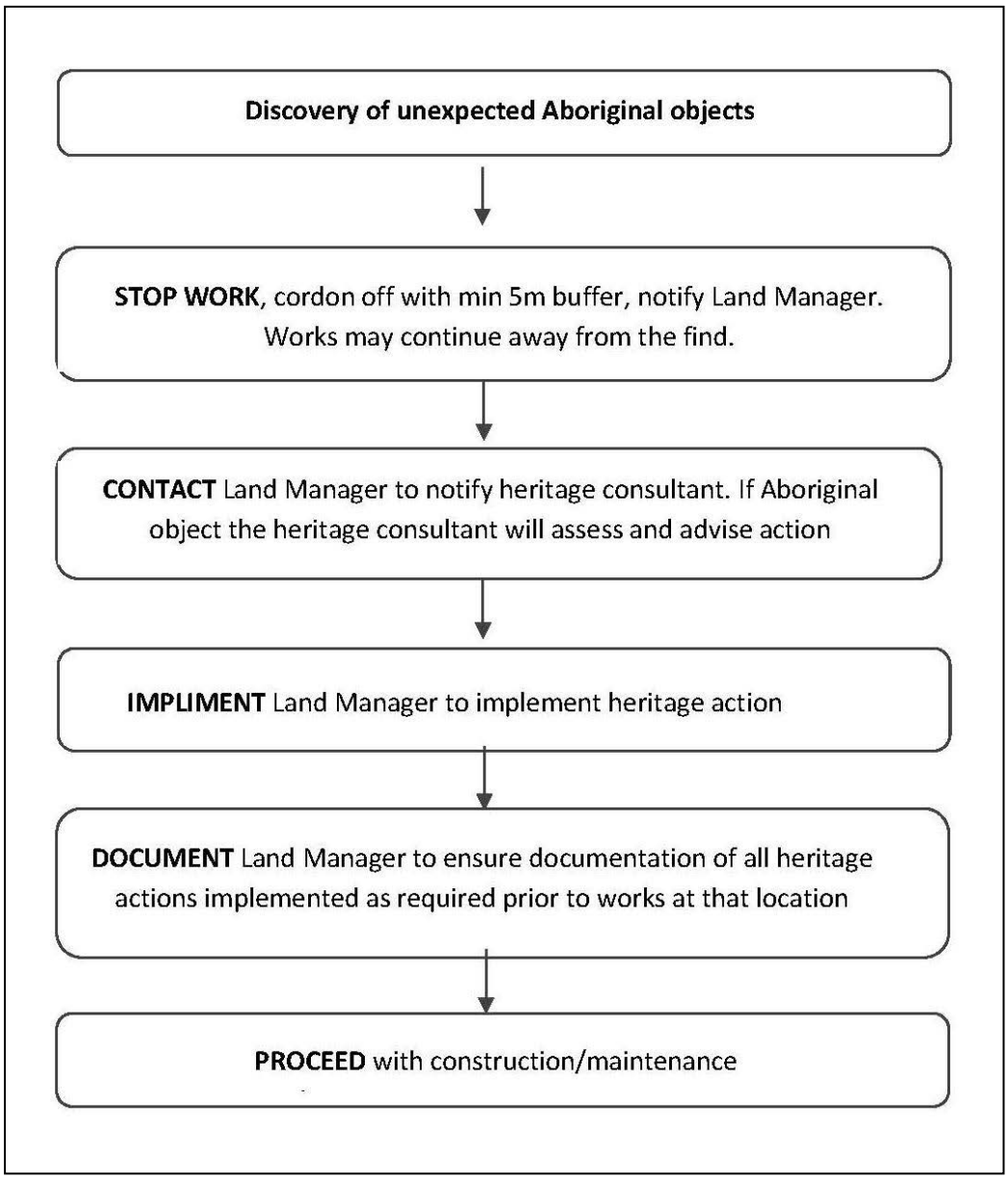
Should unexpected Aboriginal objects be uncovered during any stage of the development, Figure 1 illustrates the protocols. Unexpected Aboriginal objects may include, but not limited to, isolated artefacts, artefact scatters, scarred trees, hearths and shell middens (descriptions of such objects are provided).

Work must stop immediately in that location, the objects cordoned off with at least a 5m perimeter surrounding the object(s) with high visibility fencing/barrier and the Land Manager notified immediately. The Land Manager will then contact the heritage consultant who will assess the object(s) and recommend appropriate mitigation measures, inlcuding contacting the Environmental Line if required. The Land Manager is to implement all reasonable mitigation measures recommended by the heritage consultant and in accordance with Heritage NSW regulations and the NSW NPW Act.

If additional works are required, such as an Aboriginal Cultural Heritage Assessment (ACHA) with or without est excavations) or an Aboriginal Heritage Impact Permit (AHIP) (with collection or salvage excavations), the Land Manager is to arrange for the heritage consultant to undertake those works in accordance with all Heritage NSW requirements, procedures and Code of Practice. The methodology for undertaking additional works will be dependant on a number of factors including, but not limited to, site/object type and disturbances. Due to the unknown nature of unexpected objects, methodologies for furthe investigatiosn (if required) of unexpected Aboriginal objects will be determined during consultation with Heritage NSW.

Provided these heritage unexpected finds protocols have been followed, construction/maintenance works in that location may proceed.

Figure 1. Unexpected finds protocol flow chart



Discovery of human remains

Human skeletal remains are of the highest significance and importance to Aboriginal people, and all care, respect and dignity will be extended by all parties should human remains be uncovered.

If human remains or unidentified bone are uncovered during any stage of the development and maintenance activities, the appropriate State legislation will be followed. All human remains fall under the *Coroners Act 2009* in the first instance. If they are identified as Aboriginal and older than 100 years old, they will fall under the *NSW NPWS Act 1974* (as amended). If they are identified as Aboriginal and 100 years or less, they will remain under Police derestriction under the *Coroners Act 2009.* Figure 2 outlines the required protocols should human remains be uncovered.

Should any human remains or unidentifiable bone be found, work is to stop in that area immediately and an area of 15m cordoned off surrounding the remains/bone in high visibility fencing. The Land Manager is to be notified immediately.

The Land Manager will contact the heritage consultant and local NSW Police immediately, who will then contact the NSW Forensic Services who will determine if they are:

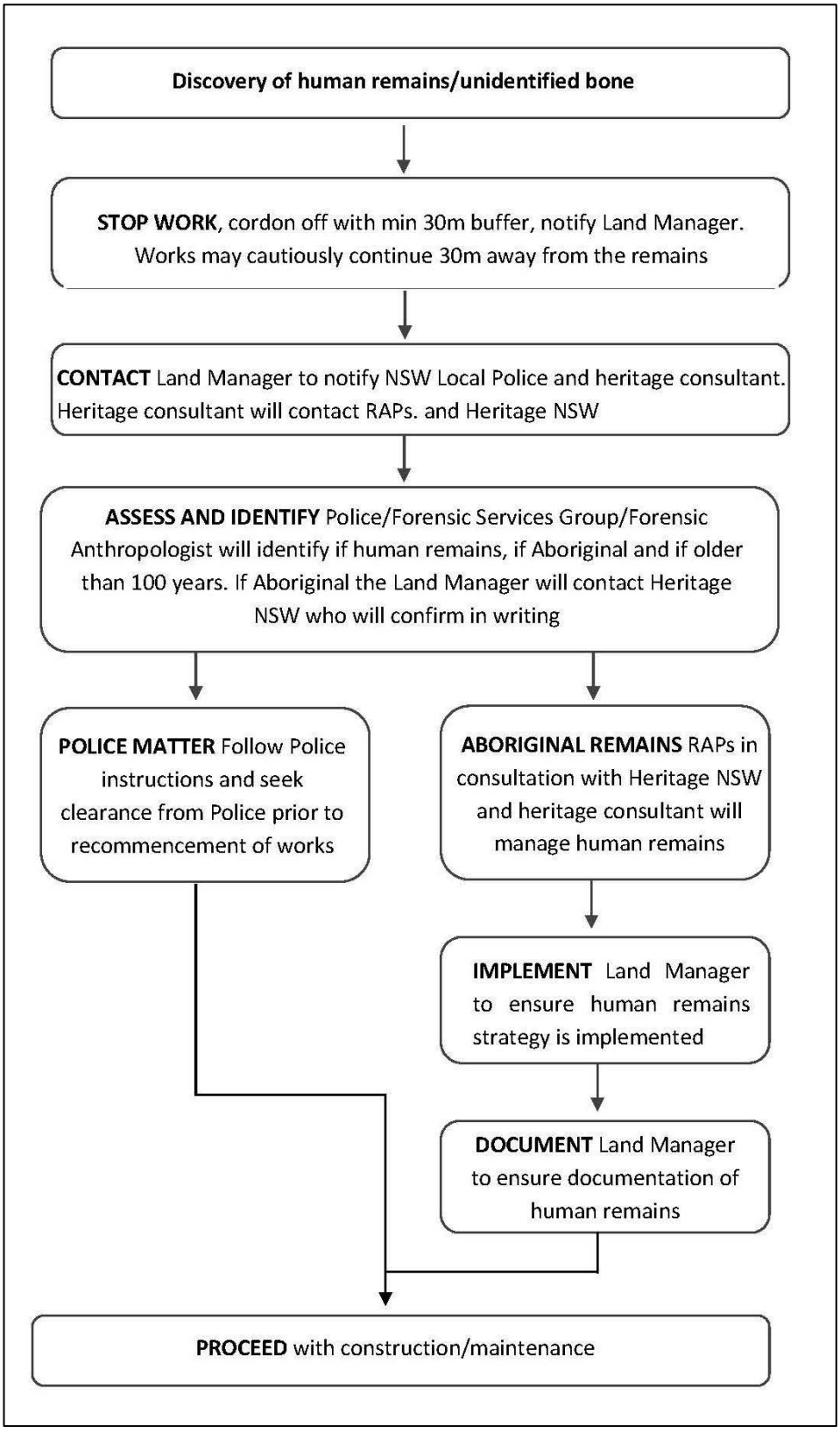
1) Human;
2) Aboriginal or non-Aboriginal;
3) If Aboriginal, determine antiquity (older or younger than 100 years)

If it is determined the remains are Aboriginal and older than 100 years old, the Police will notify the Land Manager who must contact the Environmnetal Line and Heritage NSW immediately. Heritage NSW, in consultation with the relevant Aboriginal community and the heritage consultant will develop a human remains management strategy and the Land Manager is to ensure this strategy is implemented. The Land Manager must also document the human remains management strategy and the heritage consultant will provide a letter of clearance prior to any works recommencing at that location.

If the remains are determined to be a Police matter, Police instructions will be followed and clearance to recommence works should be sought from the Police.

Provided the human skeletal protocols have been followed and documented, and a clearance letter from the heritage consultant has been obtained, construction/maintenance works may proceed in that location.

Figure 2 Human remains protocol flow chart



Verification of all Aboriginal objects (sites)

All potential Aboriginal sites will be verified by the heritage consultant in the first instance, and Heritage NSW if required.

The purpose of the verification process is to determine whether or not the objects in question are in fact Aboriginal objects to ensure appropriate management measures be implemented.

The verification process will include the following provisions:

1. A heritage consultant may assess the scientific status of the Aboriginal object (site) and provide evidence and justification for significance;
2. If it is an Aboriginal object the Environmental Line will be contacted and the site reported;
3. An AHIMS site card will be completed for each Aboriginal object (site); and
4. Management recommendations specific to each Aboriginal object (site), will be determined by Heritage NSW.

Surface Artefact scatters

Also described as open campsites, artefact scatters and open sites, these deposits have been defined at two or more stone artefacts within 50 or 200 metres of each other and may include archaeological remains such as stone artefacts, shell, and sometimes hearths, stone lined fire places and heat treatment pits. These sites are usually identified as surface scatters of artefacts in areas where ground surface visibility is increased due to lack of vegetation. Erosion, agricultural activities (such as ploughing) and access ways can also expose surface campsites. Artefact scatters may represent evidence of;

- Camp sites, where everyday activities such as habitation, maintenance of stone or wooden tools, manufacturing of such tools, management of raw materials, preparation and consumption of food and storage of tools has occurred;
- Hunting and/or gathering events;
- Other events spatially separated from a camp site, or
- Transitory movement through the landscape.

If a potential artefact scatter has been identified, the Unexpected Finds Protocol must be followed immediately.

Examples of artefact scatters (MCH)

Surface Isolated finds

Isolated artefacts are usually identified in areas where ground surface visibility is increased due to lack of vegetation. Erosion, agricultural activities (such as ploughing) and access ways can also expose surface artefacts. Isolated finds may represent evidence of;

- Hunting and/or gathering events; or
- Transitory movement through the landscape.

If a potential isolated find has been identified, the Unexpected Finds Protocol must be followed immediately.

Examples of isolated artefacts (MCH)