

Appendix 11

Aboriginal Cultural Heritage Assessment

**prepared by McCardle Cultural
Heritage Pty Ltd**

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DARRYL MCCARTHY CONSTRUCTIONS PTY LTD

ABN: 86 001 646 028

Dowe's Quarry

Aboriginal Cultural Heritage Assessment

Prepared by



M^CCARDLE
CULTURAL HERITAGE

September 2019

Appendix 11

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Aboriginal Cultural Heritage Assessment

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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.

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 asdebitage).

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.

COMMONLY USED ACRONYMS

ACHA	Aboriginal Cultural Heritage Assessment
ACHMP	Aboriginal Cultural Heritage Management Plan
AHD	Australian Height Datum
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit
OEH	Office of Environment and Heritage

OEH 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

EXECUTIVE SUMMARY

McCardle Cultural Heritage Pty Ltd (MCH) was commissioned by R.W. Corkery & Co Pty Ltd on behalf of Darryl McCarthy Constructions Pty Ltd (DMC) prepare an Aboriginal Cultural Heritage Assessment (ACHA) for the proposed expansion of the existing Dowe's Quarry located north of Tenterfield.

The existing Quarry originally commenced operations in 1987 and is currently operating under a development consent issued by the Joint Regional Planning Panel on 19 March 2015 and subsequently modified on 21 January 2016. The Quarry has approval to extract up to 150 000tpa of quartzose material, disturb a total area of 7ha and store a range of fine materials generated during the processing of the material at DMC's processing plant at Sunnyside, located approximately 10km northwest of Tenterfield.

DMC have identified 4.8 million tonnes of quartzose material adjacent to, and beneath the current approved extraction area, for which they are seeking development consent to extract. The extraction of this additional material would involve the removal of overburden and generate fines to be stored within the Quarry Site. Overall, the additional activities would increase the total area of disturbance to approximately 16.4ha of which 6.5ha is remnant native vegetation which would need to be progressively cleared. This assessment pertains to the proposed expansion of the existing quarry activities.

The quarry site is located on rural land within Lots 308 and 309 DP 751540 and Lot 3 DP 42044 and under the Proposal would extend into Lots 239 and 260 DP 751540 and Lot 4 DP 42044. The boundary of the Quarry Site has been defined principally to define an area in which all activities are proposed, recognising that not all land within the Quarry Site would be disturbed.

In terms of the environmental context, the quarry site is located approximately 2.5 kilometres from the southern boundary of the Bald Rock National Park. Situated on a small ridge to the south of Washpool Creek, the area to the north of the quarry site is relatively flat land and a small valley is located to the south of the quarry site. The quarry site itself, consists of the existing areas of disturbance (existing pit) and a ridge running generally in an east-west direction along the southern boundary of the existing pit and slopes to the north of the pit. Situated on quartzose materials within undifferentiated granite or grandiorites, (none of which were typically utilised as raw materials by Aboriginal people in the area), soils of the Tenterfield area generally consist of an A₁ horizon of sandy clay loam (colour not recorded) up to 15 centimetres in depth that overlays the A₂ horizon of sandy clay loam (colour not recorded) between 15 and 30 centimetres in depth. This overlies the B horizon of sandy clay (colour not recorded). 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. However, any artefacts that may be present within the Quarry site will have been subject to surface dispersion, down slope movement, and differential burial or exposure by bioturbation agents (ants, worms, termites, tree fall etc.) resulting in the displacement of artefacts at the interface of the A and B horizons, this producing a disturbed archaeological deposit.

The most reliable water source was Washpool Creek 1 kilometres to the north; the less reliable Washbrook Creek 1 kilometre to the south, and Tenterfield Creek 1.7 kilometres to the south. Given that fresh water is essential for survivability, the quarry site is located in an environment

with no fresh water sources or associated subsistence resources and therefore unsuitable for sustained land uses (camping). The area may have been utilised for more transitory activities such as hunting and gathering and travel to reliable water sources. In terms of land uses, the quarry site itself has been previously logged and utilised for improved pasture, quarrying, access roads, dams and overburden stockpiling. The environment provides very limited resources, including raw materials, fauna, flora and water, that would have allowed for sustainable occupation of the area. Whilst the quarry site may have provided for transitory activities which manifest in the archaeological record as very low-density artefact scatters and isolated finds, such evidence is typically disturbed through past land uses such as those identified in the quarry site.

A search of the OEH AHIMS register has shown that 1 known Aboriginal site (scar tree) is currently recorded within three kilometres of the quarry site, and is outside the quarry site. No regional or local based archaeological assessments have been undertaken in the area and as such a general broad based regional archaeological context and summary is provided and following broad predictions can be made for the region:

- a limited number of site types are represented in the region (one scar tree);
- 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.

Based on the environmental and archaeological contexts, it was predicted that within the specific project area, it is unlikely that evidence of past Aboriginal land use will be present due to the distance from reliable water and resources. If sites are present, they are expected to be isolated finds or very low-density artefact scatters representing transitory activities such as hunting and gathering and travel to reliable water sources.

The survey confirmed the landforms, past land uses and associated impacts. Surveyed in two survey units (ridge and slopes) the southern strip of the remaining ridge located along the southern edge of the existing pty was highly disturbed through past clearing and associated quarry extraction activities. Vegetation was predominantly open woodland which contributed to reduced ground surface visibility of the ridge area and exposures were high (erosion). The northern survey unit (slopes) was also previously cleared and had also been extensively logged for fencing, telegraph poles and housing. Vegetation included open woodland with grasses and an open paddock in the north western corner. Ground surface visibility was low due to grass cover and exposures were high (tracks and erosion).

No archaeological sites or Potential Archaeological Deposits (PADs) were identified during the survey and this is likely due to a number of factors including:

- Distance from reliable water and subsistence resources indicates the quarry site was unlikely to have been utilised for camping;
- The quarry site may have been used for travel and/or hunting and gathering which manifest in the archaeological record as very low-density artefact scatters and/or isolated finds; and
- Past and present land uses and natural factors would have displaced and/or destroyed any evidence of past Aboriginal land use.

Considering general models of occupation for the locality, the results of this and local investigations, the locality may have been utilised by Aboriginal people. As the quarry site itself is located over one-kilometre from reliable water and associated resources, the quarry site is unlikely to have been utilised more than a low intensity usage such as transitory movement or hunting/gathering activities.

Based on the environmental and archaeological context and survey results, the following recommendations are made:

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 Amendment (Aboriginal Objects and Aboriginal Places) Regulation 2010, under the National Parks and Wildlife Act 1974;
2. Cultural heritage awareness will be included in site Inductions, forming part of the staff training process. The matters to be presented in the induction will be prepared in consultation with the RAPs and an archaeologist;
3. Should any Aboriginal objects be uncovered during works (unexpected finds), all work will cease at that location immediately, a 10-metre buffer around the artefact(s) will be tapped off with high visibility tape/fencing (works may proceed outside the buffer), and the Environmental Line contacted; and
4. Should human skeletal remains be uncovered during works, all works will cease at that location, a 50-metre buffer around the remains will be tapped off with high visibility tape/fencing (works may proceed outside the buffer), and the local Police contacted immediately.

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1. INTRODUCTION

McCardle Cultural Heritage Pty Ltd (MCH) has been commissioned by R.W. Corkery & Co. Pty Limited on behalf of Darryl McCarthy Constructions Pty Ltd (DMC) ('the Applicant') to prepare an Aboriginal Cultural Heritage Assessment (ACHA) for the proposed expansion of the existing Dowe's Quarry ('the Quarry') located north of Tenterfield.

The existing Quarry originally commenced operations in 1987 and is currently operating under a development consent issued by the Joint Regional Planning Panel on 19 March 2015 and subsequently modified on 21 January 2016. The Quarry has approval to extract up to 150 000tpa of quartzose material, disturb a total area of 7ha and store a range of fine materials generated during the processing of the material at DMC's processing plant at Sunnyside, located approximately 10km northwest of Tenterfield.

The Applicant is seeking development consent for the continued operation and extension of extraction operations within Dowe's Quarry, which would also include an increase to the total area of disturbance, an increase to annual production and product despatch, campaign-based on-site processing for some products, the backloading of fines material from the Sunnyside Crushing and Screening Plant and progressive backfilling of overburden and fines within the extraction void. These activities are collectively referred to as 'the Proposal' and the site of the development referred to as the Quarry Site.

DMC have identified 4.8 million tonnes of quartzose material adjacent to, and beneath the current approved extraction area, for which they are seeking development consent to extract. The extraction of this additional material would involve the removal of overburden and generate fines to be stored within the Quarry Site. Overall, the additional activities would increase the total area of disturbance to approximately 16.4ha of which 6.5ha is remnant native vegetation which would need to be progressively cleared. This assessment pertains to the proposed expansion of the existing quarry activities.

This assessment has been undertaken to meet the NSW Department of Environment, Climate Change and Water (DECCW), now known as the Office of Environment and Heritage (OEH), Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW 2010), the OEH Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH 2011), the DECCW Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW 2010b), the Secretary's Environmental Assessment Requirements (SEARs) and the brief.

1.1 PROPONENT DETAILS

Darryl McCarthy Constructions Pty Ltd has been successfully operating Dowe's Quarry since 1987. The Company has been established for over 40 years, operating throughout Tenterfield Shire principally with construction projects and the supply of construction and industrial materials. The Applicant has operated the Sunnyside Crushing and Screening Plant since 1977 where processing of the quartzose rock from Dowe's Quarry currently occurs and from where final products are despatched.

1.2 THE PROJECT AREA

The project area (referred to as the Quarry Site) is defined by the proponent and is located on rural land within Lots 308 and 309 DP 751540 and Lot 3 DP 42044 and under the Proposal would extend into Lots 239 and 260 DP 751540 and Lot 4 DP 42044. The boundary of the Quarry Site has been defined principally to define an area in which all activities are proposed, recognising that not all land within the Quarry Site would be disturbed. The Quarry Site would comprise approximately 26.8ha of land owned by Mr Rod Dowe and leased by the Applicant. A total of approximately 16.4ha of land is proposed to be disturbed throughout the life of the Quarry. The northern boundary of the Quarry Site coincides with a Crown Road that traverses Lot 308 DP 751540. The location and extent of the quarry site is illustrated in **Figures 1.1 to 1.3** and **Figure 1.4** shows the land titles within and adjacent to the quarry.

Figure 1.1 Regional Location of the Quarry Site

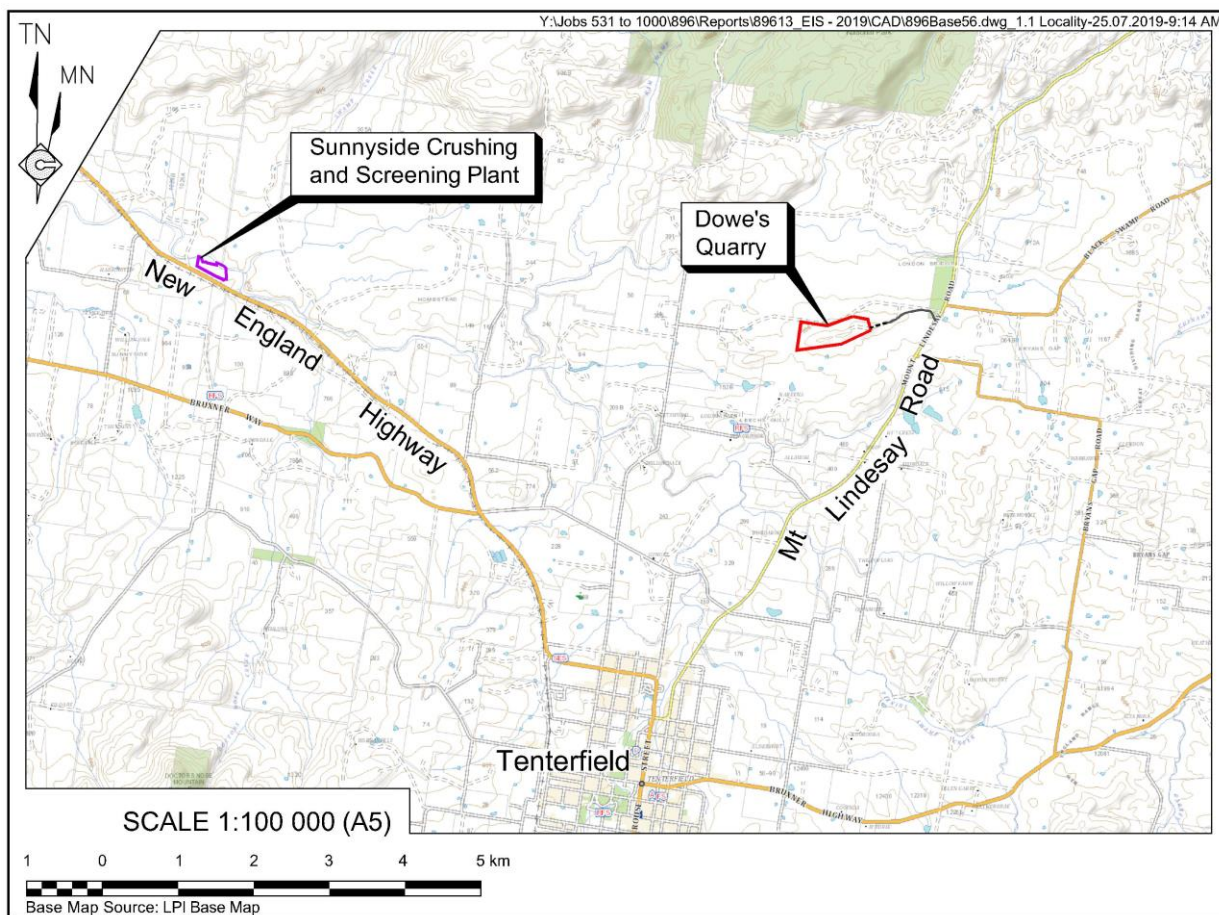


Figure 1.2 Local Location of the Quarry Site

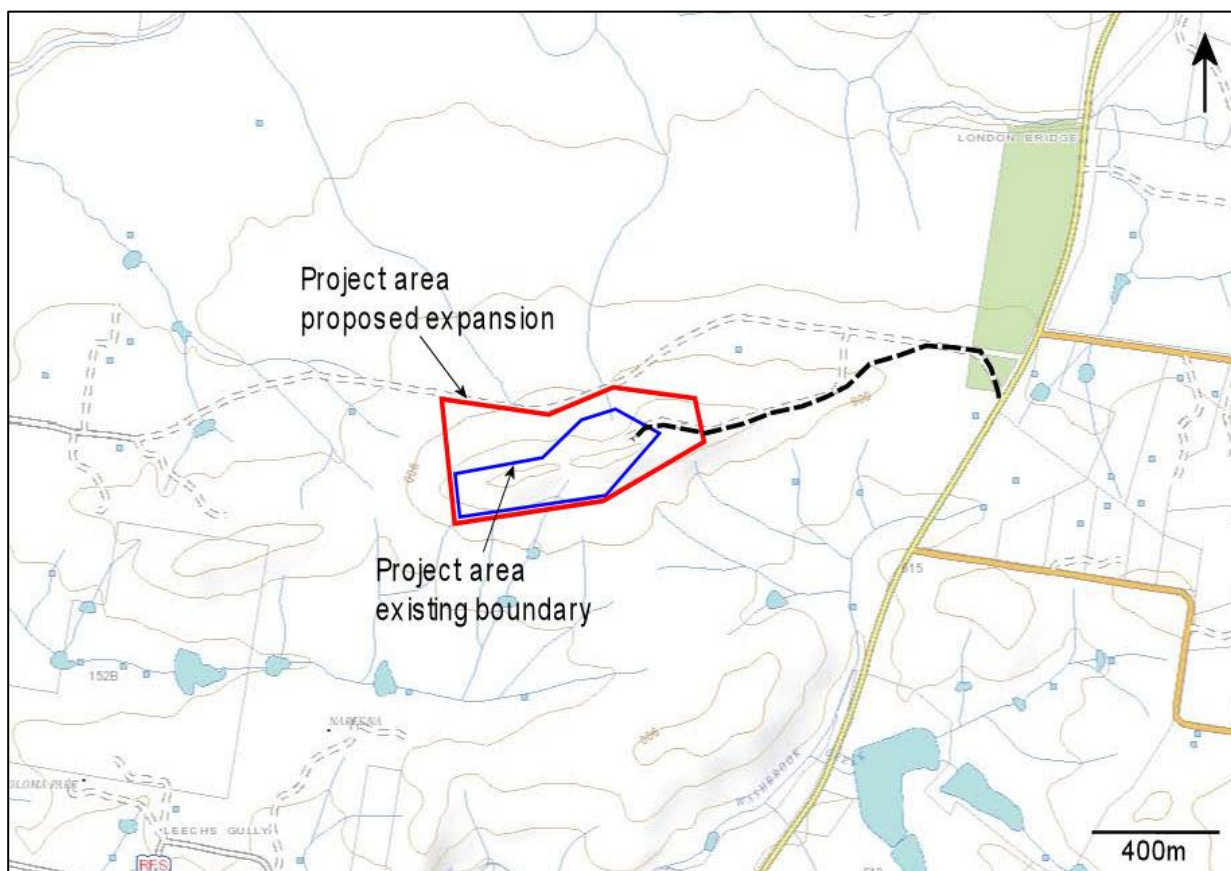


Figure 1.3 Indicative Quarry Layout

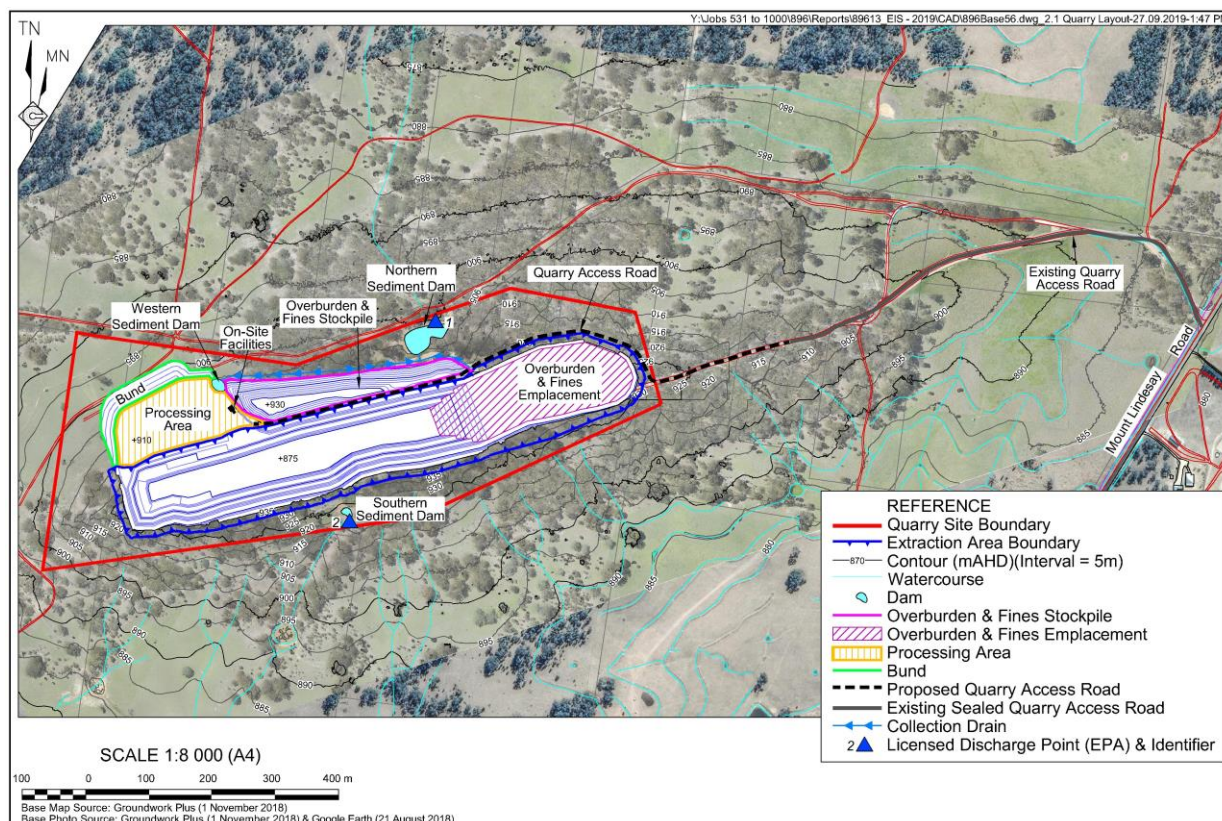
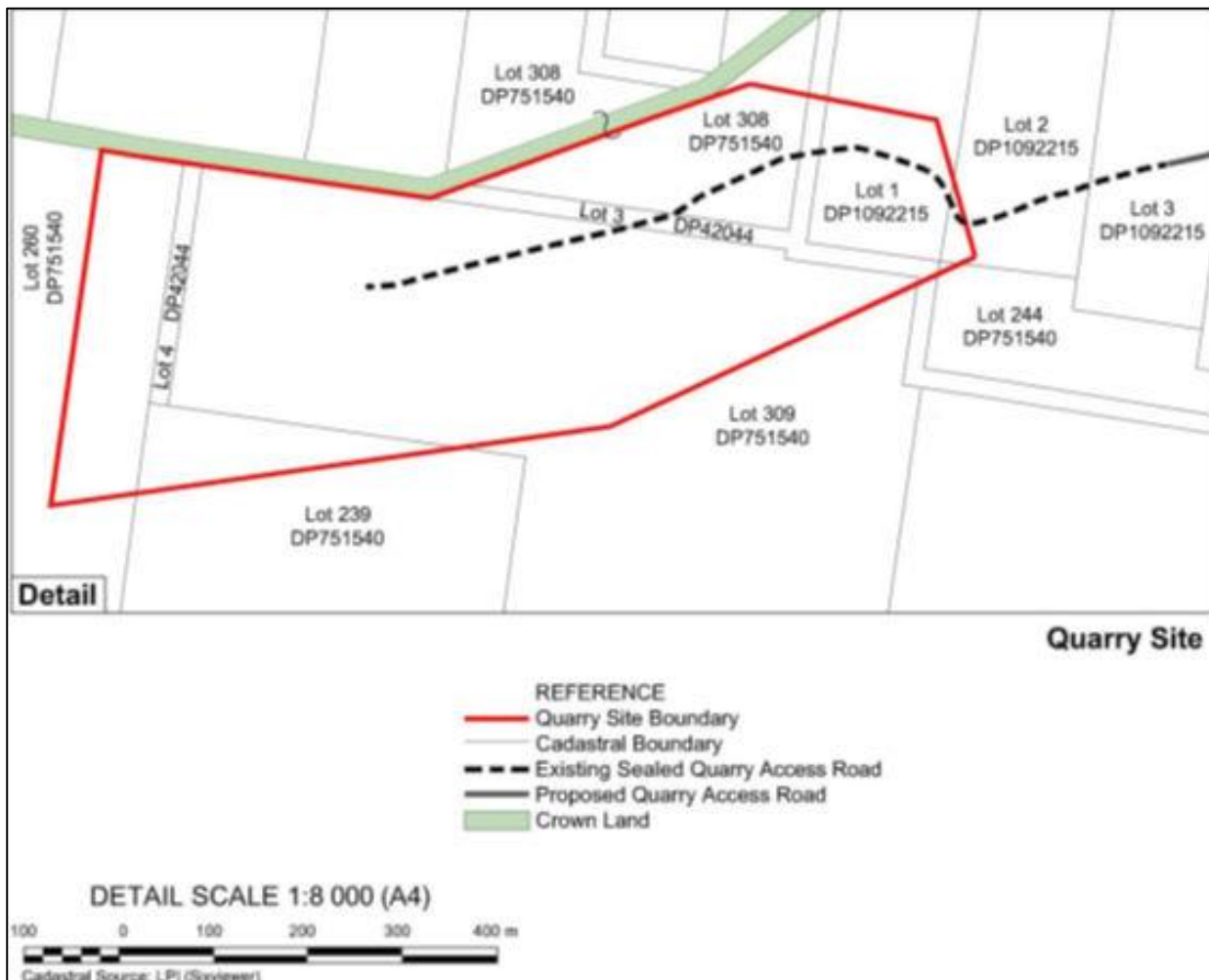


Figure 1.4 Land Titles within and adjacent to the Quarry



1.3 DESCRIPTION OF THE DEVELOPMENT

The activities for which the Applicant is seeking development consent would involve:

- the ongoing extraction of quartzose rock within the existing extraction area and an extension of the extraction area, producing up to 230 000tpa;
- campaign crushing and screening on site using mobile processing equipment. On-site processing would be undertaken in response to client requirements;
- transportation of extracted rock to the State road network, (i.e. the New England Highway) for delivery principally to the Sunnyside Crushing and Screening Plant, 10km northwest of Tenterfield and directly to Clients of other destinations;
- backloading of clay fines and crusher fines from the Sunnyside Plant to Dowe's Quarry;
- progressive emplacement of overburden and returned clay fines within and adjacent to the extraction area;

- storage of surplus crusher fines from the Sunnyside Plant awaiting sale and despatch; and
- transportation of clay fines and crusher fines to customers in the New England region.

1.4 PURPOSE OF THE 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.

1.5 OBJECTIVE OF THE ASSESSMENT

The objective of the assessment is to identify areas of indigenous cultural heritage value, to determine possible impacts on any indigenous 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 quarry site (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 materials that may be present.

1.6 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 NSW Office of Environment and Heritage (OEH) Aboriginal Heritage Information Management System (AHIMS) for known archaeological sites, The National Heritage List, the Commonwealth Heritage List, the Australian Heritage Database, Australia's National Heritage List, The National Trust Heritage Register State Heritage Inventory the and the Tenterfield Local Environmental Plan 2013;
- a review of local environmental information (topographic, geological, soil, geomorphological, vegetation, erosion) 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 cultural heritage investigations to determine the extent of archaeological investigations in the area and identify any archaeological patterns;
- the development of a predictive archaeological statement 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 quarry site;

- consultation with the Aboriginal stakeholders as per the Aboriginal Cultural Heritage Consultation Requirements for Proponents (2010);
- undertake a site inspection with the participation of the registered Aboriginal stakeholders, and
- the development of mitigation and conservation measures in consultation with the registered Aboriginal stakeholders.

1.7 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 (2009)
- Environmental Planning and Assessment Act (1979)

1.8 NATIONAL PARKS AND WILDLIFE ACT (1974, AS AMENDED)

The National Parks and Wildlife Act (1974), Amended 2010, is the primary legislation for the protection of Aboriginal cultural heritage in New South Wales. The NPW Act protects Aboriginal heritage (place, 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 quarry site, 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 OEH notified (DECCW 2010:13). The due diligence defence does not allow for continuing harm.

1.9 NATIONAL PARKS AND WILDLIFE REGULATION (2009)

The National Parks and Wildlife Regulation 2009 provides a framework for undertaking activities and exercising due diligence in respect to Aboriginal heritage. The Regulation (2009) recognises various due diligence codes of practice, including the Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW which is pertinent to this report, but it also outlines procedures for Aboriginal Heritage Impact Permit (AHIP) applications and Aboriginal Cultural Heritage Consultation Requirements (ACHCRs); amongst other regulatory processes.

1.10 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) such as State Environmental Planning Policies (SEPPs) and Local Environmental Plans (LEPs).
- Part 4 of the EP&A Act establishes the framework for assessing development. Section 4 describes the designation of a consent authority for a development application under Part 4 which may be the local council, the Minister, the Independent Planning Commission or a regional planning panel depending upon the nature of the development.
- Within Part 4 of the EP&A Act, Division 4.7 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 of the EP&A Act.

1.11 QUALIFICATIONS OF THE INVESTIGATOR

Penny McCardle: Principal Archaeologist & Forensic Anthropologist has 10 years experience in Indigenous archaeological assessments, excavation, research, reporting, analysis and consultation. Six years in skeletal identification, biological profiling and skeletal trauma identification.

- BA (Archaeology and Palaeoanthropology, 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
- Hostile Environment Awareness Training (HEAT), 2018
- Tactical Emergency Casualty Care – Level, 1 2018
- PhD, University of Newcastle, 2019

1.12 REPORT STRUCTURE

The report includes Section 1 which outlines the Proposal, Section 2 summarises the consultation undertaken, 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 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 **Annexure 1**.

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 who 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 quarry site, 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 OEH (2010:10) and listed in **Table 2.1**, were contacted by letter on 11 April 2019 and requested to provide the names of people who may hold cultural knowledge that is relevant to determining the significance of Aboriginal objects and/or places. A reply was requested by the 29 April 2019 and it was stipulated that if no response was received, the Proposal 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
Office of Environment and Heritage	5 groups
Moombahlene LALC	no groups
Tenterfield Shire Council	no groups
Registrar Aboriginal Land Rights Act 1983	MLALC
National Native Title Tribunal	no claims
Native Title Services Corporation Limited	no response
Local Land Services	no response

Following this, MCH compiled a list of people/groups to contact (Refer to **Annexure 1**). 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 30 April 2019, and an advertisement was placed in the Tenterfield Star on 1 May 2019. 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) include Moombahlene LALC (Helen Duroux). No other responses from Aboriginal Parties was received.

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 cultural heritage assessment process.

As MLALC did not provide their preferred method of receiving information, an information packet was sent to them 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 10 June 2019.

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 (asked to nominate at least two individuals who will be available and fit for work) 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 provided will result in a missed opportunity for the RAPs to contribute to their cultural heritage and the Proposal will proceed.

2.3 STAGE 3: GATHERING INFORMATION ABOUT CULTURAL SIGNIFICANCE

The aim of this stage is to facilitate a process whereby the RAPs can contribute to culturally appropriate information gathering and the research methodology, provide information that will enable the cultural significance of any Aboriginal objects and or/places within the proposed project area to be determined and have input into the development of any cultural heritage management options and mitigation measures. In order to do this, 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, MLALC 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 within the quarry site or surrounding area. MLALC did not disclose any information pertaining to sites or places of cultural significance associated with the historic or contemporary periods within the quarry site 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 9 July 2019. Unfortunately, MLALC advised MCH the evening before the survey that they were unable to attend and the quarry site was surveyed by Penny McCardle in accordance with the proposed methodology provided to MLALC for review.

2.5 STAGE 4: REVIEW OF DRAFT CULTURAL HERITAGE ASSESSMENT

Copies of the DRAFT report were forwarded to MLALC for their review and were asked to provide a written or verbal response no later than 28 August 2019. Unfortunately, no response was received.

All RAPs were provided a copy of the final report. All documentation regarding the consultation process is provided in **Annexure 1**.

3. LANDSCAPE AND ENVIRONMENTAL CONTEXT

Documenting and understanding the context of archaeological sites in relation to surrounding terrain features is essential to landscape archaeological studies worldwide 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.

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.

3.1 TOPOGRAPHY

The topographical context is important to identify potential factors relating to past Aboriginal land use patterns as not all landforms are suitable camping locations, suitable for the application of rock art etc. The quarry site is located approximately 2.5 kilometres from the southern boundary of the Bald Rock National Park. Situated on a small ridge to the south of Washpool Creek, the area to the north of the quarry site is relatively flat land and a small valley is located to the south of the quarry site. The quarry site itself, consists of the existing areas of disturbance (pit), has a small remaining section of a ridge running generally in an east-west direction at the southern side of the existing pit and slopes to the northern side of the existing pit.

3.2 GEOLOGY

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

raw materials and their procurement for the manufacturing and modification of stone tools. The processes of sedimentation, uplift, ongoing physical and chemical weathering, re-deposition and volcanic activity have resulted in the formation of a complex landscape in the regional area that incorporates diversity in topography, vegetation and wildlife. For its Aboriginal inhabitants, these processes have resulted in the presence of caves and ledges suitable for shelter/occupation and the application of rock art. In addition, the area contains deposits of raw materials essential to the manufacture of stone tools as well as locations that provide the rocky creek bed outcrops utilised in the production of ground-edge implements. The quarry site is situated on quartose materials within undifferentiated granite or granodiorites, none of which were typically utilised as raw materials by Aboriginal people in the area.

3.3 SOILS AND GEOMORPHOLOGY

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 and burials. 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. Soils of the Tenterfield area generally consist of an A₁ horizon of sandy clay loam (colour not recorded) up to 15 centimetres in depth that overlays the A₂ horizon of sandy clay loam (colour not recorded) between 15 and 30 centimetres in depth. This then overlies the B horizon of sandy clay (colour not recorded), (eSPADE accessed 2019).

Throughout the region Unit A and Unit B are interpreted as being Holocene and Pleistocene in age respectively and archaeological 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. Geomorphology and the effects on the archaeological record are significant and the natural soils of the local area have been examined in terms of geomorphology and archaeology (Johnson 1989, Paton et al., 1995, Johnson 2002 and Mitchell 2007) and Mitchell (2007) stressed the importance of recognizing the biomantle as an important profile characteristic as it has implications for the distribution of artefacts on open sites as follows:

- Artefacts will be confined to the biomantle.
- Artefacts will have been subject to surface dispersion, down slope movement, and differential burial or exposure by bioturbation agents (ants, worms, termites, tree fall etc.) and they will contribute to the formation of a stone layer between the A and B-horizon where artefacts of all ages accumulate.
- In mechanically disturbed and/or sheet eroded area a lateral pattern of artefact dispersal can be expected as erosion processes strip the biomantle and incise the B-horizon. In depositional areas artefact burial is likely to be common.
- Despite the taphonomic processes affecting artefact distribution in the soil some site use patterns, such as knapping floors, may survive in attenuated plan form with an extended vertical and down-slope distribution of their components and possible mixing with artefacts from other events.

- Because artefact burial is an ongoing process their surface visibility will be poor except where occasional flakes have been returned to the surface by land uses, tree fall, or where erosion rates are higher than average.
- Archaeological sites on texture contrast and fabric contrast soil profiles are unlikely to be stratified in a chronologically useful sense.
- Where artefacts are present, they are only likely to occur in the biомantle of the soil profiles and excavation will generally be shallow (up to 15cm).

In relation to the quarry site, consisting of the existing areas of disturbance (pit), a small remaining section of a ridge running at the southern side of the existing pit and slopes to the northern side of the existing pit, indicates that although artefacts may be present within the A horizon, erosion and quarry works would have significantly displaced any artefacts resulting in a loss of integrity.

3.4 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 climate in the vicinity of Tenterfield is referred to as "subtropical highland climate" with cold, frosty winters and warm, wet summers. Temperatures include higher mean temperatures during the summer months of December to February and lowest temperatures during winter. The mean maximum temperature varies between 27.1°C and 14.4°C while the mean minimum temperature varies between 1.0°C and 14.4°C. The mean annual rainfall is 851.2mm, with rainfall distributed unevenly throughout the year and there is a distinct drier period for the six months from April to September. Rainfall for January and December is on average higher than 100mm and rainfall is infrequent with few rain days each month resulting in rainfall greater than 1mm. Thus, the climatic conditions of the Quarry site would not have been favourable for camping due to the lack of reliable water required for survival and subsistence and medicinal resources.

3.5 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 the regional archaeological investigations carried out in the region where by such patterns are typically within 50 metres of a reliable water source.

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. 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).

The most reliable water source was Washpool Creek 1 kilometres to the north; the less reliable Washbrook Creek 1 kilometre to the south, and Tenterfield Creek 1.7 kilometres to the south. Given that fresh water is essential for survivability, the quarry site is located in an environment with no fresh water sources or associated subsistence resources and therefore unsuitable for sustained land uses (camping). The area may have been utilised for more transitory activities such as hunting and gathering and travel to reliable water sources.

3.6 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 much of the original native vegetation from the quarry site and it is now dominated by dry eucalypt woodland/forest comprising Stringybark, Box and smooth-barked eucalypts. The flora within the quarry site would have been a potential source of a variety of food resources including kangaroos, koalas, gliders, possums, snakes, goannas and skinks, and swamp wallabies, as well as many bird species. The understorey would have contained berries, seeds and leaves, both for sustenance and for treatment of sickness. While these resources have probably been available in the past, they would have only ever been in limited supply and insufficient to support all but a few people for a short period, such as hunting parties or traveling to more reliable sources of resources.

3.7 LAND USES AND DISTURBANCES

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 40,000 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, the landscape has been subjected to a range of different modifying activities including extensive logging and clearing, farming and quarrying. The quarry site itself has been previously logged and utilised for improved pasture, quarrying, access roads, dams and overburden stockpiling.

Vegetation clearing and logging would have involved the widespread use of machinery. 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 10-12 centimetres of topsoil (Koettig 1986) 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). 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. Whilst the impacts of vehicular movements on sites have not been well documented, based on general observations it is expected that the creation of dirt tracks for vehicle access would result in the loss of vegetation and therefore will enhance erosion and the associated relocation of cultural materials. Excavation works required for the quarry and dam construction require the removal of materials thus displacing and destroying any cultural materials that may have been present. Thus, the quarry site has a long history of land uses with significant impacts where excavation works have occurred and reduced impacts in areas of logging.

3.8 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). If erosion occurs after cultural material is deposited, it will disturb or destroy sections 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). 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).

3.9 DISCUSSION

The environment provided very limited resources, including raw materials, fauna, flora and water, that would have allowed for sustainable occupation of the area. Whilst the quarry site may have provided for transitory activities which manifest in the archaeological record as very low-density artefact scatters and isolated finds, such evidence is typically disturbed through past land uses such as those identified in the quarry site as well as natural processes such as erosion and bioturbation.

4. ETHNO-HISTORIC BACKGROUND

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.

4.1 USING ETHNO-HISTORIC INFORMATION

Anthropologists and ethnographers have attempted to piece together a picture of past Aboriginal societies throughout the region. 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 barrier and interpretation issues, and the degree of interest and attitudes towards Aboriginal people varied in light of the violent settlement history. Access to view certain ceremonies was limited. Cultural practices (such as initiation ceremonies and burial practices) were commonly only viewed once by an informant who would then interpret what he saw based on his own understanding and then generalise about those practices.

4.2 TENTERFIELD ETHNOHISTORIC ACCOUNTS

Aboriginal occupation of NSW extends back at least 20,000 years, although dates of more than 40,000 years have been claimed for artefacts found in gravels of the Cranebrook Terrace on the Nepean River (Nanson et al. 1987; Stockton 1993; Stockton and Holland 1974). Late Pleistocene occupation sites have been identified at Shaws Creek in the Blue Mountain foothills (14,700 BP, Kohen et al. 1984), Mangrove Creek and Loggers Shelter in the Sydney Basin (c.11,000 BP, Attenbrow 1981, 2004), and Burrill Lake on the South Coast (c.20,000 BP, Lampert 1971).

Aboriginal occupation of the New England Tablelands dates back at least 9,000 years at the Graman A2 rock shelter, located approximately 90km west of Tenterfield LGA. Other Aboriginal sites in the area with evidence of early occupation include the Graman B1 rock shelter (c.5,400 years BP), the Bendemeer 2 rock shelter (c.5,000 BP), and the Moore Creek 4 and Moore Creek 6 rock shelters near Moore Creek (c.4,000 BP) which are located to the south of Tenterfield, near Tamworth (McBryde 1977).

Tenterfield Shire was first inhabited by the Jukembal (Yukambul) people with their territory straddling the Great Dividing Range from near Glen Innes to Stanthorpe. The name Jukembal means "the people who say "jogom" (jogom meaning no). The Jukembal Aborigines reputedly called the area "Moombillen", meaning 'place of wild honey'. At the time of European contact, a number of groups occupied the Tenterfield region including the Badjalang (Bundjalung), Kitabal (Githabul), Ngarabal, Jukambal and Keinjan (Gee-en yun). Tindale's descriptions of tribal boundaries were based on the distribution of language groups in this area, which were derived largely from linguistic evidence published from 1854 to 1969; however, the boundaries are approximate, and probably varied over time (Tindale 1974).

Territories were clearly defined by physical places in the landscape, and boundary lines were indicated by natural features such as hills, watercourses and rock outcrops. Hunting grounds, fishing waters and burial places were also marked by physical objects, such as carved trees or

rocks. Trespassers were not allowed within these boundaries, but at times movement into the territory of other tribes was invited (Gardner 1978 [1842-54]; Kerr et. al. 1999). Evidence for the movement and contact between tribes is shown by the occurrence of edge-ground artefacts on the New England Tablelands and Darling Basin that originated from stone quarries at Moore Creek. The distribution of stone material supports the theory that objects had been transported as part of trade or ceremonial exchange networks on the plateau.

Movement of past Aboriginal people of the region also occurred seasonally between the tablelands and the coastal plains, in order to exploit seasonal hunting grounds and to escape the winter cold. Foods recorded as being eaten by Aboriginal people included kangaroos and wallabies, possums, emu, native ducks and waterfowl, echidnas, goannas, bandicoot, flying foxes, turtles, snakes, fish and yabbies, and invertebrates such as witchetty grubs and curl grubs (Ginibi 1994; Moran 2004). Game such as kangaroo and wallaby were driven into standing nets made of Kurrajong fibres, where they were killed with spears and clubs (also known as waddies) (McBryde 1974). Wild honey was obtained from native bee hives and was either mixed with water to make a sweet drink or eaten with ruffled bark dippers.

Clothing was rarely worn with possum skin cloaks used during cold and wet conditions. Women made the cloaks and sewed the skins together using a bone or wooden needle and plant fibres or sinew from animals. During battles, corroborees or other grand occasions, Aboriginal men decorated themselves with red and yellow ochre, and white clay, adorned their hair with feathers, kangaroo teeth, and bird claws and reed necklaces and belts would also be worn (McPherson 1974 [1860]; McBryde 1974).

Rituals and ceremonies also brought people together where goods and information was traded and intermarriages also occurred. In northern NSW, historical and ethnographic accounts describe male initiation ceremonies (also called Boras, Borrahs or Boroos) taking place at bora grounds (Gardner 1978 [1842- 54]; McPherson 1974 [1860]; Mathews 1894). Bora grounds are a ceremonial site type, usually consisting of a circular clearing defined by a raised earth circle and are connected by a pathway to a second, smaller circle, and often accompanied by ground drawings or mouldings of people, animals or deities, and geometric designs carved on nearby trees. Bora grounds have been identified in the vicinity of Tenterfield LGA, at Kangaroo Flat, Dingo Nob, Bora Mountain, Chinamans Creek, Sandy Flat, Ruby Creek, Wheatley's Creek, near Rocky River/Demon Creek and Busbys Flat (McBryde 1974; Hall 1977; Kerr et. al. 1999; Bowdler 2003). Bora grounds may have also been used at times for corroborees (gatherings where dancing, singing and storytelling took place). A newspaper report of a corroboree held in Tenterfield in 1931, states that the corroboree was attended by approximately 70 Aboriginal people and activities included traditional dance performances and chanting, as well as European influenced entertainments such as jazz singing and steer-riding competitions (Barrier Miner 1931).

In the northern districts, some tribes used to expose a deceased person on trees or wooden stages erected for that purpose, whilst other tribes burned the deceased and collected the ashes (Mrs McPherson (1974 [1860]). A Mr Donnelly of Woodenbong confirmed that in the late nineteenth century it was customary in the Tenterfield area to wrap the deceased in bark, and place it in a tree (McBryde 1974).

Weapons used by past Aboriginal people of the area included spears, fighting boomerangs, war clubs (known as nulla nulla), spear throwers (wummerah or woomerah), shields (hielaman), and battle axes (or palolour). Spears could be thrown by hand, or with a woomerah and were poisoned during battles with only women applying the poison and treating resulting injuries

(McBryde 1974; MacPherson 1902). Hatchets or axes were one of the tools used for hunting and consisted of a stone head fastened to a wooden haft with strips taken from the inside of the stringy bark.

Squatters and pastoralists arrived in the New England Tablelands in the 1830s, and European occupation rapidly expanded northward, reaching the Tenterfield area by 1839 (Commonwealth of Australia 1924; Campbell 1978; Kerr et. al. 1999) which soon had an impact on Aboriginal land use and procurement of food resources, such as native grasslands and woodlands that were taken up for pasture. The European and Aboriginal populations soon came into conflict, with Aboriginal people taking sheep and cattle either to replace the food sources which had been lost to the pastoralists, or in retaliation for the damage caused to hunting grounds, fishing waters, and burial places (Gardner 1978 [1842-54]:239). The European and Aboriginal populations soon came into conflict, with Aboriginal people taking sheep and cattle to replace the lost food sources and in retaliation for the damage caused to hunting grounds, fishing waters, and burial places (Gardner 1978 [1842-54]). The well-known massacre of Aboriginal people at Myall Creek in 1838 occurred mid-way between Bingara and Delungra, outside Tenterfield LGA. Although the general public was sympathetic to the European offenders, the trial resulted in the hanging of seven Europeans and afterwards, confrontations with Aboriginal people in the Tenterfield region were probably under-reported, in order to protect squatters and their property (Walker 1962; Creamer 1981).

The massacre at Bluff Rock (approximately 11 kilometres south of Tenterfield) in 1844, although the details are limited, was instigated by the death of a Shepherd at Bolivia who was attacked by spears and axes and left floating in a river. Following this, brothers Edward and Leonard Irby, who had taken up Bolivia Station in 1841 and Major Windeyer from the neighbouring Station at Deepwater, pursued the local Aboriginal tribe to Bluff Rock and drove them over the edge, resulting in the death and disablement of several men, women and children (Walker 1962; Halliday 1986; Kerr et. al. 1999; Elder 2003). The massacre went unreported (Commonwealth of Australia 1925a:264). Bluff Rock was identified by Moombahlene Local Aboriginal Land Council as a very sensitive place. According to oral tradition, an unmarked grave in the vicinity of Bluff Rock, to the east of the highway, is said to belong to an Aboriginal girl (pers. comm. C. Duroux, R. Bancroft-Stuart and H. Duroux 20/8/2012 in AMBS 2013 :26).

In 1883, the Board for the Protection of Aborigines was established to provide recommendations concerning the welfare of Aboriginal people and to manage Aboriginal Reserves in New South Wales. The responsibilities of the Board included organising housing, and issuing blankets, clothing and ration coupons (NSW Government State Records 2010a). As access to traditional lands became more difficult and game became scarcer, people became more reliant on blankets instead of possum skin cloaks as a means of keeping warm (State Library of NSW 2011) and the government started to distribute blankets in New England in the 1840s, and this practice continued in Tenterfield into the twentieth century (The Maitland Mercury and Hunter River General Advertiser 1863; Clarence and Richmond Examiner and New England Advertiser 1872;). In the Tenterfield region, Aboriginal reserves and settlements were established at places such as Bokal-ynee, at Muli Muli south west of Woodenbong (in 1908); Pretty Gully (1909); Turtle Point, south of Tabulam (1929); Tabulam Aboriginal Reserve, adjacent to Plumbago Creek (1949); and Tenterfield Aboriginal Reserve, also known as Leechs Gully Reserve, on Leechs Gully Road (Long 1970; Rich 1990; Thinee and Bradford 1998; NPWS 2010). After the Second World War, an Aboriginal fringe camp was also established on the Tenterfield Western Common on the edge of town (Rich 1990).

5. ARCHAEOLOGICAL CONTEXT

A review of the archaeological literature of the region, and more specifically the Tenterfield area and the results of an OEH 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 quarry site. 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 quarry site.

5.1 ARCHAEOLOGICAL CONTEXT

The Australian Museum Business Services (AMBS) undertook an Aboriginal Heritage Study for Tenterfield Local Government Area (LGA). The heritage study was to inform future management of Aboriginal cultural heritage within the existing relevant New South Wales (NSW) and Commonwealth Statutory frameworks. The aim of the Study was to identify places of significance, record those places and develop recommendations for their management and conservation, which was to assist Council to develop strategies to manage Aboriginal sites and places and to develop a protocol for ongoing Aboriginal community liaison.

The Tenterfield Aboriginal community elected not to have detailed information about Aboriginal site locations included in the study and as such not all heritage sites were mapped or identified in detail, but general areas that are important to the community, or where archaeological sites are present, were mapped. A search of the AHIMS database identified 174 sites within the Tenterfield LGA with the majority being artefacts (103: 59.2%), followed by scar trees (21: 12.07%), ceremonial rings (16: 9.20%) and in much lesser quantities, art, ceremonial and dreaming sites, PADs, stone arrangements, conflict sites, burials and resource gathering sites.

AMBS noted that previously recorded sites generally occur in the vicinity of watercourses, in elevated areas, and in areas with suitable geology or mature vegetation. This report was not listed on AHIMS and although available on the internet, no mapping of sites was available and all sites and areas of sensitivity were described as being outside the Quarry Site.

Due to the lack of regional and local based archaeological assessments have been undertaken in the area and as such a general broad based regional archaeological context and summary is provided. The following broad predictions can be made for the region:

- a limited number of site types are represented in region (one scar tree);
- 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.

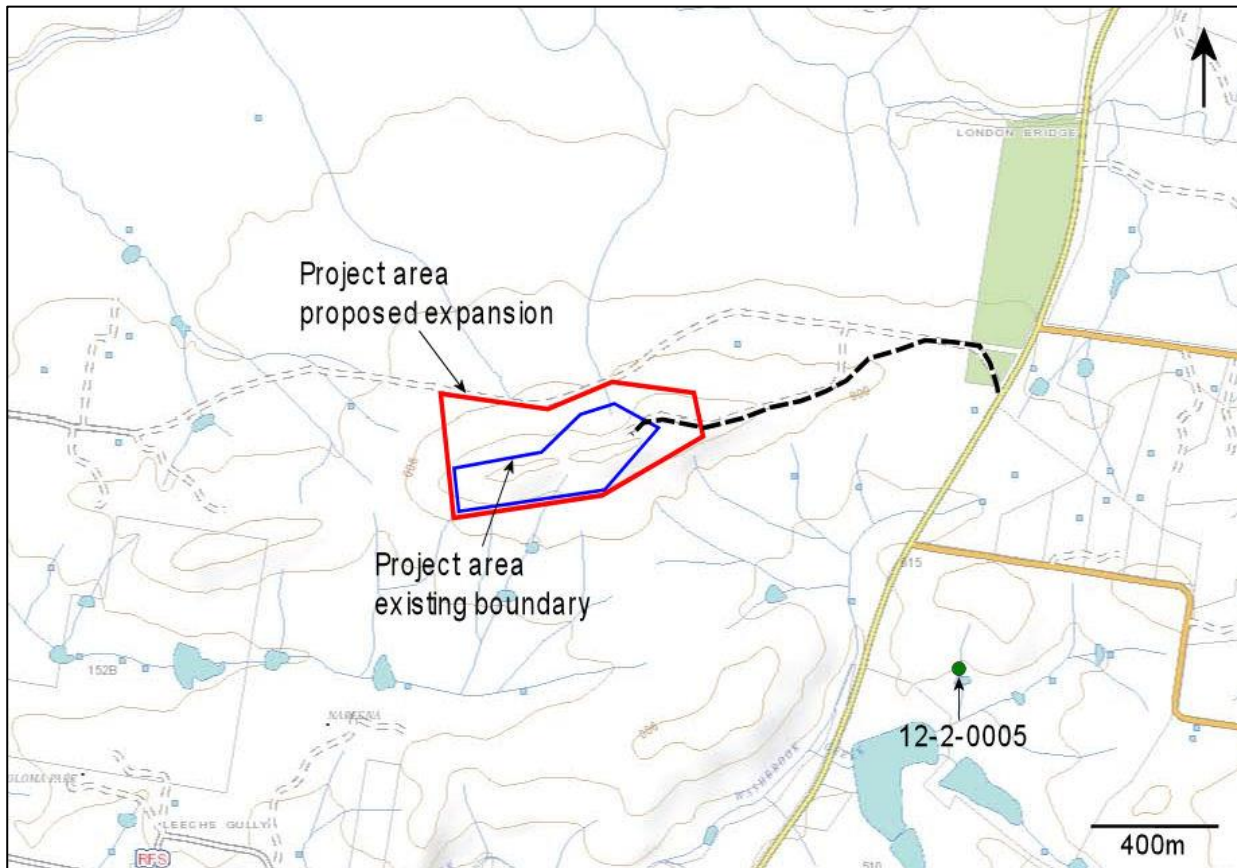
In regional terms, site distribution across NSW is extremely closely linked to water availability and topography, with elevated landforms with access to reliable water exhibiting the highest concentrations of sites. There are a number of factors which affect site location and that are beyond human control. Shelter sites, grinding grooves and engravings are site types typical of the "sandstone country" however, their presence is limited to areas containing suitable sandstone outcrops and therefore such sites are not expected within an alluvial context.

5.2 OEHL 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 at OEHL over the years that failed to correctly translate old coordinate systems to new systems. Secondly, OEHL will only provide up to 110 sites per search, thus limiting the search area surrounding the quarry site and enabling a more comprehensive analysis and finally, few sites have been updated on the OEHL 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. In addition to this, other limitations 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). Thus, the OEHL AHIMS search is limited and provides a basis only that aids in predictive modelling. The new 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 OEHL AHIMS register has shown that 1 known Aboriginal site (Scar tree) is currently recorded within three kilometres of the quarry site. The AHIMS results are provided in **Annexure 2** and the location of the site is shown in **Figure 5.1**.

Figure 5.1 Locations of the AHIMS Site



5.3 LOCAL AND REGIONAL CHARACTER OF ABORIGINAL LAND USE AND ITS MATERIAL TRACES

As there are no previous regional or local archaeological assessments of the area, the following is a general broad-based summary and discussion of the character of past Aboriginal land use and its material traces in similar environments. In general, it can be expected that:

- the majority of sites are located within 50 metres of a water source and reduce with distance from water;
- artefact densities are highest within 50 metres of a water source and decrease with distance from water;
- the likelihood of finding sites of any size increases with proximity to water and the likelihood of finding large artefact scatters also increases markedly with proximity to water;
- the main site types are artefact scatters and isolated finds;
- the data suggests that elevated landforms in close proximity to water sources were the preferred location for camping, followed by slopes. However, this does not account for vertical movement of artefacts or sites being moved from flooding, flowing creeks etc.

- flakes, broken flakes and flaked pieces are the most common artefact types recorded;
- the vast majority of artefactual material in the wider region is typically observed on exposures with good to excellent ground surface visibility.

Based on information gained from studies of similar environments to the quarry site, it can be expected that:

- the likelihood of locating sites increases with proximity to water;
- the likelihood of finding large sites increases markedly with proximity to water;
- a variety of raw materials will be represented though the majority of sites will be predominated by mudstone and silcrete;
- a variety of artefact types will be located though the majority will be flakes, flaked pieces anddebitage;
- grinding grooves will be located along or near water sources;
- the likelihood of finding scarred trees is dependent on the level of clearing in an area and
- the majority of sites will be subject to disturbances including human and natural.

These findings are consistent with the general models developed for similar environments.

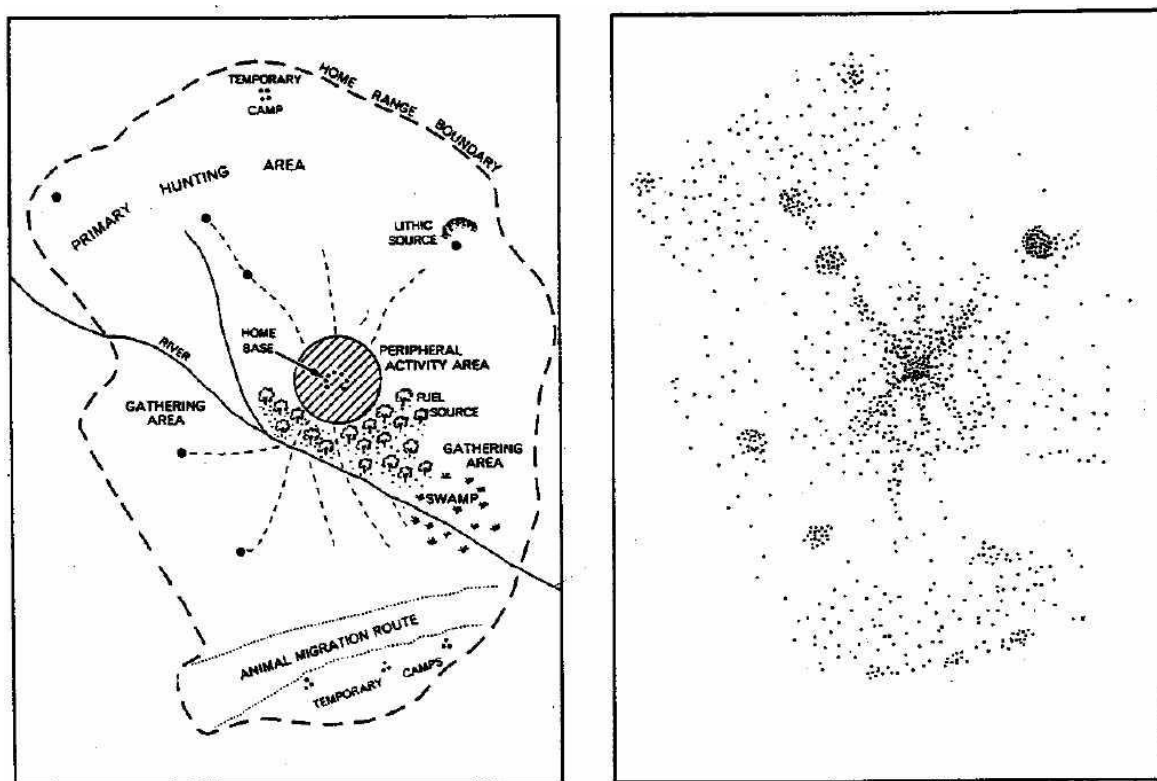
5.4 MODELS OF PAST ABORIGINAL LAND USE

The main aim of this project 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 the 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 variation 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). 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

hearthths). 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.

Figure 5.2 Foley's Model (L) and its Manifestation in the Archaeological Record (R), (Foley 1981)



5.5 MODEL OF OCCUPATION FOR THE LOCAL AREA

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 wider region, a baseline of settlement activities may be determined.

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 5.1** has been adapted from Kuskie and Kamminga (2000) to identify the specific activity areas through analysis of the composition of patterning of lithic assemblages. However, this is applied to excavated materials as they provide more realistic data due to the lesser degree of disturbances, removal and breakages.

Table 5.1
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 and 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

5.6 PREDICTIVE MODEL FOR THE QUARRY SITE

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.

The OEH AHIMS register and the environmental context provide a good indication of site types and site patterning in the area. This research has shown that one scar tree has been identified within three kilometres of the quarry site. In similar environments, the most frequently recorded site types and are commonly stone artefacts (due to their survivability) located along or adjacent to watercourses, and on relatively flat to gently sloping topography in close proximity to reliable water. Sites with higher artefact densities are similarly concentrated within fifty metres of watercourses.

Within the specific project area, it is unlikely that evidence of past Aboriginal land use will be present due to the distance from reliable water and resources. If sites are present, they are expected to be isolated finds or very low-density artefact scatters representing transitory activities such as hunting and gathering and travel to reliable water sources.

5.7 ARCHAEOLOGICAL POTENTIAL IN THE QUARRY SITE

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

Artefact scatters

Also described as open campsites, artefact scatters and open sites, these deposits have been defined at two or more stone artefacts within 50 metres of each other and will include archaeological remains such as stone artefacts and may be found in association with 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. Erosion, agricultural activities (such as ploughing, grazing) and access ways can also expose surface campsites. Artefact scatters may represent evidence of the following.

- 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.
- Transitory movement through the landscape.

There is potential for very low-density artefact scatters to occur within the Quarry Site and may reflect past Aboriginal land uses such as transitory activity such as hunting and gathering. There is also the potential for such sites to be impacted on through past land uses and erosion.

Isolated finds

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

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

There is potential for isolated artefacts to occur across the quarry site and across all landforms. There is also the potential for such sites to be impacted on through past land uses and erosion.

5.8 HERITAGE REGISTER LISTINGS

The National Heritage List, the Commonwealth Heritage List, the Australian Heritage Database, Australia's National Heritage List, The National Trust Heritage Register State Heritage Inventory the and the Tenterfield Shire Councils' Local Environmental Plan have no Aboriginal objects, sites or places listed.

6. RESULTS

6.1 METHODOLOGY

The survey areas were surveyed on foot by the archaeologist in accordance with the proposed methodology provided to the stakeholders for review. The survey focused on areas of high ground surface visibility and exposures (erosional features, tracks, cleared areas).

6.2 LANDFORMS

McDonald et al (1998) describes the categories of landform divisions. This is 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 quarry site consists of the existing areas of disturbance and a ridge running generally in an east-west direction. Whilst a ridge has been retained between the existing quarry benches and the land to the south of the existing extraction area, the existing extraction area itself has been significantly modified with none of the original landforms remaining. The only remaining original landform is the ridge.

6.3 SURVEY UNITS

The quarry site, consisting of the existing pit, has a small remaining portion of a ridge to the south of the pit and slopes to the north of the pit. The quarry site was divided into two survey units (SU) that were based on landform elements (following McDonald *et al* 1984) and included the ridge and slopes.

6.3.1 SURVEY UNIT 1: RIDGE

This survey unit included the southern strip of the remaining ridge located along the southern edge of the existing pit, and continued into a very steep south facing slope. Highly disturbed through past clearing and associated quarry extraction activities (**Figure 6.1**), vegetation was predominantly open woodland which contributed to reduced ground surface visibility. Exposures were high (erosion) and no raw materials usually transported into the area and utilised for stone tool manufacture were visible.

Figure 6.1 SU1: Western End of the Ridge Facing East

6.3.2 SURVEY UNIT 2: SLOPES

This survey unit included the northern side of the existing pit and consisted of a gentle north facing slope. Also, previously cleared, this area had also been extensively logged for fencing, telegraph poles and housing. Vegetation included open woodland with grasses with open paddock in the north western corner. Ground surface visibility was low due to grass cover (**Figures 6.2 and 6.3**) and exposures were high (tracks and erosion). No raw materials usually transported into the area and utilised for stone tool manufacture were visible.

Figure 6.2 SU2: North Western End Facing South East

Figure 6.3 SU2: Centre Facing East



6.4 EFFECTIVE COVERAGE

Effective coverage 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 quarry site 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 tree or 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 amount 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 effective coverage for project area illustrates that overall effective coverage being 25.63% with grass being the limiting factor and erosion across the quarry site being minimal. The disturbances included clearing, logging, tracks, fences, grazing, all of which have impacted upon the landscape and associated cultural materials through removal and displacement of any artefact that may have been present.

Table 6.2
Effective Coverage for the Investigation Area

SU	Landform	Area (m ²)	Vis. %	Exp. %	Exposure type	Previous disturbances	Present disturbances	Limiting visibility factors	Effective coverage (m ²)
1	ridge	10 000	20%	80%	erosion	clearing	erosion	grass, leaf litter	1 600
2	slopes	70 000	30%	90%	erosion, tracks	clearing, logging, tracks	erosion, tracks	grass, leaf litter	18 900
Totals		80 000							20 500
Effective coverage %									25.63%

The level and nature of the effective survey coverage is considered satisfactory to provide an effective assessment of the Aboriginal sites identified and those potentially present within the investigation 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 view of the predictive modelling and the results obtained from the effective coverage, 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 identified sites and potential Aboriginal sites.

6.5 ARCHAEOLOGICAL SITES

Due to the location of the quarry site at a great distance from reliable fresh water and associated resources and the significant impacts from past land uses which has resulted in the removal of the original landform and any cultural materials that may have been present, no sites were identified.

6.6 POTENTIAL ARCHAEOLOGICAL DEPOSIT (PAD)

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 a PAD. 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.

Due to the location of the quarry site at a great distance from reliable fresh water and associated resources and the significant impacts from past land uses which has resulted in the removal of the original landform and any cultural materials that may have been present, no PADs are identified.

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. Chapter 4 describes the impacts within the quarry site, showing how these processes and activities have disturbed the landscape and any present 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 OEH 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 or PADs were identified in the quarry site, there are no impacts to the archaeological record.

8. MITIGATION AND MANAGEMENT STRATEGIES

Specific strategies, as outlined through the DECCW (2010b) Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW 2010b), the Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH 2011), and the Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW (DECCW 2010c), are considered below for the management of the quarry site.

8.1 CONSERVATION/PROTECTION

The OEH 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 significance and manage the site in a way that is consistent with the nature of peoples' attachment to them.

As no sites were identified conservation/protection is not required.

8.2 FURTHER INVESTIGATION

Subsurface testing is appropriate when a Potential Archaeological Deposit (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. However, testing may only be undertaken as per the Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (DECCW 2011) and discussions/consultation with the local Aboriginal community.

As no sites or PADs were identified and the quarry site has been significantly disturbed through excavation and construction works associated with the existing facility, further investigations are not justified.

8.3 AHIP

If harm will occur to an Aboriginal object or Place, then an AHIP is required from the OEH. 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 may be an appropriate strategy to enable the salvage of cultural objects. The AHIP may also include surface collection of artefacts.

As no sites were identified 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 Amendment (Aboriginal Objects and Aboriginal Places) Regulation 2010, under the National Parks and Wildlife Act 1974;
2. Cultural heritage awareness will be included in site Inductions, forming part of the staff training process. The matters to be presented in the induction will be prepared in consultation with the RAPs and an archaeologist;
3. Should any Aboriginal objects be uncovered during works (unexpected finds), all work will cease at that location immediately, a 10-metre buffer around the artefact(s) will be tapped off with high visibility tape/fencing (works may proceed outside the buffer), and the Environmental Line contacted; and
4. Should human skeletal remains be uncovered during works, all works will cease at that location, a 50-metre buffer around the remains will be tapped off with high visibility tape/fencing (works may proceed outside the buffer), and the local Police contacted immediately.

10. REFERENCES

- 'A Lady' [McPherson] 1978 [1860] *"My experiences in Australia - Being recollections of a visit to the Australian colonies in 1856-7"*. In I McBryde (Ed), *Records of Times Past: Ethnohistorical essays on the culture and ecology of the New England Tribes*, pp247-261. Australian Institute of Aboriginal Studies, Canberra.
- AMBS. 2013. *Tenterfield LGA Aboriginal Heritage Study*. Report to Tenterfield Shire Council.
- Anonymous 2003 *CatchmentSIM GIS*. <http://www.uow.edu.au/~cjr03/index.htm?Overview/VNAnalysis/VNAnalysisFrame.htm~mainFrame>. Downloaded 24 February 2004.
- Arnour-Chelu, M. and Andrews, P. 1994. *Some Effects of Bioturbation by Earthworms (Oligochaeta) on Archaeological Sites*. *Journal of Archaeological Science* 21:433-443.
- Attenbrow, V. 1981 *Mangrove Creek Dam – Salvage Excavation Project*. Report to NSW National Parks and Wildlife Service for the Department of Public Works.
- Balek, C. 2002. *Buried Artefacts in Stable Upland Sites and the Role of Bioturbation: A Review*. *Geoarchaeology: An International Journal* 17(1):41-51.
- Barwick, D. 1984. *Mapping the Past: An atlas of Victorian Clans*. *Aboriginal History*. Vol. 8 (2):100-131.
- Cahen, D. and J. Moeyersons. 1977. *Subsurface Movements of Stone Artefacts and Their Implications for the Prehistory of Central Africa*. *Nature* 266:812-815.
- Campbell, I. C. 1978. *"Settlers and Aborigines: The pattern of contact on the New England Tableland 1832-1860"*. In I McBryde (Ed), *Records of Times Past: Ethnohistorical essays on the culture and ecology of the New England Tribes*, pp5-16. Australian Institute of Aboriginal Studies, Canberra.
- Cane, S. 1989. *Australian Aboriginal Seed Grinding and its Archaeological Record: a case study from the Western Desert*. In *Foraging and Farming*, D. R. Harris and G. C. Hillman (eds.), 99-119. London: Unwin Hyman.
- Commonwealth of Australia. 1924. *Historical Records of Australia Series 1. Governors' despatches to and from England*. Vol XXII April, 1842-June, 1843. The Library Committee of the Commonwealth Parliament. <http://publications.nsw.gov.au/1213-historical-records-of-australia-gov--dispatches--vol.-22-apr-1842--jun>. Accessed 10/7/2019.
- Creamer, H. 1981. *"Investigations of sites of significance to Aborigines in New England"*. *Armidale and District Historical Society Journal and Proceedings* 24:27-30.
- Department of Environment, Climate Change and Water (DECCW). 2010a. *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*. Department of Environment, Climate Change and Water NSW, Sydney.
- Department of Environment, Climate Change and Water (DECCW). 2010b. *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales*. Department of Environment, Climate Change and Water NSW, Sydney.

Department of Environment, Climate Change and Water (DECCW). 2010c. *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW*. Department of Environment, Climate Change and Water NSW, Sydney.

Edwards, D. and J. F. O'Connell 1995. *Broad Spectrum Diets in Arid Australia*. *Antiquity*, 69: 769-783.

Elder, B. 2003. *Blood on the Wattle: Massacres and Maltreatment of Australian Aborigines since 1788*. New Holland Publishers (Australia) Pty Ltd, Sydney.

Foley, R. 1981. *A Model of Regional Archaeological Structure*. *Proceedings of the Prehistoric Society*. 47: 1-17.

Fowler, K.D, H.J. Greenfield and L.O. van Schalkwyk. 2004. *The Effects of Burrowing Activity on Archaeological Sites: Ndondondwane, South Africa*. *Geoarchaeology* 19(5):441-470.

Gardner, W. 1978 [1842-54]. "Productions and resources of the Northern and Western Districts of New South Wales". In I McBryde (Ed), *Records of Times Past: Ethnohistorical essays on the culture and ecology of the New England Tribes*, pp239-246. Australian Institute of Aboriginal Studies, Canberra.

Ginibi, R. L. 1994. *My Bundjalung People*. University of Queensland Press, St Lucia.

Hall, G. 1977. *The Road to the River (1839-1939) or Draylines to Deep Water*. Bording's Publications, Lismore.

Halliday, K. 1986. *Tenterfield Reflections II*. K. Halliday, Tenterfield.

Kerr, R., Burke, H., English, A., Erskine, J., and Rosen, S. 1999. *Torrington State Recreation Area cultural heritage assessment: contextual land use and social history*. Consultancy report to Glen Innes National Parks and Wildlife Service.

Kohen, J, L., Stockton, E. D., and Williams, M. A. 1984. "Shaws Creek KII rockshelter, a prehistoric occupation site in the Blue Mountains piedmont, eastern New South Wales". *Archaeology in Oceania* 19(2):57-72.

Kuskie, P.J., and J. Kamminga. 2000. Salvage of Aboriginal archaeological sites in relation to the F3 Freeway near Lenaghans Drive, Black Hill, New South Wales. Report to Roads and traffic Authority New South Wales.

Lampert, R. J. 1971. *Burrill Lake and Currarong; Coastal Sites in Southern New South Wales*. Terra Australis. Vol. 1. Department of Prehistory, Research School of Pacific Studies, Australian National University, Canberra.

Lewarch, D. E. and O'Brien, M. J. 1981. *The Expanding Role of Surface Assemblages in Archaeological research*. In Schiffer, M. B. (ed) *Advances in Archaeological Method and Theory*, Volume 4. Academic Press, New York.

L'Oste-Brown, S., L. Godwin., and C. Porter., *In Association with Bowen Basin Aboriginal steering Committee. 1998. Towards an Indigenous Social and Cultural Landscape of the Bowen Basin. Bowen Basin Aboriginal Cultural Heritage Project*. Cultural Heritage Monograph Series Volume 2. Queensland Department of Environment and Heritage, Brisbane.

McBryde, I. 1974. *Aboriginal Prehistory in New England: An archaeological survey of northeastern New South Wales*. Sydney University Press, University of Sydney.

- McBryde, I. 1977.** "Determinants of assemblage variation in New England prehistory: Environment, subsistence economies, site activities, or cultural tradition?" In R V S Wright (Ed), *Stone tools as cultural markers: change, evolution and complexity*. Prehistory and Material Culture Series 12, pp225- 250. Australian Institute of Aboriginal Studies, Canberra.
- McDonald, R.C., Isbell, R.F., Speight, J.G., Walker, J. and Hopkins, M.S. 1998.** *Australian Soil and Land Survey Field Handbook*, Second Edition. Inkata Press, Australia.
- Moran, C. H. 2004.** *Talk softly, listen well: profile of a Bundjalung elder Charles Moran*. Southern Cross University Press, Lismore.
- Mulvaney, J., and J. Kamminga. 1999.** *Prehistory of Australia*. Allen and Unwin, Australia.
- Nanson, G. C., Young, R. W., and Stockton, E. 1987.** "Chronology and Paleoenvironment of the Cranebrook Terrace [near Sydney] Containing Artefacts more than 40,000 Years Old". *Archaeology in Oceania* 22(2):72-78.
- Nelson, M. 1991.** *The study of technological organisation*. In Schiffer, M. (ed.) *Archaeological Method and Theory*. Tuscon: University of Arizona Press. pp. 57-100.
- NSW Government State Records. 2010a.** *State Records Archives Investigator: Agency Detail: Board for the Protection of Aborigines*. <http://investigator.records.nsw.gov.au/Entity.aspx?Path=\Agency\559> Accessed 16/7/2019.
- Odell, G. and F. Cowan. 1987.** *Estimating Tillage Effects on Artifact Distributions*. *American Antiquity* 52(3):456-484.
- Office of Environment and Heritage (OEH), 2011.** *Guide to Investigating, Assessing and reporting on Aboriginal Cultural Heritage in NSW*. Department of Environment, Climate Change and Water NSW, Sydney.
- Peacock, E. and D. Fant. 2002.** *Biomantle Formation and Artifact Translocation in Upland Sandy Soils: An Example from the Holly Springs National Forest, North-Central Mississippi, U.S.A.* In *Geoarchaeology* 17(1):91-114.
- Renfrew, C., and Bahn, P. 1991.** *Archaeology: Theories, Methods and Practice*. Thames & Hudson.
- Rich, E. 1990.** *Aboriginal Historic Sites in North East NSW: Management Study*. Report to The National Parks and Wildlife Service of NSW and The Australian Heritage Commission.
- State Library of New South Wales. (2011).** *Blanket Lists*. http://www.sl.nsw.gov.au/discover_collections/history_nation/indigenous/blanket/blanket.html Accessed 16/7/2019.
- Stockton, E. 1993.** "Archaeology of the Blue Mountains". In E Stockton (Ed), *Blue Mountains Dreaming: Aboriginal Heritage*, pp23-52. Three Sisters Productions, Springwood.
- Stockton, E., and Holland, W. 1974.** "Cultural sites and their environment in the Blue Mountains". *Archaeology and Physical Anthropology in Oceania* 9(1):36-65.
- Tindale, N. B. 2011 [1974].** *Tindale's Catalogue of Australian Aboriginal Tribes*. <http://www.samuseum.australia.sa.com/tindaletribes/> Accessed 16/7/2019.

Walker, R. B. 1962. *"The Relations between Aborigines and Settlers in New England, 1818-1900"*. Armidale and District Historical Society Journal and Proceedings 4:1-18.

Waters, M. 2000. *Alluvial Stratigraphy and Geoarchaeology in the American Southwest*. Geoarchaeology: An International Journal 15(6):537-557.

Waters, M. and D. Kuehn. 1996. *The Geoarchaeology of Place: The Effect of Geological Processes on the Preservation and Interpretation of the Archaeological Record*. American Antiquity 61(3):483-496.

Wheeling Jesuit University, 2002. *Exploring the Environment: Water Quality*. <http://www.cotf.edu/ete/modules/waterq/wqphysmethods.html> Downloaded 24 February 2004.

Villa, P. 1982. *Conjoinable Pieces and Site Formation Processes*. American Antiquity 47(2):276-290.

Yorston, R.M., Gaffney, V.L. and Reynolds, P.J. 1990. *Simulation of Artefact Movement Due to Cultivation*. Journal of Archaeological Science 17:67-83.

1848 'CLARENCE RIVER.', *The Maitland Mercury & Hunter River General Advertiser* (NSW : 1843 - 1893), 2 February, p. 3, Accessed 16/7/2019, <http://nla.gov.au/nla.news-article713447>

1872 'TENTERFIELD.', *Clarence and Richmond Examiner and New England Advertiser* (Grafton, NSW : 1859 - 1889), 6 August, p. 2, Accessed 16/7/2019, <http://nla.gov.au/nla.news-article61879503>

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Annexures

(Total No. of pages including blank pages = 106)

Annexure 1	Aboriginal Stakeholder Consultation
Annexure 2	AHIMS Search results

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Annexure 1

Aboriginal Stakeholder Consultation

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Date	Consultation type	OEH requirement	Consult stage	RAP/Agency	Contact person	Description
15/4/19	Letter	4.1.2	1	MCH contacted Office of Environment & Heritage (OEH)		Letter to identify Aboriginal parties. Requested response no later C.O.B. 29/4/2019
15/4/19	Letter	4.1.2	1	MCH contacted Moombahlene Local Aboriginal Land Council (MLALC)		Letter to identify Aboriginal parties. Requested response no later C.O.B. 29/4/2019
15/4/19	Letter	4.1.2	1	MCH contacted Registrar of Aboriginal Owners (RAO)		Letter to identify Aboriginal parties. Requested response no later C.O.B. 29/4/2019
15/4/19	Letter	4.1.2	1	MCH contacted Tenterfield Shire Council (TSC)		Letter to identify Aboriginal parties. Requested response no later C.O.B. 29/4/2019
15/4/19	Letter	4.1.2	1	MCH contacted Native Title Tribunal (NNTT)		Letter to identify Aboriginal parties. Requested response no later C.O.B. 29/4/2019
15/4/19	Letter	4.1.2	1	MCH contacted NTSCORP Ltd		Letter to identify Aboriginal parties. Requested response no later C.O.B. 29/4/2019
15/4/19	Letter	4.1.2	1	MCH contacted Northern Tablelands Local Land Services (NTLLS)		Letter to identify Aboriginal parties. Requested response no later C.O.B. 29/4/2019
18/4/19	Letter	4.1.2	1	OEH contacted MCH		Identified Aboriginal parties: 5
16/4/19	Letter/e-mail	4.1.2	1	NNTT contacted MCH		No Identified Aboriginal parties
17/4/19	Letter/e-mail	4.1.2	1	RAO contacted MCH		Identified Aboriginal parties: Moombahlene LALC
26/4/19	e-mail	4.1.2	1	MLALC contacted MCH		Registered for the project
	e-mail & letter	4.1.2	1	TCS contacted MCH		
NA		4.1.2	1	NTSCORP	Do not provide lists of possible stakeholders	
NA		4.1.2	1	NTLLS	Do not provide lists of possible stakeholders	
29 April 2019 C.O.B. Request for groups to consult with closed						
1/5/19	Public notice	4.1.3	1	All registered Aboriginal parties (RAPs)		Public notice in the Tenterfield Star and requested registration no later than 15/5/19.
30/4/19	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. 14/5/19
7/5/19		4.1.7, 4.1.8	1	David Turnbridge		Registered for the project
15 May 2019 C.O.B. Registration for project closed						

Date	Consultation type	OEH requirement	Consult stage	RAP/Agency	Contact person	Description
16/5/19	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 4 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. 12 June 2019
12 June 2019 C.O.B. Response to information packet closed						
24/6/19	Letter		3	All RAPs		All RAPs sent a letter of invitation to attend and participate in the survey on 9/7/2019
25/6/19		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	MLALC	Helen Duroux	Provided signed fieldwork paperwork
27/6/19	It was discovered during emails between MCH and David Tumbidge, that he identified himself as non-Aboriginal and registered for the project as he was interested in the expansion. MCH informed him he had registered under false pretenses and that all information was not intended for non-Aboriginal people and that all documents had been marked CONFIDENTIAL and requested that he destroy all documentation sent to him.					
9 July 2019 Commencement of field work						
31/7/19	email & letter	4.3.5, 4.3.6; 4.3.7 4.4.1; 4.4.2; 4.4.3	3 & 4	MLALC		Draft report sent to MLALC
28 August 2019 C.O.B. Response to Draft Report Closed						
30/8/19		4.4.4; 4.4.5	4	MLALC		Final report sent to MLALC
30 August 2019 C.O.B. Assessment Complete						



15 April 2019

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mcheritage@iprimus.com.au
P: 0412 702 396

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Sir/Madam
NTSCORP Limited
information@ntscorp.com.au

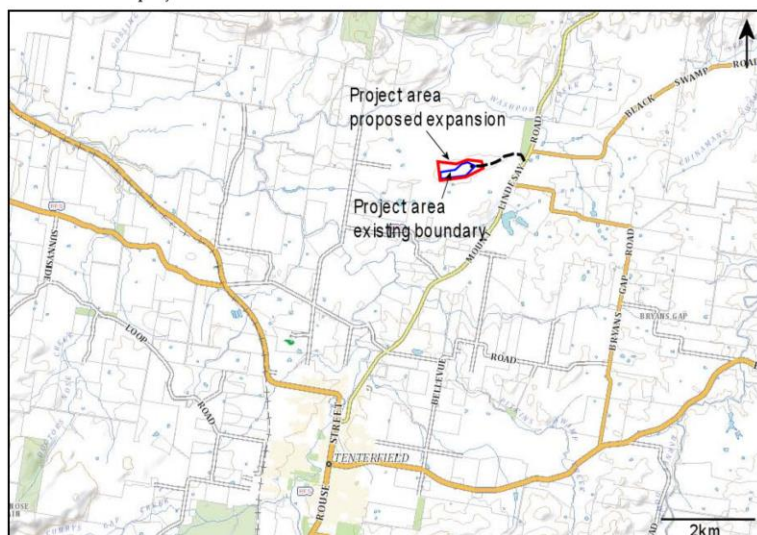
Dear Sir/Madam,

**RE: Written notification of project proposal and registration of interest as required under OEH
Aboriginal Cultural heritage Consultation requirements for proponents 2010 (Stage 1)–
Proposed Dowe's Quarry Expansion, Tenterfield**

MCH have been engaged by Darryl McCarthy Constructions Pty Ltd (PO Box 246, Tenterfield NSW 2372) to undertake an Aboriginal Cultural Heritage Assessment and prepare an Aboriginal Heritage Impact Permit (AHIP) application if required for the proposed expansion of the existing Quarry located at Tenterfield, Tenterfield Shire Local Government Area (LGA).

As per the Office of Environment and Heritage (OEH) 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 OEH 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 (mcheritage@iprimus.com.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.

Yours sincerely,

for McCardle Cultural Heritage Pty Ltd



Penny McCardle
Principal Archaeologist
Forensic Anthropologist



15 April 2019

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

mcheritage.com.au

Sir/Madam
Office of Environment & Heritage (Archaeology)
rog.hcc@environment.nsw.gov.au

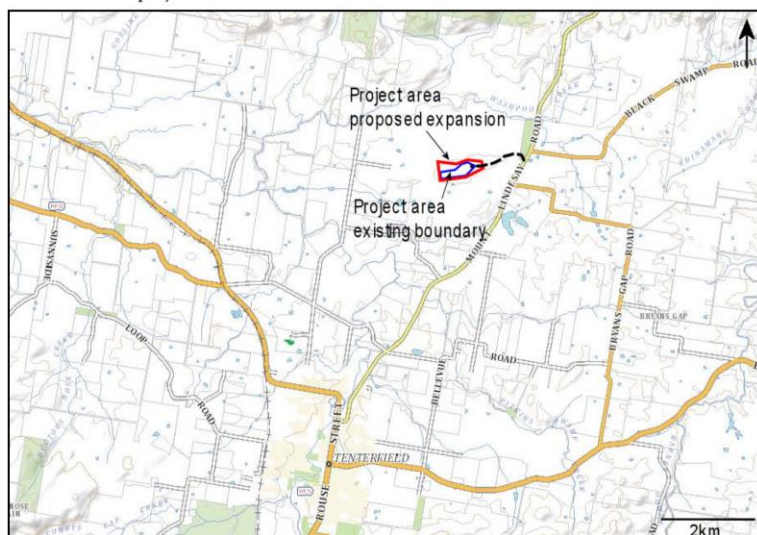
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15 April 2019

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Sir/Madam
Northern Tablelands Local Land Services
paul.hutchings@lls.nsw.gov.au

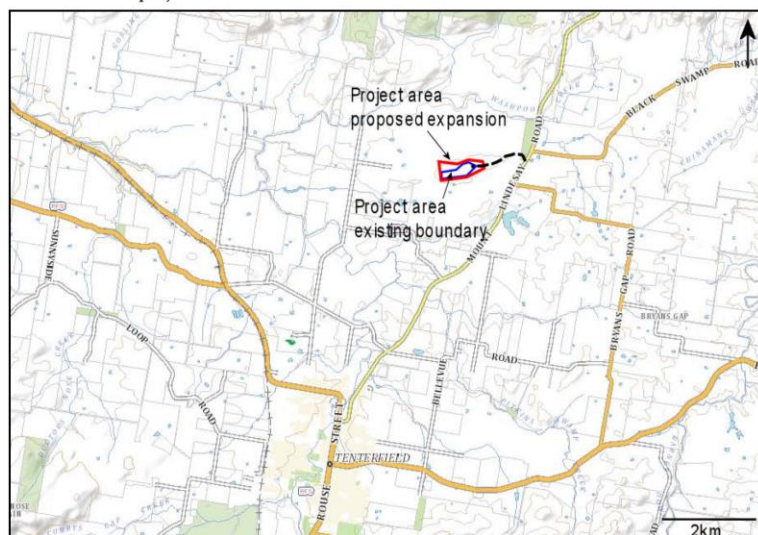
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15 April 2019

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Sir/Madam
National Native Title Tribunal
GeospatialSearch@NNTT.gov.au

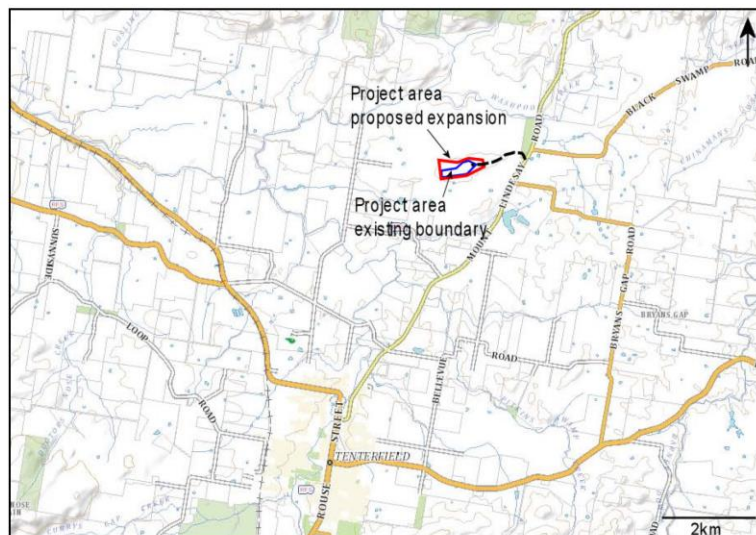
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for McCardle Cultural Heritage Pty Ltd



Penny McCardle
Principal Archaeologist
Forensic Anthropologist

National
Native Title
Tribunal**Request for Search of Tribunal Registers****Search for overlapping interests i.e.: Is there a native title claim, determination or land use agreement over this land?****Please note: the NNTT cannot search over freehold land.**For further information on freehold land: [Click Here](#) (NNTT website)**1. Your details**

NAME:	Penny McCardle
POSITION:	Archaeologist
COMPANY/ORGANISATION:	McCardle Cultural Heritage Pty Ltd
POSTAL ADDRESS:	PO Box 166, Adamstown NSW 2289
TELEPHONE:	0412 702 396
EMAIL:	mcheritage@iprimus.com.au
YOUR REFERENCE:	Tenterfield
DATE OF REQUEST:	15/4/2019

2. Reason for your request

Are you a party to a native title proceeding?

☐ Yes ☒ No

Please provide Federal Court/Tribunal file number/or application name:

ORDo you need to identify existing native title interests to comply with the *Native Title Act 1993* (Cth) or other State/Territory legislation?☒ Yes ☐ No

Please provide brief details of these obligations here:

OEH requirements

3. Identify the area to be searched

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

Mining tenure

State/Territory:	NSW
Tenement ref/s:	

OR**Crown land / non-freehold tenure**

Tenure type:	☐ Lease ☐ Reserve or other Crown land
State/Territory:	
Lot and plan details:	
Pastoral Lease number or name:	
Other details: (Town/County/Parish/Section/Hundred/Portion):	

Email completed form to: GeospatialSearch@nntt.gov.au



15 April 2019

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

mcheritage.com.au

Sir/Madam
MoombahleneLocal Aboriginal Land Council
moombahlenelalc1@bigpond.com

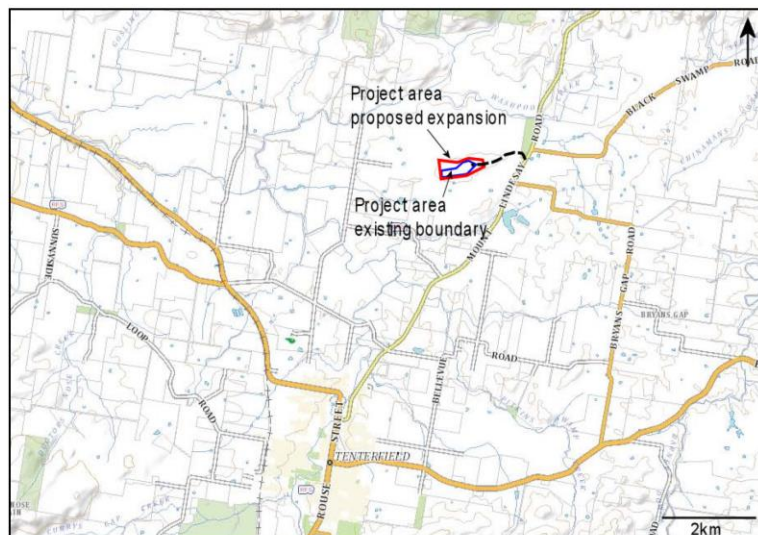
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As per the Office of Environment and Heritage (OEH) policy - *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*, (Stage 1, s4.1.1 to 4.1.2), MCH and the proponent are seeking community consultation with indigenous knowledge 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 OEH 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 (mcheritage@iprimus.com.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.

Yours sincerely,

for McCardle Cultural Heritage Pty Ltd



Penny McCardle
Principal Archaeologist
Forensic Anthropologist



15 April 2019

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

mcheritage.com.au

Sir/Madam
Tenterfield Shire Council
council@tenterfield.nsw.gov.au

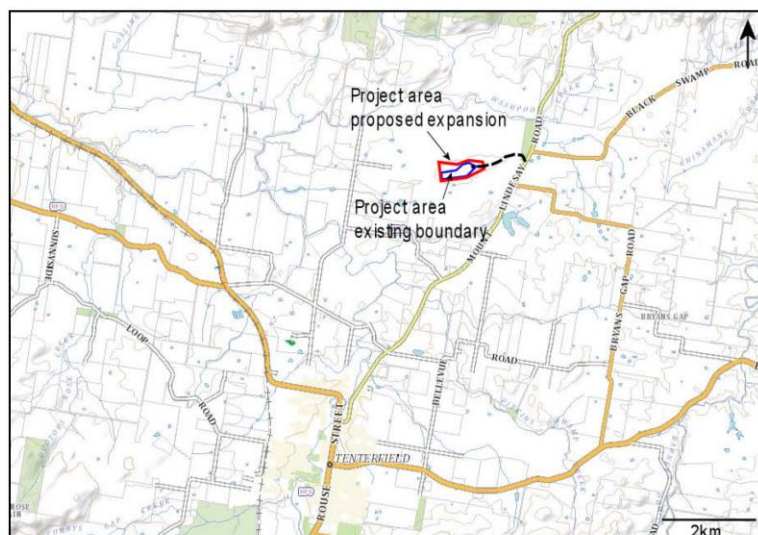
Dear Sir/Madam,

**RE: Written notification of project proposal and registration of interest as required under OEH
Aboriginal Cultural heritage Consultation requirements fro proponents 2010 (Stage 1)–
Proposed Dowe's Quarry Expansion, Tenterfield**

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Yours sincerely,

for McCardle Cultural Heritage Pty Ltd



Penny McCardle
Principal Archaeologist
Forensic Anthropologist



15 April 2019

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

mcheritage.com.au

Sir/Madam
Office of the Registrar, Aboriginal Land Rights Act 1983
jodie.rikiti2@oralra.nsw.gov.au

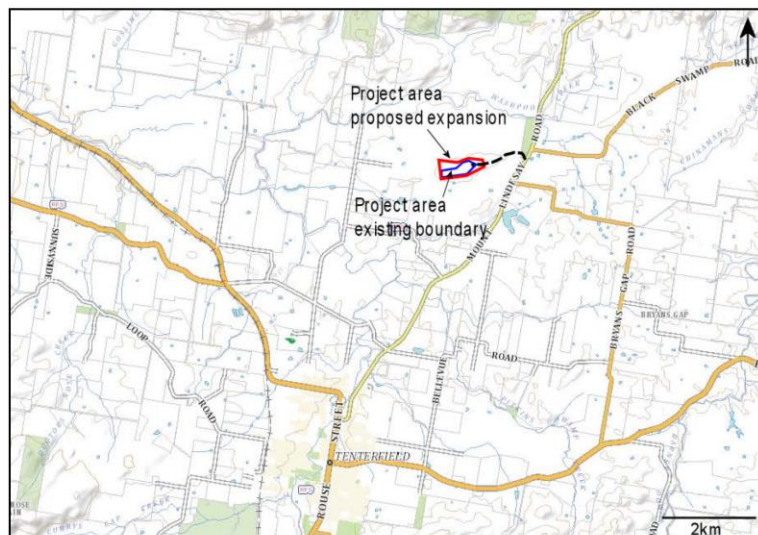
Dear Sir/Madam,

**RE: Written notification of project proposal and registration of interest as required under OEH
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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.

Yours sincerely,

for McCardle Cultural Heritage Pty Ltd



Penny McCardle
Principal Archaeologist
Forensic Anthropologist

Penny McCardle

From: Geospatial Search Requests <GeospatialSearch@NNTT.gov.au>
Sent: Tuesday, 16 April 2019 1:52 PM
To: Penny McCardle
Subject: RE: SR5718 - search - SR5718

UNCLASSIFIED

Native title search – NSW - Proposed Dowe's Quarry Expansion, Tenterfield
Your ref: Tenterfield - Our ref: SR5718

Dear Penny McCardle,

Thank you for your search request received on 12 April 2019 in relation to the above area. Based on the records held by the National Native Title Tribunal as at 15 April 2019 it would appear that there are no Native Title Determination Applications, Determinations of Native Title, or Indigenous Land Use Agreements over the identified area.

Search Results

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

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

At the time this search was carried out, there were **no relevant entries** in the above databases.

Cultural Heritage Searches in NSW

The National Native Title Tribunal (the 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.

Interested parties are invited to use Native Title Vision (NTV) the Tribunal's online mapping system to discover native title matters in their area of interest. Access to NTV is available at

<http://www.nntt.gov.au/assistance/Geospatial/Pages/NTV.aspx>

Training and self-help documents are available on the NTV web page under "Training and help documents". For additional assistance or general advice on NTV please contact GeospatialSearch@NNTT.gov.au

Additional information can be extracted from the Registers available at

<http://www.nntt.gov.au/searchRegApps/Pages/default.aspx>

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

The Tribunal accepts no liability for reliance placed on enclosed information

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

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

Regards,

Geospatial Searches

National Native Title Tribunal | Perth

Email: GeospatialSearch@nntt.gov.au | www.nntt.gov.au



17 April 2019

By email: mcheritage@iprimus.com.au

Penny McCardle
Principal Archaeologist
Forensic Anthropologist
PO Box 166
ADAMSTOWN NSW 2289

Dear Ms McCardle,

Request - Search for Registered Aboriginal Owners

We refer to your letter dated 15 April 2019 ("Letter") regarding an Aboriginal Cultural Heritage Assessment for the proposed development at Tenterfield, NSW as indicated on the map attached to the Letter.

Under Section 170 of the *Aboriginal Land Rights Act 1983* the Office of the Registrar is required to maintain the Register of Aboriginal Owners (RAO). A search of the RAO has shown that there are not currently any Registered Aboriginal Owners in the project area.

We suggest you contact Moombahlene Local Aboriginal Land Council on 02 6736 3219 as they may be able to assist you in identifying Aboriginal stakeholders who wish to participate.

Yours sincerely

Elizabeth Loane
Project Officer, Aboriginal Owners
Office of the Registrar, ALRA

Address: Level 3, 2 – 10 Wentworth Street, PARRAMATTA NSW 2150
Post: P.O Box 5068, PARRAMATTA NSW 2124
Phone: 02 8633 1266



Our Ref: DOC19/343713
Your Ref: Letter dated 15 April 2019

McCardle Cultural Heritage
PO Box 166
Adamstown NSW 2289

Attention: Ms Penny McCardle

Dear Ms McCardle

Re: Aboriginal Cultural Heritage Assessment for Dowe's Quarry Expansion, Tenterfield, New South Wales.

Thank you for your correspondence dated 15 April 2019 to the Office of Environment and Heritage (OEH) about Aboriginal cultural heritage consultation for an assessment for a proposed quarry expansion in Tenterfield, in the Tenterfield local government area. I appreciate the opportunity to provide input.

Please find enclosed a list of known Aboriginal parties for the Tenterfield local government area (Attachment A) that we consider likely to have an interest in the proposal. Note this is not an exhaustive list of all interested Aboriginal parties. Receipt of this list does not remove the requirement for a proponent/consultant to advertise the proposal in the local print media and contact other bodies and community groups seeking interested Aboriginal parties, in accordance with the OEH 'Aboriginal cultural heritage consultation requirements for proponents 2010' (the CRs).

The OEH would also like to take this opportunity to remind the proponent and consultant to:

- Ensure the project documents the full consultation process in the Aboriginal Cultural Heritage Assessment Report and to include copies of all correspondence sent to or received from all relevant stakeholders (including Aboriginal stakeholders and the agencies listed in section 4.1.2 of the CRs). Omission of these records in the final report may cause delays in the assessment of the Aboriginal Heritage Impact Permit application or require parts of the consultation process to be repeated if the evidence provided to us does not demonstrate that the consultation process has been fair, equitable and transparent.
- Ensure we are provided with evidence that reasonable attempts have been made to contact the relevant parties associated with the CRs. If this is not provided then we will deem that the consultation process has not complied with the CRs. We consider evidence of reasonable efforts to contact relevant parties would include, but not be limited to, multiple forms of communication; faxes (with confirmation slips demonstrating successful transmission), an e-mail log, registered post details, copies of letters and a phone call log.

Locked Bag 914 Coffs Harbour NSW 2450
Federation House, Level 8, 24 Moonee Street
Coffs Harbour NSW 2450
Tel: (02) 6659 8200 Fax: (02) 6659 8281
ABN 30 841 387 271
www.environment.nsw.gov.au

- Note that Appendix A of the CRs contains a map illustrating which Regional Office of the OEH should be contacted regarding the AHIP application based on the local government area in which the project is located. Full details of the consultation requirements and the relevant Fact Sheets can be located on our website at:
www.environment.nsw.gov.au/licences/consultation.htm.
- Forward to us any changes to the contact details of interested Aboriginal parties, or information regarding additional parties, so that we can update its records.
- Ensure that consultation is fair, equitable and transparent. If the Aboriginal parties express concern or are opposed to parts of or the entire project, we expect that evidence will be provided to demonstrate the efforts made to find common ground between the opponents and the proponent.

If you have any further questions about this issue, Ms Rosalie Neve, Aboriginal Heritage Planning Officer, Conservation and Regional Delivery, OEH, can be contacted on 6659 8221 or at rosalie.neve@environment.nsw.gov.au

Yours sincerely

 18 April 2019

DIMITRI YOUNG
Senior Team Leader Planning, North East
Conservation and Regional Delivery

Contact officer: ROSALIE NEVE
6659 8221

Enclosure: Attachment 1 – OEH Known Aboriginal Parties for the Tenterfield LGA

**Attachment 1: OEH Known Aboriginal Parties (other than Local Aboriginal
Land Councils) for the Tenterfield Local Government Area**

1. Kwiembal Elders Indigenous Group
21A Dudley Street
ASHFORD NSW 2361
2. Natalie Mercy
6 Bando Street
GUNNEDAH NSW 2380
Mob: 0457 617 117
3. Ngoorabul Elders
PO Box 157
GLEN INNES NSW 2370
4. Mr Craig Archibald
27 Margaret Street
TERALBA NSW 2284
Phone: 0455550549
5. Aaron Broad
1 Waratah Ave
ALBION PARK RAIL NSW 2527
Mob: 0402 526 888
minnamunnung@gmail.com

Penny McCardle

From: Helen Duroux <moombahlenelalc1@bigpond.com>
Sent: Friday, 26 April 2019 2:06 PM
To: 'Penny McCardle'
Subject: RE: Tenterfield list of groups

Hello Penny,

Moombahlene is interested in doing a Cultural Heritage Assessment for you. Please inform how we can proceed with this,

Regards

Helen Duroux
CEO

From: Penny McCardle [mailto:mcheritage@iprimus.com.au]
Sent: Saturday, 13 April 2019 7:23 PM
To: moombahlenelalc1@bigpond.com
Subject: Tenterfield list of groups

Dear sir/Madam,

Please see the attached letter regarding an Aboriginal Cultural Heritage Assessment at Tenterfield.

Kind regards,

Penny McCardle
Archaeologist & Forensic Anthropologist

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

This email and any files transmitted with it are confidential and are intended solely for the use of the individual or entity to whom it is addressed. If you are not the intended recipient, or the person responsible for delivering the email to the intended recipient, you have received this email in error. If so, please immediately notify us by reply email to the sender and delete from your computer the original transmission and its contents. Any use, dissemination, forwarding, printing or copying of this email and any file attachments is strictly prohibited. Thank you for your assistance.



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www.avast.com

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Phone: 02 6776 0500

Email: classifieds.tentstar@fairfaxmedia.com.au



Tenterfield Star

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Save time, submit online 24/7

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enquiries: acmadonline@fairfaxmedia.com.au

Emoji now available

Funeral Notices

ALT, Donald James

19.12.1930 - 27.4.2019

Late of Warwick and formerly of

Tenterfield, Torrington & Dundee.

Loved partner of Jane, also of Ann (deceased), and Christine. Loving father of Stephen, Susan, David and Bronwyn and their partners. Loved brother of Ross (deceased), Kevin (deceased), Jack and Joyce. Beloved grandpa and great grandpa.

"Forever In Our Hearts"

Relatives and friends are respectfully informed that a service of thanksgiving for Don's life will be held at the Christ Church Anglican Church, Dundee, NSW commencing at 11:00 am, Monday 6th May, followed by interment at the Dundee Cemetery.

HORDER FAMILY FUNERALS F.D.A.

GLEN INNES Phone: (02) 6732 5911

FDA of NSW Accreditation No: 1202901

INGLIS, Betty Fay

(Betty-Jo)

Passed away at

Royal North Shore Hospital,

St Leonards on

Saturday 27th April 2019

Aged 87 years

Beloved wife of Hugh (dec'd)

Loving mother and mother in law of

Alex, Sally and Hugh with

Rosemary, Stephen and Alison.

Relatives and friends are respectfully advised that a funeral service for Betty-Jo will be held at St Stephen's Presbyterian Church Tenterfield on Monday 6th May, commencing at 11:00am, followed by interment at Tenterfield Lawn Cemetery.



JP COOPER & SON

FUNERAL DIRECTORS TENTERFIELD

(02) 6736 1137

Funeral Directors



Tenterfield

FAMILY FUNERALS

Celebrating Life

All hours contact 0438 719 704



Deer

Property for Deer Meat Hunting

Interested in property for 1-3 times per year hunt for deer meat.

Responsible 80 year old Brisbane man with experience and fully insured and self sufficient.

Member SSAA 344080 NSW DPI R Licence

Happy to pay price per animal harvested or hunting fee and fully co operate with any requirements.

Further information please call Mark anytime

M:0405447554

Livestock

Speriby North BULL SALE

70 ANGUS BULLS

On Property - Tenterfield NSW

&

AuctionsPlus

Friday May 24th, 1pm

Outstanding Breedplan Figures

Breeder - Arthur Cox 02 6737 3655

Agent - Colin Say & Co 02 6732 1266

Online Catalogue

angusaustralia.com.au

Video Catalogue

speribynorth.com.au

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Public Notices

Notification of project proposal and registration of interest under OEH Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 1) - Proposed Expansion of Dowe's Quarry

McCardle Cultural heritage (MCH) have been engaged by Darryl McCarthy Constructions Pty Ltd (PO Box 246, Tenterfield NSW 2372) to prepare an Aboriginal Cultural Heritage Assessment (ACHA) and Section 90 Aboriginal Heritage Impact Permit (AHIP) application, if required, for the proposed expansion of Dowe's Quarry located 8km northeast of Tenterfield and approximately 1km west of the Mount Lindesay Highway. The land titles within the new Quarry Site Boundary and Quarry Access Road are as follows, Lot 280 DP 751540, Lot 4 DP 42044, Lot 239 DP 751540, Lot 309 DP 751540, Lots 1, 2 and 3 DP 1092215 and Lot 308 DP 751540.

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 OEH in his or her consideration and determination of the application should an AHIP be required.

In compliance with the OEH 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 new Quarry area and who can determine the significance of Aboriginal object(s) and/or place(s) in the area of the proposed expanded quarry to register an interest in the consultation process for this project.

Written registrations must be forwarded to MCH (P.O. Box 166 Adamstown, NSW, 2289, mchntent@iprimus.com.au; fax 02 4950 5501) no later than 5.00pm Wednesday 16th May 2019.

All registered parties will then be contacted to discuss the project in compliance with the OEH 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, fax or e-mail.

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

DELIVERY PROGRAM & DRAFT OPERATIONAL PLAN FOR 2019/2020 ON PUBLIC DISPLAY

The Tenterfield Shire Council Delivery Program 2017-2021 and Draft Operational Plan 2019/2020 are on public display until Wednesday, 22 May 2019. The draft document can be viewed on Council's website www.tenterfield.nsw.gov.au or visit the following locations:

- Tenterfield Council Chambers
- Tenterfield Library
- Mingoola Community Hall & Mingoola Rural Traders
- Torrington Library
- Drake Village Resource Centre
- Legume General Store/Post Office
- Liston Community Hall
- Urbenville Post Office
- Wallangarra Post Office
- Deepwater Post Office

Submissions on the draft document should be forwarded to The Chief Executive, Tenterfield Shire Council, PO Box 214, Tenterfield NSW 2372 by 4.00pm on Wednesday, 22 May 2019.

Positions Vacant

Fulltime/Casual position Boilermaker/Welder

This is an equal opportunity employer no age restrictions.

Applicants inquiries to 02 6734 5403

or sales@autobaler.com.au

Brehewey Industries Pty Ltd

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on 0409 781 591

Clearing Sales

CLEARING SALE

10 am Saturday 4th May 2019,

148 Scotts Gully Road TENTERFIELD

A/c Bob Lamprell (Property Sold) & Others

VEHICLES & MACHINERY: 2003 Case CX90 4x4 tractor with ROPS & FEL (3371 hrs), Iseki 4450 4x4 tractor, 2001 Isuzu NPR300 3 ton truck (120,135km) with stock float, 2003 Honda Fourtrax 4 wheel bike, Honda 6.5kva generator, 8ft slasher, New Holland 275 Hayliner baler, New Holland 57 hay rake, SIP 6 disc mower, Silvan 600ltr 8m boom spray with foam marker, Rapid Spray 6m boom spray, Silvan 400ltr & 200ltr spray units, Silvan 500 3PL fertiliser spreader, Horwood Bagshaw 12ft planter, Horwood Bagshaw 10ft cultivator, 3PL 10ft offset discs, Superior 3PL hydraulic post hole digger (new), Digga 3PL post hole digger, 10ft rubber tyre roller, carryalls, stump jump & diamond harrows, ripper, scarifier, 3PL jib, John Deere 0100 42 inch ride on mower, Oztrail camper trailer, farm trailers, Honda GX160 motor with Aussie pump, new DAB pressure pump. **GENERAL:** Tru-Test cattle scales and platform, hay feeders, elec. cement mixer, wheel barrows, fertiliser, jerry cans, knapsack, oil & grease, elec. fence unit & gear, barb wire, gates, dehomers, ladders, trestles, planks, machinery ramps, 1000ltr oil fuel tank, quantity elec & sundry tools. **HOUSEHOLD ITEMS:** side board, tin trunk, TV unit, beds & bedding, tables, stools, chairs, outdoor furniture, display cabinet, sideboard, shelves, book case, filing cabinet, desk, wardrobes, drawers & much more

FULL LISTING & PHOTOS: www.haroldcurry.com.au

TERMS: Cash at Sale, Photo ID Required, Bid Card System, No EFTPOS

DIRECTIONS: 20KM south of Tenterfield via New England Highway, left onto Sandy Flat Road - follow signs.

Results with Honesty & Integrity

Harold Curry



13 April 2019

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

mcheritage.com.au

Kwiembl Elders Indigenous Group
21A Dudley St
Ashford NSW 2361

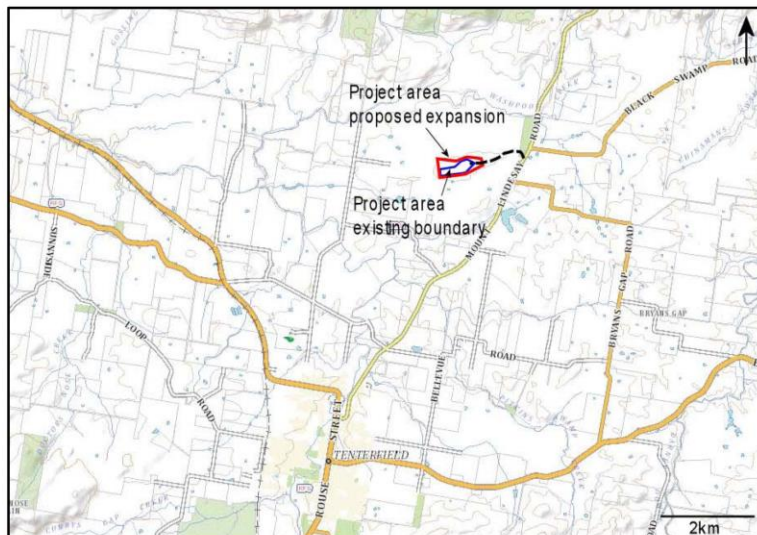
Dear Sir/Madam,

**RE: Written notification of project proposal and registration of interest as required under OEH
Aboriginal Cultural heritage Consultation requirements fro proponents 2010 (Stage 1)–
Proposed Dowe's Quarry Expansion, Tenterfield**

MCH have been engaged by Darryl McCarthy Constructions Pty Ltd (PO Box 246, Tenterfield NSW 2372) to undertake an Aboriginal Cultural Heritage Assessment and prepare an Aboriginal Heritage Impact Permit (AHIP) application if required for the proposed expansion of the existing Quarry located at Tenterfield, Tenterfield Shire Local Government Area (LGA).

As per the Office of Environment and Heritage (OEH) 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 study 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 Director General of the Office of Environment and Heritage (OEH), 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 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 OEH 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 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 (2010), the Burra Charter (2013) and Ask First (2002) which provide guidelines to identify traditional knowledge holders.

A number of questions are attached to assist MCH and the proponent in identifying traditional knowledge holders who are holders of specific detailed traditional knowledge, traditional knowledge holders who are holders of general traditional knowledge and knowledge holders who have knowledge based on other sources (such as but not limited to, ethnographic information, archaeological assessments, filed experience). MCH respectfully ask that you read the questions and provide your answers if you choose to register an interest in the project. MCH also sincerely apologise if you take offence to any questions or the manner in which we are guided to identify traditional knowledge holders; no offence is intended.

Should you wish to register your interest in this project, please register in writing no later than C.O.B. 14 May 2019 to:

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, fax or e-mail. If a preferred method is not nominated, all information will be forward by mail, e-mail or fax.

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.

All information provided will be included in the consultation component of the assessment report unless otherwise stated it is confidential.

Yours sincerely,
for McCardle Cultural Heritage Pty Ltd



Penny McCardle
Principal Archaeologist
Forensic Anthropologist

REGISTRATION OF INTEREST: Dow's Quarry Expansion

The project area lies within Bundjalung traditional lands.



Company Name: _____

Contact: _____

Postal address: _____

Mobile No: _____

E-Mail: _____

Date: _____

If you are a descendant of, or represent a descendant of the Bundjalung people, please answer the questions below (circle yes/no).

1) Are **you** part of a current Native Title Claim where the project area is located within? YES/NO

2) Are **you** a descendant of the Bundjalung people? YES/NO

3) Are **you** a knowledge holder? YES/NO

If yes please clarify further:

a) I am a traditional knowledge holder of specific, details knowledge pass directly by a traditional knowledge holder in a traditional manner YES/NO

b) I am a traditional knowledge holder of general knowledge pass directly by a traditional knowledge holder in a traditional manner YES/NO

c) I am a knowledge holder of recent information obtained through other means (such as, but not limited to, ethnographic sources, internet searches, assessment reports, personal experience etc).
YES NO

4) Do **you represent** a traditional knowledge holder? YES/NO

If yes, please provide details of whom you represent. You must provide written confirmation of those individual(s) whom you act on behalf of.

Name: _____ Phone: _____

Name: _____ Phone: _____

Name: _____ Phone: _____



5) Do **you represent** a traditional knowledge holder of general knowledge? YES/NO

If yes, please provide details of whom you represent. You must provide written confirmation of those individual(s) whom you act on behalf of.

Name: _____ Phone: _____

Name: _____ Phone: _____

Name: _____ Phone: _____

6) Do **you represent** a knowledge holder of recent information? YES/NO

If yes, please provide details of whom you represent. You must provide written confirmation of those individual(s) whom you act on behalf of.

Name: _____ Phone: _____

Name: _____ Phone: _____

Name: _____ Phone: _____

Please nominate when you would like to provide any knowledge:

1) Before the survey YES/NO

2) During the survey YES/NO

3) After the survey (within a week after the survey due to time consideration for preparing the draft reports) YES/NO

If you are not a descendant of the Bundjalung people and would still like to register an interest in the project please answer the questions below.

1) Are you a knowledge holder (whereby you obtain your knowledge through written records such as ethnographic information, archaeological reports, field experience). YES/NO

2) Do you have a specific or general interest in the project? If so, please outline your interest. YES/NO



13 April 2019

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 Natalie Mercy
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 Gunnedah NSW 2380

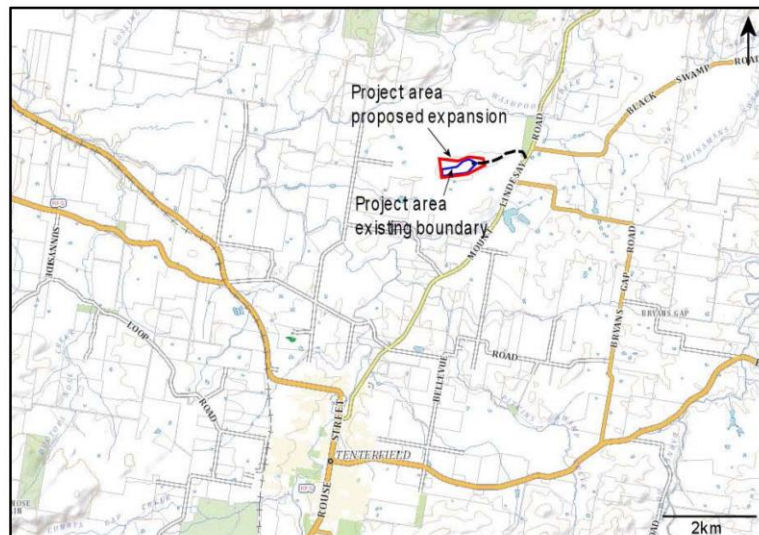
Dear Natalie,

**RE: Written notification of project proposal and registration of interest as required under OEH
 Aboriginal Cultural heritage Consultation requirements for proponents 2010 (Stage 1)–
 Proposed Dowe's Quarry Expansion, Tenterfield**

MCH have been engaged by Darryl McCarthy Constructions Pty Ltd (PO Box 246, Tenterfield NSW 2372) to undertake an Aboriginal Cultural Heritage Assessment and prepare an Aboriginal Heritage Impact Permit (AHIP) application if required for the proposed expansion of the existing Quarry located at Tenterfield, Tenterfield Shire Local Government Area (LGA).

As per the Office of Environment and Heritage (OEH) 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 study 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 Director General of the Office of Environment and Heritage (OEH), 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 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 OEH 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 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 (2010), the Burra Charter (2013) and Ask First (2002) which provide guidelines to identify traditional knowledge holders.

A number of questions are attached to assist MCH and the proponent in identifying traditional knowledge holders who are holders of specific detailed traditional knowledge, traditional knowledge holders who are holders of general traditional knowledge and knowledge holders who have knowledge based on other sources (such as but not limited to, ethnographic information, archaeological assessments, filed experience). MCH respectfully ask that you read the questions and provide your answers if you choose to register an interest in the project. MCH also sincerely apologise if you take offence to any questions or the manner in which we are guided to identify traditional knowledge holders; no offence is intended.

Should you wish to register your interest in this project, please register in writing no later than C.O.B. 14 May 2019 to:

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, fax or e-mail. If a preferred method is not nominated, all information will be forward by mail, e-mail or fax.

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.

All information provided will be included in the consultation component of the assessment report unless otherwise stated it is confidential.

Yours sincerely,

for McCardle Cultural Heritage Pty Ltd



Penny McCardle
Principal Archaeologist
Forensic Anthropologist

REGISTRATION OF INTEREST: Dow's Quarry Expansion

The project area lies within Bundjalung traditional lands.



Company Name: _____

Contact: _____

Postal address: _____

Mobile No: _____

E-Mail: _____

Date: _____

If you are a descendant of, or represent a descendant of the Bunjalung people, please answer the questions below (circle yes/no).

1) Are **you** part of a current Native Title Claim where the project area is located within? YES/NO

2) Are **you** a descendant of the Bundjalung people? YES/NO

3) Are **you** a knowledge holder? YES/NO

If yes please clarify further:

a) I am a traditional knowledge holder of specific, details knowledge pass directly by a traditional knowledge holder in a traditional manner YES/NO

b) I am a traditional knowledge holder of general knowledge pass directly by a traditional knowledge holder in a traditional manner YES/NO

c) I am a knowledge holder of recent information obtained through other means (such as, but not limited to, ethnographic sources, internet searches, assessment reports, personal experience etc).
YES NO

4) Do **you represent** a traditional knowledge holder? YES/NO

If yes, please provide details of whom you represent. You must provide written confirmation of those individual(s) whom you act on behalf of.

Name: _____ Phone: _____

Name: _____ Phone: _____

Name: _____ Phone: _____



5) Do **you represent** a traditional knowledge holder of general knowledge? YES/NO

If yes, please provide details of whom you represent. You must provide written confirmation of those individual(s) whom you act on behalf of.

Name: _____ Phone: _____

Name: _____ Phone: _____

Name: _____ Phone: _____

6) Do **you represent** a knowledge holder of recent information? YES/NO

If yes, please provide details of whom you represent. You must provide written confirmation of those individual(s) whom you act on behalf of.

Name: _____ Phone: _____

Name: _____ Phone: _____

Name: _____ Phone: _____

Please nominate when you would like to provide any knowledge:

1) Before the survey YES/NO

2) During the survey YES/NO

3) After the survey (within a week after the survey due to time consideration for preparing the draft reports) YES/NO

If you are **not** a descendant of the Bundjalung people and would still like to register an interest in the project please answer the questions below.

1) Are you a knowledge holder (whereby you obtain your knowledge through written records such as ethnographic information, archaeological reports, field experience). YES/NO

2) Do you have a specific or general interest in the project? If so, please outline your interest. YES/NO



13 April 2019

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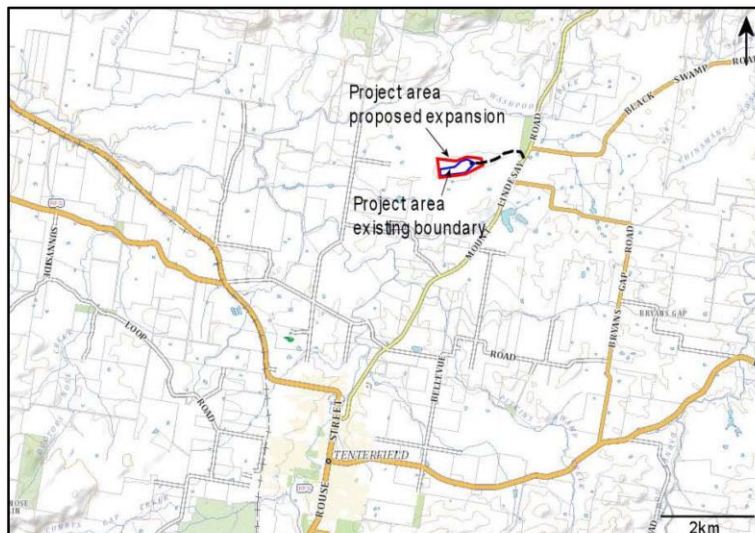
Dear Sir/Madam,

**RE: Written notification of project proposal and registration of interest as required under OEH
Aboriginal Cultural heritage Consultation requirements fro proponents 2010 (Stage 1)–
Proposed Dowe's Quarry Expansion, Tenterfield**

MCH have been engaged by Darryl McCarthy Constructions Pty Ltd (PO Box 246, Tenterfield NSW 2372) to undertake an Aboriginal Cultural Heritage Assessment and prepare an Aboriginal Heritage Impact Permit (AHIP) application if required for the proposed expansion of the existing Quarry located at Tenterfield, Tenterfield Shire Local Government Area (LGA).

As per the Office of Environment and Heritage (OEH) 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 study 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 Director General of the Office of Environment and Heritage (OEH), 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 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:

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- 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.

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Should you wish to register your interest in this project, please register in writing no later than C.O.B. 14 May 2019 to:

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, fax or e-mail. If a preferred method is not nominated, all information will be forward by mail, e-mail or fax.

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All information provided will be included in the consultation component of the assessment report unless otherwise stated it is confidential.

Yours sincerely,
for McCardle Cultural Heritage Pty Ltd



Penny McCardle
Principal Archaeologist
Forensic Anthropologist

REGISTRATION OF INTEREST: Dowe's Quarry Expansion

The project area lies within Bundjalung traditional lands.



Company Name: _____

Contact: _____

Postal address: _____

Mobile No: _____

E-Mail: _____

Date: _____

If you are a descendant of, or represent a descendant of the Bundjalung people, please answer the questions below (circle yes/no).

1) Are **you** part of a current Native Title Claim where the project area is located within? YES/NO

2) Are **you** a descendant of the Bundjalung people? YES/NO

3) Are **you** a knowledge holder? YES/NO

If yes please clarify further:

a) I am a traditional knowledge holder of specific, details knowledge pass directly by a traditional knowledge holder in a traditional manner YES/NO

b) I am a traditional knowledge holder of general knowledge pass directly by a traditional knowledge holder in a traditional manner YES/NO

c) I am a knowledge holder of recent information obtained through other means (such as, but not limited to, ethnographic sources, internet searches, assessment reports, personal experience etc).
YES NO

4) Do **you represent** a traditional knowledge holder? YES/NO

If yes, please provide details of whom you represent. You must provide written confirmation of those individual(s) whom you act on behalf of.

Name: _____ Phone: _____

Name: _____ Phone: _____

Name: _____ Phone: _____



5) Do **you represent** a traditional knowledge holder of general knowledge? YES/NO

If yes, please provide details of whom you represent. You must provide written confirmation of those individual(s) whom you act on behalf of.

Name: _____ Phone: _____

Name: _____ Phone: _____

Name: _____ Phone: _____

6) Do **you represent** a knowledge holder of recent information? YES/NO

If yes, please provide details of whom you represent. You must provide written confirmation of those individual(s) whom you act on behalf of.

Name: _____ Phone: _____

Name: _____ Phone: _____

Name: _____ Phone: _____

Please nominate when you would like to provide any knowledge:

1) Before the survey YES/NO

2) During the survey YES/NO

3) After the survey (within a week after the survey due to time consideration for preparing the draft reports) YES/NO

If you are not a descendant of the Bundjalung people and would still like to register an interest in the project please answer the questions below.

1) Are you a knowledge holder (whereby you obtain your knowledge through written records such as ethnographic information, archaeological reports, field experience). YES/NO

2) Do you have a specific or general interest in the project? If so, please outline your interest. YES/NO



13 April 2019

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Adamstown 2289 NSW
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P: 0412 702 396

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Craig Archibald
27 Margaret St
Teralba NSW 2284

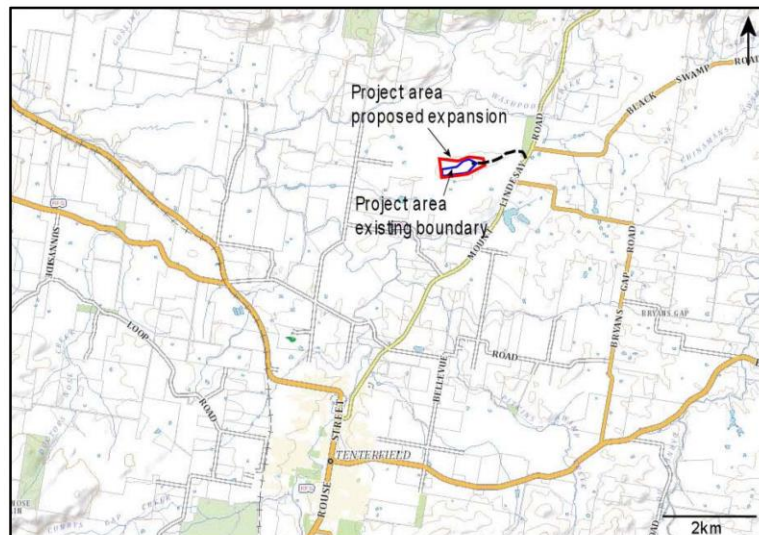
Dear Craig,

**RE: Written notification of project proposal and registration of interest as required under OEH
Aboriginal Cultural heritage Consultation requirements fro proponents 2010 (Stage 1)–
Proposed Dowe's Quarry Expansion, Tenterfield**

MCH have been engaged by Darryl McCarthy Constructions Pty Ltd (PO Box 246, Tenterfield NSW 2372) to undertake an Aboriginal Cultural Heritage Assessment and prepare an Aboriginal Heritage Impact Permit (AHIP) application if required for the proposed expansion of the existing Quarry located at Tenterfield, Tenterfield Shire Local Government Area (LGA).

As per the Office of Environment and Heritage (OEH) 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 study 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 Director General of the Office of Environment and Heritage (OEH), 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 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 OEH 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.

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Should you wish to register your interest in this project, please register in writing no later than C.O.B. 14 May 2019 to:

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, fax or e-mail. If a preferred method is not nominated, all information will be forward by mail, e-mail or fax.

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All information provided will be included in the consultation component of the assessment report unless otherwise stated it is confidential.

Yours sincerely,

for McCardle Cultural Heritage Pty Ltd



Penny McCardle
Principal Archaeologist
Forensic Anthropologist

REGISTRATION OF INTEREST: Dow's Quarry Expansion

The project area lies within Bundjalung traditional lands.



Company Name: _____

Contact: _____

Postal address: _____

Mobile No: _____

E-Mail: _____

Date: _____

If you are a descendant of, or represent a descendant of the Bunjalung people, please answer the questions below (circle yes/no).

1) Are **you** part of a current Native Title Claim where the project area is located within? YES/NO

2) Are **you** a descendant of the Bundjalung people? YES/NO

3) Are **you** a knowledge holder? YES/NO

If yes please clarify further:

a) I am a traditional knowledge holder of specific, details knowledge pass directly by a traditional knowledge holder in a traditional manner YES/NO

b) I am a traditional knowledge holder of general knowledge pass directly by a traditional knowledge holder in a traditional manner YES/NO

c) I am a knowledge holder of recent information obtained through other means (such as, but not limited to, ethnographic sources, internet searches, assessment reports, personal experience etc).
YES NO

4) Do **you represent** a traditional knowledge holder? YES/NO

If yes, please provide details of whom you represent. You must provide written confirmation of those individual(s) whom you act on behalf of.

Name: _____ Phone: _____

Name: _____ Phone: _____

Name: _____ Phone: _____



5) Do **you represent** a traditional knowledge holder of general knowledge? YES/NO

If yes, please provide details of whom you represent. You must provide written confirmation of those individual(s) whom you act on behalf of.

Name: _____ Phone: _____

Name: _____ Phone: _____

Name: _____ Phone: _____

6) Do **you represent** a knowledge holder of recent information? YES/NO

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Name: _____ Phone: _____

Name: _____ Phone: _____

Name: _____ Phone: _____

Please nominate when you would like to provide any knowledge:

1) Before the survey YES/NO

2) During the survey YES/NO

3) After the survey (within a week after the survey due to time consideration for preparing the draft reports) YES/NO

If you are **not** a descendant of the Bundjalung people and would still like to register an interest in the project please answer the questions below.

1) Are you a knowledge holder (whereby you obtain your knowledge through written records such as ethnographic information, archaeological reports, field experience). YES/NO

2) Do you have a specific or general interest in the project? If so, please outline your interest. YES/NO



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13 April 2019

Aaron Broad
1 Waratah Ave
Albion Park NSW 2527

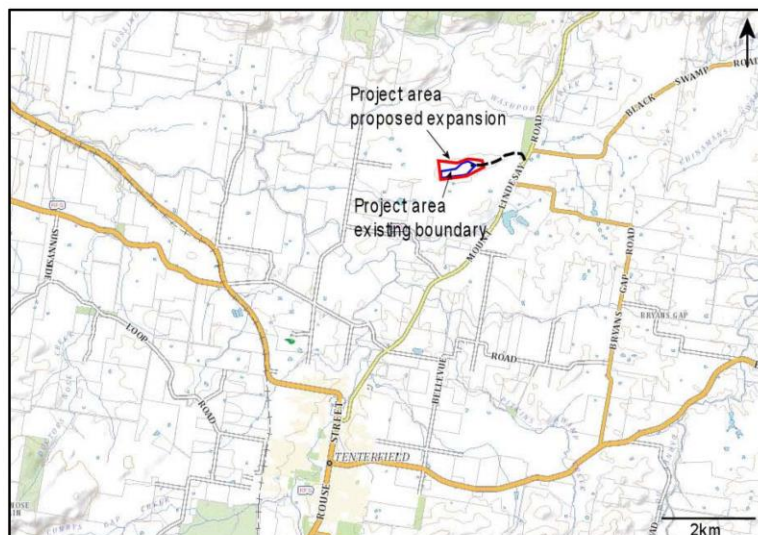
Dear Aaron,

**RE: Written notification of project proposal and registration of interest as required under OEH
Aboriginal Cultural heritage Consultation requirements fro proponents 2010 (Stage 1)–
Proposed Dowe's Quarry Expansion, Tenterfield**

MCH have been engaged by Darryl McCarthy Constructions Pty Ltd (PO Box 246, Tenterfield NSW 2372) to undertake an Aboriginal Cultural Heritage Assessment and prepare an Aboriginal Heritage Impact Permit (AHIP) application if required for the proposed expansion of the existing Quarry located at Tenterfield, Tenterfield Shire Local Government Area (LGA).

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Location of the study 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 Director General of the Office of Environment and Heritage (OEH), 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 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:

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- 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;
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Should you wish to register your interest in this project, please register in writing no later than C.O.B. 14 May 2019 to:

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

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All information provided will be included in the consultation component of the assessment report unless otherwise stated it is confidential.

Yours sincerely,
for McCardle Cultural Heritage Pty Ltd



Penny McCardle
Principal Archaeologist
Forensic Anthropologist

REGISTRATION OF INTEREST: Dow's Quarry Expansion

The project area lies within Bundjalung traditional lands.



Company Name: _____

Contact: _____

Postal address: _____

Mobile No: _____

E-Mail: _____

Date: _____

If you are a descendant of, or represent a descendant of the Bundjalung people, please answer the questions below (circle yes/no).

1) Are **you** part of a current Native Title Claim where the project area is located within? YES/NO

2) Are **you** a descendant of the Bundjalung people? YES/NO

3) Are **you** a knowledge holder? YES/NO

If yes please clarify further:

a) I am a traditional knowledge holder of specific, details knowledge pass directly by a traditional knowledge holder in a traditional manner YES/NO

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c) I am a knowledge holder of recent information obtained through other means (such as, but not limited to, ethnographic sources, internet searches, assessment reports, personal experience etc).
YES NO

4) Do **you represent** a traditional knowledge holder? YES/NO

If yes, please provide details of whom you represent. You must provide written confirmation of those individual(s) whom you act on behalf of.

Name: _____ Phone: _____

Name: _____ Phone: _____

Name: _____ Phone: _____



5) Do **you represent** a traditional knowledge holder of general knowledge? YES/NO

If yes, please provide details of whom you represent. You must provide written confirmation of those individual(s) whom you act on behalf of.

Name: _____ Phone: _____

Name: _____ Phone: _____

Name: _____ Phone: _____

6) Do **you represent** a knowledge holder of recent information? YES/NO

If yes, please provide details of whom you represent. You must provide written confirmation of those individual(s) whom you act on behalf of.

Name: _____ Phone: _____

Name: _____ Phone: _____

Name: _____ Phone: _____

Please nominate when you would like to provide any knowledge:

1) Before the survey YES/NO

2) During the survey YES/NO

3) After the survey (within a week after the survey due to time consideration for preparing the draft reports) YES/NO

If you are not a descendant of the Bundjalung people and would still like to register an interest in the project please answer the questions below.

1) Are you a knowledge holder (whereby you obtain your knowledge through written records such as ethnographic information, archaeological reports, field experience). YES/NO

2) Do you have a specific or general interest in the project? If so, please outline your interest. YES/NO



16 May 2019

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

mcheritage.com.au

David Tumbridge
dtumbridge@bigpond.com

Dear David,

RE: OEH Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 2 & 3) – Presentation of information about the proposed project and request for comment on the proposed methods of investigation - Proposed Dowe's Quarry Expansion, Tenterfield

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 the information packet.

In order for the proponent to fulfil its cultural heritage consultation requirements per the OEH 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 the proposed project including, but not limited to, details of the proposed the project including maps indicating the impact areas, 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 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 12 June 2019. 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 (Darryl McCarthy Constructions Pty Ltd) 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 Darryl McCarthy Constructions Pty Ltd based upon merits of the applications received with respect to the selection criteria. Late application will not be accepted by Darryl McCarthy Constructions Pty Ltd.

Please note that the number of people engaged and the duration of any engagement will be at the sole discretion of Darryl McCarthy Constructions Pty Ltd 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 OEH 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 OEH 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.

Yours sincerely,
for McCardle Cultural Heritage Pty Ltd



Penny McCardle
Principal Archaeologist
Forensic Anthropologist

Enclosures:
Aboriginal Cultural Heritage Assessment Information Packet



16 May 2019

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Moombahlene LALC
Helen Duroux
moombahlenelalc1@bigpond.com

Dear Helen,

RE: OEH Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 2 & 3) – Presentation of information about the proposed project and request for comment on the proposed methods of investigation - Proposed Dowe's Quarry Expansion, Tenterfield

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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.

Yours sincerely,
for McCardle Cultural Heritage Pty Ltd



Penny McCardle
Principal Archaeologist
Forensic Anthropologist

Enclosures:
Aboriginal Cultural Heritage Assessment Information Packet



M

Dowe's Quarry

LGA: Tenterfield

Aboriginal Cultural Heritage Assessment
Information Packet

16 May 2019

McCARDLE CULTURAL HERITAGE PTY LTD

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Report No: J9036 ACHA	
Approved by:	Penny McCardle
Position:	Director
Signed:	
Date:	15 May 2019

This report has been prepared in accordance with the scope of services described in the contract or agreement between McCardle Cultural Heritage Pty Ltd (MCH), ACN: 104 590 141, ABN: 89 104 590 141, and R.W. Corkery & Co. Pty Limited. The report relies upon data, surveys, measurements and specific times and conditions specified herein. Any findings, conclusions or recommendations only apply to the aforementioned circumstances and no greater reliance should be assumed or drawn by R.W. Corkery & Co. Pty Limited. Furthermore, the report has been prepared solely for use by R.W. Corkery & Co. Pty Limited and MCH accepts no responsibility for its use by other parties.

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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 commissioned by RW Corkey & Co Pty Ltd on behalf of Darryl McCarthy Constructions Pty Ltd (DMC) prepare an Aboriginal Cultural Heritage Assessment (ACHA) for the proposed expansion of the existing Dowe's Quarry located north of Tenterfield.

The existing Quarry originally commenced operations in 1987 and is currently operating under a development consent originally issued by the Joint Regional Planning Panel on 19 March 2015 and subsequently amended on 21 January 2016. The Quarry has approval to extract up to 150 000tpa of quartzose material, disturb a total area of 7ha and store a range of fine materials generated during the processing of the material at DMC's processing plant at Sunnyside, located approximately 10km northwest of Tenterfield.

DMC have identified a further 4 million tonnes of quartzose material adjacent to, and beneath the current approved extraction area, for which they are seeking development consent to extract. The extraction of this additional material would involve the removal of approximately 1.3 million m³ of overburden and generate a further 700 000 tonnes of fines to be stored within the Quarry Site. Overall, the additional activities would increase the total area of disturbance to approximately 15.3ha of which 3.4ha is remnant native vegetation which would need to be progressively cleared. This assessment pertains to the proposed expansion of the existing quarry activities.

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 value will be identified and appropriate management recommendations will be established through consultation with the registered Aboriginal parties.

In compliance with the OEH 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 project including maps indicating the impact areas, an outline of the impact assessment process, cultural context, summary of the 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.

The assessment has been undertaken to meet the Office of Environment and Heritage (OEH) *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010a*, the *OEH Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW 2011*, the *OEH 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 OEH *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* and will be detailed in the Aboriginal Cultural heritage Assessment report.

1.2 PROJECT AREA

The project area is defined by the proponent and is located on rural land within Lots 308 and 309 DP 751540 and Lot 3 DP 42044 and under the Proposal would extend into Lots 239 and 260 DP 751540 and Lot 4 DP 42044. The boundary of the Project Site has been defined principally to define an area in which all activities are proposed, recognising that not all land within the Project Site would be disturbed. 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

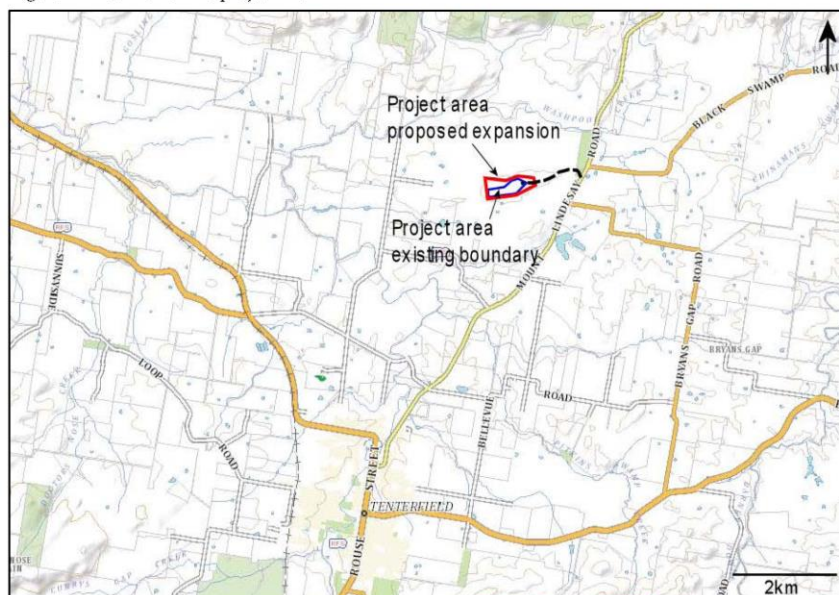
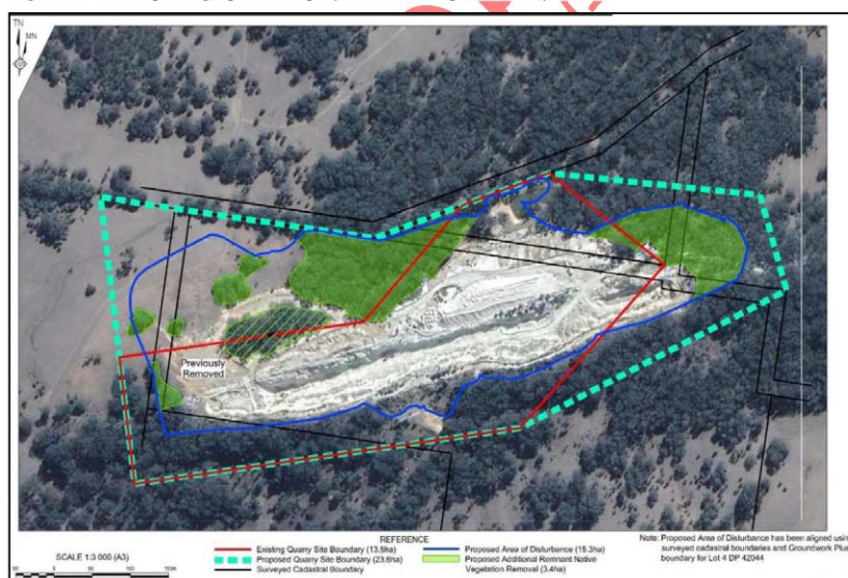


Figure 1.2 Aerial photograph of the project area with plan overlay



1.3 PROJECT OUTLINE AND IMPACTS

The activities for which the Applicant is seeking development consent would involve:

- the ongoing extraction of quartzose rock within the existing extraction area and a 1.4ha extension of the extraction area, producing up to 100 000tpa;
- transportation of extracted rock to the State road network, i.e. the New England Highway for delivery principally to the Sunnyside Crushing and Screening Plant,
- 10km northwest of Tenterfield;
- backloading of clay fines and crusher fines from the Sunnyside Plant to Dowe's Quarry;
- progressive emplacement of overburden and returned clay fines within and adjacent to the extraction area;
- storage of surplus crusher fines from the Sunnyside Plant awaiting sale and despatch; and
- transportation of clay fines and crusher fines to customers in the New England region.

1.4 CRITICAL DEVELOPMENT TIME LINES

The proponent wishes to commence works as soon as possible but also acknowledges the need to undertake indigenous cultural heritage 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

Stages	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Stage 1: consult.										
Stage 2: survey										
Stage 3: reporting										
Stage 4: finalisation										

2 ENVIRONMENTAL CONTEXT

The environmental context provides a background to the landforms and 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.

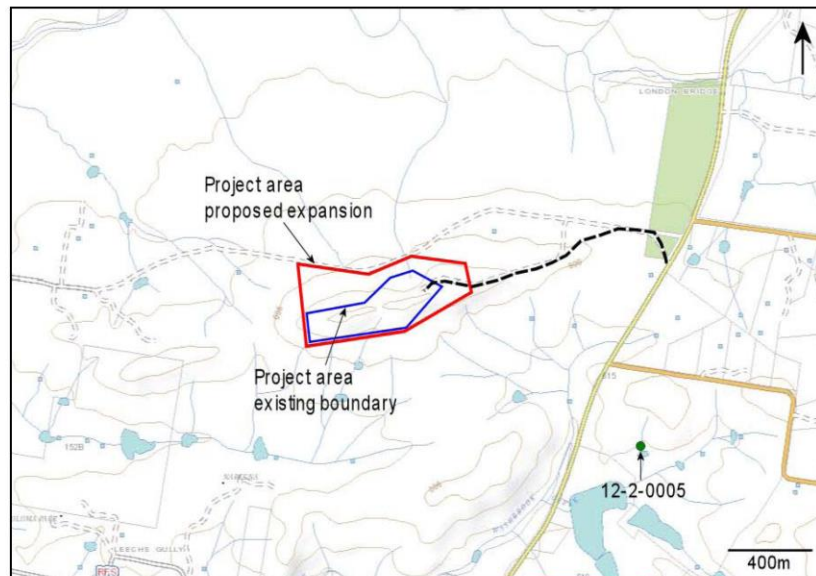
The project, situated on quartzite materials within undifferentiated granite or gneisses, contains no raw materials typically utilised by past Aboriginal people in the area. Soils of the Tenterfield area generally consist of an A1 horizon of sandy clay loam (colour not recorded) up to 15 centimetres in depth that overlies the A2 horizon of sandy clay loam (colour not recorded) between 15 and 30 centimetres in depth. This overlies the B horizon of sandy clay (colour not recorded). In terms of fresh water availability and associated resources, the most reliable water source was Washpool Creek 1 kilometre to the north; and to the less reliable Washbrook Creek 1 kilometre to the south, and Tenterfield Creek 1.7 kilometres to the south. Given that fresh water is essential for survivability, the project area is located in an environment with no fresh water sources or associated subsistence resources and therefore unsuitable for sustained land uses (camping). The area may have been utilised for more transitory activities such as hunting and gathering and travel to reliable water sources. In relation to food and medicinal resources, the flora within the project area would have been a potential source of a variety of food resources including kangaroos, koalas, gliders, possums, snakes, goannas and skinks, and swamp wallabies, as well as many bird species. The understorey would have contained berries, seeds and leaves, both for sustenance and for treatment of sickness. While these resources have probably been available in the past, they would have only ever been in limited supply and insufficient to support all but a few people for a short period, such as hunting parties or traveling to more reliable sources of resources. Following European settlement of the area, the landscape has been subjected to a range of different modifying activities including extensive logging and clearing, farming and quarrying. The project area itself has been previously logged and utilised for improved pasture, quarrying, access roads, dams and overburden stockpiling. The landscape of the project area provided very limited resources but may have provided for transitory activities which manifest in the archaeological record as very low-density artefact scatters and isolated finds. However, such evidence is typically disturbed through past land uses such as those identified in 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 OEH AHIMS register has shown that 1 known Aboriginal site (Scar tree) is currently recorded within three kilometres of the project area (Figure 3.1).

Figure 3.1 Location of AHIMS site



No regional or local based archaeological assessments have been undertaken in the area and as such a general broad based regional archaeological context and summary is provided. 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 limited number of site types are represented in the project area;
- 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.

Within the region, a limited range of site types are represented including artefact scatters and isolated artefacts. In regional terms, site distribution is extremely closely linked to water availability and topography, with elevated landforms with access to reliable water exhibiting the highest concentrations of sites. There are a number of factors which affect site location and that are beyond human control.

Shelter sites, grinding grooves and engravings are site types typical of the "sandstone country" however, their presence is limited to areas containing suitable sandstone outcrops and therefore such sites are not expected within an alluvial context such as the project area

3.1.1 PREDICTIVE MODEL

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 (Section 4).

The OEH AHIMS register and the environmental context provide a good indication of site types and site patterning in the area. This research has shown that one scar tree has been identified within three kilometres of the project area. In similar environments, the most frequently recorded site types and are commonly stone artefacts (due to their survivability) located along or adjacent to watercourses, and on relatively flat to gently sloping topography in close proximity to reliable water. Sites with higher artefact densities are similarly concentrated within fifty metres of watercourses.

Within the specific project area, it is unlikely that evidence of past Aboriginal land use will be present due to the distance from reliable water and resources and land use impacts. If sites are present, they are expected to be isolated finds or very low-density artefact scatters representing transitory activities such as hunting and gathering and travel to reliable water sources.

4 METHODS OF INVESTIGATION

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

Proposed methods of gathering information of cultural significance are provided in the Cultural Heritage information packet.

All responses to the cultural 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 to adapt to unforeseen field conditions.

4.2 ARCHAEOLOGICAL ASSESSMENT

This entails an archaeological assessment of the proposed project area. It includes the gathering of both environmental and archaeological information to gain an understanding of the environment, disturbances and provide a predictive model for the proposed project area.

Following the completion of the survey, a report that includes detailed environmental and archaeological background, results, discussion, the cultural significance as determined by the registered Aboriginal parties and mitigation measures will be provided to all registered parties for their review. This will also include opportunities for the registered Aboriginal parties to provide feedback on any management or mitigation recommendations. All registered parties will also be required to provide their own report/letter within a specified time and a copy of the final report will be provided to all parties. A summary of the regional and local archaeological contexts is provided in order to assist in the development of a predictive model for the project area that will in turn assist in determining the survey methodology/strategy.

5 PROPOSED METHODS OF GATHERING INFORMATION ABOUT CULTURAL SIGNIFICANCE

There are two methods of investigation including the gathering of information about cultural significance and an archaeological assessment. The archaeological assessment was discussed in the Archaeological information packet provided to you. The gathering of information about cultural significance for the Cultural heritage Assessment is briefly outlined below.

5.1 GATHERING OF INFORMATION OF CULTURAL SIGNIFICANCE

The aim of the cultural heritage assessment is to facilitate a process whereby RAPs can;

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

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).

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In some cases the information provided may be sensitive and MCH and the proponent will not share that information with all registered Aboriginal parties or others without the express permission of the individual. MCH and the proponent would like to develop and implement appropriate protocols for sourcing and holding cultural information.

5.2 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 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), the Burra Charter (2013) and Ask First (2002) which provide guidelines to identify traditional knowledge holders.

Knowledge holders are defined as follows:

- a) Traditional knowledge holder of specific, details knowledge pass directly by a traditional knowledge holder in a traditional manner YES/NO
- b) Traditional knowledge holder of general knowledge pass directly by a traditional knowledge holder in a traditional manner YES/NO
- 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). YES/NO

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).

5.3 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).

5.4 VALUES AND QUESTIONS TO CONSIDER

The following values and questions are derived from the Burra Charter (2013) 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.

5.4.1 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?

5.4.2 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 Awabakal and/or your history?
- Is the object or place important in showing patterns in the development of Awabakal and/or 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?

5.4.3 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?

5.4.4 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 Awabakal community identity or the identity of another particular cultural group?
- Is the object or place important to the Awabakal people, community or other cultural group because of associations and meanings developed from long use and association?

5.4.5 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 the Awabakal or another cultural group?
- Is the place a repository of knowledge, traditional art or lore related to spiritual practice of the Awabakal people or another a cultural group?
- Is the object or place important in maintaining the spiritual health and wellbeing of Awabakal 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?

5.5 PROVIDING YOUR KNOWLEDGE 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; they 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 apologises for any offence taken as none is intended.

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

5.6 PROPOSED CULTURAL HERITAGE ASSESSMENT REPORT

MCH will undertake the cultural heritage assessment as traditional knowledge holders/Traditional Owners and contemporary knowledge holders will be identified as set out above. The cultural heritage assessment will include, but not be limited to:

- Background ethnographic, historic and contemporary research of the Aboriginal people of the area, including but not limited to, past land uses, resources, customs and traditions where the information is available to examine connection to country throughout the past and into the future;
- Discussions with knowledge holders and those who identify themselves as having an interest in the project, taking into account that Indigenous people may have differing degrees of knowledge about heritage places and their importance;
- Discussion will also take place during the survey (as well as throughout the project) as requested by some knowledge holders;
- An additional focused field survey if required to identify, locate and record any Indigenous heritage values of objects and/or places in a manner that is appropriate;
- The writing of a cultural heritage assessment report with the knowledge holders and RAPs ensuring the content is appropriate and sensitive to the knowledge holders; and
- All detailed information provided will be confidential unless otherwise stipulated by the knowledge holders, however, in order to protect any Indigenous heritage values of objects and/or places, their location must be known (not necessarily documented in detail or mapped) in order to discuss the appropriate mitigation and management options and recommendations.

5.7 FORMS

You will find forms attached for your convenience. 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 12 June 2019.

6 ARCHAEOLOGICAL INVESTIGATION METHODS

6.1.1 OBJECTIVES

The objective of the investigation is to determine whether 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.

The Archaeological investigation will be carried out in accordance with the OEH policy - 2010, Section 2 and the OEH policy - *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*.

6.1.2 ARCHAEOLOGICAL HERITAGE ASSESSMENT METHODOLOGY & REPORT

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

The provision of an Archaeological Heritage Impact Assessment Report that will include:

- Project background, including project description, detailed maps, legislative context, qualifications of the investigator
- Consultation outlining the process as per the OEH *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 survey results (see below for proposed survey 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

6.1.3 PROPOSED SURVEY METHODOLOGY

The survey methodology is in accordance with the OEH 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 entire investigation area of impact
- 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)

6.1.4 RESEARCH QUESTIONS

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

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

- Was maintenance of tools conducted on site?
- Was knapping of flakes largely casual and opportunistic, meeting requirements on 'as needed' basis?
- What raw materials were favoured for use on site within the project area and why?
- Did thermal alteration of raw materials occur within the project area?
- How does the evidence and inferred human behaviour represented within the project area compare with evidence from other locations in the region?
- How does the evidence relate to the regional and local models of occupation?

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7 ROLES, RESPONSIBILITIES AND FUNCTIONS OF PARTIES

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

7.1 OFFICE OF ENVIRONMENT AND HERITAGE (OEH)

The Director General of OEH 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 OEH is responsible for ensuring the AHIP holder complies with those conditions. When considering an application under Part 6 of the NPW Act, the Director General 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 OEH is responsible for administering the regulatory functions under Part 6 of the NPW Act. OEH expects that proponents and Aboriginal people should:

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

7.2 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 registered Aboriginal parties 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 registered Aboriginal parties 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 OEH 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 cultural heritage assessment report.

7.3 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 OEHL 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.

7.4 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.

7.5 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. 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; however paid participation is determined by the proponent.

7.6 FORMS

You will find forms attached for your convenience. 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 12 June 2019.

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REFERENCES

Australian Heritage Commission. 2002. Ask First. A Guide to respecting Indigenous Heritage Places and Values.

Australian International Council on Monuments and Sites (ICOMOS). 2013a. The Burra Charter.

Australian ICOMOS. 2013b. The Practice Note – Understanding and assessing cultural significance

Australian ICOMOS. 2013c. The Practice Note – The Burra Charter and archaeological practice

Australian ICOMOS. 2013d. The Practice Note – The Burra Charter and Indigenous cultural heritage management

Department of Environment, Climate Change and Water (DECCW). 2010a. *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*. Department of Environment, Climate Change and Water NSW, Sydney.

Department of Environment, Climate Change and Water (DECCW). 2010b. *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales*. Department of Environment, Climate Change and Water NSW, Sydney.

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;

Fax: 4952 5501

e-mail: mcheritage@iprimus.com.au

Postal address: MCH

PO Box 166

Adamstown, NSW 2289

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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 protective clothing
- 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 Office of Environment and Heritage's (OEH) 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 survey 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.

Engagement

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.

Payment

The proponent will pay the Service Provider at a rate that will be based on the project budget. 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. The site officer/trainee site officer will be paid by the Service Provider at a rate agreed to by the Service Provider and the site officer/trainee site officer. Payment will only be made for the provision of the services (actual hours worked), and not for the time spent travelling to and from site. 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**Dowe's Quarry**

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	
Fax	
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. This includes 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

Dowe's Quarry

I, _____ (please insert your name) of _____ (please insert the name of your group), **agree to the methodology** outlined by MCH in relation to gathering information about cultural significance:

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 relation to gathering information about cultural significance 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

Dowe's Quarry

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 the survey
- 2) Written documentation (letter, e-mail, fax)
- 3) Meeting to discuss and/or provide written documentation
- 4) Formal interview with specific questions/answers and/or discussions
- 5) Phone conversation
- 6) Skype conversation
- 7) Using the attached form/questioner

Other: Please provide details:



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

mcheritage.com.au

24 June 2019

Helen Duroux
Moombahlene LALC
moombahlenelalc1@bigpond.com

Dear Helen,

RE: OEH Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 3) – Survey invitation and letter of engagement- Proposed Dowe's Quarry Expansion, Tenterfield

MCH would like to organise the survey for the above-named project for the 9th July 2019 starting at 9am meeting at Mt Lindsey Road at the entrance to the Quarry. We anticipate work will be complete within half a day, however, please be advised this time may change.

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

The proponent and MCH wishes to reiterate our intent to positively engaging with the local Aboriginal community. In this spirit an invitation has been extended to all registered applicants to attend the survey. If you accept the terms outlined in the Letter of Engagement (attached) please sign the Letter of Engagement and return to McCardle Cultural Heritage. Participation in the program is dependent on the receipt of the Letter of engagement and insurance certificate of currencies.

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

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

Yours sincerely,
for McCardle Cultural Heritage Pty Ltd



Penny McCardle
Principal Archaeologist
Forensic Anthropologist

Aboriginal Site Officer/Trainee Site Officer Letter of Engagement

Darryl McCarthy Constructions Pty Ltd wishes to engage Moombahlene LALC (Service Provider) to provide one Site Officer to undertake an archaeological survey of the proposed development at **Proposed Dowe's Quarry Expansion, Tenterfield.**

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

Services

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

- Archaeological survey of the project area
- a cultural heritage report and invoice within 28 days of receiving the draft report from MCH

Fees

The proponent will pay the following Fees to the Service Provider for Services:

- \$100.00 + GST per person per hour for work undertaken by a Site Officer

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

Invoices are to be addressed to:

Darryl McCarthy Constructions Pty Ltd
C/o: MCH
POI Box 166
Adamstown, NSW 2289
mcheritage@iprimus.com.au

Time sheets

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

Work performance

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

Absences

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

Proponent and MCH property

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

Confidentially

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

OH&S Requirements

Before commencement of work you must provide MCH with certificate of currencies for Workers Comp and Public Liability. Field representatives participating in the survey will be required to wear steel cap boots, long pants and long shirt (hi-visibility) with appropriate sun protection including a hat. It is recommended that participants bring adequate amounts of food and water for the day.

Early termination

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

No subcontracting

The Service Provider must not subcontract the provision of the Services without the proponent's prior written consent.

Insurances

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

Indemnity and release

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

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

Variations

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

Exclusion of other terms

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

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

Acceptance (Dowe's Quarry Expansion)

Signed by **Moombahlene LALC**

I/we agree to the terms set out in this letter and acknowledge that it forms a binding legal contract.

I/we declare that I/we are authorised to sign this letter on behalf of **Moombahlene LALC**.

Please provide your ABN:

Signature of Witness

Signature of authorised person

Print name of Witness

Print name of authorised person

Print title and position of authorised person

Date:

Date:



24 June 2019

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

mcheritage.com.au

David Tumbridge
dtumbridge@bigpond.com

Dear David,

RE: OEH Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 3) – Survey invitation and letter of engagement- Proposed Dowe's Quarry Expansion, Tenterfield

MCH would like to organise the survey for the above-named project for the 9th July 2019 starting at 9am meeting at Mt Lindsey Road at the entrance to the Quarry. We anticipate work will be complete within half a day, however, please be advised this time may change.

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

The proponent and MCH wishes to reiterate our intent to positively engaging with the local Aboriginal community. In this spirit an invitation has been extended to all registered applicants to attend the survey. If you accept the terms outlined in the Letter of Engagement (attached) please sign the Letter of Engagement and return to McCardle Cultural Heritage. Participation in the program is dependent on the receipt of the Letter of engagement and insurance certificate of currencies.

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

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

Yours sincerely,
for McCardle Cultural Heritage Pty Ltd



Penny McCardle
Principal Archaeologist
Forensic Anthropologist

Aboriginal Site Officer/Trainee Site Officer**Letter of Engagement**

Darryl McCarthy Constructions Pty Ltd wishes to engage (Service Provider) to provide one Site Officer to undertake an archaeological survey of the proposed development at **Proposed Dowe's Quarry Expansion, Tenterfield.**

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

Services

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

- Archaeological survey of the project area
- a cultural heritage report and invoice within 28 days of receiving the draft report from MCH

Fees

The proponent will pay the following Fees to the Service Provider for Services:

- \$100.00 + GST per person per hour for work undertaken by a Site Officer

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

Invoices are to be addressed to:

Darryl McCarthy Constructions Pty Ltd
C/o: MCH
POI Box 166
Adamstown, NSW 2289
mcheritage@iprimus.com.au

Time sheets

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

Work performance

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

Absences

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

Proponent and MCH property

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

Confidentially

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

OH&S Requirements

Before commencement of work you must provide MCH with certificate of currencies for Workers Comp and Public Liability. Field representatives participating in the survey will be required to wear steel cap boots, long pants and long shirt (hi-visibility) with appropriate sun protection including a hat. It is recommended that participants bring adequate amounts of food and water for the day.

Early termination

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

No subcontracting

The Service Provider must not subcontract the provision of the Services without the proponent's prior written consent.

Insurances

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

Indemnity and release

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

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

Variations

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

Exclusion of other terms

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

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

Acceptance (Dowe's Quarry Expansion)

Signed by

I/we agree to the terms set out in this letter and acknowledge that it forms a binding legal contract.

I/we declare that I/we are authorised to sign this letter on behalf of .

Please provide your ABN:

Signature of Witness

Signature of authorised person

Print name of Witness

Print name of authorised person

Print title and position of authorised person

Date:

Date:

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

Acceptance (Dowe's Quarry Expansion)

Signed by Moombahlene LALC

I/we agree to the terms set out in this letter and acknowledge that it forms a binding legal contract.
I/we declare that I/we are authorised to sign this letter on behalf of Moombahlene LALC.

Please provide your ABN: 87-798-635-420

William A Grose

Signature of Witness

Helen Durous

Signature of authorised person

William Grose

Print name of Witness

Helen Durous

Print name of authorised person

Print title and position of authorised person

25/6/19

Date:

25/6/19.

Date:

	 McCARDLE CULTURAL HERITAGE
31 July 2019	PO Box 166 Adamstown 2289 NSW mcheritage@iprimus.com.au P: 0412 702 396 mcheritage.com.au
Helen Duroux Moombahlene LALC moombahlenelalc1@bigpond.com	

Dear Helen,

RE: OEH Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 3 & 4 – Review of Draft Cultural Heritage Assessment - Proposed Dowe's Quarry Expansion, Tenterfield

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

The cultural heritage Assessment includes information provided by the knowledge holders and is included with their permission. As required by the 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 the 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. 28th August 2019. **However, if you are able to provide a quicker response that would be greatly appreciated.**

As all communications, including phone calls, faxes, letters, and e-mails must be included in the consultation component of the report as per the OEH 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 regarding the draft ACHA.

Yours sincerely,
for McCardle Cultural Heritage Pty Ltd


Dr. Penny McCardle
 Principal Archaeologist
 Forensic Anthropologist

	
30 August 2019	PO Box 166 Adamstown 2289 NSW mcheritage@iprimus.com.au P: 0412 702 396 mcheritage.com.au

Helen Duroux
Moombahlene LALC
moombahlenelalc1@bigpond.com

Dear Helen,

RE: OEH Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (Stage 4 –Final Cultural Heritage Assessment - Proposed Dowe's Quarry Expansion, Tenterfield

MCH and Darryl McCarthy Constructions 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 Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010), Stage 4 (S. 4.4.5) please find enclosed copy of the final Aboriginal Cultural Heritage Assessment for your records.

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

Yours sincerely,
for McCardle Cultural Heritage Pty Ltd


Penny McCardle
Principal Archaeologist
Forensic Anthropologist

Annexure 2

AHIMS Search Results

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AHIMS Web Services (AWS) Search Result

Purchase Order/Reference : Tenterfield

Client Service ID : 415980

Penny Mccardle

Date: 17 April 2019

Po Box 166

Adamstown New South Wales 2289

Attention: Penny Mccardle

Email: mcheritage@iprimus.com.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Datum :GDA, Zone : 56, Eastings : 403000 - 411000, Northings : 6787000 - 6793000 with a Buffer of 50 meters. Additional Info : assessment, conducted by Penny Mccardle on 17 April 2019.

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 the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

1	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?

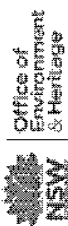
- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places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

AHIMS Web Services (AWS)

Extensive search - Site list report



Your Ref/PO Number : Tenterfield

Client Service ID : 415980

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status	SiteFeatures	SiteTypes	Reports
12-2-0005	Leach's Gully	AGD	56	408200	6790800	Open site	Valid	Modified Tree (Carved or Scarred) :	Scarred Tree	

Recorders ASRSYS

Permits

Contact

Report generated by AHIMS Web Service on 17/04/2019 for Penny Mccardle for the following area at Datum :GDA, Zone : 56, Eastings : 403000 - 411000, Northings : 6787000 - 6793000 with a Buffer of 50 meters. Additional Info : assessment. Number of Aboriginal sites and Aboriginal objects found is 1

This information is not guaranteed to be free from error or omission. Office of Environment and Heritage (NSW) and its employees disclaim liability for any act done or omission made on the information and consequences of such acts or omission.

Page 1 of 1

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