ACG Clovelly Road Pty Ltd

523 Raymond Terrace Road, Chisholm

LGA: Maitland

Aboriginal Cultural Heritage Assessment (ACHA)

9 May 2023

McCARDLE CULTURAL HERITAGE PTY LTD

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McCARDLE
CULTURAL HERITAGE

Report No: J202312 ACHA	
Approved by:	Penny McCardle
Position:	Director
Signed:	
Date:	9 May 2023

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EXECUTIVE SUMMARY

McCardle Cultural Heritage Pty Ltd (MCH) has been engaged by ADW Johnson on behalf of ACG Clovelly Road Pty Ltd to prepare an Aboriginal Cultural Heritage Assessment (ACHA), and an Aboriginal Heritage Impact Permit (AHIP), if required, for the residential subdvision located at 523 Raymond Terrace Road, Chisholm.

The underlying geology of the project area is the Permian Mulbring Siltstone of the Maitland Group that includes siltstone, sandstone and conglomerate. There is an absence of raw materials typically used for stone tool manufacturing (such as silcrete, mudstone, tuff, basalt). The project area consists of simple slopes dissected through the mid-section by a drainage depression. The project area is situated on the residual Beresfield soil landscape that consist of an upper soil Horizon A and underlying B and 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.

The project area is located 2.9 kilometres south west of the most reliable fresh water source in the local area (The Hunter River). A 3rd order creek is located approximately 1.3 kilometres south east of the project area and a 2nd order creek approximately 500 metres east. One 1st order drainage depression is located through the project area with few other 1st drainage depressions in the wider local area. As fresh water is necessary for survival, in terms of past Aboriginal land uses and survival, the project area may be considered under-resourced in terms of water availability and associated resources. With no fresh water supply, the project area may have been used for transitory activities such as hunting and gathering rather than camping.

In terms of landuses, and impacts to the landscape, and any cultural materials that may be present, the project area has been subject to a range of both moderate and high landuses disturbances and impacts. The project area was cleared in the 1970's with bulldozing methods typically used during that time, and primarily used for pastoral purposes (grazing), involving the wholesale clearance of native vegetation, at least one major ploughing event for the introduction of pasture grass, fences, the construction of dams (one large one through the centre along the drainage depression and 4 smaller dams in the southern half of the project area). Additionally, residential structures, sheds and associated infrastructure (driveways, established gardens etc) and utilities (water, electricity, telephone etc) are located in the southern portion of the project area.

A search of the AHIMS register has shown that 116 known Aboriginal sites are currently recorded within two kilometres of the project area and include 102 artefact sites, 11 artefact and PAD sites and 3 PADs. There are no sites or Aboriginal Places in the project area. Considering the AHIMS results, local and regional archaeological investigations as well as the environmental context, given that fresh water was necessary for survival and there are no sources of reliable fresh water in the project area, it is possible that isolated finds and very low-density artefacts scatters may be present in the project area and be representative of small hunting and gathering parties. Evidence of such past Aboriginal land uses manifests in the archaeological record as a background scatter of discarded artefacts.

The survey identified that the entire project area had been previously cleared and ploughed (evidence of eroded ridges and furrows present). A residential house and sheds were located in the southern part of the project area and farm rubbish piles were located throughout. Geotechnical excavation test pits were also located in the project area along with a large dam through the northern part of the project area and a number of smaller dams throughout. The

access road was visible and consisted of small rocks/rubble. Vegetation was predominantly grass with trees scattered throughout.

The absence of a fresh water source in the project area indicates the area may have been used for opportunistic hunting and gathering activities rather than camping. Evidence of these past Aboriginal land uses are evident through very low-density artefact scatters and isolated finds across the landscape with no particular predictive modelling for their location in relation to landform, water or any other environment factor. If evidence of past Aboriginal land use in the project area was present, it is highly likely that it would have been disturbed or destroyed through the past large scale clearing methods typically used during the 1970's (bulldozing), followed by at least one ploughing event for pasture, grazing by hoofed animals as well as the construction of the residential house, sheds and dams.

No sites or PADs were identified and as such there are no impacts to 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; and

2) Should any Aboriginal objects be uncovered during works, all work will cease in that location immediately 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 ADW Johnson on behalf of ACG Clovelly Road Pty Ltd to prepare an Aboriginal Cultural Heritage Assessment (ACHA), and an Aboriginal Heritage Impact Permit (AHIP), if required, for the proposed residential subdvision located at 523 Raymond Terrace Road, Chisholm.

The assessment has been undertaken to meet the Heritage NSW, Department of Premier & Cabinet, 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

ACG Clovelly Road Pty Ltd

1.3 THE PROJECT AREA

The project area is defined by the proponent and is located at 523 Raymond Terrace Road, Chisholm. Including Lot 100 DP847510, the location and extent of the project area is illustrated in Figures 1.1 and 1.2.

Figure 1.1 Regional location of the project area

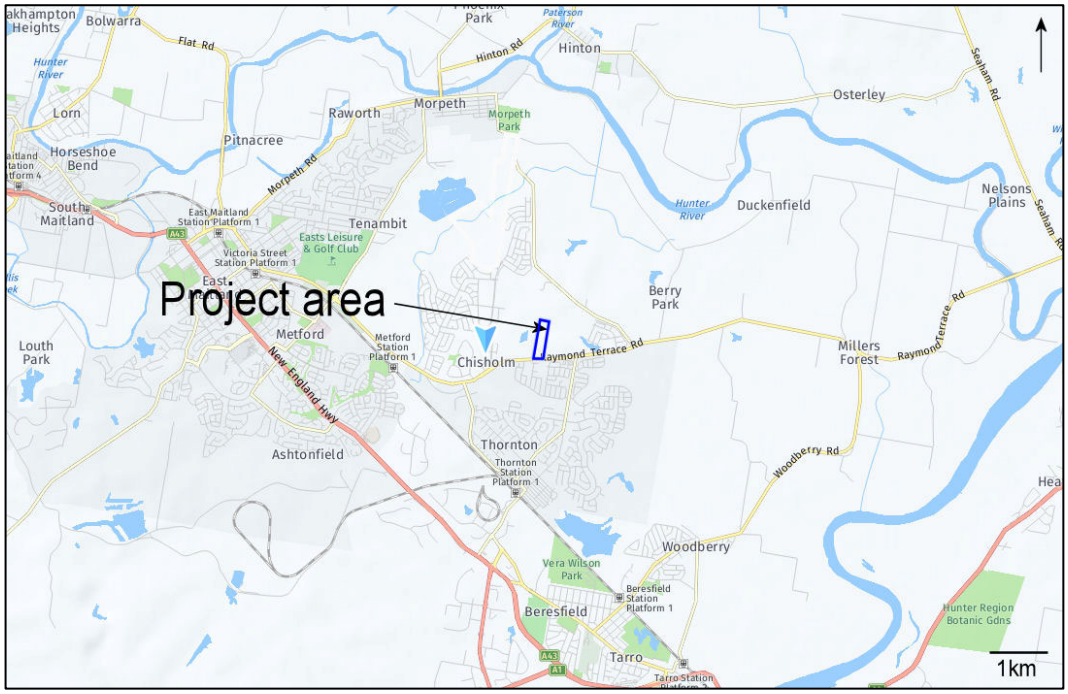


Figure 1.2 Aerial photograph of the project area (Nearmap 2022)

1.4 DESCRIPTION OF THE PROPOSED DEVELOPMENT

The project will include the subdivision of the project area into residential lots. 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.

1.5 PURPOSE OF THE ARCHAEOLOGICAL ASSESSMENT

The purpose of the assessment is to assess any archaeological constraints to support 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, AS AMENDED)

The National Parks and Wildlife Act (1974), Amended 2019, 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, Department of Premier & Cabinet 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)

EP&A Act establishes the statutory framework for planning and environmental assessment in NSW and the implementation of the EP&A Act is the responsibility of the Minister for Planning, statutory authorities and local councils. The EP&A Act contains three parts which impose requirements for planning approval:

- Part 3 of the EP&A Act relates to the preparation and making of Environmental Planning Instruments (EPIs), State Environmental Planning Policies (SEPPs) and Local Environmental Plans (LEPs).
- Part 4 of the EP&A Act establishes the framework for assessing development under an EPI. The consent authority for Part 4 development is generally the local council, however the consent authority may by the Minister, the Planning Assessment Commission or a joint regional planning panel depending upon the nature of the development.
- Part 4, Division 4.1 of the EP&A Act establishes the assessment pathway for State significant Development (SSD) declared by the State Environmental Planning Policy (State and Regional Development) 2011 (NSW). Once a development is declared as SSD, the Secretary's Environmental Assessment Requirements (SEARs) will be issued outlining what issues must be considered in the EIS.
- Part 5 of the EP&A Act provides for the control of 'activities' that do not require development consent and are undertaken or approved by a determining authority. Development under Part 5 that are likely to significantly affect the environment is required to have an EIS prepared for the proposed activity.
- Part 5.1 of the EP&A Act establishes the assessment pathways for State Significant Infrastructure (SSI). Development applications made for SSI can only be approved by the Minister. Once a development is declared as SSI, the SEARs will be issued outlining what issues must be addressed in the EIS.

The applicable approval process is determined by reference to the relevant environmental planning instruments and other controls, LEPs and State Environmental Planning Policies (SEPPs). This project falls under Part 4.

1.9 QUALIFICATIONS OF THE INVESTIGATOR

Dr. Penny McCardle: Principal Archaeologist & Forensic Anthropologist has 22 years experience in Indigenous archaeological assessments, excavation, research, reporting, analysis and consultation and 19 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 ethno historic context, Section 5 provides the archaeological background, Section 6 provides the results of the fieldwork, analysis and discussion; Section 7 presents the development impact assessment, Section 8 presents the mitigation strategies and Section 9 presents the management recommendations.

2 CONSULTATION

As per the Heritage NSW, Department of Premier & Cabinet 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, Department of Premier & Cabinet (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 16th January 2023 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	50 groups
Mindaribba LALC	no response
Maitland City Council	no response
Registrar Aboriginal Land Rights Act 1983	no response
National Native Title Tribunal	no claims
Native Title Services Corporation Limited	no response
Hunter 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 31st January 2023, and an advertisement was placed in the Maitland Mercury on 27th January 2023. 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
A1 Indigenous Services	Carolyn Hickey
Ungooroo Aboriginal Corporation	Alan Pagett
Widescope Indigenous Group	Steven Hickey

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 15th March 2023.

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, historicc and, or, contemportay 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 SURVEY

All RAPs were invited to participate in the survey on 4th April 2023. 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 8th May 2023. MCVH received no responses and 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 Hunter Valley consists of four major geological provinces: the New England Geosyncline in the northeast, the Sydney Basin in the centre and south, the Great Artesian Basin in the northwest, and the eastern Australian Tertiary Volcanic Province in the north and west (Hughes 1984). The Central Lowlands are situated on the Sydney Basin, on Permian rocks that are folded and consist of shales, tuffs, sandstone, mudstones, and conglomerate, with some lava beds in the basal portion, and contain the extensive coal measures that are mined throughout the region. Generally, the Permian rocks are only moderately resistant, consequently forming the lowlands.

The underlying geology of the project area is the Permian Mulbring Siltstone of the Maitland Group that includes siltstone, sandstone and conglomerate (Newcastle 1:250,000 Series Map Sheet, 1966). There is an absence of raw materials typically used for stone tool manufacturing (such as silcrete, mudstone, tuff, basalt).

3.3 TOPOGRAPHY

The topographical context is important to identify potential factors relating to past Aboriginal land use patterns and 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. Story et al (1963) divided the Hunter Valley into eight main sub-regions including the Southern Mountains, Central Goulburn Valley, Merriwa Plateau, Liverpool and Mt Royal Ranges, Barrington tops, North-Eastern Mountains, Central lowlands and the Coastal Zone.

The project area is located within the Central Lowlands, (a broad lowland belt of lowlands approximately 15 kilometres wide) which lies at the centre of the region extending from Murrurundi to Newcastle. It is bounded on all sides by steep rugged country except in the far west where the Cassilis Gate provides access to the interior. To the south is dissected plateau country; to the north and west are the Liverpool Range and Barrington Uplands. This area contains much alluvial land consisting of open undulating grassland and level alluvial plains. Formerly rural, open cut mining has developed throughout on a large scale, especially around Singleton and Muswellbrook. The project area consists of simple slopes dissected through the mid-section by a drainage depression (Figure 3.1).

Figure 3.1 Contour map showing the topography of the project area

3.4 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 assess and interpreting the archaeological record.

The geomorphology of the Hunter Valley is complex and is summarised below based upon studies undertaken by Galloway (1963) and Hughes (1984). The Hunter Valley contains a variety of landforms ranging from rugged mountains to plains and varying in elevation from sea level to over 1500 metres (AHD). It is surrounded on all sides by mountainous terrain with the exception of the western portion where a low rise divides it from the Darling River drainage area and the south eastern zone where it is bounded by the Pacific Ocean.

Four major elements are distinguished in the drainage pattern. The western half of the valley is drained by the Goulburn River and its tributaries that flow east to Denman. The north-eastern part is drained by the upper Hunter River, which flows southwest to unite with the Goulburn River at Denman. The combined rivers then flow east-south-east as the lower Hunter River, opening to the ocean at Newcastle. The Williams and Paterson Rivers drain the high country of the Barrington Tops in the east and join the Hunter River near its mouth. The watershed of the Goulburn River coincides with the Great Dividing Range, where it swings west in a vast loop.

The CSIRO (Story et al 1963) conducted a study of the Hunter Region and classified the landforms into nine sub-regions (Mt Royal Range, Liverpool Ranges, Northeast Mountains, Barrington Tops, Merriwa Plateau, Central Goulburn Valley, Southern Mountains, Central Lowlands and the Coastal Zone). The project area lies within the Central Lowlands, which is a belt of lowlands developed on the weak sedimentary rocks that extend from Murrurundi to Newcastle.

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. Differences between these elements are reflected in variation in soil types across the Hunter Valley. Texture contrast soils mantle the undulating to hilly landscapes on Permian and Carboniferous rocks and the older alluvial terraces and valley fills. The two major groups of texture contrast soils include solonetzic and podzolic soils. These soils consist of an upper soil Horizon A and underlying B (referred to as duplex soils). The upper A unit consists of grey to buff silts and sand with gravels, is usually no greater than one metre in depth (usually shallower), has a weakly developed soil profile and is typically discontinuous, especially along hill slopes. The underlying B unit consists of brown-red gravel rich clays with evidence of deep weathering and strongly contrasting horizons.

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. Given the lack of detailed information regarding artefact sequences and chronologies in the Hunter Valley, this assumption should not be accepted without question. However, on geomorphological grounds, A horizon soils in this context are generally considered as dating to the mid-late Holocene (Dean-Jones and Mitchell 1993:76).

In contrast, the underlying weathered nature of the clayey B-horizon indicates that its parent material is much older. Evidence of earlier occupation of the region was identified at Warkworth West (AMBS 2002) where a limited artefact assemblage is present within deposit older than 14,000

years. It is also suggested that materials from Fal Brook and Carrington date to the Pleistocene period (Koettig 1987). The B-horizon parent material in hill slope formations is typically composed of weathered, in-situ bedrock whereas soils along the valley floors are generally alluvial or colluvial in origin.

The archaeological importance of foot slopes and valley floors with soils of this type is enhanced by the fact that the interaction between alluvial and colluvial deposition can result in the formation of sealed deposits. However, landforms of this type are also prone to erosion which may broadly reveal previously buried archaeological evidence. Extensive sheet and gully erosion occurs throughout the area, potentially resulting in artefacts that were originally deposited on or within the A-horizon being exposed as highly visible lag. Thus, although erosion greatly increases the visibility of artefacts, it also disturbs and damages them.

Similarly, the impacts of bioturbation upon the archaeological record must also be addressed. Focussed studies regarding bioturbation have primarily been conducted outside Australia (e.g., Armour-Chelu and Andrews 1994; Fowler et al 2004; Peacock and Fant 2002). Therefore, whilst the subsequent findings are broadly applicable within the Australian context, further research is certainly warranted. In general, it appears that, within duplex soils, the burrowing activities of fauna including earthworms can often cause the lateral and horizontal movement of artefacts through the soil profile, eventually resulting in the formation of a stone layer at the interface of the A and B horizons. The other important element to address is the differential movement of artefacts according to size/weight. In this respect, bioturbation has the potential to artificially conflate and separate artefacts according to size grouping as opposed to depositional context (Fowler et al 2004; Armour-Chelu and Andrews 1994).

As duplex soils are the dominant soil type within the Hunter Valley, the inherent properties of these soils must be taken into consideration in regard to the likelihood of site detection (through exposure by erosion), the stratigraphic context and age of sites, potential site location in relation to past use of the landscape and landscape instability. Certain land systems and types of deposit are however, considered to have greater potential to contain stratified and/or older archaeological sites. This does not imply that older sites are intrinsically more significant than more recent sites, rather, the more important issue in scientific terms is the level of integrity within the site. In broad terms, windblown sand sheets/dunes (such as those at Warkworth), alluvial fan deposits and foot slopes with the potential to have colluvial deposits should be considered as archaeologically sensitive landforms (refer to Dean-Jones and Mitchell 1993; Hughes 1984).

3.5 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.

The impacts of the various land uses and natural agencies on the environment and soils are discussed in detail in Sections 3.9 and 3.10 respectively, and the soil landscape of the project area is summarised below.

The project area is situated on the residual Beresfield soil landscape. The dominant soils of this soil landscape include a friable brownish black loam (topsoil - A1 horizon up to 15cm deep) that is moderately acid to neutral (pH 5.5 – 7.0). The A2 horizon (5-30 in depth) underlies this and consists of hard setting dull yellowish brown sandy loam that is moderately to slightly acid (pH 5.0 – 6.0). A reddish-brown plastic pedal clay (subsoil – B2 and B 3 horizons) occurs that is strongly to slightly acid (pH 4.5 – 6.0). Also occurring is a greyed 'puggy' silty clay (subsoil – B2, B3, C horizons) that is moderately acid to neutral (pH 5.0 – 7.0). Erosion across the area ranges from low to high (Matthei 1995: 30 – 33).

As previously discussed in Section 3.4, these soils consist, consisting of an upper soil Horizon A and underlying, 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 and 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.

The A horizon of the Beresfield Soil Landscape of the project area are generally 30 cm or less in depth and soil deflation and erosion expose rather than bury former land surfaces on which stone artefacts may have been present, removing the upper part of the soil profile, usually to the exposed B horizon. In addition to this, land uses also remove, re-distribute soils, again decreasing the A horizon.

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 climatic zone as defined by Kovac and Lawrie (1991) and is characterised by temperatures ranging from an average minimum of below 5°C to an average maximum of 28°C. Winter rainfall levels are somewhat variable and generally average 30 millimetres per month. Summer rainfalls are more stable at approximately 55-60 millimetres per month, giving a mean annual rainfall of 740 millimetres. During summer, the increased rainfall rate and reduced ground cover is reflected in a proportionately higher risk of erosion.

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).

When assessing the relationship between sites and water sources it is noted that the Australian continent has undergone significant environmental changes during the past 60,000 years that people have lived here and that Pleistocene sites (older than 10,000 years) would have been located in relation to Pleistocene water sources that may not exist today.

Examination of the Beresfield 1:25,000 topographic map and nearmap indicates that the project area is located 2.9 kilometres south west of the most reliable fresh water source in the local area (The Hunter River). A 3rd order creek is located approximately 1.3 kilometres south east of the project area and a 2nd order creek approximately 500 metres east. One 1st order drainage depression is located through the project area with few other 1st drainage depressions in the wider local area. As fresh water is necessary for survival, in terms of past Aboriginal land uses and survival, the project area may be considered under-resourced in terms of water availability and associated resources. With no fresh water supply, the project area may have been used for transitory activities such as hunting and gathering rather than camping.

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.

European settlers extensively cleared the original native vegetation from the project area and is now dominated by introduced pasture grasses with trees parodically scattered throughout. 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 north and south east 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 3.1 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 aerial photography (Historical Imaging 1974, 1976, 1984, Nearmap 2010 – 2022), the project area has been subject to a range of both moderate and high landuses disturbances and impacts. The project area has been cleared (bulldozing methods of land clearing was used in the 1970's) and primarily used for pastoral purposes (grazing), involving the wholesale clearance of native vegetation, at least one major ploughing event for the introduction of pasture grass, fences, the construction of dams (one large one through the centre along the drainage depression and 4 smaller dams in the southern half of the project area. Additionally, residential structures, sheds and associated infrastructure (driveways, established gardens etc) and utilities (water, electricity, telephone etc)

are located in the southern portion of the project area. These landuses and how they impact on the landscape and deposits are discussed below.

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 will disturbed or destroy that may be present near, or underneath trees and vegetation (Wood 1982). However, land clearing in the 1970's in Australia involved vegetation being removed by bulldozing. Bulldozing is a very destructive method as it not only clears vegetation, it also re-distributes soils and subsoils across the landscape through movement and scraping /pulling vegetation and re-modelling soils across the land. Following clearing, framing 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.

As a sub-set of agricultural land use, ploughing typically disturbs the top 30-40 centimetres of topsoil (Koettig 1986a, personal obs.; McCardle personal obs.) depending on the method and machinery used during the process. Ploughing increases the occurrence of erosion and can also result in the direct horizontal and vertical movement of artefacts, thus causing artificial changes in artefact densities and distributions. In fact, studies undertaken on artefact movement due to ploughing (e.g., Roper 1976; Odell and Cowan 1987) has shown that artefacts move between one centimetre up to 18 metres laterally depending on the equipment used and horizontal movement. Ploughing may also interfere with other features and disrupt soil stratigraphy (Lewarch and O'Brien 1981), all of which result in a disturbed deposit, which, depending on the depth of soils, may result in no site integrity remaining. Ploughing activities are typically evidenced through 'ridges and furrows' however a lengthy cessation in ploughing activities dictates that these features may no longer be apparent on the surface.

Excavation works required for developments, including but not limited to early land use clearing methods, business, residential, industrial, 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.

As the A horizon of the Beresfield Soil Landscape of the project area are generally 30 cm or less in depth (due to erosion), the above land uses, all of which impact deposits deeper than the soils present in the project area, are expected to have significantly impacted on the soils within the project area and any cultural materials that may be present.

3.10 NATURAL DISTURBANCES

The disturbance of cultural materials can also be a result of natural processes. The patterns of deposition and erosion within a locality can influence the formation and/or destruction of archaeological sites. Within an environment where the rate of sediment accumulation is generally very high, artefacts deposited in such an environment will be buried shortly after being abandoned. Frequent and lengthy depositional events will also increase the likelihood of the presence of well-stratified cultural deposits (Waters 2000:538,540).

In a stable landscape with few episodes of deposition and minimal to moderate erosion, soils will form and cultural materials will remain on the surface until they are buried. Repeated and extended periods of stability will result in the compression of the archaeological record with multiple occupational episodes being located on one surface prior to burial (Waters 2000:538-539). Within duplex soils, artefacts typically stay within the A horizon on the interface between the A and B horizons.

If erosion occurs after cultural material is deposited, it will disturb or destroy sections, or all of, archaeological sites even if they were initially in a good state of preservation. The more frequent and severe the episodes of erosional events the more likely it is that the archaeological record in that area will be disturbed or destroyed (Waters 2000:539; Waters and Kuehn 1996:484). Regional erosional events may entirely remove older sediments, soils and cultural deposits so that archaeological material or deposits of a certain time interval no longer exist within a region (Waters and Kuehn 1996:484-485).

The role of bioturbation is another significant factor in the formation of the archaeological record. Post-depositional processes can disturb and destroy artefacts and sites as well as preserve cultural materials. Redistribution and mixing of cultural deposits occur as a result of burrowing and mounding by earthworms, ants and other species of burrowing animals. Artefacts can move downwards through root holes as well as through sorting and settling due to gravity. Translocation can also occur as a result of tree falls (Balek 2002:41-42; Peacock and Fant 2002:92). Depth of artefact burial and movement as a result of bioturbation corresponds to the limit of major biologic activity (Balek 2002:43).

Burrowing and mounding by various animals and insects can result in the burial and translocation of artefacts. Size-sorting also tends to occur thus destroying stratigraphic integrity. Artefacts with a diameter smaller than that of burrows within an area may be moved upwards and be deposited in mounds by the fauna. Conversely, larger artefacts gradually move downward due to gravity and to animals burrowing beneath the larger artefacts and eventually collapsing into the burrow. They may then form concentrations which mimic cultural layers and are therefore open to misinterpretation (Balek 2002:46). Artefact burial rate through the effects of burrowing and mounding animals varies but can be as great as 2.7 metres in 5000 years (Balek 2002:45).

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 have been known to completely destroy stratification within 450 years (Balek 2002:48). Earthworm activity can significantly affect cultural materials though the degree and nature of disturbance will relate to the species of earthworm/s represented (Armour-Chelu and Andrews 1994; Canti 2003; Fowler et al. 2004; Stein 1983). Different species of earthworm's act in varying ways; some species live in deep soils and move vertically to and from the surface, whilst others live within the top ten centimetres of soil and tend to move horizontally through the soil matrix (Fowler et al. 2004:453). Earthworms, under favourable conditions, can excavate to depths of six metres (Stein 1983:278). Whilst, the size and behaviour of earthworms varies between species, they are similar in some ways; earthworms burrow through the soil by pushing soil aside or consuming it as well as organic materials, which they then regurgitate or excrete either behind them or on the surface. As earthworms move through the soil, they churn the soil within an area over time which results in blurring of soil horizons (Fowler et al. 2004:457, 461; Stein 2003:139).

The ways in which earthworms can affect cultural deposits includes: creating false artefact concentrations and stratigraphy (for example biomantles) by moving artefacts downwards through the soil; indirectly displacing larger artefacts as they burrow through the soil; burying artefacts through the deposition of faecal material on the surface; and blurring natural and cultural boundaries. They can also destroy remains of seeds and organic materials as they eat them (Fowler et al. 2004:462; Stein 1983:280-281). In Australia, most earthworm species cannot tolerate pH values lower than 4.5 and prefer neutral conditions with a pH of around 7 (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 regional environment provided resources, including raw materials, fauna, flora and water, that would have allowed for sustainable occupation of the area. However, the local environment, including the project area has no reliable fresh water source that would have enabled camping.

In relation to modern alterations to the landscape, the use of the majority of the project area for pastoral purposes can be expected to have had low impacts upon the archaeological record. European land uses such as clearing, ploughing and the construction of dams, housing and fences can be expected to have had high impacts on the archaeological record and may have displaced cultural materials, however in less disturbed areas, it is likely that archaeological deposits may remain relatively intact.

4 CULTURAL CONTEXT

Unfortunately, due to European settlement and associated destruction of past Aboriginal communities, their culture, social structure, activities and beliefs, little information with regards to the early traditional way of life of past Aboriginal societies remains.

Anthropologists and ethnographers have attempted to piece together a picture of past Aboriginal societies throughout Australia. 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 and 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 WONNARUAH COUNTRY

Brayshaw (1987) examined early ethnographic literature relating to the Aboriginal occupation and European settlement of the Hunter Valley in order to determine the manner in which past Aboriginal communities adapted to their environment, the extent to which they utilised the available resources, and to assess the comparability of the described material culture with the archaeological evidence.

In relation to the limitations inherent within the ethno-historic documentation, Brayshaw (1987) notes that the early records of settlers, explorers and surveyors provide the only picture of past Aboriginal life in the Hunter Valley, as it was prior to the impact of contact and white settlement and therefore worthy of consideration. Dawson (1830; in Brayshaw 1987) and Fawcett (1898; in Brayshaw 1987) suggest that fire was used to deter Europeans, to attract game for hunting and to signal to other tribes for both hunting and ceremonial purposes. It is also commonly known that firestick farming was used to modify the environment throughout Australia (Mulvaney and Kamminga 1999). Floral resources were also utilised in many ways with bark been widely used as huts or 'gunyahs', canoes, string, baskets, drinking containers and in burial practices. Vegetable and bark fibres were also used for fishing lines, nets and sewing. Wood was used for clubs, yam sticks, boomerangs, spears, spear throwers and hatchets, and both wood and bark were used to make shields (Paterson 1801; Barrallier 1802). Shells were used as scrapers to sharpen spears (later replaced by glass) and ground into shape for fishhooks (Caswell 1841 and Gunson 1974, both in Brayshaw 1987:67). Although there are no apparent ethnographic reference to stone being used as tools, physical evidence indicates stone was utilised at as tools. Kangaroo bones were made into awls and used to repair canoes and in sewing possum and kangaroo skins for clothing (Boswell 1890; Fawcett 1898 in Brayshaw 1987). Dawson (1830:115-116) notes that kangaroo bone also functioned as a comb. Dietary staples included a variety of plant foods, shellfish and other animal foods (Grant 1803:161; Wood 1972:44). Animal foods may have included kangaroos, wallabies, echidna, emus, possums, birds, goannas, snakes and honey from native trees. The occurrence of these resources would have depended largely on seasonality and geographic location. Little is known of past ritual life, as access to these rites was restricted.

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.

The majority of archaeological surveys and excavations throughout the region have been undertaken in relation to environmental assessments for the coal mining and power industries of the Hunter Valley. A review of the most relevant investigations (Dyall 1979, 1980; Davidson et al 1993; Dean-Jones and Mitchell 1993; Koettig and Hughes 1984; McDonald 1997; Haglund 1999; Kuskie 2000; HLA-Envirosciences 2002; AMBS 2002; MCH 2004a, b) illustrates consistency in site type and location across the region as well as a possible bias in the results due to a focus on specific landforms. The corpus of recorded sites is described and assessed qualitatively in MCH (2004b) and these findings are summarised and supplemented below.

Based on the available information it is possible to identify a number of trends in site location and patterning within the region. Open campsites are by far the most common site type with isolated finds also comparatively well represented. A variety of other site types have been identified in far lower concentrations and include grinding grooves, scarred trees, rock shelters, shelters with art and burials. The high representation of sites containing stone artefacts is to be expected due to the durability of stone in comparison to other raw materials. In relation to stone artefact raw materials, it is important to note that there is a potential for discrepancies in the way in which archaeologists classify lithic materials. This will consequently affect the proportional representation of raw materials within the recorded assemblages. However, as a whole mudstone is the most common lithic artefactual material found in the region, followed by silcrete. Chert, tuff, quartz, quartzite, petrified wood, porcellanite, hornfels, porphyry, basalt, limestone, sandstone, rhyolite, basalt, European glass and other non-specific lithic types also occur in smaller quantities. Variation in the classificatory definitions employed by archaeologists will again significantly influence the range of artefact types identified within a project area. Due to differences in recording techniques it is difficult to determine how many of each artefact type is represented across the region though types include flakes, broken flakes, retouched flakes, multi-platform cores, single platform cores, bipolar cores, flaked pieces, 'waste' pieces, 'chips', debitage, 'geometric microliths', 'backed blades', 'bondi points', 'scrapers', 'eloueras', 'burrins', 'blades', 'hatchets', 'unifacial choppers', 'bifacial choppers', 'pebble tools', a 'slice', edge-ground axes,

anvils, hammer stones and heat. Due to variations in both the amount of data that is included in reports, and the terms different archaeologists used to describe artefact types, it is not practicable to provide a count of the different artefact types.

For example, the distinction between a waste flake, a debitage flake and a flaked piece may be heavily subject to the perspective of the recorder. Thus, it is not productive to attempt to quantify the proportionate representation of artefact types identified in previous studies. That said, based on the information collated from previous regional studies (refer to MCH 2004b) it is apparent that the most common artefact types are flakes, flake fragments and flaked pieces. Cores, edge ground axes, millstones, grindstones, hammer stones and backed artefacts including backed blades, bondi points, geometric microliths and eloueras also occur though in lower frequencies. In general, the stone artefact assemblage in the area has been relatively dated to what was previously known as the Small Tool Tradition (10,000 years BP). On the basis of stone tool technology, the overwhelming majority of Aboriginal open sites within the region are attributed to the Holocene period. However, at Glennies Creek, north of Singleton, based on radiocarbon dated charcoal and geomorphological evidence it is suggested that artefacts found in the B-horizon may have been deposited between 10,000 and 13,000 BP (Koettig 1986a, 1986b).

An analysis of sites according to the number of artefacts present, the distance from water and the landform type may allow for the identification of a number of trends. However, that there are various factors influencing these results, including, but not limited to:

- the fact that the landform on which a site area is observed may not necessarily be its origin, for example, artefacts from a crest may be relocated by erosion such that they are recorded further down a slope;
- effects of biased sampling of landforms due to decisions made by archaeologists as a result of development area boundaries, levels of exposure on different landforms and variable recording by archaeologists. For example, the large percentage of sites found along creek lines may be (at least partially), a result of the biased focus of many cultural heritage surveys towards this landform; and
- artefact counts can be skewed due to factors such as the differing fragmentation levels of discrete stone types and levels of ground surface visibility. Typically, a very large number of sites/artefacts are located on exposures and yet no, or very few artefacts are visible away from these exposures.

When assessing sites in terms of distance to water, in the Hunter Valley there is a clear pattern of past land uses whereby the majority of high-density sites are situated within 50 metres of reliable fresh water (high order) and reduce in both numbers and densities with a decrease in stream order. Thus, it is apparent that open campsites/isolated finds are most concentrated in number and size within 50 metres of reliable fresh water.

As is to be expected, the majority of sites within 50 metres of water are present on elevated landforms in association with creek lines whilst slopes and crest/ridge formations are also common site locations. The frequent presence of sites on crest/ridges and slopes is also noticeable for sites located over 50 metres from water. Due to the importance of water in the grinding process, it is not surprising that sites of this type are situated close to water.

5.1.1 SUMMARY OF REGIONAL ARCHAEOLOGICAL PATTERNING

In summary, despite the recognised limitations of utilising previous studies as the basis for generalisations regarding archaeological patterning, the following broad predictions can be made for the region:

- a wide variety of site types are represented in the project area with open campsites and isolated artefacts by far the most common;
- lithic artefacts are primarily manufactured from mudstone and silcrete with a variety of other raw materials also utilised but in smaller proportions;
- 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.

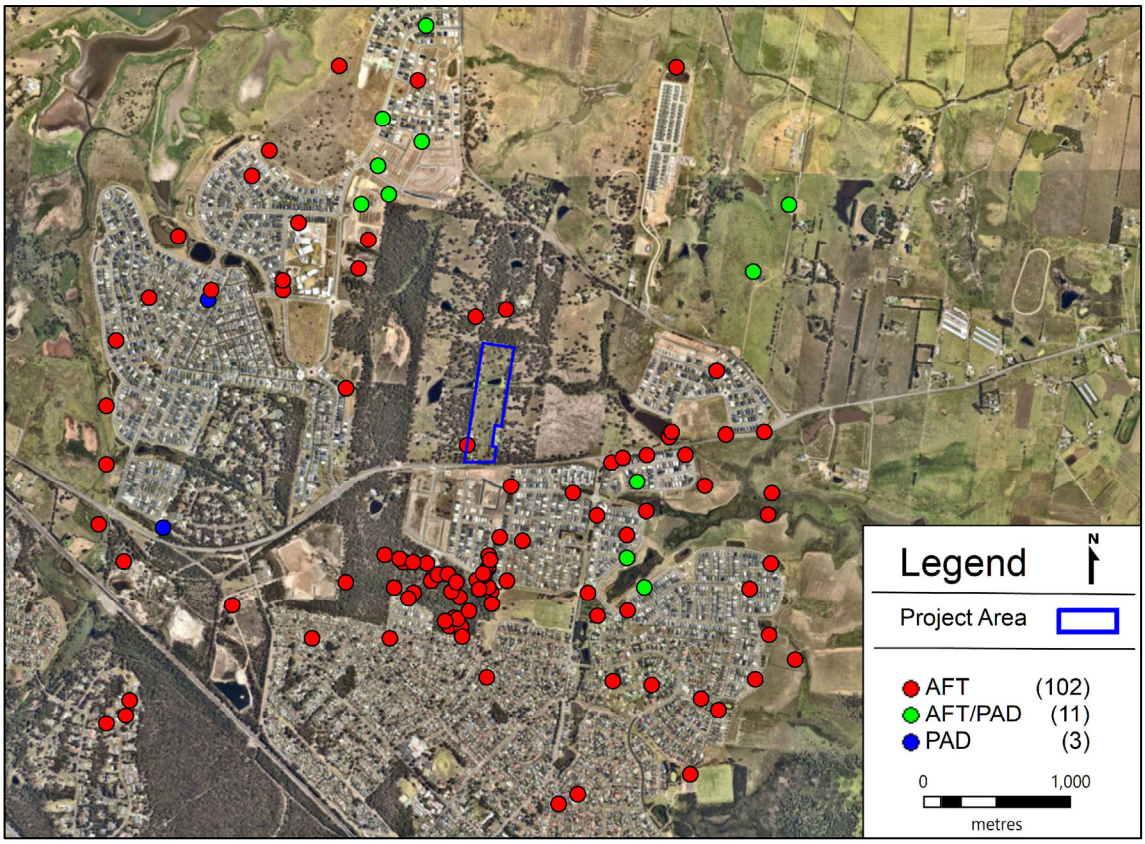
5.3 ABORIGINAL HERITAGE INFORMATION MANAGEMENT SYSTEM

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 has shown that 116 known Aboriginal sites are currently recorded within two kilometres of the project area and include 102 artefact sites, 11 artefact and PAD sites and 3 PADs. The AHIMs results are provided in Appendix B and the location of sites is shown in Figure 5.1.

Although there appears to be an AHIMS site in the project area (38-4-0125), examination of the AHIMS site card places this site 150 metres from the 2nd order creek, which is outside the project area. There are no AHIMS sites or Aboriginal Places in the project area.

Figure 5.1 Approximate location of AHIMS sites



5.4 LOCAL ARCHAEOLOGICAL CONTEXT

Limitations in the use of examining previous local assessment include the number of studies in the local area. Fewer studies suggest that sites have not been recorded, ground surface visibility also hinders site identification and the geomorphology of the majority of NSW soils and high levels of erosion have proven to disturb sites and site contents, and the extent of those disturbances is unknown (i.e., we do not know if a site identified at the base of an eroded slope derived from the upper crest, was washed along the bottom etc: thus, altering our predictive modelling in an unknown way).

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.

- Resource Planning Pty Ltd. 1994. Archaeological Survey Lot 1742, D.P. 634868 Parish of Alnwick Thornton NSW.

Resource Planning (1994) undertook an archaeological survey of Lot 1742 DP 634868 in the Parish of Alnwick, Thornton, NSW. The study area was bound to the north by Raymond Terrace Road, a clay extraction pit to the west, by a residential area to the south and the eastern fence line of Lot 182 to the east. The study area was approximately three hectares in size and had been in use as a clay extraction pit with plans to open up a new pit within the same area. The survey was commissioned to determine any impacts to the archaeological resource as a result of the planned

works. Landforms of the study area consisted of flats and slopes. The local geology was Permian Tomago Measures (shale, mudstone, sandstone, tuff and coal) adjacent to Mulbring Siltstone (siltstone, sandstone and conglomerate) and vegetation consisted of Spotted Gum-Ironbark open-forest community. The study area was located 5.5 kilometres south of the Hunter River. Local water sources were present in the form of drainage lines and small creek lines. A search of the NPWS Sites Register revealed that there were no archaeological sites recorded in the study area. Sites in the surrounding area were predominantly artefact scatters. Site types predicted as possible to occur in the study area included artefact scatters, grinding grooves, modified trees, burials, stone arrangements, quarries and mythological sites.

Two sites were identified during the survey but the majority of site types listed as possible in the predictive model were not located. This was likely due to the level of past disturbance across the study area, with vehicle tracks, brickworks and an existing extraction pit all present. The survey results are summarised below in Table 5.1. Neither of the two sites were in the area of impact for the proposed works. It was recommended that the development proceed as planned, with works to cease should any previously unidentified archaeological material be uncovered during works.

Table 5.1 Summary of sites (Resource Planning 1994)

Site	Site type	Landform	Distance to water	Stream order	Artefacts /features	Disturbance	Subsurface potential
Isolated	isolated	modified	150m	drainage line	1 tuff broken flake	vehicle track	no
Artefact scatter	artefact scatter	bank	2m	creek	30	not provided	yes

- Dagg, L. 1996. Archaeological Assessment, Proposed Rural Residential Subdivision, Thornton, NSW.

Dagg (1996) undertook an archaeological assessment of an area of land proposed for rural residential subdivision. Proposed works to occur as part of the subdivision were sewer installation and the construction of a wetland's retention basin. The study area was a 276-hectare parcel of land bound by Thornton Road, the Great Northern Railway, the New England Highway and Four Mile Creek. The study area was divided by a private coal railway and had been previously impacted by vegetation clearance, rubbish dumping and vehicle track formation/use. The topography included a knoll summit, ridge crests, slopes, stream channels and banks. The main water source for the area was Four Mile Creek, with an unnamed tributary and other gullies and drainage depressions noted within the study area. Vegetation included Spotted Gum and Ironbark as well as open grasslands.

A search of the NPWS sites register identified of 55 sites within a five-kilometre radius of the study area including open campsites, isolated finds, scarred trees, quarries, axe grinding grooves, a fish trap, native wells, rock engravings, a rock shelter with art, burials, bora/ceremonial grounds, contact/mission locations and an Aboriginal place. It was assessed that the most likely site types to occur within the study area would be open campsites and isolated finds. Grinding grooves and scarred trees were assessed as being well represented across the wider area, but less likely to occur due to vegetation clearance and limited suitable water sources within the study area. The dominant raw material type to occur within the area was identified as silcrete.

No specific predictive model was included with this report, however the general predictions of isolated finds and open campsites (artefact scatters) proved accurate in the six site types that were identified during the survey. Silcrete was also confirmed to be the dominant raw material type within the six sites identified. A sampling survey was conducted in order to investigate the study area and approximately 15 hectares were surveyed through the walking of 11 transects. A total of six sites were identified during the survey but no PADs were identified. In addition to the new sites located, an isolated find site that had been previously identified by Dagg was reassessed as an artefact scatter (FMC2). The seven sites that were identified/reassessed are summarised in Table 5.2.

Table 5.2 Summary of sites (Dagg 1996)

Site	Site type	Landform	Distance to water	Stream order	Artefacts/ features	Disturbance	Subsurface potential
Four Mile Creek 2 (FMC2)	artefact scatter	modified slope	not noted	alluvial creek flats	11 artefacts	high vehicle track	no
Four Mile Creek 4 (FMC4)	artefact scatter	break in slope	not noted	not noted	15 artefacts	high erosion, track construction	no
Four Mile Creek 5 (FMC5)	artefact scatter	modified slope	not noted	unnamed tributary	20 artefacts	high erosion, track construction	no
Four Mile Creek 6 (FMC6)	artefact scatter	upper slope/crest	not noted	not noted	2 artefacts	low	not noted
Four Mile Creek 7 (FMC7)	isolated find	slope	not noted	gully	1 silcrete flaked piece	low	not noted
Four Mile Creek 8 (FMC8)	artefact scatter	crest of ridge line	not noted	not noted	14 artefacts (	moderate (track)	not noted
Four Mile Creek 9 (FMC9)	isolated find	slope	not noted	gully	1 silcrete flaked piece	low	not noted

Dagg recommended that a consent to destroy permit be sought for both the identified sites and any undetected sites that may occur within lots 101-150 and 201-240 within the study area. It was recommended that monitoring occur during the installation of the sewer main in Lot 131 and it was advised that works immediately cease and NPWS be notified should Aboriginal artefacts be uncovered during the course of the sewer installation works in Lot 131.

- Kuskie, P., and Clarke, E. 2006. Sub-Surface Archaeological Investigation of the Proposed Somerset Park Extension at Thornton, Hunter Valley, New South Wales.

Kuskie and Clarke (2006) undertook an archaeological excavation at the Somerset Park residential development. This study area was bordered by Raymond Terrace Road to the north, Woodberry

Swamp to the east and south, and rural land to the west. The area to the immediate west had been subject to a previous archaeological survey that had not identified any Aboriginal heritage constraints to the proposed rezoning. Beyond the rezoning, however, it had been recommended that further investigation be undertaken following the finalisation of development plans. It was that recommendation which triggered this program of test excavation in an area of proposed extension for the Somerset Park residential development. The topography of the study area consisted of undulating low hills, rises, ridge crests, spur crests, simple slopes, lower slopes and drainage depression units within the Central Lowlands region of the lower Hunter Valley. The underlying geology of the western, elevated portion comprised of siltstone, sandstone and conglomerate of the Permian Era Mulbring Siltstone. Quaternary alluvial deposits occurred within the low-lying eastern portion. The original native vegetation of the study area had been extensively cleared and replaced with pasture grasses. The closest source of water was Woodberry Swamp to the east of the study area.

The initial survey undertaken for the Somerset Park residential development identified a total of nine artefact scatter sites, six of which were within the bounds of the study area for this assessment. A search of the Aboriginal Heritage Information Management System (AHIMS) database identified that artefact scatters were the most commonly occurring site type in the surrounding region. It was predicted that further sites could be present in subsurface deposits within the study area.

The test excavation program was undertaken under Section 87 Permit #2112. Test excavations were undertaken in three separate areas within the study area. Each test area comprised of 22 test pits, each measuring 50 centimetres by 50 centimetres. These test pits were excavated at five metre intervals on a 50 by five metre grid. For each of the three areas, a total of 5.5 square metres was excavated. All excavated soil was wet sieved through mesh to retrieve stone artefacts. In total, 66 test pits were excavated, resulting in a total excavation area of 16.5 square metres. From this excavation a total of 263 artefacts were recovered. Silcrete was the most common material (85.55% of the combined assemblage), followed by tuff (12.55%) and quartz (1.90%). The assemblage was dominated by flakes (34.22%) and flake portions (51.7%). The remainder of the assemblage comprised of lithic fragments (7.2%), microblades and portions (1.9%), backed artefacts (including geometric microliths, bondi points and preforms) (1.5%), other retouched flakes (1.1 %), bipolar flakes (0.8%) and utilised flakes (1.5%). It was concluded that occupation at the three areas was primarily representative of transitory movement, hunting and gathering, without evidence of permanent occupation or habitation activities. The findings interpreted the sites as being of low scientific significance within both local and regional contexts. No new sites were identified, the subsurface assemblage forming an update to some of the previously recorded surface sites. As the proposed works would impact on the identified sites, it was recommended that the proponent should seek and obtain a Section 90 Consent with Salvage permit for the development impact area, inclusive of all identified Aboriginal heritage within this area, to be undertaken in consultation with the local Aboriginal community.

- Kuskie, P. 2007. Application for a Section 90 Consent or a Section 87(1) Permit, under the National Parks and Wildlife Act, 1974. Lot 121 and Part Lot 122 DP 1108020.

Kuskie (2007) prepared an application for excavating, collecting and moving eight archaeological sites located in Lot 121 and Part Lot 122 DP 1108020 on Hunter Terrace Road, Thornton North. This application followed heritage assessment and subsurface investigation undertaken previously by Kuskie at this location. It was proposed that salvage be undertaken for 12 months, with development activity to continue thereafter. The proposed development was a residential subdivision. The sites that this application referred to were Thornton North 2 (TN2), Thornton

North 3 (TN3), Thornton North 7 (TN7), Thornton North 8 (TN8), Thornton North 9 (TN9), Thornton North 12 (TN12), Thornton North 13 (TN13) and Thornton North 20 (TN20). Each of the sites had been assessed through examination of land use history, natural processes, surface inspection and a program of subsurface testing. It was assessed that these sites did not surpass the threshold for significance in relation to aesthetic, educational or historic criteria. They were assessed as ranging from low to moderate scientific significance within a regional context. Sufficient knowledge was gained during the subsurface testing program to negate the need for further archaeological investigation. It was proposed that surface collection and salvage through scrapes and limited hand excavation be undertaken under the permit. A summary of the sites subject to this application are summarised in Table 5.3.

Table 5.3 Summary of sites (Kuskie 2007)

Site	Site type	Landform	Distance to water	Stream order	Artefacts/ features	Disturbance	Subsurface potential
Thornton North 2 (TN2)	isolated artefact	simple slope bordering ridge crest	not noted	not noted	1 silcrete proximal flake portion	stock trail	yes
Thornton North 3 (TN3)	artefact scatter	drainage depression	0m	drainage depression	3 artefacts	not noted	not noted
Thornton North 7 (TN7)	artefact scatter	gentle spur crest	not noted	not noted	19 artefacts	not noted	not noted
Thornton North 8 (TN8)	artefact scatter	simple slope	not noted	not noted	91 artefacts	vehicles, stock and erosion	yes
Thornton North 9 (TN9)	artefact scatter	drainage depression	0m	drainage depression	>71 artefacts	vegetation removal, pastoral activity, erosion, dam construction	yes
Thornton North 12 (TN12)	artefact scatter	drainage depression	0m	drainage depression	58 artefacts	not noted	yes
Thornton North 13 (TN13)	artefact scatter	gentle spur crest	not noted	not noted	11 artefacts	not noted	yes
Thornton North 20 (TN20)	isolated artefact	drainage depression	0m	drainage depression	1 silcrete flake	Moderate to high	yes

Kuskie recommended that the application be granted and development proceeds with the proposed surface collection and salvage under the permit to take place during the first 12 months of proposed development works.

- Hamm, G. 2003. Archaeological Risk Assessment of Lot 310: DP 835968, Lot 311: DP 835968, Lot 8881: DP 776757, Government Road Thornton.

Hamm (2003) undertook an archaeological assessment of a study area proposed for rezoning. It consisted of land identified as Lots 310, 311 and 8881 located between Government Road and Raymond Terrace, in Thornton north, approximately 20 kilometres to the east of Maitland. The topography of the study area consisted of undulating low hills with slope gradients of between three and 15 degrees. There was also a single ridge running in an east-west direction and an ephemeral creek draining into Woodberry swamp (located to the east of the study area). Vegetation had been extensively cleared, but prior to impacts it was likely to have included spotted gum, broad leaved ironbark, grey gum, narrow leaved stringybark, grey ironbark, forest red gum, paperbarks and wattles. A search of AHIMS did not identify any sites within the study area and the closest registered sites were within 1.5 kilometres and included six artefact scatters, three isolated artefacts and one PAD. It was predicted that artefact sites could occur within the study area. A total of four sites were identified during the survey, all being artefact scatters, tallying with the predicted site type cited as most likely to occur. Across these four sites a total assemblage of 17 artefacts was identified. The survey results are summarised below in Table 5.4.

Table 5.4 Summary of sites (Hamm 2003)

Site	Site type	Landform	Distance to water	Stream order	Artefacts /features	Disturbance	Subsurface potential
1	artefact scatter	creek flat/ lower slope	<20 m	unnamed drainage line	>2	erosion scalds	no
2	artefact scatter	creek flat/ lower slope	<20 m	unnamed drainage line	>2	erosion scalds	no
3	artefact scatter	ridge crest	not provided	not provided	>2	erosion scald	no
4	artefact scatter	modified	0 m	dam	>2	dam & vehicle tracks	no

Hamm concluded that the sites that were located represented low-density occupation rather than base camps. The study area was considered to be of medium Aboriginal heritage potential. Further archaeological assessment was determined as being required should the land be subject to re-development. It was stated that Section 90 consent approvals may be required for further investigation works.

- HLA-Envirosciences Pty Limited. 2007. Application for a Section 90 Consent or a Section 87(1) Permit, under the National Parks and Wildlife Act, 1974.

HLA-Envirosciences Pty Limited (2007) submitted an application for impacts to a total of nine Aboriginal sites. Six of the sites were listed in the AHIMS register (#38-4-0431, #38-4-0432, #38-4-0342, #38-4-0426, #38-4-0849 and #38-4-0850). HLA-Envirosciences Pty Limited subsequently identified a further area of Potential Archaeological Deposit (PAD) (Segment B PAD) running adjacent to Four Mile Creek. They also identified two surface artefact scatters identified as Sites 1 and 2 (believed to relate to existing AHIMS sites #38-4-0426 and #38-4-0342). All of these sites were part of the application, proposed for consent to destroy with salvage. The proposed development consisted of an 8.8-kilometre-long pipeline running in a northeast to southwest

orientation to the east of Maitland (from Blackhill to Thornton and within the suburb of Thornton). The proposed ground disturbance impacts of the pipeline consisted of a one metre wide by one-metre-deep excavation for its entire length. Other ancillary surface impacts were expected through machinery and sediment movement, with a total corridor width of 10 metres to account for this. Adjacent impacts included a railway line in the north and the New England Highway in the south, as well as direct impacts from vegetation clearance, stock grazing and track construction. The topography of the study area was predominantly made up of terraces and flats associated with the closest water source, Four Mile Creek, which ran adjacent to the proposed pipeline for the majority of its length. Vegetation was characterised by dry sclerophyll forest, including such tree species as ironbark. The proposed salvage excavation program sought to investigate 24 test pits, each measuring one square metre. These were to be split between Segment B PAD and site #28-4-0850 (a PAD located on a first order creek leading to Four Mile Creek). The excavation program had been designed to investigate potential archaeology within the proposed impact zone. It was proposed as a mitigation measure, identifying any archaeological deposits and providing information. An assessment would be undertaken of the significance of any archaeological sites found during testing. The aim of this approach was to enable stratigraphic control and the sorting of material. Additional test pits were proposed where sites were identified, to further characterise the site and mitigate its destruction. This report consisted solely of the permit application and did not include any testing results.

- Kuskie, P. 2015. Waterford County Eastern Sector (Part Lot 812 DP 1171131, Part Lot 7270 DP 1187087, Lot 1 DP 1020710 And Lot 43 DP1009594, Chisholm), Lower Hunter Valley, New South Wales: Aboriginal Cultural Heritage Assessment.

Kuskie (2015) undertook an archaeological assessment of a study area comprised of Part Lot 812 DP 1171131, Part Lot 7270 DP 1187087, Lot 1 DP 1020710 and Lot 43 DP1009594 located in Chisholm, seven kilometres south-east of Maitland, and measured 78 hectares in size. The study area was proposed for staged residential development. The topography of the study area included undulating low hills and rises and was dominated by a major ridge crest. Several ephemeral first order drainage depressions were located within the study area, draining towards Four Mile Creek and the Hunter River beyond. The underlying geology of much of the investigation area comprised siltstone, sandstone and conglomerate of the Permian Era Mulbring Siltstone, with shale, mudstone, sandstone, tuff and coal of the Permian Era Tomago Coal Measures in some areas. Quaternary alluvial deposits occurred in the north-western comer of the investigation area in association with Four Mile Creek and the former Hunter River estuary. The original native vegetation of much of the investigation area had been extensively cleared. Extant vegetation included spotted gum, grey ironbark, grey box, forest red gum, white stringybark and white mahogany. A register search and reference to past assessments identified that there were sites within the study area. These sites had previously been subject to an Aboriginal Heritage Impact Permit (AHIP) granted in 2007, which had subsequently expired in 2009 without any actions being undertaken. A survey was undertaken followed by test excavations in 12 separate areas, sampling 11 of the 12 environmental/cultural contexts present. Test units each measuring 50 centimetres by 50 centimetres in area were excavated on a grid measuring 50 metres by five metres in area, in each of the eight sampling locations. In another four sampling locations, excavation was limited to a single transect of 50 metre length as the results indicated that deposits of potential conservation value were not present. In total, 220 test units were excavated and all material sieved. Eight artefacts were recorded during the surface surveys and 242 artefacts were retrieved during the test excavations. A total of 12 Aboriginal heritage sites were identified through survey and test excavation. A predictive assessment based on the test excavation results

indicated that a potential resource of around 2.7 million artefacts could potentially exist within the larger study area. The survey and testing results are summarised below in Table 5.4.

Table 5.5 Summary of sites (Kuskie 2015)

Site	Site type	Landform	Distance to water	Stream order	Artefacts /features	Disturbance	Subsurface potential
TB6	artefact scatter	slope	0m	drainage depression	3	erosion & dam construction	yes
TB11	isolated artefact	slope	0m	drainage depression	1	farm dam	no
TB14	artefact scatter	spur crest	not provided	not provided	2	not provided	yes
TB15	isolated artefact	slope	not provided	not provided	1	gate & fence	not provided
TB16	isolated artefact	drainage depression	0m	drainage depression	1	erosion	yes
TB17	isolated artefact	slope	not provided	not provided	1	test excavation	yes
TB21	artefact scatter	ridge crest	not provided	not provided	26	test excavation	yes
TB22	artefact scatter	ridge crest	not provided	not provided	17	test excavation	yes
TB23	artefact scatter	ridge crest	not provided	not provided	88	test excavation	yes
TB25	artefact scatter	slope/ flat/terrace	not provided	wetlands	39	test excavation	yes
TB26	artefact scatter	slope	not provided	wetlands	52	test excavation	yes
TB27	artefact scatter	drainage depression	0m	drainage depression	19	test excavation	yes

It was recommended that the proponent should seek and obtain a Section 90 AHIP for the study area, inclusive of all identified Aboriginal heritage evidence within that area. Impacts were to be mitigated by salvage.

- Goward, T. 2018. Due Diligence Aboriginal Heritage Assessment for a Senior Living Development at 107 Haussman Drive, Thornton NSW.

Goward (2018) from Mary Dallas Consulting Archaeologists, undertook an archaeological due diligence assessment at 107 Haussman Drive, Thornton. This study area was proposed for development as a senior living area, with proposed works including residential buildings, road construction, a detention basin, carpark, recreation areas and green spaces. The study area was 18.96 hectares in size, bound to the north by Raymond Terrace Road, to the south by residential lots, to the west by a substation and rural lands, and to the east by vacant rural bushland. It had

been previously impacted when used for past quarrying activities. The topography of the study area consisted of the south facing mid to lower slopes of a ridgeline. It was underlain by Permian sediments of the East Maitland Hills region. The closest water sources included Woodberry Swamp (approximately 2.5 kilometres to the south-east), Four Mile Creek (approximately 1.2 kilometres to the west) and a first order tributary of Francis Greenway Creek (approximately 50 metres to the west). Native vegetation had been cleared from the area during past impact activities.

A search of AHIMS, covering a four-by-four-kilometre area centred on the study area identified previously recorded sites, the majority consisting of artefact scatters, isolated artefacts and PADs along water courses. One isolated artefact had a centroid coordinate registered within the study area, but this was identified as being incorrect and the site was actually outside the bounds of the study area. It was predicted that artefact scatters and isolated artefacts could be present within the bounds of the study area. No sites or PADs were located during the survey and it was concluded that there was no evidence of past Aboriginal use and due to heavy past disturbance and it was very unlikely that there would be any surviving subsurface deposits. No further archaeological investigations were considered to be warranted. It was recommended that the proposed works proceed, with stop works measures to be implemented should any unexpected finds be identified.

- Biosis. 2018. 530 Raymond Terrace Road, Thornton. Archaeological Report.

Biosis (2018) was commissioned to undertake an Aboriginal Cultural Heritage Assessment for a staged subdivision proposed for 530 Raymond Terrace Road, Thornton, New South Wales (NSW), (Lot 20 DP 10419) (being the study area). The topography of the study area included simple slopes and a flat crest. The underlying geology included the Mulbring Siltstone geological unit (with siltstone, minor grained sandstone and claystone) as well as the Maitland group Alluvial Valley deposits along water course banks. An unnamed watercourse was present within the study area. Vegetation in the study area included partially cleared tall open-forest vegetation with spotted gum, broad-leaved ironbark, grey gum, narrow-leaved stringybark, thin-leaved stringybark, grey ironbark, blackthorn, paperbark and wattle. A search of AHIMS identified 114 Aboriginal sites registered within the vicinity of the study area. Ten of these sites had registered centroid coordinates located within the bounds of the study area, although further investigation of the site card recordings for these identified that one of the sites had a coordinate error and was actually outside the bounds of the study area. The remaining nine sites consisted of six artefact scatters and three isolated artefacts. It was predicted that further artefact sites could occur in both surface and subsurface contexts.

During the field investigations, 11 newly identified Aboriginal heritage sites were recorded within the study area. These sites consisted of one PAD (RTRD03), five isolated artefacts (RTRD04, RTRD05, RTRD06, RTRD07 and RTRD08), and five artefact scatters (RTRD01, RTRD02, RTRD09, RTRD10 and RTRD11). Following the results of the field investigations, a test excavation program was undertaken to determine whether subsurface archaeological deposits were present within the area. A total of 37 test pits were excavated along 19 transect lines. Each pit measured 50 by 50 centimetres, with spoil either wet or dry sieved depending on the nature of the soils. The test excavation program identified three low density artefact sites (RTRD12, RTRD13 and RTRD14). No other PADs were identified. The survey and test excavation results are summarised below in Table 5.6.

Table 5.6 Summary of sites (Biosis 2018)

Site	Site type	Landform	Distance to water	Stream order	Artefacts /features	Disturbance	Subsurface potential
RTRD03	PAD/ artefact scatter	foot slope	not provided	unnamed creek	30+	recreational activities and erosion	yes
RTRD04	isolated artefact	simple slope	not provided	unnamed creek	1	access track	no
RTRD05	isolated artefact	simple slope	not provided	unnamed creek	1	access track	no
RTRD06	isolated artefact	simple slope	not provided	unnamed creek	1	access track	no
RTRD07	isolated artefact	simple slope	not provided	unnamed creek	1	access track	no
RTRD08	isolated artefact	simple slope	not provided	gorge	1	access track & weathering	no
RTRD01	artefact scatter	foot slope	not provided	unnamed creek	30+	recreational activities and erosion	yes
RTRD02	artefact scatter	simple slope	not provided	unnamed creek	10+	recreational activities and erosion	no
RTRD09	artefact scatter	simple slope	not provided	unnamed creek	3	recreational activities and track	no
RTRD10	artefact scatter	simple slope	not provided	unnamed creek	7+	recreational activities and track	no
RTRD11	artefact scatter	simple slope	not provided	unnamed creek	2+	residential complex	no
RTRD12	artefact scatter	gentle slope	not provided	unnamed creek	19	excavation	yes
RTRD13	artefact scatter	gentle slope	not provided	unnamed creek	2	excavation	yes
RTRD14	isolated artefact	gentle slope	not provided	unnamed creek	1	excavation	no

Biosis recommended that an Aboriginal Heritage Impact Permit (AHIP) should be sought, with surface collection to be undertaken at sites #38-4-0927, #38-4-0928, #38-4-0929, #38-4-0934, #38-4-0935, #38-4-0936, and sites RTRD01, RTRD02, RTRD04, RTRD05, RTRD06, RTRD07, RTRD08, RTRD10 and RTRD11, under the conditions of the permit. Additionally, if impacts to sites RTRD03, #38-4-0937, #38-4-0938, #38-4-0939 could not be avoided, further archaeological investigation should be undertaken.

- Umwelt. 2005. Beresfield Electricity Supply Augmentation Project: Research Design and Methodology to Accompany DEC Section 90 Consent and DEC Section 87 PRP application for sites associated with the electricity augmentation project in East Maitland, Beresfield, Thornton and Tarro, NSW.

Umwelt (2005) was commissioned to produce a research design and methodology for archaeological works associated with the electricity augmentation project in East Maitland, Beresfield, Thornton and Tarro, New South Wales (NSW). The proposed works required the implementation of seven new 33kV feeders, to be located between the East Maitland zone substation (ZS), Beresfield sub transmission substation (STS), Thornton ZS and Tarro ZS. This research design and methodology applied to five sites and one area of Potential Archaeological Deposit (PAD) associated with Feeders 1, 5, 6 and 7. Four sites were to require a Section 90 Consent, and one a partial Section 90 Consent. The PAD required a Section 87 Preliminary Research Permit (PRP). The topography of the study area was modified by the existing road corridors. It also included simple slopes and creek terraces adjoining a branch of Four Mile Creek. Past vegetation clearance for pastoral activity had resulted in grasses being the dominant vegetation type.

Reference to relevant registers and past assessments identified that sites had been recorded throughout this region in the past, including modified trees, artefact scatters and isolated artefacts. Five previously recorded sites were located within the study area, being artefact scatters 38-4-0709/Beresfield 1, Beresfield 4 and 38-4-0625/Thornton 3, as well as isolated artefacts Beresfield 2 and Beresfield 3. Four of these sites were in highly disturbed contexts and retained no archaeological integrity or potential for subsurface deposits. They had been located on top of fill brought to the area during road construction and had been assessed as having been transported in with the fill. There was also an area of Potential Archaeological Deposit (PAD) located across a simple slope and creek terrace, adjoining a branch of Four Mile Creek on the northern side of Raymond Terrace Road in Thornton.

The purpose of this document was to present the proposed methodology for future works. It included details of proposed sub-surface investigations, which would only occur at the specific pole locations at both Beresfield 4 and the Four Mile Creek PAD, leaving the rest of the landform in these areas untouched. Each excavation was proposed to be one square metre in size. The methodology included artefact analysis details on what attributes would be recorded for any salvaged assemblage, as well as details of the proposed care and control agreement. No recommendations were included in this report, as its purpose was for the proposed archaeological works to proceed using this methodology to guide the process.

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 high-density sites are located on elevated landforms within 50 metres of a reliable fresh water source with a drop of site number and densities with a decrease in stream order;
- the likelihood of finding sites of any size increases with proximity to fresh water sources and the likelihood of finding large artefact scatters also increases markedly with proximity to reliable high order water sources;

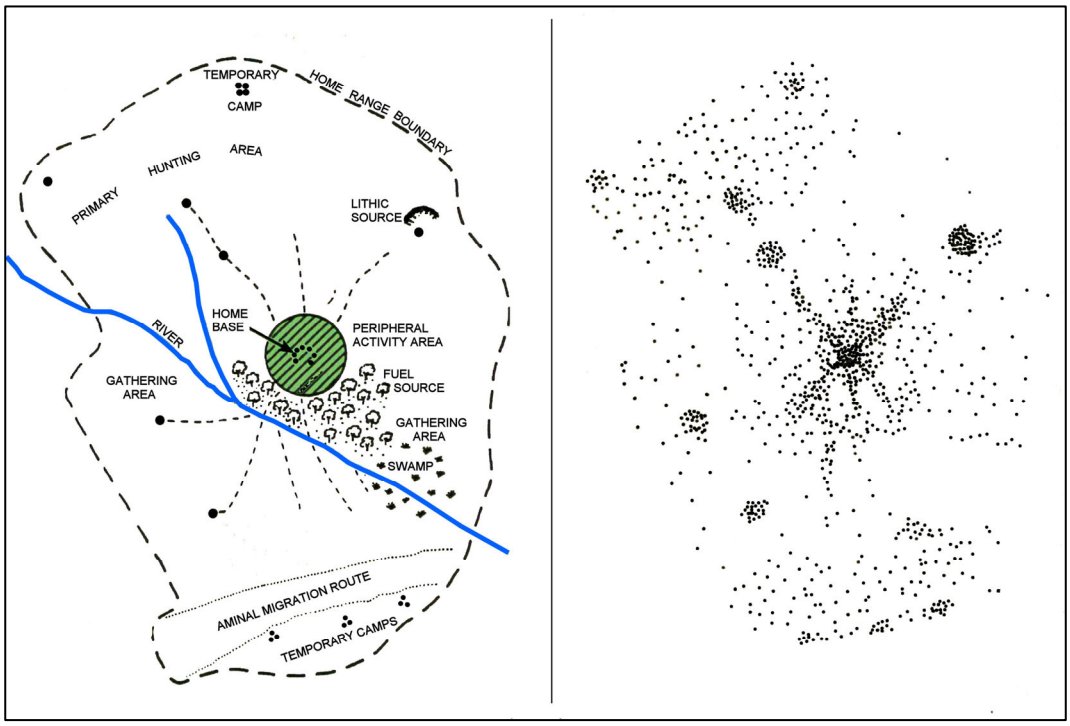
- the main site types are artefact scatters and isolated finds;
- mudstone, silcrete and tuff are by far the most common raw material types represented at sites in the region. Quartz and chert are the next most frequently in artefact assemblages followed by volcanic materials, porphyry and petrified 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;
- grinding grooves may be located along or near water sources;
- the likelihood of finding scarred trees is dependent on the level of clearing in an area;
- 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 will be subject to disturbances including human and natural.

These findings are consistent with models developed for the local area.

5.6 MODELS OF PAST ABORIGINAL LAND USE

The aim of this assessment is to attempt to define both the nature and extent of occupation across the area. As a result, the nature of the analysis will focus on both landform units and sites. The purpose of this strategy is to highlight any variations between sites and associated assemblages, landforms and resources across the area treating assemblages as a continuous scatter of cultural material across the landscape. In doing this, it is possible to identify land use variations across the landscape, landforms and assemblages that correspond with variation in the general patterns of landscape use and occupation. Thus, the nature of activities and occupation can be identified through the analysis of stone artefact distributions across a landscape. A general model of forager settlement patterning in the archaeological record has been established by Foley (1981). This model distinguishes the residential "home base" site with peripheral "activity locations". Basically, the home base is the focus of attention and many activities and the activity locations are situated away from the home base and are the focus of specific activities (such as tool manufacturing). This pattern is illustrated in Figure 5.2. Home base sites generally occur in areas with good access to a wide range of resources (reliable water, raw materials etc), and the degree of environmental reliability, such as reliable water and subsistence resources, may influence the rate of return to sites and hence the 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 occur within the foraging radius of a home base camp (approximately 10 km); (Renfrew and Bahn 1991). Based on the premise that these sites 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. 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).



5.6.1 MODEL OF OCCUPATION FOR THE HUNTER VALLEY

Archaeological work throughout the Hunter Valley 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 Hunter Valley have been reviewed (Koettig 1994; Dean-Jones and Mitchell 1993; Rich 1995; Kuskie and Kamminga 2000) and the most commonly accepted model is summarised below.

Kuskie and Kamminga (2000) established a general model of occupation strategies based primarily upon ethnographic research. Used as a starting point, it makes a general set of predictions for the region that is consistent with other studies (e.g., Nelson 1991). The model 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 provides a number of archaeological expectations that may be 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. Seed grinding requires a large investment of time and effort (Cane 1989). In most ethnographic examples, seed grinding is an activity that takes place over an entire day to provide adequate energetic returns (Cane 1989; Edwards and O'Connell 1995).

Where group mobility was high and campsites frequently shifted throughout the landscape, 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 residential occupation. It may also have been the case that the location of particular activities could not be predicted by tool users, adding to the increased low-density scattering of artefacts over the landscape. Also, if individuals were opting to carry a number of stone tools during hunting and gathering activities and maintaining these tools rather than manufacturing new tools at each task location, the ratio of used tools to unworn flakes in these assemblages should be high. Table 5.7 has been adapted from Kuskie and Kamminga (2000). The identification of specific activity areas through analysis of the composition of the patterning of lithic assemblages was utilised. However, this is applied to excavated materials as they provide more realistic data due to the lesser degree of disturbances, removal and breakages.

Table 5.7 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

5.7 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 and isolated finds) 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 fresh water. Sites

with higher artefact densities are similarly concentrated within fifty metres of higher order watercourses with site numbers and site densities decreasing with a reduction of stream order and distance form a water source. 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.

Considering the AHIMS results, local and regional archaeological investigations as well as the environmental context, given that fresh water was necessary for survival and there are no sources of reliable fresh water in the project area, it is possible that isolated finds and very low-density artefacts scatters may be present in the project area and be representative of small hunting and gathering parties. Evidence of such past Aboriginal land uses is manifests in the archaeological record as a background scatter of discarded artefacts. The refinement of this predictive model will be dependent upon an investigation of the range of landforms and the occurrence of modern disturbances within the project area.

5.8 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 at 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 very low-density artefact scatters to be present in 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 broader 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 RESULTS

6.1 METHODOLOGY

The survey area was surveyed on foot by the archaeologist in accordance with the proposed methodology provided to the stakeholders for review. The survey included transects at approximately 10 metres apart walked in an east/west direction across the project area and focused on areas of high ground surface visibility and exposures (erosional features, dams, tracks, cleared areas).

6.2 LANDFORMS

McDonald et al (1998) describes the categories of landform divisions that consists of a two layered division involving treating the landscape as a series of "mosaics". The mosaics are described as two distinct sizes: the larger categories are referred to as landform patterns and the smaller being landform elements within these patterns. Landform patterns are large-scale landscape units, and landform elements are the individual features contained within these broader landscape patterns. There are forty landform pattern units and over seventy landform elements. However, of all the landform element units, ten are morphological types. For archaeological investigations they divide the landscape into standardised elements that can be used for comparative purposes and predictive modelling. As outlined in Section 3, the project area includes one major landform of a slope dissected by a drainage depression.

6.3 SURVEY UNITS

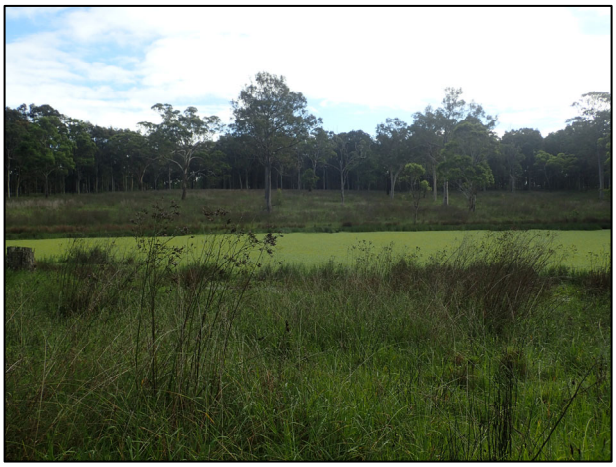
The project area, consisting of a slope dissected by a drainage depression was surveyed as one survey unit that was based on landform elements (following McDonald et al 1984). The survey identified that the entire project area had been previously cleared and ploughed (evidence of eroded ridges and furrows present). A residential house and sheds were located in the southern part of the project area and farm rubbish piles were located throughout. Geotechnical excavation test pits were also located in the project area along with a large dam through the northern part of the project area and a number of smaller dams throughout. The access road was visible and consisted of small rocks/rubble. Vegetation was predominantly grass with trees scattered throughout. Examples of the project area are provided in Figures 6.1 to 6.4.

Figure 6.1 North of the residential house and sheds facing south

Figure 6.2 View south from the second dam located north of the sheds facing south

Figure 6.3 View south from the second dam located north of the sheds facing north

Figure 6.4 View south from the large dam located in the north, facing north



6.4 EFFECTIVE COVERAGE & DISTURBANCES

To determine the effectiveness of an archaeological survey, the visibility and exposure conditions for each survey unit is calculated to provide an effective coverage amount. Effective coverage is an estimate of the amount of ground observed considering local constraints on site discovery such as vegetation and leaf litter and erosion. There are two components to determining the effective coverage: visibility and exposure.

Visibility is the amount of bare ground on the exposures which may reveal artefacts or other cultural materials, or visibility refers to 'what conceals'. Visibility is hampered by vegetation, plant or leaf litter, loose sand, stony ground or introduced materials (such as rubbish). On its own, visibility is not a reliable factor in determining the detectability of subsurface cultural materials (DECCW 2010/783:39).

The second component in establishing effective coverage is exposure. Exposure refers to "what reveals". It estimates the area with a likelihood of revealing subsurface cultural materials rather than just an observation of the amount of bare ground. Exposure is the percentage of land for which erosion and exposure is sufficient to reveal cultural materials on the surface (DECCW 2010/783:37). The effective coverage for the project area was determined for both visibility and exposure ratings and Table 6.1 details the visibility rating system used.

Table 6.1 Ground surface visibility rating

Description	GSV rating %
Very Poor – heavy vegetation, scrub foliage or debris cover, dense trees of scrub cover. Soil surface of the ground very difficult to see.	0-9%
Poor – moderate level of vegetation, scrub, and / or tree cover. Some small patches of soil surface visible in the form of animal tracks, erosion, scalds, blowouts etc, in isolated patches. Soil surface visible in random patches.	10-29%
Fair – moderate levels of vegetation, scrub and / or tree cover. Moderate sized patches of soil surface visible, possibly associated with animal, stock tracks, unsealed walking tracks, erosion, blow outs etc, soil surface visible as moderate to small patches, across a larger section of the project area.	30-49%
Good – moderate to low level of vegetation, tree or scrub cover. Greater amounts of areas of soil surface visible in the form of erosion, scalds, blowouts, recent ploughing, grading or clearing.	50-59%
Very Good – low levels of vegetation / scrub cover. Higher incidence of soil surface visible due to recent or past land-use practices such as ploughing, mining etc.	60-79%
Excellent – very low to non-existent levels of vegetation/scrub cover. High incidence of soil surface visible due to past or recent land use practices, such as ploughing, grading, mining etc.	80-100%
Note: this process is purely subjective and can vary between field specialists, however, consistency is achieved by the same field specialist providing the assessment for the one project area/subject site.	

As indicated in Table 6.2, the overall effective coverage is low at 1.5% with grass being the limiting factor. The disturbances included clearing, ploughing, grazing, fencing, dams, housing and shed

construction, all of which have impacted upon the landscape and associated cultural materials through removal and displacement. Although exposures were reduced during the time of the survey, the clearing methods typically used in the 1970's (bulldozing), would have exposed the whole project area and significantly disturbed at least the top 30cm (deeper where trees are removed) and any cultural materials that may have been present, highly disturbed and re-distributed.

Table 6.2 Effective coverage for the investigation area

SU	Landform	Area (m2)	Vis. %	Exp. %	Exposure type	Previous disturbances	Present disturbances	Limiting visibility factors	Effective coverage (m2)
1	slope	106,500	10%	15%	access road, dams, Geotech testing, erosion	clearing, ploughing, grazing, house, shed and dam construction	erosion	vegetation	1,598
Totals		**106,500**							**1,598**
								Effective coverage %	**1.50%**

The level and nature of the effective survey coverage is considered satisfactory to provide an effective assessment of the project area. The coverage was comprehensive for obtrusive site types (e.g., grinding grooves and scarred trees) but somewhat limited for the less obtrusive surface stone artefact sites by surface visibility constraints that included vegetation cover and minimal exposures.

In relation to land uses and the associated impacts on the landscape and any cultural materials that may have been present, the project area has been subject to large scale clearing, at least one ploughing event for pasture, grazing, house, shed and dam construction along with the associated infrastructure and utilities, and as indicated in Table 6.3, these disturbances range from moderate to high.

Table 6.3 Land use scale (CSIRO 2010) and land uses in the project area

Minor disturbance		Project area	Moderate disturbance		Project area	Major disturbance		Project area
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	yes	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	Yes

In view of the predictive modelling and the results obtained from the effective coverage and disturbance rating, it is concluded that the survey provides a valid basis for determining the probable impacts of the proposal and formulating recommendations for the management of the project area.

6.5 ARCHAEOLOGICAL SITES

No sites were identified in the project areas during the survey and this is due to the significantly high impacts from previous land uses across the project area (clearing, ploughing, grazing, house, shed and dam construction). Additionally, being located at a distance from reliable fresh water and resources, indicates the project area may have been utilised for more transitory activities rather than camping. Evidence of such past Aboriginal land uses manifests in the archaeological record as a background scatter of discarded artefacts, which would have been significantly disturbed/destroyed through past land uses.

6.6 POTENTIAL ARCHAEOLOGICAL DEPOSIT/ SENSITIVITY

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.

the project area is located 2.9 kilometres south west of the most reliable fresh water source in the local area (The Hunter River). A 3rd order creek is located approximately 1.3 kilometres south east of the project area and a 2nd order creek approximately 500 metres east. As water is necessary for survival, it is unlikely that the project area would have been used for more than opportunistic hunting and gathering activities. These activities manifest in the archaeological record as a background scatter of discarded artefacts and distributed across the landscape with no way to predict where they may be located.

In addition to this, the clearing methods typically used in the 1970's (bulldozing), would have exposed the whole project area and significantly disturbed at least the top 30cm (deeper where trees are removed) and any cultural materials that may have been present would also have been significantly disturbed/redistributed or destroyed. Due to this, the highly disturbed nature of the project area and unpredictability of site location, no PADs have been identified in the project area.

6.7 DISCUSSION

Considering the environmental, cultural and archaeological contexts of the regional and local area, the distribution of archaeological sites may be identified and thus effectively protected, manage lands, and conserve areas where required and appropriate.

As no sites have been identified, the results of the investigation are discussed below in terms of overall site integrity, local and regional contexts, and predictive modeling.

6.7.1 INTEGRITY

The integrity of an area can be assessed only for surface integrity through the consideration of past and present land uses and their impacts. Subsurface integrity can only be assessed through controlled excavation that allows for the examination of both the horizontal and vertical distribution of cultural materials (caused by natural and/or human impacts) and by conjoining artefacts. Land uses and their impacts (clearing using bulldozing methods, ploughing, grazing and construction works for a house, sheds, dams, fencing and utilities), as well as natural impacts (bioturbation, erosion), within the project area have been discussed in Section 3 and 6 and are considered to be significantly high throughout and due to such disturbances, the integrity of the project area is highly disturbed and any sites that may have been present would have been disturbed or destroyed.

6.8 INTERPRETATION & OCCUPATION MODEL

Given the fact that no sites identified, it is not possible to discuss site interpretation or occupation models.

6.9 REGIONAL & LOCAL CONTEXT

Given the fact that no sites were identified, it is not possible to discuss the regional or local archaeological contexts.

6.10 REASSESSMENT OF THE PREDICTIVE MODEL

Given the fact that no sites were identified and the project rea is highly disturbed, it is not possible to reassess the predictive model.

6.11 CONCLUSION

Sites provide valuable information about past occupation, use of the environment and its specific resources including diet, raw material transportation, stone tool manufacture, and movement of groups throughout the landscape. Previous broad-based regional research has shown that proximity to water was an important factor in past occupation, with sites reducing in number significantly away from water. This research has also shown that occupation sites (artefact scatters and isolated finds) are the most frequently recorded site type and are commonly located along or adjacent to watercourses, and on relatively flat elevated landforms in close proximity to reliable fresh water. Sites with higher artefact densities are similarly concentrated within fifty metres of watercourses and throughout the wider landscape, a background scatter of artefacts is present and represent hunting and gathering or travel.

The absence of a fresh water source in the project area indicates the area may have been used for opportunistic hunting and gathering activities rather than camping. Evidence of these past Aboriginal land uses are evident through very low-density artefact scatters and isolated finds across the landscape with no particular predictive modelling for their location in relation to landform, water or any other environment factor. If evidence of past Aboriginal land use in the project area are was present, it is highly likely that it would have been disturbed or destroyed through the past large scale clearing methods typically used during the 1970's (bulldozing), followed by at least one ploughing event for pasture, grazing by hoofed animals as well as the construction of the residential house, sheds and dams.

7 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.

7.1 IMPACTS

Detailed descriptions of the impacts are provided in Section 1.5 and the results of the survey in Section 6. The Heritage NSW, Department of Premier & Cabinet 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

As no sites were identified during the survey and the identified highly disturbed landscape due to previous land uses, there are no impacts on the archaeological record.

8 MITIGATION AND MANAGEMENT STRATEGIES

Specific strategies, as outlined through the Heritage NSW, Department of Premier & Cabinet: 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.

8.1 CONSERVATION/PROTECTION

Heritage NSW, Department of Premier & Cabinet 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 and the project area is highly disturbed through previous landuses with no site integrity remaining in the project area, conservation/protection is not required.

8.2 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 project area is highly disturbed through previous landuses with no site integrity remaining in the project area, further investigations are not justified.

8.3 AHIP

If harm will occur to an Aboriginal object or Place, then an AHIP is sought from Heritage NSW, Department of Premier & Cabinet 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 and the project area, an AHIP is not required.

9 RECOMMENDATIONS

9.1 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; and

2) Should any Aboriginal objects be uncovered during works, all work will cease in that location immediately 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
16/1/23	Letter	4.1.2	1	MCH contacted Heritage NSW		Letter to identify Aboriginal parties. Requested response no later C.O.B. 30/1/2023
16/1/23	Letter	4.1.2	1	MCH contacted Mindaribba Local Aboriginal Land Council (MLALC)		Letter to identify Aboriginal parties. Requested response no later C.O.B. 30/1/2023
16/1/23	Letter	4.1.2	1	MCH contacted Registrar of Aboriginal Owners (RAO)		Letter to identify Aboriginal parties. Requested response no later C.O.B. 30/1/2023
16/1/23	Letter	4.1.2	1	MCH contacted Maitland City Council)		Letter to identify Aboriginal parties. Requested response no later C.O.B. 30/1/2023
16/1/23	Letter	4.1.2	1	MCH contacted Native Title Tribunal (NNTT)		Letter to identify Aboriginal parties. Requested response no later C.O.B. 30/1/2023
16/1/23	Letter	4.1.2	1	MCH contacted NTSCORP Ltd		Letter to identify Aboriginal parties. Requested response no later C.O.B. 30/1/2023
16/1/23	Letter	4.1.2	1	MCH contacted Hunter Local Land Services (HLLS)		Letter to identify Aboriginal parties. Requested response no later C.O.B. 30/1/2023
16/1/23	Letter/e-mail	4.1.2	1	NNTT		No claims/Freehold
19/1/23	Letter	4.1.2	1	Heritage NSW		Identified Aboriginal parties: 50
	E-mail	4.1.2	1	LALC		Identified Aboriginal parties:
	Letter/e-mail	4.1.2	1	RAO		Identified Aboriginal parties:
	Letter/e-mail	4.1.2	1	Council		Identified Aboriginal parties:
NA		4.1.2	1	NTSCORP	Do not provide lists of possible stakeholders	
NA		4.1.2	1	HLLS	Do not provide lists of possible stakeholders	
30th January 2023 C.O.B. Request for groups to consult with closed						
27/1/23	Public notice	4.1.3	1	All registered Aboriginal parties (RAPs)		Public notice in Maitland Mercury and requested registration no later than 10/2/2023
31/1/23	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. Letter requested 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. 14/2/2023
31/1/23	email	4.1.7, 4.1.8	1	Ungooroo Aboriginal Corporation	Taasha Layer	Registered for the project
6/2/23	email	4.1.7, 4.1.8	1	Widescope Indigenous Group	Steven Hickey	Registered for the project
		4.1.7, 4.1.8	1			Registered for the project

Date	Consultation type	Heritage NSW requirement	Consult stage	RAP/Agency	Contact person	Description
12/2/23	email	4.1.7, 4.1.8	1	A1 Indigenous Services Pty Ltd	Carolyn Hickey	Registered for the project
		4.1.7, 4.1.8	1			Registered for the project
14th February 2023 C.O.B. Registration for project closed						
15/2/23	Email & letter	1; s 4.1.6		Heritage NSW		Letter notifying Heritage NSW of RAPs
15/2/23	Email & letter	1; s 4.1.6		MLALC		Letter notifying MLALC of RAPs
15/2/23	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. 15/3/2023
15th March 2023 C.O.B. Response to information packet closed						
16/3/23	amil		3	All RAPs		All RAPs sent a letter of invitation to attend and participate in the survey and test excavation if required on 4/4/2023
4th April 2023 Survey						
4/4/2023		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 (additional time provided due to easter and Anzac Day)
8th May 2023 C.O.B. Response to Draft Report Closed						
9/5/23		4..4.4; 4.4.5	4	All RAPs		Final report, final ACHMP and final AHIP sent to all RAPs
9th May 2023 C.O.B. Assessment Complete						

penny@mcheritage.com.au

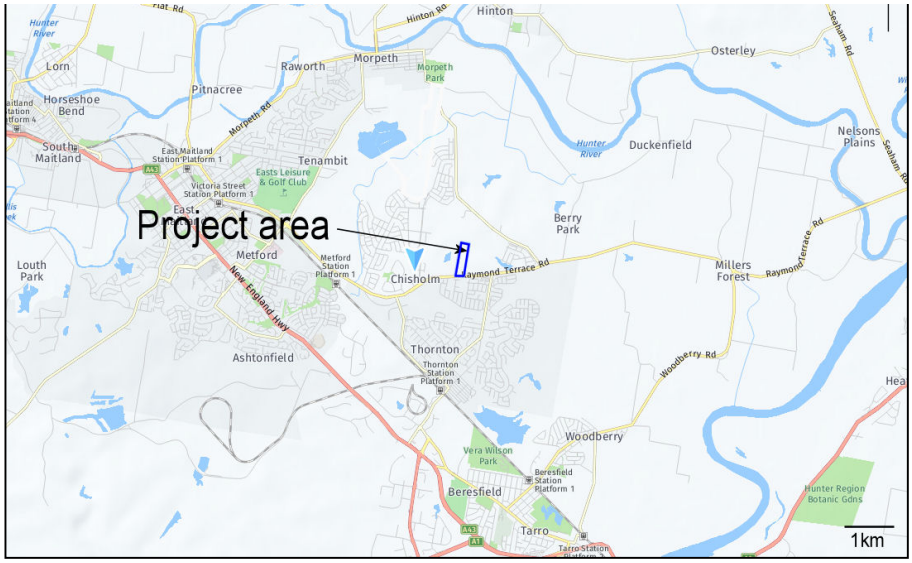
From: penny@mcheritage.com.au
Sent: Monday, 16 January 2023 8:00 AM
To: information@ntscorp.com.au; heritagemailbox@environment.nsw.gov.au; admin.hunter@lls.nsw.gov.au; ceo@mindaribbalalc.org; info@maitland.nsw.gov.au; 'Rachel Rewiri'
Subject: Proposed development at Chisholm

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 development at Chisholm

McCardle Cultural Heritage (MCH) have been engaged by ADW Johnson on behalf of ACG Clovelly Road Pty Ltd (C/- ADW Johnson, 7/335 Hillsborough Rd, Warners Bay NSW 2282) to undertake an Aboriginal Cultural Heritage Assessment (ACHA) and prepare an Aboriginal Heritage Impact Permit (AHIP) application if required for a proposed subdivision located at 523 Raymond Terrace Road, Chisholm (Lot 100 DP847510), Maitland Local Government Area (LGA).

As per the Heritage NSW, Department of Premier & Cabinet policy - 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



In order to comply with the Heritage NSW, Department of Premier & Cabinet policy - Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010, in particular Stage 1 (s4.1.2) - we are writing to advise you of the proposal and ask whether you could provide details of any Aboriginal groups or individuals that your organisation is aware of 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.

Should you have this information, we request that you provide the names and contact details of these Aboriginal people/organisations, in writing, to the undersigned either via written correspondence or email (penny@mcheritagecom.au) within 14 working days of receipt of this letter.

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
Archaeologist
Forensic Anthropologist

M
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: Monday, 16 January 2023 8:00 AM
To: GeospatialSearch@NNTT.gov.au
Subject: Search
Attachments: NNTT GeospatialSearch2020.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 development at Chisholm

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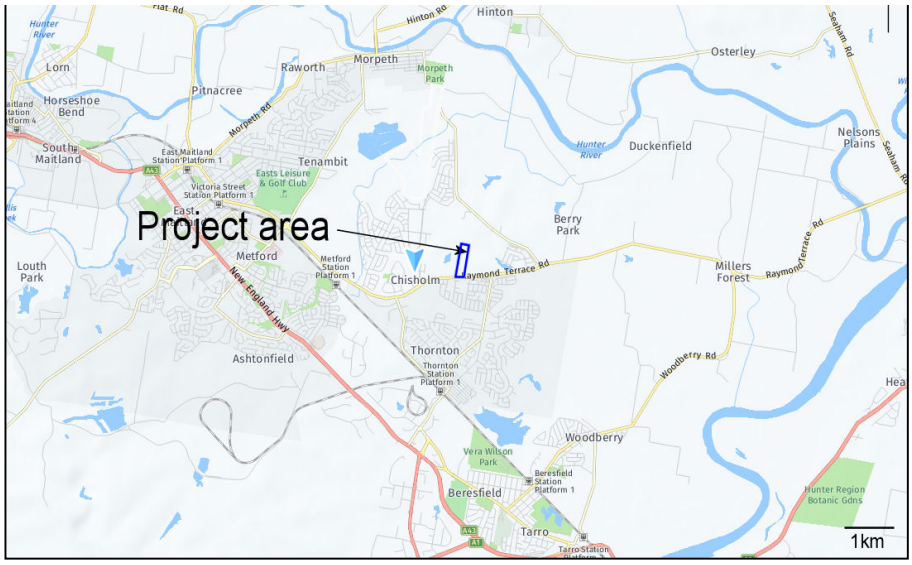
Location of the project area



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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
Archaeologist
Forensic Anthropologist

McCARDLE
CULTURAL HERITAGE

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

National Native Title Tribunal

Request for Spatial Search of Tribunal Registers

1: Your details

Your name:	DR Penny McCardle		
Your company:	McCardle Cultural Heritage Pty Ltd		
E-mail address:	penny@mcheritage.com.au	Phone:	0412 702 396
Your reference:	Chisholm	Your state:	NSW
☒	*I have read and acknowledge the terms and conditions on the next page.*		

2: Areas to be searched

Jurisdiction to be searched:		Tenure to be searched:	

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

Parcel 1:	Lot 100 DP847510	Parcel 2:	
Parcel 3:		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 non-freehold 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.

Click or tap here to enter text.

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

Parcel Identifiers

In most jurisdictions please identify parcels using lot on plan, or lot/section/plan as appropriate. The NNTT is generally not able to identify parcels using land title information. Where possible, the NNTT uses the terminology and formatting of unique identifiers used in each state to uniquely identify a land parcel. More details are below:

1. **Lot on plan**. Use for Western Australia and Queensland.
2. **Lot/Section/Plan**. Use for New South Wales.
3. **LAISKEY**. Use for the Northern Territory. The laiskey is a unique identifier for each parcel comprised of the location code, LTO code (derived from the survey plan) where applicable and the parcel number.
4. **Parcel ID** – Use for South Australia. Concatenation of Parcel Type, Parcel, Plan Type and Plan.
5. **SPI** (Standard Parcel Identifier) – Use for Victoria.

Terms and Conditions

1. Specify only one jurisdiction (e.g. Queensland) and one type of tenure (e.g. mining tenement) per form. You can add up to 20 separate tenements or parcels per search request. For more than 20 parcels or tenements please submit additional search requests or contact GeospatialSearch@NNTT.gov.au to discuss your requirements.

   Note: if your area of interest cannot be clearly identified from the search form, or is not held in NNTT datasets, we may instead provide search results for a surrounding local government area, or other suitable regional area.

2. Freehold land.

   Under the Native Title Act 1993 (Cth), the valid grant of a freehold estate (other than certain types of Aboriginal and Torres Strait Islander land) on or before 23 December 1996 is known as a 'previous exclusive possession act'. This means that native title has been extinguished over the area. Native title claimants are not allowed to include land and waters covered by previous exclusive possession acts in their applications; therefore they would normally exclude freehold areas. A native title application may, however, be made over freehold land on the basis that freehold was invalidly granted, but the chances of this happening are very low.

3. Cultural Heritage in NSW.

   The National Native Title Tribunal has undertaken steps to remove itself from the formal list of sources for information about indigenous groups in development areas. The existence or otherwise of native title is quite separate to any matters relating to Aboriginal cultural heritage. Information on native title claims, native title determinations and Indigenous Land Use Agreements is available on the Tribunal's website.

4. Spatial searches rely on data obtained from the relevant custodian. Whilst efforts are taken to update such datasets on a regular basis, the collection and interpretation of such datasets may be influenced by a number of factors that can impact of the completeness and accuracy of your search results.

Disclaimer

While the National Native Title Tribunal (NNTT) and the Native Title Registrar (Registrar) have exercised due care in ensuring the accuracy of the information provided, it is provided for general information only and on the understanding that neither the NNTT, the Registrar nor the Commonwealth of Australia is providing professional advice. Appropriate professional advice relevant to your circumstances should be sought rather than relying on the information provided. In addition, you must exercise your own judgment and carefully evaluate the information provided for accuracy, currency, completeness and relevance for the purpose for which it is to be used.

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

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

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

penny@mcheritage.com.au

To: Geospatial Search Requests
Subject: RE: SR23/33 - Search - SR23/33 [SEC=OFFICIAL]

From: Geospatial Search Requests <GeospatialSearch@NNTT.gov.au>
Sent: Monday, 16 January 2023 2:28 PM
To: 'penny@mcheritage.com.au' <penny@mcheritage.com.au>
Subject: RE: SR23/33 - Search - SR23/33 [SEC=OFFICIAL]

OFFICIAL

Your ref: *Chisholm*

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				
				NNTT File Number	Name	Category	Overlap Area SqKm	% Selected Feature
100//DP847510	FREEHOLD	5/09/2022	0.1017	No overlap			-	0.00%

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**

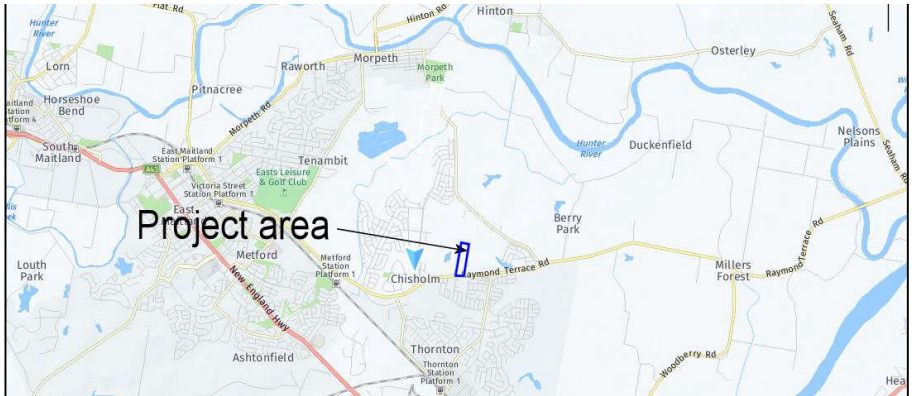
From: penny@mcheritage.com.au <penny@mcheritage.com.au>
Sent: Monday, 16 January 2023 5:00 AM
To: Geospatial Search Requests <GeospatialSearch@NNTT.gov.au>
Subject: SR23/33 - Search

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 development at Chisholm

McCardle Cultural Heritage (MCH) have been engaged by ADW Johnson on behalf of ACG Clovelly Road Pty Ltd (C/- ADW Johnson, 7/335 Hillsborough Rd, Warners Bay NSW 2282) to undertake an Aboriginal Cultural Heritage Assessment (ACHA) and prepare an Aboriginal Heritage Impact Permit (AHIP) application if required for a proposed subdivision located at 523 Raymond Terrace Road, Chisholm (Lot 100 DP847510), Maitland Local Government Area (LGA).

As per the Heritage NSW, Department of Premier & Cabinet policy - 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



NSW GOVERNMENT Heritage NSW
Department of Planning and Environment

Our reference: Doc23/23153

Dr. Penny McCardle
Archaeologist
Forensic Anthropologist
Po Box 166
Adamstown 2289 NSW

19/01/2023

Dear Penny,

WRITTEN NOTIFICATION OF PROPOSAL AS REQUIRED UNDER DECCW ABORIGINAL CULTURAL HERITAGE CONSULTATION REQUIREMENTS FOR PROPONENTS 2010

Subject: 523 Raymond Terrace Road, Chisholm (Lot 100 DP847510).

Thank you for your correspondence dated 16 January 2023 to Heritage NSW (Department of Planning and Environment) regarding the above project.

Attached is a list of known Aboriginal Stakeholders for the proposed development at the **Maitland** Local Government Area that Heritage NSW considers likely to have an interest in the activity.

Please note this list is not necessarily an exhaustive list of all interested Aboriginal Stakeholders.

Receipt of this list does not remove the requirement of a proponent/ consultant to advertise in local print media and contact other bodies seeking interested Aboriginal parties, in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (April 2010).

Under Section 4.1.6. of the Consultation Requirements, you must also provide a copy of the names of each Aboriginal person who registered an interest to the relevant Heritage NSW office and Local Aboriginal Land Council (LALC) within 28 days from the closing date for registering an interest.

Please note that the contact details in the list provided by Heritage NSW may be out of date as it relies on Aboriginal stakeholders advising Heritage NSW when their details need changing. If individuals/companies undertaking consultation are aware that any groups contact details are out of date, or letters are returned unopened, please contact either the relevant stakeholder group (if you know their more current details) and/or Heritage NSW. AHIP applicants should make a note of any group they are unable to contact as part of their consultation record.

If you have any questions about this advice, please email: heritagemailbox@environment.nsw.gov.au or contact (02) 9873 8500.

Yours sincerely

Barry Gunther, Aboriginal Senior Assessment Officer
Environment and Heritage – Heritage NSW
Department of Planning and Environment
Aboriginal Heritage Regulation Branch – South Heritage NSW

Attachment A:

Registered Aboriginal Interests DPE Aboriginal Stakeholders List for the **Maitland** Local Government Area.

LIST OF ABORIGINAL STAKEHOLDERS FOR THE DEPARTMENT of PLANNING and ENVIRONMENT (DPE) SOUTHERN REGION HELD BY DPE FOR THE PURPOSES OF THE OEH *ABORIGINAL CULTURAL HERITAGE CONSULTATION REQUIREMENTS FOR PROPONENTS 2010*

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

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

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

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

The Consultation Requirements also state that:

> *Traditional owners or custodians with appropriate cultural heritage knowledge to inform decision making who seek to register their interest as an Aboriginal party are those people who:*
> - *continue to maintain a deep respect for their ancestral belief system, traditional lore and custom*
> - *recognise their responsibilities and obligations to protect and conserve their culture and heritage and care for their traditional lands or Country*
> - *have the trust of their community, knowledge and understanding of their culture, and permission to speak about it.*

Please note: the placement of an organisation's name on any OEH Aboriginal stakeholder list for the Consultation Requirements does not override a proponent's requirement to also advertise in the local newspaper and to seek from other sources the names of any other Aboriginal people who may hold cultural knowledge as required under clause 60 of the National Parks and Wildlife Regulation 2019.

How to use this list

1. **Contact the organisations/individuals who have indicated an interest in the relevant LGA/s and invite them to register an interest in your project**

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

Last updated November 2022

Aboriginal Stakeholders – Maitland Local Government Area.

1	A1 Indigenous Services	Carolyn Hickey	cazadirect@live.com	-	0411 650 057	-	10 Marie Pitt Place, Glenmore Park, NSW, 2745	-
3	Aboriginal Native Title Consultants	Christine Paul	christinepaul737@gmail.com	-	0484 327 664	-	68 Tindale Street Muswellbrook NSW 2333	-
5	AGA Services	Ashley, Gregory & Adam Sampson	aga.services@hotmail.com	-	AS: 0401 958 050 Donna Sampson 0403 765 018	-	22 Ibis Parade WOODBERRY NSW 2322	-
9	Aliera French Trading	Aliera French	alierafrenchtrading@outlook.com	-	0421 299 963	-	17 Kalinda St BLACKSMITHS NSW 2281	-
22	Arwarbukarl Cultural Resource Association, Miromaa Aboriginal Language and Technology Centre	Darren McKenny	contact@acra.org.au	(02) 4940 9100	-	-	840 Hunter St NEWCASTLE WEST NSW 2302	-
24	Awabakal & Guringai Pty Ltd	Tracey Howie & Kerrie Brauer	tracey@guringai.com.au kerrie@awabakal.com.au	-	KB: 0412 866 357 TH: 0404 182 049	-	PO Box 122 RUTHERFORD NSW 2320 NSW 2259	-
25	Awabakal Descendants Traditional Owners	Peter Leven	peterleven@y7mail.com	-	0405 149 684	-	PO Box 137 BUDGEWOI NSW 2262	-
27	Awabakal Traditional Owners Aboriginal Corporation	Kerrie Brauer	Kerrie@awabakal.com.au	-	0412 866 357	-	PO Box 122 RUTHERFORD NSW 2320	-
84	Cacatua Culture Consultants	Donna & George Sampson	cacatua4service@tpg.com.au	-	0403 765 019 0434 877 016	-	22 Ibis Parade WOODBERRY NSW 2322	-

113	Corroboree Aboriginal Corporation	Marilyn Carroll-Johnson	maz_lolli@yahoo.com.au	(02) 8824 324	0415 911 159	-	PO Box 3340, Rouse Hill, NSW 2155	-
116	Crimson-Rosie	Jeffery Matthews	-	(02) 6543 4791	-	-	6 Eucalypt Avenue, Muswellbrook NSW 2333	-
119	Culturally Aware	Tracey Skene	tracey@marrung-pa.com.au	-	0474 106 537	-	7 Crawford Place MILFIELD NSW 2325	-
120	D F T V Enterprises	Derrick Vale	deckavale@hotmail.com	-	0401 162 998 0422 876 047 0438 812 197	-	5 Mountbatten Close RUTHERFORD NSW 2320	-
145	Deslee Talbott Consultants	Deslee Matthews	m-desley@hotmail.com	-	0431 205 336	-	Unit 2 / 19 South Street GUNNEDAH NSW 2380	-
151	Didge Ngunawal Clan	Lillie Carroll ; Paul Boyd	didgengunawalclan@yahoo.com.au	-	0426 823 944 ; 0450 616 404	-	33 Carlyle Crescent Cambridge Gardens NSW 2747	-
186	Gidawaa Walang & Barkuma Neighbourhood Centre Inc.	Craig Horne Debbie Dacey-Sullivan	gidawaa.walang@hotmail.com	(02) 4937 1094	0432 336 163	-	76 Lang Street, Kurri Kurri NSW 2327	-
191	Glen Morris	-	mischelle.morris@outlook.com	(02) 6543 3008	-	-	12 Bell Street Muswellbrook NSW 2333	-
196	Gomery Cultural Consultants	David Horton	leannekirkman1964@gmail.com	-	0458 532 707	-	22 Cabernet Street Muswellbrook 2333 NSW	-
236	Hunter Traditional Owner	Paulette Ryan	hto.paulette@gmail.com	-	0431 109 001	-	165 Susan Street SCONE NSW 2337	-

238	Hunter Valley Cultural Surveying	Luke Hickey	Microlith99@gmail.com	-	0435 911 820	-	165 Susan Street SCONE NSW 2337	-
239	Hunters & Collectors	Tania Matthews	Tamatthews10@hotmail.com	-	0407 348 384	-	Unit 1/19 South Street Gunnedah NSW 2320	-
243	Indigenous Learning	Craig Archibald	indiglearning@gmail.com	-	0467 229 507 0455 550 549	-	2 Victoria Street BELLBIRD HEIGHTS NSW 2325	-
258	Jarban & Mugrebea	Les Atkinson	Les.atkinson@hotmail.com	-	0466 316 069	-	65/ 601Fishery Point Road Bonnells Bay NSW 2264	-
278	Jumbunna Traffic Management Group Pty Ltd	Norm Archibald	normarch60@gmail.com	-	0413 718 149	-	44 Billabong Dr Cameron Park 2285	-
288	Kauma Pondee Inc.	Jill Green	kaumapondee@live.com.au	-	0434 210 190	-	Unit 6/1 Central Street LAMBTON NSW 2305	-
289	Kawul Pty Ltd trading as Wonn1 Sites	Arthur Fletcher	Wonn1sites@gmail.com	(02) 4954 7751	0402 146 193	-	619 Main Road GLENDALE NSW 2285	-
296	Kevin Duncan	Kevin Duncan	kevin.duncan@bigpond.com	(02) 4392 9346	0431 224 099	-	95 Moala Parade HARMHAVEN NSW 2263	-
329	Lower Hunter Aboriginal Incorporated	David Ahoy	lowerhunterai@gmail.com	-	0421 329 520	-	5 Killara Drive CARDIFF SOUTH NSW 2285	-
330	Lower Hunter Wonnarua Cultural Services	Lea-Anne Ball	lhwcs.lea@gmail.com	-	0472 698 659	-	712 Maitland Street KURRI KURRI NSW 2327	-
331	Lower Wonnaruah Tribal Consultancy Pty Ltd	Barry Anderson	-	(02) 6574 5303	0417 403 153	-	156 The Inlet Road BULGA NSW 2330	-

348	Mayaroo	Tracey White	rara02@bigpond.com	-	0438 909 797	-	PO Box 168 KURRI KURRI NSW 2327	-
356	Michael Green Cultural Heritage Consultant	Michael Green	bunyipnick50@gmail.com	-	0497 120 032	-	115A Lakeview Parade BLACKSMITHS NSW 2281	-
362	Mindaribba Local Aboriginal Land Council	CEO	ceo@mindaribbalalc.org	(02) 4934 8511	-	-	1A Chelmsford Drive METFORD NSW 2323	-
390	Murra Bidgee Mullangari Aboriginal Corporation	Darleen Johnson ; Ryan Johnson	murrabidgeemullangari@yahoo.com.au	-	0490 051 102 0475 565 517 0497 983 332	-	PO Box 3035 Rouse Hill NSW 2155	-
401	Myland Cultural & Heritage Group	Warren Schillings	warren@yarnteen.com.au	-	0431 392 554	-	30 Taurus Street ELERMORE VALE NSW 2287	-
477	Renee Sales	Renee Sales	darkinoong@gmail.com	-	0413 608 477	-	858 Lower Kangaroo Creek Coutts Crossing NSW 2460	-
509	Steve Talbott	Steve Talbott	gomeroi.namoi@outlook.com	-	0429 662 911	-	73 Kiah Road GILLIESTON HEIGHTS NSW 2321	-
528	The Men's Shack Indigenous Corporations	Rod Hickey	rod.hickey@hotmail.com	-	0403 655 284	-	33 Gardner Circuit Singleton Heights NSW 2330	-
542	Tocomwall Pty Ltd	Scott Franks	scott@tocomwall.com.au	-	0404 171 544	-	Po box 145, Miranda NSW 1490	-
559	Ungooroo Aboriginal Corporation	Alan Paget	admin@ungooroo.com.au	(02) 6571 5111	-	-	PO Box 3095 SINGLETON NSW 2330	-

572	Wallagan Cultural Services	Maree Waugh	wallangan@outlook.com	-	0439 813 078	-	PO Box 40 CESSNOCK NSW 2325	-
578	Warragil Cultural Services	Aaron Slater (Manager)	Warragil_c.s@hotmail.com	-	0481 280 067 0422231989	-	33 Gardner Circuit Singleton NSW 2566.	-
581	WATTAKA Pty Ltd	Des Hickey	deshickey@bigpond.com	(02) 6573 3786	0432 977 178	-	4 Kennedy Street SINGLETON NSW 2330	-
590	Widescope Indigenous Group	Steven Hickey; Donna Hickey	Widescope.group@live.com	-	SH: 0425 230 693 DH: 0425 232 056	-	73 Russell Street, Emu Plains, NSW 2750	-
608	Wonnarua Culture Heritage	Gordon Griffiths	-	(02) 4934 6437	0401 028 807	-	19 O'Donnell Crescent METFORD NSW 2323	-
609	Wonnarua Elders Council	Richard Edwards	-	(02) 6543 4791	-	-	PO Box 844 CESSNOCK NSW 2325	-
610	Wonnarua Nation Aboriginal Corporation	Laurie Perry	l.perry@optusnet.com.au	(02) 6571 5419	0412 593 020	-	254 John St SINGLETON NSW 2330	-
612	Worimi Local Aboriginal Land Council	CEO	andrew@worimi.org.au	(02) 4965 1500	-	-	2163 Nelson Bay Road WILLIAMTOWN NSW 2318	-
616	Wurrumay Pty Ltd	Kerrie Slater; Vicky Slater	wurrumay31@outlook.com	-	0421 077 521	-	89 Pyramid Street, Emu Plains NSW 2750	-
624	Yinarr Cultural Services	Kathleen Steward Kinchela	yinarculturalservices@bigpond.com dontminemeay@gmail.com	-	0475 436 589	-	Lot 5 Westwood Estate MERRIWA NSW 2329	-

Connect with Classifieds

the Maitland Mercury

Phone: 02 4931 0100
Email: classifiedshunter@austcommunitymedia.com.au

Death Notices

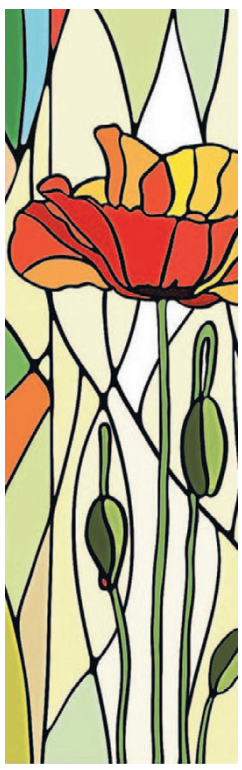
ADAMS (Hamberger) Elaine Gwen
4.8.1929 - 3.1.2023
Aged 93 years

Late of Benhome
Formerly of Ashtonfield and Gloucester

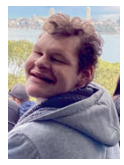
Dearly loved wife of Robert 'Bob' (dec). Much loved mother and mother-in-law of Colleen and David, Lynette and Jim (dec), Brian and Craig. Loving Nanny of Lisa, Jennifer and Kylie. Adored Ma to Sienna, Alex, Jenson and Kaitlyn.

Elaine's family wish to advise the celebration of her life was held on Thursday 12th January 2023.

David Lloyd
A Guardian Funeral Provider
BERESFIELD 02 4966 5277



Funeral Notices



DAVIES Elijah Willem "Eli"

Passed away peacefully surrounded by his loving family 18th January 2023
Late of Greenwood House
Formerly of Cessnock
Aged 23 years

Beloved son of Mark and Leeta. Dearly loved step son of Susie and Scott. Loved brother of Sarah and Derek.

Forever in our Hearts

Family and friends are warmly invited to attend a celebration of **Eli's** life this **Monday** 30th January 2023 in the Chapel of Lake Macquarie Memorial Park, 405 Cessnock Road Ryhope commencing 1pm.

In lieu of flowers your donation would be appreciated to the John Hunter Children's Hospital or Hunter Genetics.

David Lloyd
A Guardian Funeral Provider
BELMONT 02 4945 9022

McLEOD Alan John Henry
Aged 83 Years
of Rutherford

Beloved husband of Beverley (dec), father and father in law of Gill and Wolfe, Jeff and Lol, Karen, Kat and Mick, Greg, Toni and Danny. Loving Da and Poppy of Elizabeth, Connor, LeNoni, and Oskar.

Family and friends are respectfully advised that a private cremation has taken place.

FRY BROS
4933 6155
frybros.com.au

Wanted to Buy

CASH PAID For vintage souvenir tea towels, colourful sheets, embroidered doilies 0412 922 857

Wanted to Buy

TOOLS old tools, guitars, fishing items, old model trains and cars, jewellery, Dvd/Cd. **Riz 0431 296741**

Motor Vehicles

Livestock

HORSES WANTED
All types. Also suspect cattle. Ph: 49381492. 49381592 - 0428 680 443

Public Notices

SHAMROCK HILL EARLY LEARNING AND LONG DAY CARE CENTRE

A.G.M
Wednesday 22nd February 2023
@ 6 p.m.
19 Galway Bay Drive
Ashtonfield
RSVP - Jenny Blanch 4933 8632

Public Notices

HISTORICAL SEXUAL ABUSE "WITNESSES SOUGHT"

Stacks Goudkamp act for survivors who were sexually abused when they were children in the Catholic Diocese of Maitland-Newcastle by the following:

Father Denis McAlinden;
Father David O'Hearn; and
Father John Denham.

We would appreciate the opportunity to speak to anyone who knew these three men who were part of the Catholic Diocese of Maitland-Newcastle.

If you have any information or witnessed any abuse, please contact Stacks Goudkamp today 02 9237 2222 or toll free 1800 251 800.
enquiry@ stacksgoudkamp.com.au

STACKS GOUDKAMP

Public Notices

Public Notice

Notification of project proposal and registration of interest under Heritage NSW Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 1) – Proposed development at Chisholm.

McCardle Cultural Heritage (MCH) have been engaged by ADW Johnson on behalf of ACG Clovelly Road Pty Ltd (C/- ADW Johnson, 7/335 Hillsborough Rd, Warners Bay NSW 2282) to prepare an Aboriginal Cultural Heritage Assessment (ACHA) and Section 90 Aboriginal Heritage Impact Permit (AHIP) application, if required, for the proposed subdivision located at 523 Raymond Terrace Road, Chisholm (Lot 100 DP847510).

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 the Chief Executive of Heritage NSW, Department of Premier & Cabinet in his or her 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 2010, 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. (10 February 2023). 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 e-mail. 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.

Positions Vacant

NSW GOVERNMENT Education Standards Authority

AUTHORISED PERSON FOR THE PURPOSE OF HOME SCHOOLING REGISTRATION

Upper Hunter Region, NSW and Central Coast Region, NSW

NESA is seeking expressions of interest for the role of Authorised Person for home schooling registration from persons based in the Upper Hunter and Central Coast region of NSW.

- Authorised Persons assess and make recommendations regarding applications for registration for home schooling in NSW.
- Successful teaching experience and curriculum leadership is required.
- A Working with Children Check number is also required for this position.

Information regarding the application process can be accessed by following the below stated relevant link

➡ **Upper Hunter Region:**
https://iworkfor.nsw.gov.au/job/authorised-person-for-the-purpose-of-home-schooling-upper-hunter-region-379162

➡ **Central Coast Region:**
https://iworkfor.nsw.gov.au/job/authorised-person-for-the-purpose-of-home-schooling-central-coast-region-379174

Applications close: 6 February 2023
Further details can be obtained by contacting (02) 9367 8403

Work Wanted

ELECTRICAN
licensed and insured looking for work in and around the local area. No job too small. Pensioner discount. Lic154981c
TMKC Electrical Contractor
Dave 0423 518408

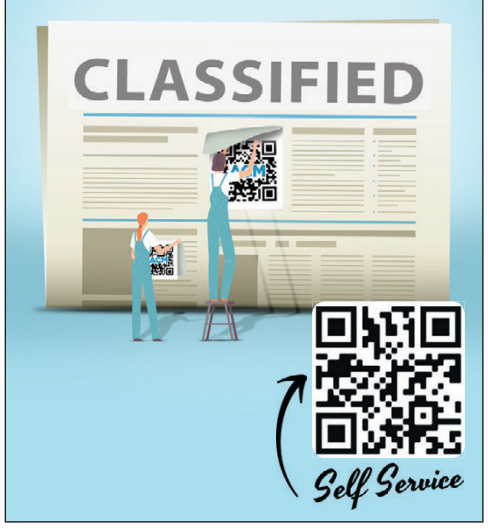
Men Seeking Women

Gentleman who is healthy, active, and alert seeks partner who is still able to have a child. The woman who is chosen will be honest, have a sense of humour, and can form good friendship. There is a big yard with a fountain and swing and birds and a small pretty house with only the owner, me, occupying it. Would suit the right single mother of one child seeking secure, safe situation. Please ring David on 0434 018 036

Personal Notices

Adult Services

Adult Services



penny@mcheritage.com.au

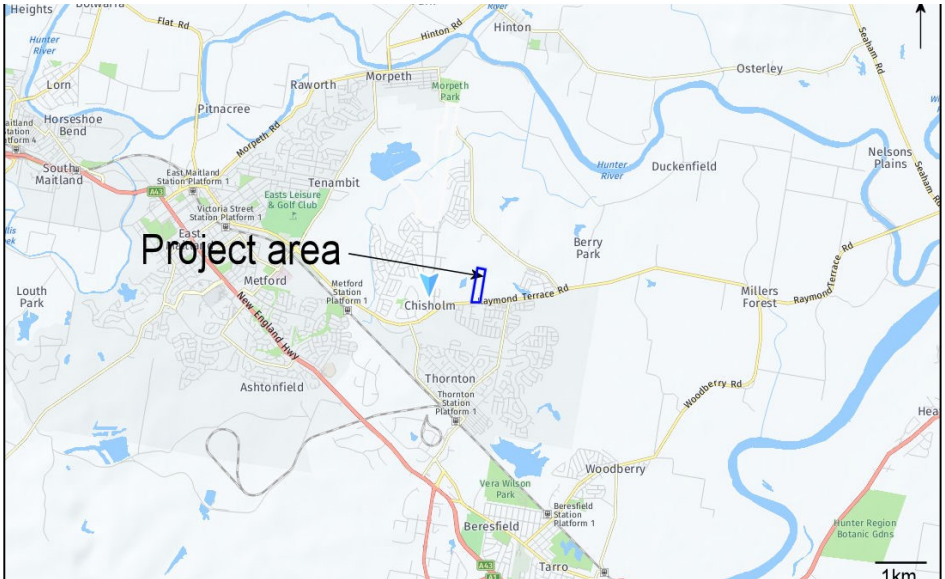
From: penny@mcheritage.com.au
Sent: Tuesday, 31 January 2023 9:26 AM
To: 'Cazadirect@live.com'; 'christinepaul737@gmail.com'; 'aga.services@hotmail.com'; 'alierafrenchtrading@outlook.com'; 'contact@acra.org.au'; 'tracey@guringai.com.au'; 'kerrie@awabakal.com.au'; 'awabakal.to@gmail.com'; 'Kerrie@awabakal.com.au'; 'cacatua4service@tpg.com.au'; 'corroboreecorp@bigpond.com'; 'tracey@marrung-pa.com.au'; 'deckavale@hotmail.com'; 'm-desley@hotmail.com'; 'didgengunawalclan@yahoo.com.au'; 'gidawaa.walang@hotmail.com'; 'mischelle.morris@outlook.com'; 'leannekirkman1964@gmail.com'; 'hto.paulette@gmail.com'; 'Microlith99@gmail.com'; 'Tamatthews10@hotmail.com'; 'indiglearning@gmail.com'; 'Les.atkinson@hotmail.com'; 'normarch60@gmail.com'; 'kaumapondee@live.com.au'; 'Wonn1sites@gmail.com'; 'kevin.duncan@bigpond.com'; 'lowerhunterai@gmail.com'; 'lhwcs.lea@gmail.com'; 'rara02@bigpond.com'; 'bunyipnick50@gmail.com'; 'ceo@mindaribbalalc.org'; 'murrabidgeemullangari@yahoo.com.au'; 'warren@yarnteen.com.au'; 'darkinoong@gmail.com'; 'gomeroi.namoi@outlook.com'; 'rod.hickey@hotmail.com'; 'scott@tocomwall.com.au'; 'admin@ungooroo.com.au'; 'wallangan@outlook.com'; 'warragil_c.s@hotmail.com'; 'deshickey@bigpond.com'; 'Widescope.group@live.com'; 'gordon.griffithsbra@yahoo.com.au'; 'l.perry@optusnet.com.au'; 'andrew@worimi.org.au'; 'Wurrumay@hotmail.com'; 'yinarculturalservices@bigpond.com'; 'dontminemeay@gmail.com'
Subject: Proposed development at Chisholm

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 development at Chisholm

McCardle Cultural Heritage (MCH) have been engaged by ADW Johnson on behalf of ACG Clovelly Road Pty Ltd (C/- ADW Johnson, 7/335 Hillsborough Rd, Warners Bay NSW 2282) to undertake an Aboriginal Cultural Heritage Assessment (ACHA) and prepare an Aboriginal Heritage Impact Permit (AHIP) application if required for a proposed subdivision located at 523 Raymond Terrace Road, Chisholm (Lot 100 DP847510), Maitland Local Government Area (LGA).

As per the Heritage NSW, Department of Premier & Cabinet 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 the Chief Executive of Heritage NSW, Department of Premier & Cabinet policy, in his or her 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. 14th February 2023 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, Department of Premier & Cabinet 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
Archaeologist
Forensic Anthropologist

McCARDLE
CULTURAL HERITAGE

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

penny@mcheritage.com.au

From: Taasha Layer <taasha@ungooroo.com.au>
Sent: Tuesday, 31 January 2023 10:57 AM
To: penny@mcheritage.com.au
Cc: Allen Paget
Subject: FW: Proposed development at Chisholm
Attachments: image002.jpg; image003.emz

Importance: High

Hi Penny,

Hope you are well and had a great break over the holidays. Ungooroo Aboriginal Corporation would like to express and register our interest in this project. Please let us know if you require any further information or documentation etc.

Thanks, Taasha

Kind Regards
Taasha Layer | CEO

UNGOOROO
ABORIGINAL CORPORATION

Phone 02 6571 5111
Mobile **0428 924 714**

taasha@ungooroo.com.au
PO Box 3095, Singleton NSW 2330

Shop 1 – 6, 157 – 159 John Street
SINGLETON CENTRE, Singleton NSW 2330

www.ungooroo.com.au

Ungooroo Aboriginal Corporation acknowledges Aboriginal and Torres Strait Islander people as the Traditional Owners. We would like to acknowledge the Traditional Owners of our area, the Wanaruah People.
We pay our respect to the elders past, present and future for they hold the memories, traditions, culture and hope of Indigenous peoples in Australia.

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 development at Chisholm

McCardle Cultural Heritage (MCH) have been engaged by ADW Johnson on behalf of ACG Clovelly Road Pty Ltd (C/- ADW Johnson, 7/335 Hillsborough Rd, Warners Bay NSW 2282) to undertake an Aboriginal Cultural Heritage Assessment (ACHA) and prepare an Aboriginal Heritage Impact Permit (AHIP) application if required for a proposed

penny@mcheritage.com.au

From: WIDESCOPE . <widescope.group@live.com>
Sent: Monday, 6 February 2023 7:59 AM
To: penny@mcheritage.com.au
Subject: Proposed development at Chisholm

Good morning, Penny

Steven Hickey would like to register his interest in the project.
Preferred method of communication is via Email thank you.
Steven would like to be considered for any upcoming and future field works.

Regards

Donna and Steven Hickey
Widescope Indigenous Group

+61425232056 | 73 Russell Street, Emu Plains, NSW 2750

Email:widescope.group@live.com

penny@mcheritage.com.au

From: Carolyn .H <cazadirect@live.com>
Sent: Sunday, 12 February 2023 8:47 PM
To: penny@mcheritage.com.au
Subject: Re: Proposed development at Chisholm
Attachments: A1.WC2023.pdf; A1.PL2023.pdf

INDIGENOUS SERVICES PTY LTD

Contact: Carolyn Hickey
Mobile: 0411650057
Email: Cazadirect@live.com
Address: 10 Marie Pitt Place, Glenmore Park, NSW 2745
ACN: 639 868 876
ABN: 31 639 868 876

Hi,
Thank you for your email, I would like to register in being involved in all levels of consultation for this project.
Including, Meetings, Reports, Sharing Cultural Information, and available Field Work.

About the founder Carolyn Hickey
I am a **t**raditional **o**wner with over 25 years experience in helping preserve Aboriginal cultural heritage on projects.
I hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and values that exist in the project area.
I have attached A1 Indigenous Services Insurances

Kind Regards
Carolyn Hickey

When Selecting Groups for Engagement;
Please consider that **A1 INDIGENOUS SERVICES PTY LTD** is a member of the **NSW INDIGENOUS CHAMBER OF COMMERCE.**
We carry the NSWICC Assured logo showing that **A1 Indigenous Services** has met National Policy requirements as upheld by the First Australians Chamber of Commerce and Industry (FACCI) for being identified as a **100% First Nations Owned Indigenous Business** That has demonstrate compliance with Government and Industry Regulators.

A1 INDIGENOUS SERVICES PTY LTD is now a member of the NSW INDIGENOUS CHAMBER OF COMMERCE

A business or enterprise carrying the NSWICC Assured logo has met National Policy requirements as upheld by the First Australians Chamber of Commerce and Industry (FACCI) for being identified as a First Nations Business Owner or Entrepreneur and the business must demonstrate compliance with Government and Industry Regulators.

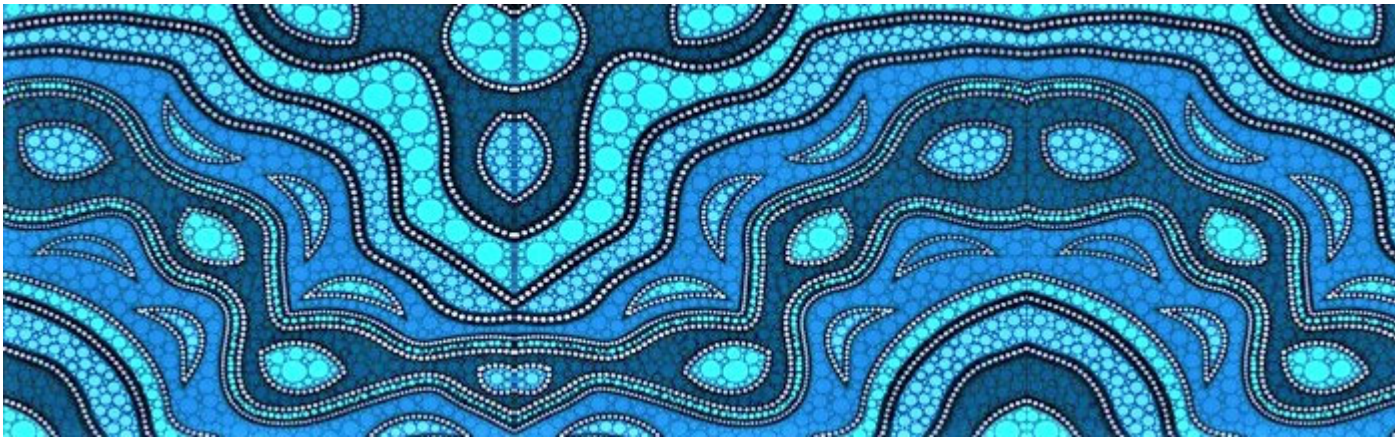
(Certificate attached) A certificate confirms that the Enterprise listed above has met all requirements of the NSWICC's Assured Program , operating as a100% Aboriginal Owned, Operated and Controlled Business. The NSW Indigenous Chamber of Commerce (NSWICC) is the Peak body for Aboriginal Business in New South Wales and a member of the First Australians Chamber of Commerce and Industry (FACCI)

A1 Indigenous Services is 100%, Indigenous Owned Australian Company
which offers a range of services to the construction industry.
It is our mission to commit to an innovative approach to a better future for Indigenous employment and community.
While improving ways to close the gap in Aboriginal participation in the construction Industry.
Building strength in aboriginal communities and our Indigenous labour force.

KAWALKAN
Youth Workforce Program
A1 INDIGENOUS SERVICES PTY LTD

WOMEN'S CIRCLE
Protecting Women's Customs
A1 INDIGENOUS SERVICES PTY LTD

NSWICC ASSURED | FACCI AFFILIATE



From: penny@mcheritage.com.au <penny@mcheritage.com.au>
Sent: Tuesday, 31 January 2023 9:26 AM
To: Cazadirect@live.com <Cazadirect@live.com>; christinepaul737@gmail.com <christinepaul737@gmail.com>; aga.services@hotmail.com <aga.services@hotmail.com>; alierafrenchtrading@outlook.com <alierafrenchtrading@outlook.com>; contact@acra.org.au <contact@acra.org.au>; tracey@guringai.com.au <tracey@guringai.com.au>; kerrie@awabakal.com.au <kerrie@awabakal.com.au>; awabakal.to@gmail.com <awabakal.to@gmail.com>; Kerrie@awabakal.com.au <Kerrie@awabakal.com.au>; cacatua4service@tpg.com.au <cacatua4service@tpg.com.au>; corroboreecorp@bigpond.com <corroboreecorp@bigpond.com>; tracey@marrung-pa.com.au <tracey@marrung-pa.com.au>; deckavale@hotmail.com <deckavale@hotmail.com>; m-desley@hotmail.com <m-desley@hotmail.com>; didgengunawalclan@yahoo.com.au <didgengunawalclan@yahoo.com.au>; gidawaa.walang@hotmail.com <gidawaa.walang@hotmail.com>; mischelle.morris@outlook.com <mischelle.morris@outlook.com>; leannekirkman1964@gmail.com <leannekirkman1964@gmail.com>; hto.paulette@gmail.com <hto.paulette@gmail.com>; Microlith99@gmail.com <Microlith99@gmail.com>; Tamatthews10@hotmail.com <Tamatthews10@hotmail.com>; indiglearning@gmail.com <indiglearning@gmail.com>; Les.atkinson@hotmail.com <Les.atkinson@hotmail.com>; normarch60@gmail.com <normarch60@gmail.com>; kaumapondee@live.com.au <kaumapondee@live.com.au>; Wonn1sites@gmail.com <Wonn1sites@gmail.com>; kevin.duncan@bigpond.com <kevin.duncan@bigpond.com>; lowerhunterai@gmail.com <lowerhunterai@gmail.com>; lhwcs.lea@gmail.com <lhwcs.lea@gmail.com>; rara02@bigpond.com <rara02@bigpond.com>; bunyipnick50@gmail.com <bunyipnick50@gmail.com>; ceo@mindaribbalalc.org <ceo@mindaribbalalc.org>; murrabidgeemullangari@yahoo.com.au <murrabidgeemullangari@yahoo.com.au>; warren@yarnteen.com.au <warren@yarnteen.com.au>; darkinoong@gmail.com <darkinoong@gmail.com>; gomeroi.namoi@outlook.com <gomeroi.namoi@outlook.com>; rod.hickey@hotmail.com <rod.hickey@hotmail.com>; scott@tocomwall.com.au <scott@tocomwall.com.au>; admin@ungooroo.com.au <admin@ungooroo.com.au>; wallangan@outlook.com <wallangan@outlook.com>; warragil_c.s@hotmail.com <warragil_c.s@hotmail.com>; deshickey@bigpond.com <deshickey@bigpond.com>; Widescope.group@live.com <Widescope.group@live.com>; gordon.griffithsbra@yahoo.com.au <gordon.griffithsbra@yahoo.com.au>; l.perry@optusnet.com.au <l.perry@optusnet.com.au>; andrew@worimi.org.au <andrew@worimi.org.au>; Wurrumay@hotmail.com <Wurrumay@hotmail.com>; yinarculturalservices@bigpond.com <yinarculturalservices@bigpond.com>; dontminemeay@gmail.com <dontminemeay@gmail.com>
Subject: Proposed development at Chisholm

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 development at Chisholm

McCardle Cultural Heritage (MCH) have been engaged by ADW Johnson on behalf of ACG Clovelly Road Pty Ltd (C/- ADW Johnson, 7/335 Hillsborough Rd, Warners Bay NSW 2282) to undertake an Aboriginal Cultural Heritage Assessment (ACHA) and prepare an Aboriginal Heritage Impact Permit (AHIP) application if required for a proposed subdivision located at 523 Raymond Terrace Road, Chisholm (Lot 100 DP847510), Maitland Local Government Area (LGA).

McCARDLE
CULTURAL HERITAGE

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

mcheritage.com.au

15 February 2023

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 development at Chisholm

In compliance with the Heritage NSW, Department of Premier & Cabinet 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 Maitland Mercury Newspaper.

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
A1 Indigenous Services	Carolyn Hickey
Ungooroo Aboriginal Corporation	Alan Paget
Widescope Indigenous Group	Steven Hickey

McCARDLE
CULTURAL HERITAGE

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

mcheritage.com.au

15 February 2023

MIndaribba Local Aboriginal Land Council
ceo@mindaribbalalc.org

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 development at Chisholm

In compliance with the Heritage NSW, Department of Premier & Cabinet 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.

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Yours sincerely,
for McCardle Cultural Heritage Pty Ltd

Dr. Penny McCardle
Principal Archaeologist
Forensic Anthropologist

Registered Aboriginal Parties

Company	Contact
A1 Indigenous Services	Carolyn Hickey
Ungooroo Aboriginal Corporation	Alan Paget
Widescope Indigenous Group	Steven Hickey

penny@mcheritage.com.au

From: penny@mcheritage.com.au
Sent: Wednesday, 15 February 2023 9:01 AM
To: 'Cazadirect@live.com'; 'admin@ungooroo.com.au'; 'Widescope.group@live.com'
Subject: Chisholm info pack
Attachments: ACHAR Info Pack 2023.pdf

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 – development at Chisholm

McCardle Cultural Heritage (MCH) would like to thank you for registering your interest in this project. MCH sent a letter extending an invitation to register your interest and asking if you would prefer to have a meeting to discuss the project or have an information pack sent to you. As MCH did not receive your preferred option, we are posting/emailing the information packet.

In order for the proponent to fulfil its cultural heritage consultation requirements per the Heritage NSW, Department of Premier & Cabinet policy - Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 2; s 4.2.1 to 4.2.4; Stage 3, s 4.3.1 to 4.3.7) please find enclosed an Aboriginal Cultural Heritage Assessment Information Packet that outlines the proposed project including, but not limited to, details of the proposed the project including maps, an outline of the impact assessment process, summary of the cultural, environmental and archaeological contexts, a site specific predictive model, details of the proposed methodology, the roles and responsibilities of all parties, and provide an opportunity for you to identify and raise any cultural concerns, perspectives and assessment requirements you may have.

MCH would appreciate your input on;

- The proposed methodology
- Any Aboriginal objects and/or place(s) of cultural value within the investigation area and/or an any issues of cultural significance you are aware of
- Any protocols and/or restrictions you may wish to implement in relation to any information you may like to provide, and
- Any other factors you consider relevant to the heritage assessment;

Please make your written submission to MCH by close of business 15th March 2023. 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.

Please note that the number of people engaged and the duration of any engagement will be at the sole discretion of the proponent who will notify MCH of the successful applicants. MCH will notify the successful applicants and all RAPs will be invited to participate in the field investigations regardless of remuneration and subject to Occupational Health and Safety requirements and operational requirements.

Please note that regardless of participation in the field investigations, RAPs will be consulted in accordance with the Heritage NSW, Department of Premier & Cabinet 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, Department of Premier & Cabinet 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.

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
Archaeologist
Forensic Anthropologist

M
McCARDLE
CULTURAL HERITAGE

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

523 Raymond Terrace Road, Chisholm

LGA: Maitland

Aboriginal Cultural Heritage Assessment Information Packet

14 February 2023

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: J202312Info Pack	
Approved by:	Penny McCardle
Position:	Director
Signed:	
Date:	14 February 2023

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APPENDICES

LIST OF TABLES

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 ADW Johnson on behalf of ACG Clovelly Road Pty Ltd to prepare an Aboriginal Cultural Heritage Assessment (ACHA), and an Aboriginal Heritage Impact Permit (AHIP), if requires, for the residential lot located at 523 Raymond Terrace Road, Chisholm.

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, Department of Premier & Cabinet policy - 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, a predictive model, 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 523 Raymond Terrace Road, Chisholm. Including Lot 100 DP847510, 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

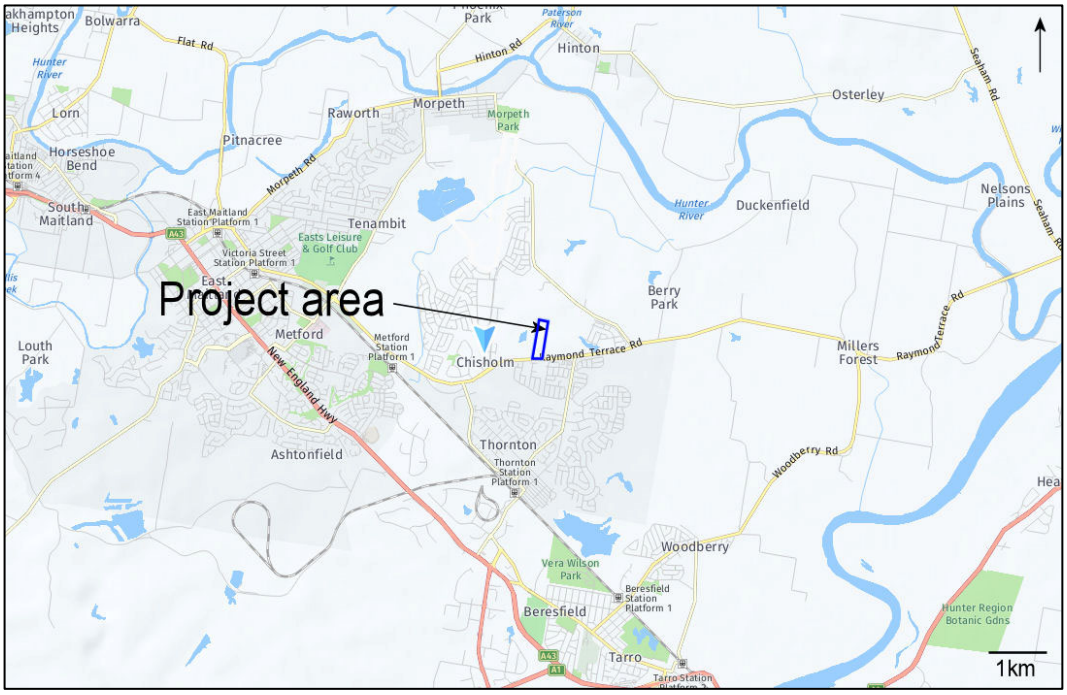


Figure 1.2 Aerial photograph of the project area

1.3 PROJECT OUTLINE AND IMPACTS

The project will include the subdivision of the project area into residential lots. 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 project area is the Permian Mulbring Siltstone of the Maitland Group that includes siltstone, sandstone and conglomerate. There is an absence of raw materials typically used for stone tool manufacturing (such as silcrete, mudstone, tuff, basalt). The project area consists of simple slopes dissected through the mid-section by a drainage depression. The project area is situated on the residual Beresfield soil landscape that consist of an upper soil Horizon A and underlying B and 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.

The project area is located 2.9 kilometres south west of the most reliable fresh water source in the local area (The Hunter River). A 3rd order creek is located approximately 1.3 kilometres south east of the project area and a 2nd order creek approximately 500 metres east. One 1st order drainage depression is located through the project area with few other 1st drainage depressions in the wider local area. As fresh water is necessary for survival, in terms of past Aboriginal land uses and survival, the project area may be considered under-resourced in terms of water availability and associated resources. With no fresh water supply, the project area may have been used for transitory activities such as hunting and gathering rather than camping.

In terms of landuses, and impacts to the landscape, and any cultural materials that may be present, the project area has been subject to a range of both moderate and high landuses disturbances and impacts. The project area has been cleared and primarily used for pastoral purposes (grazing), involving the wholesale clearance of native vegetation, at least one major ploughing event for the introduction of pasture grass, fences, the construction of dams (one large one through the centre along the drainage depression and 4 smaller dams in the southern half of the project area. Additionally, residential structures, sheds and associated infrastructure (driveways, established gardens etc) and utilities (water, electricity, telephone etc) are located in the southern portion of the project area.

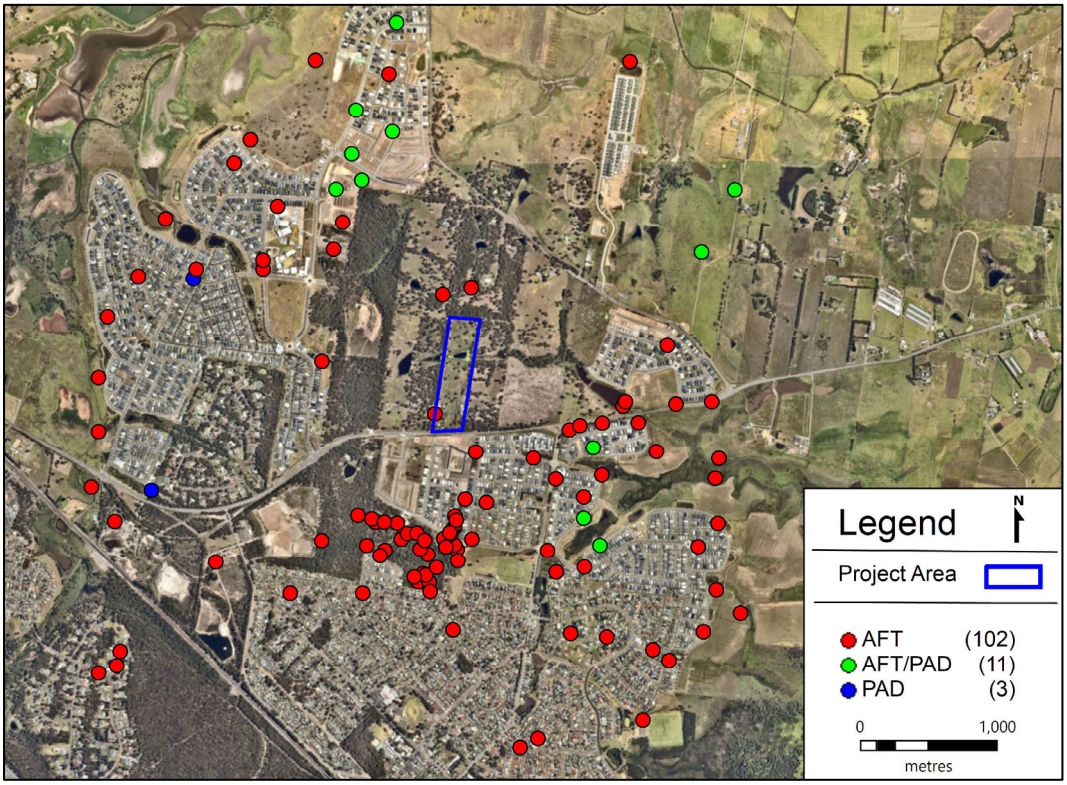
3 ARCHAEOLOGICAL CONTEXT

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 has shown that 116 known Aboriginal sites are currently recorded within two kilometres of the project area and include 102 artefact sites, 11 artefact and PAD sites and 3 PADs. The AHIMs results are provided in Appendix B and the location of sites is shown in Figure 3.1.

Although there appears to be an AHIMS site in the project area (38-4-0125), examination of the AHIMS site card places this site150 metres form the 2nd order creek, which is outside the project area. There are no AHIMS sites or Aboriginal Places in the project area.

Figure 3.1 Approximate location of AHIMS sites



Researching both the regional and local archaeological contexts, the following archaeological patterning is evident:

- the majority of sites are located on elevated landforms (very gently inclined slopes, terraces, flats) within 50 metres of a reliable water source with a drop in site number and densities from 50 metres of water;
- 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 of discarded artefacts;
- 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.
- the data suggests that elevated landforms in close proximity to water sources were the preferred location for camping which manifests in the archaeological record as low to high density open camp sites (depends on the reliability of the water source) that may include a variety of artefact types, raw materials, heat treatment, grind stones, oven pits, hearths etc;
- the data also indicates that all landforms and unreliable water sources were utilised for transitory activities such as traveling and, or, hunting and gathering which manifests in the archaeological record as a background scatter of very low density discarded artefacts;
- a wide variety of site types are represented in the project area with open campsites and isolated artefacts by far the most common;
- lithic artefacts are primarily manufactured from mudstone and silcrete with a variety of other raw materials also utilised but in smaller proportions;
- 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 subject to disturbances including human and natural

3.1.1 PREDICTIVE MODEL

Considering the AHIMS results, local and regional archaeological investigations as well as the environmental context, given that fresh water was necessary for survival and there are no sources of reliable fresh water in the project area, it is possible that isolated finds and very low-density artefacts scatters may be present in the project area and be representative of small hunting and gathering parties. Evidence of such past Aboriginal land uses is manifests in the archaeological record as a background scatter of discarded artefacts.

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 SURVEY METHODOLOGY

The survey methodology is 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.

- Survey units identified based on landforms

- Transects will be via foot with the survey team spaced at 5-10 metres apart across the investigation area
- Ground surface visibility recorded for each survey unit and given a % rating of vegetation cover
- Exposures recorded for each survey unit given a % rating of exposure and exposure type
- Using the effective coverage and exposure information, calculate the effective survey coverage for each survey unit and the entire investigation area
- Disturbances recorded for each survey unit
- Take representative photographs of survey units
- All sites and/or PADs recorded in each survey unit and accurately mapped

Sites and their boundaries will be defined as;

- The spatial extent of the visible objects or direct evidence of their location
- Obvious physical boundaries where present such as, but not limited to, mound sites, middens, ceremonial grounds, disturbances (i.e., road, building)
- Identification by the Aboriginal community on the basis of cultural information

All sites and PADs will include, but not limited to, the following:

- Site type and content
- Survey unit (landform)
- Distance from water sources
- Vegetation cover (if any)
- Exposure (if any)
- Disturbances (if any)
- GPS co-ordinates
- Identified site boundaries
- Potential for in situ deposits
- Photographs (with a metric scale)

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 15th March 2023.

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 15th March 2023.

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

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:

- walking the project area
- 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, 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

523 Raymond Terrace Rd, Chisholm

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 as required)	
Please provide the contact details of at least one archaeologist (other than the project 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.

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.

This also includes appropriate and acceptable behaviour at all times.

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

COMMENTS ON PROPOSED METHODOLOGY

523 Raymond Terrace Rd, Chisholm

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

523 Raymond Terrace Rd, Chisholm

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:

_____

_____

_____

_____

penny@mcheritage.com.au

From: penny@mcheritage.com.au
Sent: Thursday, 16 March 2023 12:04 PM
To: 'Cazadirect@live.com'; 'admin@ungooroo.com.au'; 'Widescope.group@live.com'
Subject: Chisholm

RE: Heritage NSW Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 3) –Survey invitation - Proposed development at Chisholm

Site officers selected by the proponent for renumeration for the survey the above-named survey and are based on the information provided by each Service Provider in response to the information packet sent to you. Unfortunately, MCH did not receive a response from your group and we regret to advise that your application for paid participation has been unsuccessful. MCH 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 4th April 2023 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.

COVID requirements
All field staff to adhere to the required NSW Health orders at time of all field work (e.g., face masks, social distancing, quarantining if required).

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, Department of Premier & Cabinet 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
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: Tuesday, 4 April 2023 4:26 PM
To: 'Cazadirect@live.com'; 'admin@ungooroo.com.au'; 'Widescope.group@live.com'
Subject: Proposed development at Chisholm draft report
Attachments: 523 Raymond Terrace Road, Chisholm.pdf

Hi all,

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

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, Department of Premier & Cabinet 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. 8th May 2023 (additional time provided due to easter and Anzac 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, Department of Premier & Cabinet 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
Archaeologist
Forensic Anthropologist

McCARDLE
CULTURAL HERITAGE

PO Box 166,
Adamstown 2289 NSW
P: 0412 702 396
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M
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P: 0412 702 396

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9 May 2023

Via email

Dear All ,

RE: Heritage NSW Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 4 –Final Cultural Heritage Assessment - Proposed development at Chisholm

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

As outlined in the Heritage NSW, Department of Premier & Cabinet 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 : 523 Raymond Terrace Road,

Client Service ID : 743573

Penny Mccardle

Po Box 166
Adamstown New South Wales 2289

Attention: Penny Mccardle

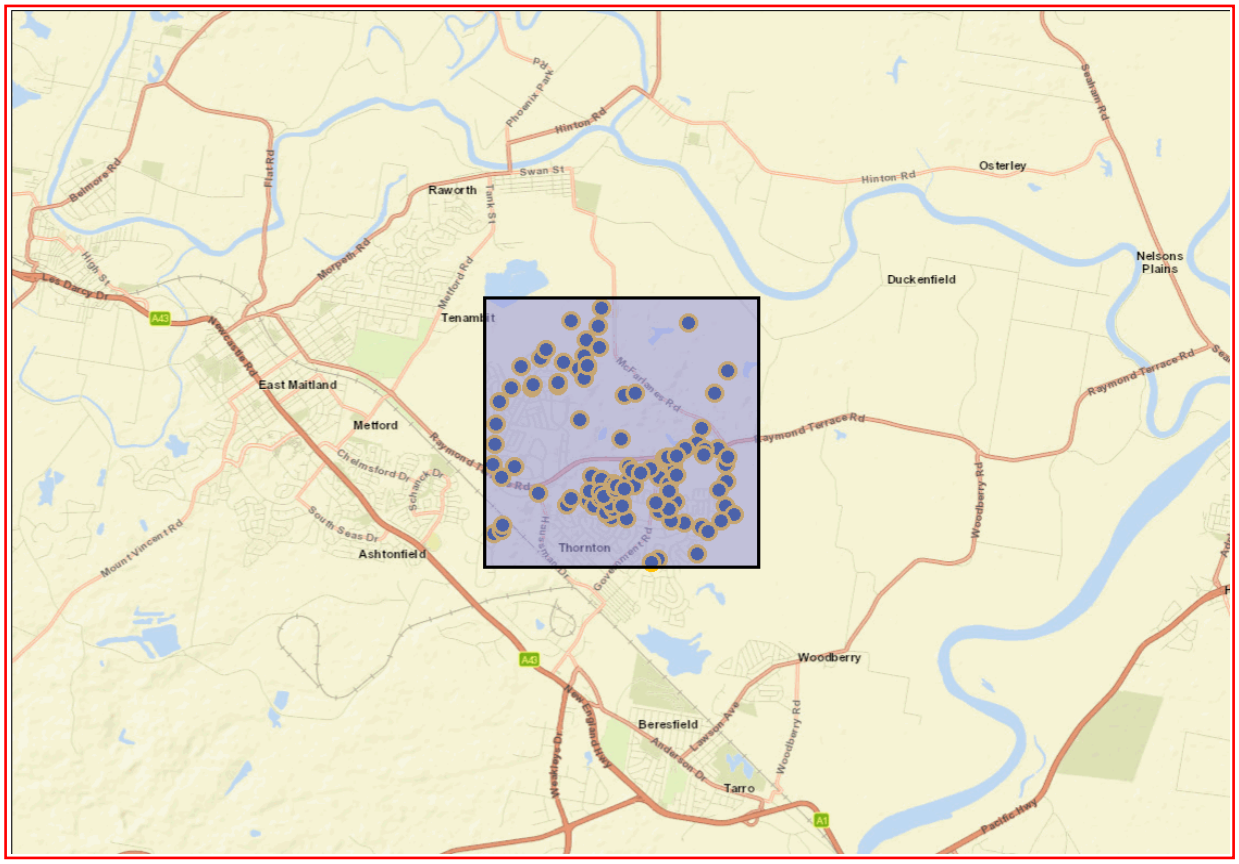
Email: penny@mcheritage.com.au

Date: 09 January 2023

Dear Sir or Madam:

AHIMS Web Service search for the following area at Datum :GDA, Zone : 56, Eastings : 371000.0 - 375000.0, Northings : 6372500.0 - 6376500.0 with a Buffer of 0 meters, conducted by Penny Mccardle on 09 January 2023.

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:

116	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 : 523 Raymond Terrace Road,

Client Service ID : 743573

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
38-4-0349	Thornton 5;	AGD	56	373370	6372350	Open site	Valid	Artefact : -	Open Camp Site	102568
	Contact	**Recorders**	Mr.Peter Kuskie					**Permits**	718,887	
38-4-0350	Thornton 6;	AGD	56	374050	6372500	Open site	Valid	Artefact : -	Open Camp Site	100924,102568
	Contact	**Recorders**	Mr.Peter Kuskie					**Permits**	718	
38-4-0351	Thornton 7;	AGD	56	374105	6372889	Open site	Partially Destroyed	Artefact : -	Open Camp Site	102568
	Contact	**Recorders**	Mr.Peter Kuskie					**Permits**	718,887,3044,3103	
38-4-0352	Thornton 8;	AGD	56	373850	6372960	Open site	Valid	Artefact : -	Isolated Find	100924
	Contact	**Recorders**	Mr.Peter Kuskie					**Permits**	718,887	
38-4-0353	Thornton 9;	AGD	56	373650	6372980	Open site	Valid	Artefact : -	Open Camp Site	100924
	Contact	**Recorders**	Mr.Peter Kuskie					**Permits**	718	
38-4-0354	Thornton 10;	AGD	56	373470	6372400	Open site	Valid	Artefact : -	Open Camp Site	100924,102568
	Contact	**Recorders**	Mr.Peter Kuskie					**Permits**	718,887	
38-4-0355	T 1; (Duplicate of 38-4-0399)	AGD	56	372100	6373200	Open site	Destroyed	Artefact : -	Isolated Find	103954
	Contact	**Recorders**	Mary Dallas Consulting Archaeologists (MDCA),Noeleen Curran,Ms.Lucinda O'Conn					**Permits**		
38-4-0356	T 2 Beresfield	AGD	56	372500	6373200	Open site	Destroyed	Artefact : -	Open Camp Site	
	Contact	**Recorders**	Noeleen Curran,Ms.Penny Mccardle					**Permits**		
38-4-0433	FMC 5;	AGD	56	371160	6372880	Open site	Valid	Artefact : -	Open Camp Site	100512
	Contact	**Recorders**	Liam Dagg					**Permits**	889	
38-4-0434	FMC 6;	AGD	56	371140	6372800	Open site	Valid	Artefact : -	Open Camp Site	100512
	Contact	**Recorders**	Liam Dagg					**Permits**	889	
38-4-0435	FMC 7;	AGD	56	371040	6372760	Open site	Valid	Artefact : -	Isolated Find	100512
	Contact	**Recorders**	Liam Dagg					**Permits**	889	
38-4-0395	T2; Beresfield	AGD	56	372500	6373200	Open site	Destroyed	Artefact : -	Open Camp Site	2880
	Contact	**Recorders**	Noeleen Curran,Ms.Penny Mccardle					**Permits**		
38-4-0399	T1;.	AGD	56	372100	6373200	Open site	Destroyed	Artefact : -	Isolated Find	2880,103954
	Contact	**Recorders**	Mary Dallas Consulting Archaeologists (MDCA),Noeleen Curran,Ms.Lucinda O'Conn					**Permits**		
38-4-0121	None Specified	AGD	56	373000	6373000	Open site	Valid	Artefact : -	Open Camp Site	
	Contact	**Recorders**	P Jones					**Permits**		
38-4-0123	None Specified	AGD	56	373100	6374900	Open site	Valid	Artefact : -	Open Camp Site	
	Contact	**Recorders**	P Jones					**Permits**		
38-4-0125	None Specified	AGD	56	372900	6374200	Open site	Valid	Artefact : -	Open Camp Site	
	Contact	**Recorders**	P Jones					**Permits**		
38-4-0625	Thornton 3 (T3)	AGD	56	371688	6373373	Open site	Valid	Artefact : 1		104584
	Contact	**Recorders**	MCH - McCardle Cultural Heritage Pty Ltd					**Permits**	2141	

Report generated by AHIMS Web Service on 09/01/2023 for Penny Mccardle for the following area at Datum :GDA, Zone : 56, Eastings : 371000.0 - 375000.0, Northings : 6372500.0 - 6376500.0 with a Buffer of 0 meters.. Number of Aboriginal sites and Aboriginal objects found is 116

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : 523 Raymond Terrace Road,

Client Service ID : 743573

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
38-4-0626	Thornton Substation PAD1	AGD	56	371688	6373373	Open site	Valid	Potential Archaeological Deposit (PAD) : 0		
	Contact	**Recorders**	MCH - McCardle Cultural Heritage Pty Ltd					**Permits**	1389	
38-4-0748	Thornton A 1(TA1)	AGD	56	374125	6373989	Open site	Partially Destroyed	Artefact : 2		100059,100546
	Contact	**Recorders**	Mr.Peter Kuskie					**Permits**	2112,3044,3103	
38-4-0749	Thornton A 3 (TA3)	AGD	56	374025	6374149	Open site	Partially Destroyed	Artefact : 3		100546
	Contact	**Recorders**	Mr.Peter Kuskie					**Permits**	3044,3103	
38-4-0750	Thornton A 8 (TA8)	AGD	56	374470	6373950	Open site	Valid	Artefact : 9		
	Contact	**Recorders**	Mr.Peter Kuskie					**Permits**		
38-4-0751	Thornton A 9 (TA9)	AGD	56	374450	6373840	Open site	Valid	Artefact : 5		
	Contact	**Recorders**	Mr.Peter Kuskie					**Permits**		
38-4-0752	Thornton A 13 (TA13)	AGD	56	374455	6373219	Open site	Partially Destroyed	Artefact : 1		100546
	Contact	**Recorders**	Mr.Peter Kuskie					**Permits**	3044,3103	
38-4-0753	Thornton A 20 (TA20)	AGD	56	374195	6372829	Open site	Partially Destroyed	Artefact : 1		100546,102568
	Contact	**Recorders**	Mr.Peter Kuskie					**Permits**	3044,3103	
38-4-0754	Thornton A 15 (TA15)	AGD	56	374590	6373090	Open site	Valid	Artefact : 1		
	Contact	**Recorders**	Mr.Peter Kuskie					**Permits**	3044,3103	
38-4-0755	Thornton A 18 (TA18)	AGD	56	374385	6372989	Open site	Partially Destroyed	Artefact : 1		100546,102568
	Contact	**Recorders**	Mr.Peter Kuskie					**Permits**	3044,3103	
38-4-0756	Thornton A 12 (TA12)	AGD	56	374465	6373589	Open site	Partially Destroyed	Artefact : 1		100059,100546
	Contact	**Recorders**	Mr.Peter Kuskie					**Permits**	2112,3044,3103	
38-4-0803	Thornton North 8 - TN 8	AGD	56	372030	6375350	Open site	Valid	Artefact : -		100914
	Contact T Russell	**Recorders**	Mr.Peter Kuskie					**Permits**	2113,2509,2880,2881,3341	
38-4-0804	Thornton North 9 - TN9	AGD	56	371580	6375000	Open site	Valid	Artefact : -		100914
	Contact T Russell	**Recorders**	Mr.Peter Kuskie					**Permits**	2113,2509,2880,2881,3341	
38-4-0833	Four Mile Creek PAD	AGD	56	371333	6373772	Open site	Valid	Potential Archaeological Deposit (PAD) : -		104584
	Contact T Russell	**Recorders**	AECOM Australia Pty Ltd - Sydney					**Permits**	2140	
38-4-0886	Thornton Beechwood 15	AGD	56	372390	6375260	Open site	Valid	Artefact : 1		103380
	Contact T Russell	**Recorders**	Mr.Peter Kuskie					**Permits**	3875	
38-4-0887	Thornton Beechwood 11	AGD	56	372340	6375110	Open site	Valid	Artefact : 1		103380
	Contact T Russell	**Recorders**	Mr.Peter Kuskie					**Permits**	3875	

Report generated by AHIMS Web Service on 09/01/2023 for Penny Mccardle for the following area at Datum :GDA, Zone : 56, Eastings : 371000.0 - 375000.0, Northings : 6372500.0 - 6376500.0 with a Buffer of 0 meters.. Number of Aboriginal sites and Aboriginal objects found is 116

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : 523 Raymond Terrace Road,

Client Service ID : 743573

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
38-4-0888	Thornton Beechwood 6	AGD	56	372275	6374489	Open site	Valid	Artefact : 2		103380
	Contact T Russell	**Recorders**	Mr.Peter Kuskie,Mr.Peter Kuskie					**Permits**	2816,2817,3875	
38-4-0889	Thornton North 27 (TN27)	AGD	56	371130	6373600	Open site	Valid	Artefact : 1		100988
	Contact T Russell	**Recorders**	Mr.Peter Kuskie					**Permits**	2809,3011,3642	
38-4-0890	Thornton North 1	GDA	56	373125	6373986	Open site	Destroyed	Artefact : -		
	Contact T Russell	**Recorders**	Mr.Giles (dup ID#12832) Hamm,MCH - McCardle Cultural Heritage Pty Ltd,Ms.Penı					**Permits**	2592,2819	
38-4-0891	Thornton North 3	AGD	56	373185	6373705	Open site	Destroyed	Artefact : -		
	Contact T Russell	**Recorders**	Navin Officer Heritage Consultants Pty Ltd					**Permits**	2592,2819,3189,3745	
38-4-0892	Thornton North Site 2	GDA	56	373444	6373951	Open site	Destroyed	Artefact : 1		
	Contact T Russell	**Recorders**	Mr.Giles (dup ID#12832) Hamm,MCH - McCardle Cultural Heritage Pty Ltd,Ms.Penı					**Permits**	2592,2819	
38-4-0893	Thornton North 4	AGD	56	373105	6373500	Open site	Destroyed	Artefact : -		
	Contact T Russell	**Recorders**	Mr.Giles (dup ID#12832) Hamm					**Permits**	2592,2819,3189	
38-4-0927	Thornton North Site 1 - Lot 20	AGD	56	372943	6374863	Open site	Valid	Artefact : 6		
	Contact T Russell	**Recorders**	Mr.Giles (dup ID#12832) Hamm					**Permits**	4762	
38-4-0928	Thornton North Site 2 - Lot 20	AGD	56	373068	6373723	Open site	Destroyed	Artefact : 1		
	Contact T Russell	**Recorders**	Mr.Giles (dup ID#12832) Hamm					**Permits**	3745,4359	
38-4-0929	Thornton North Site 3 - Lot 20	AGD	56	373007	6373565	Open site	Destroyed	Artefact : 2		104167
	Contact T Russell	**Recorders**	Mr.Giles (dup ID#12832) Hamm					**Permits**	3745,4359	
38-4-0930	Thornton North Site 4- Lot 1	AGD	56	372623	6373439	Open site	Valid	Artefact : 1		
	Contact T Russell	**Recorders**	Mr.Giles (dup ID#12832) Hamm					**Permits**	4531	
38-4-0931	Thornton North Site 1 Lot 1	AGD	56	372597	6373409	Open site	Valid	Artefact : 3		
	Contact T Russell	**Recorders**	Mr.Giles (dup ID#12832) Hamm					**Permits**	4531	
38-4-0932	Thornton North Site 2 Lot 1	AGD	56	372474	6373634	Open site	Valid	Artefact : 2		
	Contact T Russell	**Recorders**	Mr.Giles (dup ID#12832) Hamm					**Permits**	4531	
38-4-0933	Thornton North Site 3 Lot 1	AGD	56	372620	6373595	Open site	Valid	Artefact : 2		
	Contact T Russell	**Recorders**	Mr.Giles (dup ID#12832) Hamm					**Permits**	4531	
38-4-0934	Thornton North Site 4 - Lot 20	AGD	56	372620	6373595	Open site	Valid	Artefact : 3		104167
	Contact T Russell	**Recorders**	Mr.Giles (dup ID#12832) Hamm					**Permits**	4359	
38-4-0935	Thornton North Site 5 - Lot 20	AGD	56	372960	6373457	Open site	Destroyed	Artefact : 2		104167
	Contact T Russell	**Recorders**	Mr.Giles (dup ID#12832) Hamm					**Permits**	4359	
38-4-0937	Thornton North Site 7 - Lot 20	AGD	56	372818	6373445	Open site	Valid	Artefact : 1		104167
	Contact T Russell	**Recorders**	Mr.Giles (dup ID#12832) Hamm					**Permits**		
38-4-0938	Thornton North Site 8 - Lot 20	AGD	56	372843	6373494	Open site	Valid	Artefact : 2		104167
	Contact T Russell	**Recorders**	Mr.Giles (dup ID#12832) Hamm					**Permits**		
38-4-0939	Thornton North Site 9 - Lot 20	AGD	56	372800	6373535	Open site	Valid	Artefact : 1		104167
	Contact T Russell	**Recorders**	Mr.Giles (dup ID#12832) Hamm					**Permits**		

Report generated by AHIMS Web Service on 09/01/2023 for Penny Mccardle for the following area at Datum :GDA, Zone : 56, Eastings : 371000.0 - 375000.0, Northings : 6372500.0 - 6376500.0 with a Buffer of 0 meters.. Number of Aboriginal sites and Aboriginal objects found is 116

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : 523 Raymond Terrace Road,

Client Service ID : 743573

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
38-4-0941	Thornton A 14 (TA14)	AGD	56	374355	6373459	Open site	Partially Destroyed	Artefact : 73		100546
	Contact T Russell	**Recorders**	Mr.Peter Kuskie					**Permits**	3103	
38-4-0942	Thornton North 7 (TN7)	AGD	56	371410	6375280	Open site	Valid	Artefact : 20		100914
	Contact T Russell	**Recorders**	Mr.Peter Kuskie					**Permits**	2509,2880,2881,3341	
38-4-0943	Thornton North 3 (TN3)	AGD	56	371950	6375050	Open site	Valid	Artefact : 3		100914
	Contact T Russell	**Recorders**	Mr.Peter Kuskie					**Permits**	2880,2881,3341	
38-4-0944	Thornton North 13 (TN13)	AGD	56	371090	6374740	Open site	Valid	Artefact : 18		100914
	Contact T Russell	**Recorders**	Mr.Peter Kuskie					**Permits**	2468,2592,2880,2881,3341,3642	
38-4-0945	Thornton North 12 (TN12)	AGD	56	371260	6374960	Open site	Valid	Artefact : -		100914
	Contact T Russell	**Recorders**	Mr.Peter Kuskie					**Permits**	2880,2881,3341	
38-4-0881	Thornton North 26 (TN26)	AGD	56	371000	6373790	Open site	Valid	Artefact : 5		
	Contact T Russell	**Recorders**	Mr.Peter Kuskie					**Permits**	2468,2592,3642	
38-4-0882	Thornton North 21 (TN21)	AGD	56	371040	6374100	Open site	Valid	Artefact : 6		
	Contact T Russell	**Recorders**	Mr.Peter Kuskie					**Permits**	2468,2592,3642	
38-4-0883	Thornton North 20 (TN20)	AGD	56	371040	6374400	Open site	Valid	Artefact : 1		100914
	Contact T Russell	**Recorders**	Mr.Peter Kuskie					**Permits**	2880,2881,3341,3642	
38-4-0884	Thornton North 2 (TN2)	AGD	56	371950	6375000	Open site	Valid	Artefact : 1		100914
	Contact T Russell	**Recorders**	Mr.Peter Kuskie					**Permits**	2880,2881,3341	
38-4-0978	Thornton North PAD 1	AGD	56	371564	6374950	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact Searle	**Recorders**	Ms.Penny Mccardle					**Permits**	2509	
38-4-1052	TV5 (Thornton Vets 5)	GDA	56	371790	6375590	Open site	Valid	Artefact : 1		
	Contact	**Recorders**	Mr.Peter Kuskie					**Permits**		
38-4-1053	TV3 (Thornton Vets 3)	GDA	56	371880	6375720	Open site	Valid	Artefact : 2		
	Contact	**Recorders**	Mr.Peter Kuskie					**Permits**		
38-4-1054	TV1 (Thornton Vets 1)	GDA	56	372240	6376160	Open site	Valid	Artefact : 1		
	Contact	**Recorders**	Mr.Peter Kuskie					**Permits**		
38-4-0124	Parkwood;	AGD	56	372850	6373300	Open site	Valid	Artefact : -	Open Camp Site	
	Contact	**Recorders**	P Jones					**Permits**		
38-4-1643	Lot 2 Govt Road Thornton	GDA	56	373775	6374010	Open site	Partially Destroyed	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	**Recorders**	Mr.Giles (dup ID#12832) Hamm					**Permits**	3725	
38-4-1754	VALAIRE LAND 1/A	GDA	56	373723	6373735	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Mr.Peter Kuskie					**Permits**	3899	
38-4-1755	VALAIRE LAND 2/A	GDA	56	373522	6373438	Open site	Valid	Artefact : -		

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SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
	Contact	**Recorders**	Mr.Peter Kuskie					**Permits**	3899	
38-4-1756	VALAIRE LAND 2/B	GDA	56	373722	6373618	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	**Recorders**	South East Archaeology					**Permits**	3899	
38-4-1757	VALAIRE LAND 4/A	GDA	56	373727	6373345	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Mr.Peter Kuskie					**Permits**	3899	
38-4-1758	VALAIRE LAND 5/A	GDA	56	373571	6373318	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Mr.Peter Kuskie					**Permits**	3899	
38-4-1759	RPS Thornton AS1	GDA	56	373569	6373835	Open site	Destroyed	Artefact : 1		
	Contact	**Recorders**	RPS Australia East Pty Ltd - Hamilton					**Permits**		
38-4-1760	RPS Thornton AS2	GDA	56	373823	6373858	Open site	Destroyed	Artefact : 1		
	Contact	**Recorders**	RPS Australia East Pty Ltd - Hamilton					**Permits**		
38-4-1730	TB22	GDA	56	372463	6375885	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	**Recorders**	South East Archaeology					**Permits**	3875	
38-4-1731	TB21	GDA	56	372688	6376367	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	**Recorders**	Mr.Peter Kuskie,South East Archaeology					**Permits**	3875	
38-4-1732	TB17	GDA	56	372440	6375642	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	**Recorders**	Mr.Peter Kuskie,South East Archaeology					**Permits**	3875	
38-4-1733	TB16	GDA	56	372495	6375495	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	**Recorders**	Mr.Jason Barr					**Permits**	3875	
38-4-1734	TB14	GDA	56	372353	6375445	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	**Recorders**	Mr.Peter Kuskie,South East Archaeology					**Permits**	3875	
38-4-1789	RPS JN 2	GDA	56	373940	6374242	Open site	Destroyed	Artefact : -		
	Contact	**Recorders**	RPS Australia East Pty Ltd - Hamilton,RPS Australia East Pty Ltd - Hamilton,Ms.Jo N					**Permits**	4157	
38-4-1790	RPS JN 3	GDA	56	374431	6374267	Open site	Destroyed	Artefact : -		
	Contact	**Recorders**	RPS Australia East Pty Ltd - Hamilton,RPS Australia East Pty Ltd - Hamilton,Ms.Jo N					**Permits**	4157	
38-4-1788	RPS JN 1	GDA	56	373954	6374267	Open site	Destroyed	Artefact : -		
	Contact	**Recorders**	RPS Australia East Pty Ltd - Hamilton,RPS Australia East Pty Ltd - Hamilton,Ms.Jo N					**Permits**	4157	
38-4-1845	RPS BP AS1	GDA	56	373978	6376153	Open site	Destroyed	Artefact : -		

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AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : 523 Raymond Terrace Road,

Client Service ID : 743573

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
	Contact	**Recorders**	RPS Australia East Pty Ltd - Hamilton,RPS Australia East Pty Ltd - Hamilton,Ms.Jo N					**Permits**	4196	
38-4-1957	RPS CHISHOLM AS01	GDA	56	372645	6376085	Open site	Destroyed	Artefact : 1		
	Contact	**Recorders**	RPS Australia East Pty Ltd - Hamilton,RPS Australia East Pty Ltd - Hamilton,RPS Au					**Permits**	4546	
45-7-0375	RPS CHISHOLM PAD01	GDA	56	372666	6375765	Open site	Destroyed	Artefact : 1, Potential Archaeological Deposit (PAD) : 1		
	Contact	**Recorders**	RPS Australia East Pty Ltd - Hamilton,RPS Australia East Pty Ltd - Hamilton,RPS Au					**Permits**	4546	
38-4-1995	Lot 131 Site 1 Thornton	GDA	56	372551	6373614	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Mr.Giles Hamm					**Permits**	4531	
38-4-1996	Lot 131 Site 3 Thornton	GDA	56	372570	6373596	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Mr.Giles Hamm					**Permits**	4531	
38-4-2009	Lot 131 Site 9 Thornton	GDA	56	372692	6373590	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Mr.Giles Hamm					**Permits**	4531	
38-4-1976	RTRD03	GDA	56	372860	6373415	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Biosis Pty Ltd - Wollongong,Mrs.Samantha Keats					**Permits**		
38-4-1977	RTRD14	GDA	56	372807	6373263	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Biosis Pty Ltd - Wollongong,Mrs.Samantha Keats					**Permits**		
38-4-1978	RTRD01	GDA	56	372949	6373504	Open site	Destroyed	Artefact : -		104167
	Contact	**Recorders**	Biosis Pty Ltd - Wollongong,Mrs.Samantha Keats					**Permits**	4359	
38-4-1979	RTRD04	GDA	56	372988	6373530	Open site	Destroyed	Artefact : -		104167
	Contact	**Recorders**	Biosis Pty Ltd - Wollongong,Mrs.Samantha Keats					**Permits**	4359	
38-4-1980	RTRD05	GDA	56	372993	6373548	Open site	Destroyed	Artefact : -		104167
	Contact	**Recorders**	Biosis Pty Ltd - Wollongong,Mrs.Samantha Keats					**Permits**	4359	
38-4-1981	RTRD13	GDA	56	372869	6373260	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Biosis Pty Ltd - Wollongong,Mrs.Samantha Keats					**Permits**		
38-4-1982	RTRD12	GDA	56	372827	6373268	Open site	Valid	Artefact : -		104167
	Contact	**Recorders**	Biosis Pty Ltd - Wollongong,Mrs.Samantha Keats					**Permits**		
38-4-1983	RTRD11	GDA	56	372874	6373209	Open site	Valid	Artefact : -		104167
	Contact	**Recorders**	Biosis Pty Ltd - Wollongong,Mrs.Samantha Keats					**Permits**		
38-4-1984	RTRD10	GDA	56	373023	6373444	Open site	Destroyed	Artefact : -		
	Contact	**Recorders**	Biosis Pty Ltd - Wollongong,Mrs.Samantha Keats					**Permits**	4359	
38-4-1985	RTRD09	GDA	56	373026	6373381	Open site	Valid	Artefact : -		104167
	Contact	**Recorders**	Biosis Pty Ltd - Wollongong,Mrs.Samantha Keats					**Permits**		
38-4-1986	RTRD08	GDA	56	372982	6373537	Open site	Destroyed	Artefact : -		104167
	Contact	**Recorders**	Biosis Pty Ltd - Wollongong,Mrs.Samantha Keats					**Permits**	4359	
38-4-1987	RTRD07	GDA	56	373011	6373630	Open site	Destroyed	Artefact : -		104167
	Contact	**Recorders**	Biosis Pty Ltd - Wollongong,Mrs.Samantha Keats					**Permits**	4359	

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AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : 523 Raymond Terrace Road,

Client Service ID : 743573

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
38-4-1988	RTRD06	GDA	56	373018	6373607	Open site	Destroyed	Artefact : -		104167
	Contact	**Recorders**	Biosis Pty Ltd - Wollongong,Mrs.Samantha Keats					**Permits**	4359	
38-4-1989	RTRD02	GDA	56	372909	6373342	Open site	Valid	Artefact : -		104167
	Contact	**Recorders**	Biosis Pty Ltd - Wollongong,Mrs.Samantha Keats					**Permits**	4359	
38-4-1966	Valaire Land 6/A	GDA	56	373812	6373466	Open site	Destroyed	Artefact : 1, Potential Archaeological Deposit (PAD) : 1		
	Contact	**Recorders**	Mr.Peter Kuskie,South East Archaeology					**Permits**		
38-4-1999	Lot 131 Site 4 Thornton	GDA	56	372724	6373519	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Mr.Giles Hamm					**Permits**	4531	
38-4-2000	Lot 131 Site 5	GDA	56	372748	6373532	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Mr.Giles Hamm					**Permits**	4531	
38-4-2001	Lot 131 Site 6 Thornton	GDA	56	372274	6373493	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Mr.Giles Hamm					**Permits**	4531	
38-4-2002	Lot 131 Site 7 Thornton	GDA	56	372714	6373500	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Mr.Giles Hamm					**Permits**	4531	
38-4-2003	Lot 131 Site 8 Thornton	GDA	56	372523	6373465	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Mr.Giles Hamm					**Permits**	4531	
38-4-1955	RPS JN 6 AS	GDA	56	374233	6374254	Open site	Destroyed	Artefact : -		
	Contact	**Recorders**	RPS Australia East Pty Ltd - Hamilton,RPS Australia East Pty Ltd - Hamilton,Ms.Jo N					**Permits**		
38-4-1956	RPS JN 4 IF	GDA	56	374186	6374579	Open site	Destroyed	Artefact : -		
	Contact	**Recorders**	RPS Australia East Pty Ltd - Hamilton,RPS Australia East Pty Ltd - Hamilton,Ms.Jo N					**Permits**		
38-4-2033	Raymond Terrace Road IF	GDA	56	373643	6374110	Open site	Valid	Artefact : -		
	Contact	**Recorders**	RPS Australia East Pty Ltd - York Street Sydney ,Mrs.Amanda Crick					**Permits**		
38-4-2031	Raymond Terrace Road IF2	GDA	56	373825	6374148	Open site	Valid	Artefact : -		
	Contact	**Recorders**	RPS Australia East Pty Ltd - York Street Sydney ,Mrs.Amanda Crick					**Permits**		
38-4-2032	Raymond Terrace Road IF1	GDA	56	373702	6374134	Open site	Destroyed	Artefact : -		
	Contact	**Recorders**	RPS Australia East Pty Ltd - York Street Sydney ,RPS Australia East Pty Ltd - Newca					**Permits**		
38-4-2040	HN-MF-A02	GDA	56	374374	6375095	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	**Recorders**	Heritage Now - Belmont,Heritage Now - Belmont,Ms.Crystal Phillips,Ms.Crystal Phi					**Permits**		
38-4-2041	HN-MF-A01	GDA	56	374559	6375442	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	**Recorders**	Heritage Now - Belmont,Heritage Now - Belmont,Ms.Crystal Phillips,Ms.Crystal Phi					**Permits**		
38-4-2069	RTRD15	GDA	56	373010	6373468	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Biosis Pty Ltd - Wollongong,Mrs.Samantha Keats					**Permits**		

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AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : 523 Raymond Terrace Road,

Client Service ID : 743573

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
38-4-2070	RTRD16	GDA	56	372833	6373307	Open site	Valid	Artefact : -		
Contact		**Recorders**	Biosis Pty Ltd - Wollongong,Mrs.Samantha Keats					**Permits**		
38-4-2071	RTRD17	GDA	56	372785	6373290	Open site	Valid	Artefact : -		
Contact		**Recorders**	Biosis Pty Ltd - Wollongong,Mrs.Samantha Keats					**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

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