

New South Wales Archaeology Pty Ltd ACN 106044366

**Coraki Quarry,
Seelems Road, Coraki NSW
Aboriginal Cultural Heritage Assessment Report**

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Local Government Area: Richmond Valley Council



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SUMMARY

This summary presents an overview of the legislative context, proposed development, subject area, *and* study aims, conclusions and recommendations.

The National Parks and Wildlife Act 1974 (NPW Act) is the primary legislation for the protection of some aspects of Aboriginal cultural heritage in NSW. One of the objectives of the NPW Act is:

... the conservation of objects, places or features (including biological diversity) of cultural value within the landscape, including but not limited to: (i) places, objects and features of significance to Aboriginal people ... (s.2A(1)(b)).

Part 6 of the NPW Act is administered by the NSW Office of Environment and Heritage (NSW OEH) and provides specific protection for Aboriginal objects and declared Aboriginal places by establishing offences of harm. Harm is defined to mean destroying, defacing or damaging an Aboriginal object or declared Aboriginal place, or moving an object from the land. Anyone proposing to carry out an activity that may harm an Aboriginal object or declared Aboriginal place must investigate, assess and report on harm that may be caused by the activity they propose.

An Aboriginal Heritage Impact Permit (AHIP) may be required if harm to Aboriginal objects and/or declared Aboriginal places is proposed. When this is the case, an Aboriginal Cultural Heritage Assessment Report (ACHAR) is necessary to support the AHIP application.

Quarry Solutions (the proponent) is preparing a development application for a hard rock quarry at Seelems Road, Coraki, New South Wales. The Coraki Quarry would establish a new extraction and stockpiling area on Lot 401 DP633427 whilst utilising the existing Petersons Quarry land to establish the processing plant and additional stockpile area. The project satisfies the criteria for State Significant Development pursuant to the State Environmental Planning Policy (State and Regional Development) 2011 and therefore requires development consent under the Environmental Planning and Assessment Act 1979.

An Environmental Impact Statement (EIS) has been prepared in accordance with the Secretary's Environmental Assessment Requirements (SEARs) issued by the Secretary of the Department of Planning and Environment on 22 May 2015 and revised on 30 July 2015. The SEARs for the proposal include the requirement for an Aboriginal cultural heritage assessment (addressing both cultural and archaeological significance) which must demonstrate effective consultation with Aboriginal communities in determining and assessing impacts, and developing and selecting mitigation options and measures.

This assessment has been conducted in accordance with the NSW Office of Environment and Heritage's (NSW OEH 2011) *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* and *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (NSW DECCW 2010a).

A process of Aboriginal community consultation has been undertaken in accordance with the guidelines as set out in OEH's *Aboriginal cultural heritage consultation requirements for proponents 2010* (NSW DECCW 2010b).

The study has sought to identify and record any Aboriginal cultural areas, objects or places and to assess the archaeological potential of the proposal area, and to formulate management recommendations based on the results of community consultation, background research, field survey and significance assessment.

A search of the NSW OEH Aboriginal Heritage Management Information System (AHIMS) has been conducted (AHIMS Reference: 170901). Some 27 Aboriginal object sites are listed in the search, one of which is in the subject area. AHIMS site #04-4-142 has information restrictions and its nature is not discussed further here. It is located on the site of the existing Petersons Quarry and within a previously defined *Indigenous Heritage Non Disturbance Zone*.

A cultural heritage and archaeological survey for Aboriginal areas, objects and places has been conducted by archaeologists Julie Dibden and Andrew Pearce, NSW Archaeology Pty Ltd and Daryl Knight, Bogal Local Aboriginal Land Council.

The subject area was found to be highly disturbed by previous agricultural and quarrying land use. No Aboriginal object sites were recorded. Generally, the subject area has been found to be of low archaeological sensitivity and significance. However, one landform situated in close proximity to Seleems Creek is assessed to be of some greater archaeological potential and significance. This area is considered to be an archaeologically sensitive landform and for the purposes of this assessment is named *Sensitive Archaeological Landform - SAL 1*.

As a result of the assessment the following conclusions are made:

- No Aboriginal objects have been recorded in impact areas.
- One area classified as a Sensitive Archaeological Landform (SAL 1) has been identified. This area would be excluded from any impacts associated with the development and formally set aside as an Aboriginal Heritage Conservation Zone.
- A previously identified AHIMS site is present on the site of the existing Petersons Quarry and is currently protected in an Indigenous Heritage Non Disturbance Zone. This would be retained and respected for the proposed Coraki Quarry project.
- Management and mitigation measures are discussed in Section 7 and these should be given consideration during the formulation of the Aboriginal Heritage Management Plan (see below).
- An Aboriginal Heritage Management Plan (AHMP) should be developed by the project archaeologist, in consultation with the NSW OEH and Registered Aboriginal Parties. The Cultural Heritage Management Plan would set out procedures relating to the management and mitigation of development impacts, a protocol for the

management of unexpected archaeological finds and the conservation of areas outside the extraction footprint, as required.

Acknowledgments

Archaeological evidence confirms that Aboriginal people have had a long and continuous association with the region for thousands of years. We would in particular like to acknowledge and pay our respects to the traditional owners of the country which is encompassed by the proposal.

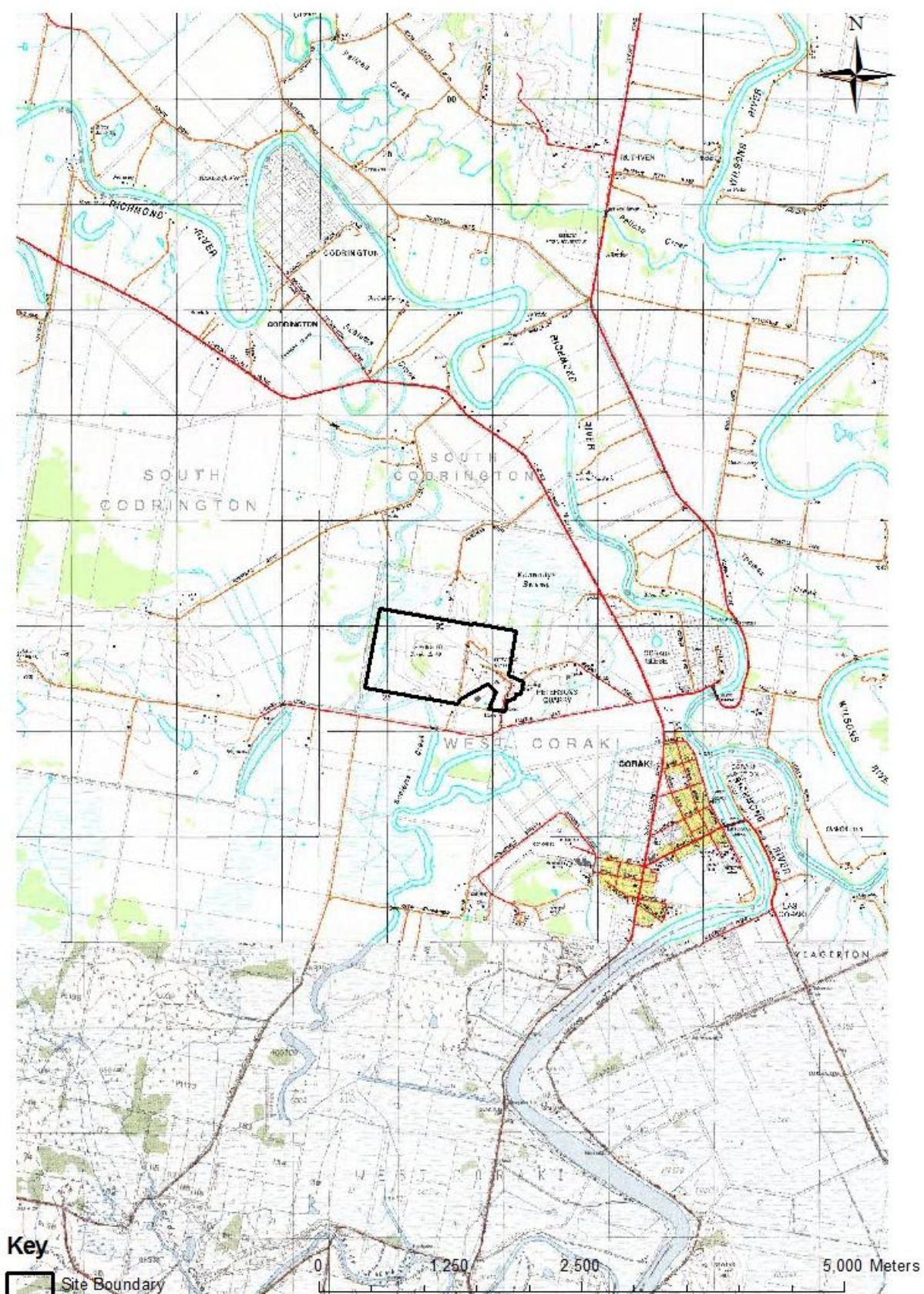


Figure 1 Location of the subject area.

1. INTRODUCTION

This document describes the Aboriginal cultural heritage assessment undertaken in respect of the proposed Coraki Quarry (Figure 1).

Quarry Solutions Pty Ltd propose to establish the Coraki Quarry (the project), to be located at Seelems Road, Coraki. The site is located approximately two kilometres north-west of the township, on the Far North Coast of New South Wales.

The proposal would include land encompassed by the existing Petersons Quarry and Lot 401 DP633427, located immediately to the north. Petersons Quarry is a hard rock basalt quarry owned by Richmond Valley Council (RVC) and has been in operation since 1916, supplying crushed basalt for road construction and private sale.

The Petersons Quarry currently operates in accordance with the conditions of a consent acquired in 1985 and further modified in 2009.

Quarry Solutions has been granted a lease by Richmond Valley Council to operate the Petersons Quarry on behalf of the Council. Petersons Quarry will be used as an integral part of the new Coraki Quarry project operations. Access into the Lot 401 rock resource and extraction would occur from Petersons Quarry. The existing processing area of the Petersons Quarry would be used for the material extracted from Lot 401 and the processed material would be stockpiled on the Petersons Quarry site and Lot 401.

The project would extract approximately 800,000 tonnes of hard rock material annually (and a maximum of 1 Million tonnes per annum), primarily for the planned upgrade of the Woolgoolga to Ballina section of the Pacific Highway.

The project satisfies the criteria for State Significant Development pursuant to the State Environmental Planning Policy (State and Regional Development) 2011 and requires development consent under the Environmental Planning and Assessment Act 1979.

The objective of the cultural heritage assessment is to prepare an Aboriginal Cultural Heritage Assessment Report which would form a component of an Environmental Impact Statement prepared in accordance with the Secretary's Environmental Assessment Requirements.

The content and format of the report is set out in accordance with the NSW OEH (2011) *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* document. The report aims to document:

- The Aboriginal objects and declared Aboriginal places (as relevant) located within the area of the proposed activity;
- The cultural heritage values, including the significance of the Aboriginal objects and declared Aboriginal places that exist across the whole area that will be affected by the

proposed activity, and the significance of these values for the Aboriginal people who have a cultural association with the land, as relevant;

- How the requirements for consultation with Aboriginal people have been met (as specified in clause 80C of the NPW Regulation);
- The views of those Aboriginal people regarding the likely impact of the proposed activity on their cultural heritage (if relevant);
- The actual or likely harm posed to the Aboriginal objects or declared Aboriginal places from the proposed activity, with reference to the cultural heritage values identified;
- Any practical measures that may be taken to protect and conserve those Aboriginal objects or declared Aboriginal places (if relevant); *and*
- Any practical measures that may be taken to avoid or mitigate any actual or likely harm, alternatives to harm, or, if this is not possible, to manage (minimise) harm (if relevant).

This assessment has been managed and undertaken by Julie Dibden (Australian National University: BA with Honours; PhD), NSW Archaeology Pty Ltd.

2. DESCRIPTION OF THE AREA

In this section, background and relevant contextual information is compiled, analysed and synthesized. The purpose of presenting this material is to gain an initial understanding of the cultural landscape; the following topics are addressed (*cf.* NSW OEH 2011: 5):

- The physical setting or landscape;
- History of peoples living on that land; *and*
- Material evidence of Aboriginal land use.

2.1 The Physical Setting or Landscape

Aboriginal people have occupied NSW for more than 42,000 years (Bowler *et al.* 2003). Evidence and cultural meanings relating to occupation are present throughout the landscape (NSW OEH 2011: iii).

A consideration of landscape is particularly valuable in archaeological modelling for the purposes of characterising and predicting the nature of Aboriginal occupation across the land. In Aboriginal society, landscape could be both the embodiment of Ancestral Beings and the basis of a social geography and economic and technological endeavour. The various features and elements of the landscape are/were physical places that are known and understood within the context of social and cultural practice.

Given that the natural resources that Aboriginal people harvested and utilised were not evenly distributed across landscapes, Aboriginal occupation and the archaeological manifestations of that occupation will not be uniform across space. Therefore, the examination of environmental context is valuable for predicting the type and nature of archaeological sites which might be expected to occur. Factors that typically inform the archaeological potential of landscape include the presence or absence of water, animal and plant foods, stone and other resources, the nature of the terrain and the cultural meanings associated with a place.

Additionally, geomorphological and humanly activated processes need to be defined as these will influence the degree to which material evidence may be visible and/or conserved. Land which is heavily grassed and geomorphologically stable will prevent the detection of archaeological material, while places which have suffered disturbance may no longer retain artefacts or stratified deposits. A consideration of such factors is necessary in assessing site significance and formulating mitigation and management recommendations. The following information describes the landscape context of the subject area.

The subject area is on the Wardell 1:25,000 topographic map. For mapping purposes it is in Zone 56. The project would occur in Lot 401 DP633427, Lot 402 DP802985, Lot 403 DP802985, Lot 408 DP1166287, Lot 1 DP954592, Lot 2 DP954593, Lot 3 DP701197, Lot A DP389418, Lot 1 DP310756, Lot A DP397946 in the Parish of West Coraki, County of Richmond.

The subject area occurs entirely within the Clarence Lowlands subregion of the South Eastern Queensland - Clarence Lowlands Bioregion, and includes the Lamington Volcanic Slopes, Grafton-Whiporie Basin and Clarence-Richmond Alluvial Plains Mitchell Landscapes (BAAM Pty Ltd 2015).

The subject area is comprised of locally elevated land which rises above the adjacent floodplains and wetlands. Spring Hill is located in the western section of Lot 402, with a high point of approximately RL 47 m AHD. Seelems Creek meanders across the western portion of the study area as a series of ox-bow wetlands. The topography of the surrounding area is predominantly low relief, flood prone, alluvial plains (Figure 2).

The Richmond River is located approximately 1.7 kilometers to the east. Kennedys Swamp lies to the north and occupies the area north of the 5 m contour line within Lot 408. Kennedys Swamp has an approximate catchment area of 200 hectares and is bounded by the Casino – Coraki Road to the east, Newmans Road to the north and Spring Hill to the south and west. Surface runoff from the eastern slopes of Spring Hill flow east into the existing quarry and are then directed north through a small sediment retention basin into Kennedys Swamp.

Seelems Creek extends across Lot 403 DP 802985 and Lot 401 DP633427. The catchment area of Seelems Creek at this point is estimated to be in excess of 800 hectares and predominantly comprises agricultural land. Currently, surface runoff from the western slopes of Spring Hill flows into Seelems Creek. Surface water from the southern slopes of Spring Hill flows south by overland flow into a lower section of Seelems Creek.

The land within the study area includes different soil landscapes, including Coraki and McKee. These are residual landscapes, dominated by sites where deep soils have formed from *in-situ* weathering of parent materials. Landform elements include some summit surfaces, plateaux, terrace plain, peneplains and old ground surfaces (Morand 1994).

The Coraki landscape is characterised by low, undulating rises on Kangaroo Creek Sandstone. The relief is 10-30 m and surface slopes are 2-10%. Elevation is generally <30 m and the vegetation has been extensively cleared (Morand 1994). The McKee landscape is characterised by very low to low undulating hills and rises on Lismore Basalts. Relief is 30-50 m with slopes up to 10%. Slopes are simple or waning and drainage depressions are common. This soil landscape has also been extensively cleared.

The broader study area includes the North Casino landscape which is characterised by drainage depressions forming swamps and intermittent swamps associated with the Richmond River Alluvial Plain.

The Tweed Heads 1:250,000 Geological series sheet 56-3 indicates the underlying geology of Spring Hill comprises Lismore Basalts of the Tertiary period related to the Lamington Volcanics. A zone of Kangaroo Creek Sandstone of the Jurassic-cretaceous period surrounds the Spring Hill Lismore Basalts with alluvium sands and gravels from the Quaternary

period. During the field inspection, pebbles derived from conglomerate associated with the sandstone were observed in isolated exposures on the simple slope.

Excavations undertaken at the existing quarry show shallow topsoils, typically only 200 mm thick, overlying approximately 1.8 m of 'overburden' material comprising weathered basalt and soil. Pockets of structured, plastic clays are located throughout the proposed quarry. Basalt, the material extracted from the existing quarry, is located beneath this overburden area.

The unquarried area of Lot 402 currently comprises dense grassland and patches of weeds which have colonised following the removal of cattle. Lot 401 DP633427 is still grazed and grass and weed cover is consistent. Lower areas within Lot 403, to the west and south-west of the proposed quarry, include disturbed wetlands associated with Seelems Creek. A mixture of dry rainforest species were planted in 2008 along both sides of the access road (right of carriageway) through Lot 403 to Lot 401 DP 633427 (clearly visible in Figure 2).

Before European colonisation, the native vegetation would have comprised largely dense gallery rainforest stands which are reported to have covered the Richmond River floodplains (Collins 2005). It is noted here, that Belshaw (1978) has argued that areas of rainforest may have been uninhabited or inhabited irregularly. Much of this vegetation has been cleared for cattle grazing and agriculture, particularly to make way for sugar cane plantations. BAAM Pty Ltd (2015) identified four native vegetation types within or in close proximity to the subject area:

- Hoop Pine - Yellow Tulipwood dry rainforest of the North Coast – a component of the *Lowland Rainforest in the NSW North Coast and Sydney Basin Bioregions*.
- Forest Red Gum - Swamp Box of the Clarence Valley lowlands of the North Coast – a component of the *Sub-tropical Coastal Floodplain Forest of the NSW North Coast bioregion*.
- Paperbark swamp forest of the coastal lowlands of the North Coast – a component of the *Swamp sclerophyll forest on coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions*.
- Coastal freshwater meadows and forb lands of lagoons and wetlands – a component of the *Freshwater wetlands on coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions*.

These four communities occur outside the development footprint. In areas where impacts would occur, the shrubby vegetation is dominated by Camphor Laurel (*Cinnamomum camphora*) and Lantana (*Lantana camara*).

The wetland of Seelems Creek provides potential feeding habitat for wetland birds including the Black-necked Stork. Greenloaning Biostudies (2006) note that a highly modified form of the Freshwater Wetlands on coastal floodplains Endangered Ecological Community (EEC) occurs in association with Seelems Creek. Greenloaning Biostudies (2006) found that the following groups of faunal species occur in the area:

- Macropods – foraging on the dense grasslands and utilising some of the forest remnants and dense grasslands for shelter;

- Fruit bats - feeding on both rainforest fruits and blossoms;
- Microchiropteran bats - foraging over and within the various habitats and some species such as the Long-eared Bat (*Nyctophilus* spp.) potentially roosting in the dense forest of rainforest tree species;
- Forest birds - potentially small numbers of frugivores feeding on rainforest fruiting tree species;
- Grassland birds - such as wrens; and
- Wetland birds – foraging in the Seelems Creek system and potentially nesting in adjoining habitat such as is the case with the Black-necked Stork.

According to Daryl Knight, Bogal Local Aboriginal Land Council (Knight pers. comm 2015), the wetlands also have fish species including catfish, mullet and perch, and aquatic fauna including eels, yabbies and turtles.

Summary

The local area possesses relatively high biodiversity values. Seelems Creek would have been a source of potable water and abundant and varied flora and fauna resources. In an Aboriginal landuse context, the small area of Lot 401 which is situated immediately adjacent to Seelems Creek is likely to have been utilised by Aboriginal people for hunting and gathering and camping. Such activities are likely to have resulted in moderate levels of artefact discard. Away from the creek margins where the development footprint is located, land use would have been less intensive and artefact discard would have been correspondingly low.



Figure 2 Location of the subject area in its environmental context.

2.2 History of Peoples Living on the Land

Aboriginal people have occupied Australia for at least 40,000 years and possibly as long as 60,000 (Mulvaney and Kamminga 1999: 2). By 35,000 years before present (BP), all major environmental zones in Australia, including periglacial environments of Tasmania, were occupied (Mulvaney and Kamminga 1999: 114).

At the time of early occupation, Australia experienced moderate temperatures. However, between 25,000 and 12,000 years BP (the Last Glacial Maximum), dry and either intensely hot or cold temperatures prevailed (Mulvaney and Kamminga 1999: 114). At this time the mean monthly temperatures on land were 6-10°C lower; in southern Australia coldness, drought and winds acted to change the vegetation structure from forests to grass and shrublands (Mulvaney and Kamminga 1999: 115-116).

During the Last Glacial Maximum at about 24-22,000 years ago, sea levels fell to about 130 metres below present and, accordingly, the continent was correspondingly larger. With the cessation of glacial conditions temperatures rose with a concomitant rise in sea levels. By c. 6,000 BP, sea levels had more or less stabilised to their current position. With the changes in climate during the Holocene, Aboriginal occupants had to deal not only with reduced landmass, but changing hydrological systems and vegetation; forests again inhabited the grass and shrublands of the Late Glacial Maximum. As Mulvaney and Kamminga (1999: 120) have remarked:

When humans arrived on Sahul's shores and dispersed across the continent, they faced a continual series of environmental challenges that persisted throughout the Pleistocene. The adaptability and endurance in colonising Sahul¹ is one of humankind's inspiring epics.

As far as possible, an ethnographic and historical review of Aboriginal life in the region will be outlined below. However, our understanding of Aboriginal people in this area and the historical dimension of the colonial encounter has been reconstructed from scant records produced during a context of death and dispossession (Swain 1993: 115); it is sketchy and severely limited. Stanner (1977) has described the colonial and post-colonial past as a 'history of indifference', and this portrays both the substantive situation which prevailed and the general lack of regard for this history. For a considerable period of time after Europeans arrived in Australia, no concerted ethnographic investigations were undertaken to learn about the society and culture of Aboriginal people. As a result, in trying to reconstruct the complex traditional cultures of varying Aboriginal groups, investigators of today are necessarily required to piece together, as best as possible, fragmentary information derived from the incidental annotations of disparate early observers. As elsewhere, this applies also to the Aboriginal peoples who occupied the country that included the subject area. Knowledge and understanding of Aboriginal social life and organisation in south-eastern New South Wales at the time of European occupation is minimal.

¹ Sahul is the name given to the single Pleistocene era continent which combined Australia with New Guinea and Tasmania.

Tindale (1974) defined 'tribal' groups and his mapping indicates the local area is within the country of the Bundjalung people. The Bundjalung inhabited the region which extended from the Clarence River to the Logan River in south-east Queensland. Speakers of the Nyangbal language group occupied the region east of Bundjalung along the coastal plain and encompassing Ballina. Tindale's (1974) modelling was based on an uncritical adoption of the Radcliffe-Brown model of social organization in which the band is perceived as the most important structural feature in Aboriginal social organisation. Tindale's tribal boundaries were largely defined according to what he understood to be language groups (Flood 1980: 107) and his work was conceptualized according to a model of band social organisation in which the 'horde' or clan was considered to be the group which possessed political power and proprietary rights to land (Rumsey 1989: 70). The 'tribes' which Tindale determined to have existed were seen as coterminous with language groups with the implication that these groupings were territorial units.

The assumptions inherent in this conflation of language group with tribe are no longer seen to be relevant and, furthermore, the concept of tribe as a territorial group is not regarded as being correct or useful. In Aboriginal society people were multilingual rather than monolingual; therefore conceiving of language groups as bounded social groupings is not appropriate (Rumsey 1989: 74). In the Radcliffe-Brown model, the land/language relationship was seen as indirect: the estate of a tribe was seen as the aggregation of all the clan estates who spoke the same language. This relationship is now viewed to be direct – it is recognised that the importance of land/language relations in Aboriginal society is that particular languages and particular tracts of country were directly linked according to Dreaming activity (Rumsey 1989: 74-75).

While it was previously assumed that tribes or language groups functioned as politically cohesive corporate groups, more recently it has been recognised that linguistic groupings do not structure the Aboriginal social and geographical landscape. Sutton and Rigsby (1979: 722) argue that Tindale's tribal boundaries are not meaningful at either a demographic or political level. In order to overcome Tindale's limited and flawed tribal boundary model, recourse must be made to more contemporary anthropological concepts and understanding.

The ethnohistoric record suggests that the lower Richmond supported one of the densest Aboriginal populations in Australia (Collins 2005). The Aboriginal population appears to have been concentrated along the coast, however, densities of up to one person per 2.5 square kilometres have been proposed for the riverine corridor. Gollan (nd cited in Collins 2005) reported that 200 to 300 Aboriginal people would gather at Woodburn for a tribal gatherings. In the foothills of the coastal ramp, which lacked abundant resources, populations were apparently smaller; approximately one person per five square kilometres (Pierce 1971).

A demographic model to describe possible settlement/movement patterns was developed by (McBryde 1974). She argued that clan groups would range between the sea coast and the foothills of the coastal ranges on a seasonal basis. On ethno-historical evidence, McBryde suggests that some seasonal movement was common and that the basic subsistence economy

of hunting, fishing and gathering was neither static, nor completely migratory, but characterised by movement between the coast and the foothills (McBryde 1974). Some historical references refer to seasonal movement on a limited scale including Ainsworth (1922) on the Richmond River, Dawson (1935) and McFarlane (1934) on the Clarence River. Bray (1923) states that the Lismore 'tribe' used to go to Ballina at the mouth of the river. Sullivan (1976: 20) notes that inland groups were allowed to come to the Tweed coast for a time. The archaeological evidence for movement in the coastal river valleys is less conclusive (McBryde 1974: 338). However, the evidence suggests that contact between members of the coastal clans was frequent and may have involved relatively large numbers.

McBryde (1978) has documented the material culture of the North Coast Aboriginal people. McBryde's sources refer to shields (McFarlane 1934; Dawson 1935), single point fire hardened spears, three types of boomerangs (Dawson 1935), clubs, nulla nulla and pademelon sticks (McFarlane 1934), wooden battle axes, stone axes, digging sticks, bark and palm leaf bags, wooden water vessels, possum rugs, cane and shell necklaces and stone knives (Bundock 1898). McBryde considered that the region of the Tweed, Richmond and Clarence Rivers appeared to form a distinct unit. This is particularly so in the case of fishing technology. The multi-pronged fishing spear and the shellfish hook are both absent from this region. Fish were caught in nets or speared in the shallows (McBryde 1978: 187). Spears were single pointed fire hardened weapons (Dawson 1935: 22), of both lighter and heavier varieties (Byrne 1986: 3). Neither the woomera nor the spear throwing stick was used in this region (Dawson 1935: 22). The range of materials is considered wider than observed in central Australian tribes with fewer all-purpose items, few composite tools and a number of specialised ones. This may reflect a more sedentary life style in a rich environment that required fewer, but more specialised, tools (McBryde 1978: 187). The stone tool element in the material culture was small and unspecialised. The archaeological evidence suggests changes to a simpler stone technology took place only centuries before European settlement. The stone tools in use immediately prior to European settlement, 'show little typological sophistication and did not demand highly skilled craftsmanship' (McBryde 1978: 198).

Initiation ceremonies of the north coast reportedly involved the gradual revealing of sacred information and a corresponding growth in social and economic status (Collins 2005). Bundjalung males passed through at least two degrees of initiation before becoming full members and permitted to marry. The major initiation ceremonies were undertaken at bora grounds, one of which is located to the south of Coraki. Women also reportedly had their own initiation grounds and associated rites (Winterbotham 1983).

Radcliffe-Brown (1929) reported that sacred spots known as 'Djurebil' (also more generically called 'increase sites') were located throughout Bundjalung country. These spots were often marked by a natural feature such as a water-hole or a significant rock or group of trees (see also, Section 2.3.2). Initiated people performed rites at each Djurebil within their territory to ensure the maintenance and well-being of the associated species or resource. According to Oakes (1979), Djurebils were 'rogation spots where the sacred being was ceremonially asked to make a certain natural resource more plentiful.

2.3 Material Evidence

A search of the NSW OEH Aboriginal Heritage Information Management System (AHIMS) was conducted on 29th April 2015 (AHIMS client service ID: 170901). The search area measures 240 square kilometres, with a buffer of 50 meters, and is encompassed by the following co-ordinates at Datum GDA, Zone 56 - Eastings: 519000 - 534000, Northings: 6786000 - 6802000. A total of 27 Aboriginal sites are located in the AHIMS search area, some of which are discussed below (Table 1; Figure 3). Note. A number of AHIMS sites including the two discussed below, have information restrictions.

Searches have been conducted of the NSW State Heritage Inventory and the Australian Heritage database. No Aboriginal heritage sites are listed on these as being in the proposed activity area.

The AHIMS register only includes sites which have been reported to NSW OEH. Generally, sites are only recorded during targeted surveys undertaken in either development or research contexts. Accordingly, this search cannot be considered to be an actual or exhaustive inventory of Aboriginal objects situated within the local area or indeed within the study area itself.

The Aboriginal objects on AHIMS for the site search area are listed below in Table 1, and the location of those nearest the subject area are shown in Figure 3. It should be noted that sites recorded in AGD have been converted to GDA for mapping purposes. Those sites with information restrictions are not shown on Figure 3.

Two sites on the AHIMS register are located in or close to the subject area and these are discussed below.

AHIMS 04-4-142 *Spring Hill Coraki* - located on the western end of Lot 402 DP802985 - It is located within an existing *Indigenous Heritage Non Disturbance Zone* and will not be subject to impacts. This site has had an Aboriginal Place nomination prepared (Ashley Moran OEH pers comm 25/8/15).

AHIMS 04-4-0121 *Twin Pines Birth Place* - located south of the property and subject area.

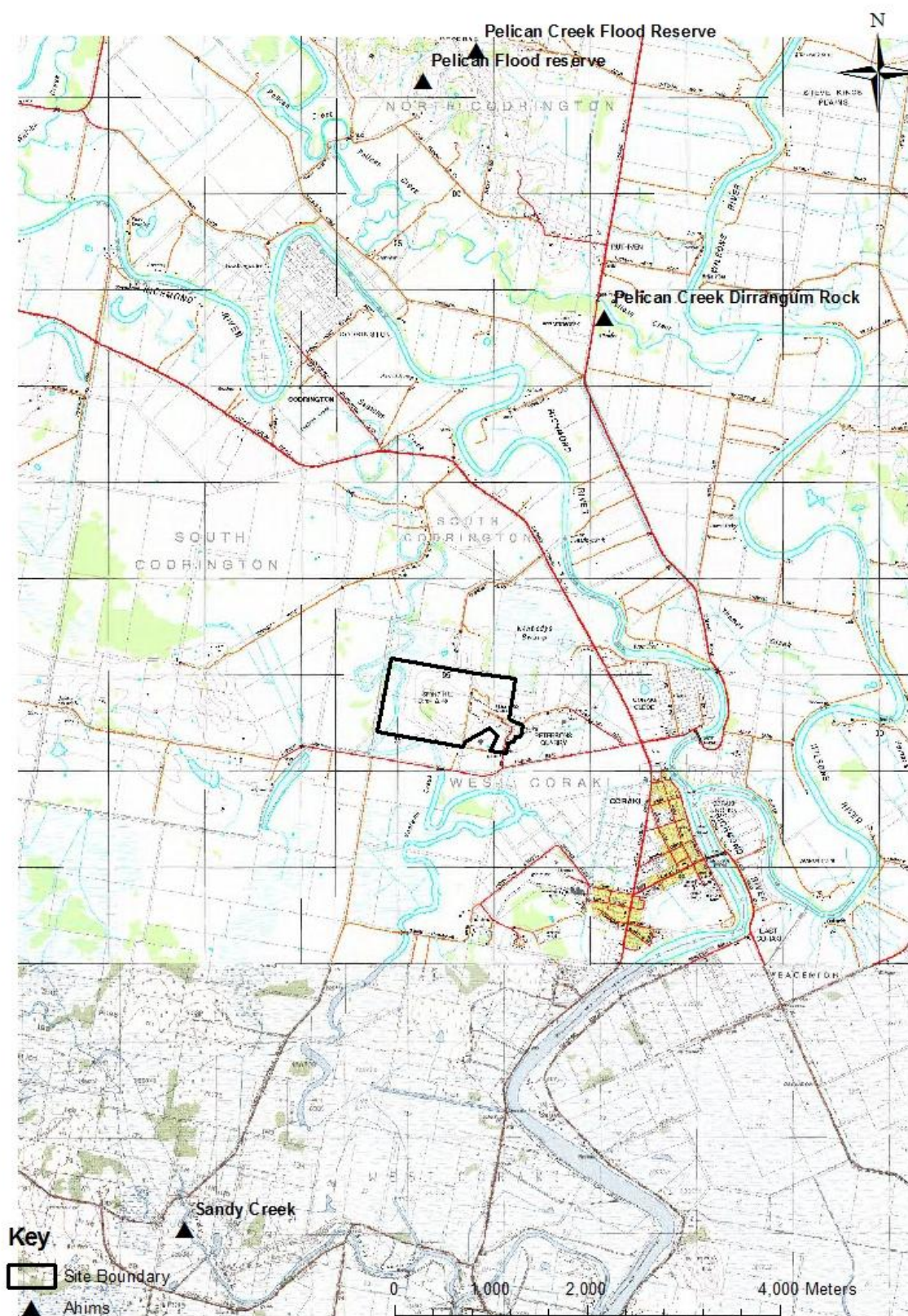


Figure 3 Location of registered Aboriginal sites identified in the search of the NSW OEH AHIMS in respect of proposed activity area (compiled using mapping from *Topoview Raster 2006* NSW Dept. of Lands).

Table 1 AHIMS Site search; asterisk denotes site located on Lot 402.

Site ID	Site name	Datum	Easting	Northing	Site features	Site types
13-1-0062	Sandy Creek	AGD	522690	6789050	Modified Tree (Carved or Scarred) : -	Scarred Tree
04-4-0100	Pelican Creek Flood Reserve	AGD	525720	6801300	Modified Tree (Carved or Scarred) : -, Artefact : -	
13-1-0175	Scar Tree 4 Lot 11, DP 773099	GDA	523070	6786358	Modified Tree (Carved or Scarred) : 1	
13-1-0172	Scar Tree 1 Lot 11, DP 773099	GDA	523271	6786330	Modified Tree (Carved or Scarred) : -	
13-1-0173	Scar Tree 3 Lot 11, DP 773099	GDA	523247	6786312	Modified Tree (Carved or Scarred) : 1	
13-1-0174	Scar Tree 2 Lot 11, DP 773099	GDA	523266	6786338	Modified Tree (Carved or Scarred) : -	
13-1-0176	Scar Tree 5 Lot 11, DP 773099	GDA	522989	6786402	Modified Tree (Carved or Scarred) : -	
13-1-0177	Scar Tree 6 Lot 11, DP 773099	GDA	522957	6786403	Modified Tree (Carved or Scarred) : 1	
13-1-0178	Scar Tree 7 Lot 11, DP 773099	GDA	522170	6786403	Modified Tree (Carved or Scarred) : 1	
04-4-0142*	Restriction applied. Please contact ahims@environment.nsw.gov.au.					
04-4-0126	Tucki Tucki Scarred Trees	AGD	530838	6799157	Modified Tree (Carved or Scarred) : 2	
13-1-0100	Coraki Land Fill 1	AGD	519950	6785800	Artefact : -	Isolated Find
04-4-0024	Tucki Tucki Lismore	AGD	530400	6801300	Ceremonial Ring (Stone or Earth) : -	Bora/Ceremonial
13-1-0012	Restriction applied. Please contact ahims@environment.nsw.gov.au.					
04-4-0091	Pelican Flood reserve	AGD	525160	6800990	Artefact : -, Modified Tree (Carved or Scarred) : -	Open Camp Site, Scarred Tree
04-4-0039	Pelican Creek Dirrangum Rock	AGD	527050	6798530	Aboriginal Ceremony and Dreaming : -	Natural Mythological (Ritual)
13-1-0125	Restriction applied. Please contact ahims@environment.nsw.gov.au.					
13-1-0126	Restriction applied. Please contact ahims@environment.nsw.gov.au.					
13-1-0127	Restriction applied. Please contact ahims@environment.nsw.gov.au.					
04-4-0122	Restriction applied. Please contact					

Site ID	Site name	Datum	Easting	Northing	Site features	Site types
	ahims@environment.nsw.gov.au.					
13-1-0128	Restriction applied. Please contact ahims@environment.nsw.gov.au.					
13-1-0129	Restriction applied. Please contact ahims@environment.nsw.gov.au.					
04-4-0120	Restriction applied. Please contact ahims@environment.nsw.gov.au.					
04-4-0121	Restriction applied. Please contact ahims@environment.nsw.gov.au.					
13-1-0164	Restriction applied. Please contact ahims@environment.nsw.gov.au.					
13-1-0137	Restriction applied. Please contact ahims@environment.nsw.gov.au.					
04-4-0123	Restriction applied. Please contact ahims@environment.nsw.gov.au.					

2.3.1 Previous Archaeological Work

There has been very little archaeology conducted in the immediate local area. The following reviews assessments conducted across the wider region.

The earliest evidence of Aboriginal occupation of northern NSW and southern Queensland dates into the Pleistocene at Wallen Wallen Creek on North Stradbroke Island, where a cultural sequence dating from between $20,560 \pm 250$ BP and the early Holocene has been excavated. Analysis of faunal material from the site indicates an economy initially based on the hunting of terrestrial animals, which developed to one based on the exploitation of marine species and shellfish. This switch is attributed to changing local ecologies keyed into rising sea levels (Neal and Stock 1986).

The earliest known date for Aboriginal occupation in far northern NSW is between 4,700 BP and 4,200 BP, obtained from the basal strata of a shell midden at Sexton Hill south of Tweed Heads (Appleton 1993).

At East Ballina, a shell midden deposit adjacent to Chickiba Creek was dated and found to have accrued between 1,750 BP and c.100 BP (Bailey 1975). Nearby at Angels Beach, North Ballina, assorted shell material produced a range of dates of between 900 - 1,000 BP and 530 BP. Assessed on a stylistic basis, stone artefacts found in association with the shell were categorised as being produced within the past 2,000 years (Rich 1994).

While shell material deposits at South Ballina and Broadwater was dated to 260 BP and 200 BP respectively (McBryde 1982), an 80 cm deep layer of beach foreshore shell midden at Byron Bay was found to have accrued between 1,000 and 400 BP. The shell material at this site was comprised predominantly of pipi, with minor inclusions of other targeted shell species and, additionally, some fish and animal remains. These midden materials were accompanied by an assemblage of stone artefacts believed to have been derived from raw materials available from a nearby intertidal pebble beds. The artefacts were characterized as being predominantly primary flaking debitage that was indicative of the poor knapping quality of the raw materials used (Collins 1994).

At Wombah in the Clarence area, dating by McBryde (1974) of an estuarine midden located 10 km from the coast indicated an occupation phase ranging between c. 3,260 BP and the period of European contact. The midden was comprised predominantly of oyster shell, with very few examples of animal and fish bone, indicating an economy based almost exclusively around the harvesting of shellfish. Few stone artefacts were represented, and those present consisted mostly of unifacial pebble tools, ground edge axes, utilised flakes, a few small retouched tools and a few bone points. The presence of glass artefacts indicated use of the site into the contact period. Despite the high volume of shell, McBryde (1974) concluded the site represented a number of short and sporadic seasonal visitations to the site, lasting only a few months.

Piper (1991) conducted an archaeological assessment of the northern approaches to the Mororo Bridge, some 25 kms south of the subject area. He recorded three isolated artefacts, a scraper/core, a retouched flake and a flake, on low spurs adjoining the floodplain. The raw materials were described as siliceous stone.

Everick Heritage Consultants (2008) conducted an assessment of the proposed Champions' Sandstone Quarry located to the north of Coraki. The 50 hectare area is on the eastern margins of a southerly projection of low hills that separate the floodplain of the Wilson River to the west and the floodplain of the Tucki Tucki Creek and Tuckean Swamp to the east. The site is comparable to that of the subject area. No Aboriginal objects were found during two field inspections. However, the archaeological potential or otherwise of the area was not discussed and no discussion of the results was made.

OzArk (2011) conducted a heritage assessment in relation to a proposal by Transgrid to construct a 205 km 330kV transmission line between Dumaresq and Lismore. Surveying a corridor 60 m wide from Dumaresq to Casino, and 90 m wide from Casino to Lismore, 50 Aboriginal heritage sites were recorded along with 11 sensitive archaeological landforms. The findings of the survey were that the incidence of recorded sites conformed with the assumption that major Aboriginal sites were to be found within close proximity to water.

The Aboriginal cultural heritage assessments in relation to the Pacific Highway Upgrade ('PHU') Woolgoolga to Ballina, have been the most numerous comprehensive archaeological investigations carried out in the broader region, although by necessity conducted along a narrow corridor. While work on this project is at present ongoing, some initial results have already been reported. Preliminary field surveys entailing some 1,865 hectares identified 50 areas of potential archaeological deposit and 54 Aboriginal heritage sites. Forty eight potential archaeological deposits were then excavated, with 30 of these found to contain subsurface Aboriginal deposits (NSW Roads and Maritime Services 2013).

In the Wells Crossing to Iluka Road assessment section, conducted over a total area of some 1,000 hectares five surface finds and a total of 15 PADs were recorded. These were excavated, with nine containing sub-surface Aboriginal cultural deposit (25 artefacts in total). Seven control test pits were excavated and none of these contained artefacts. In addition, the excavation included 422 test pits (0.5 metres x 0.5 metres). Aboriginal objects were retrieved from 17 of these test pits. The conclusion of the works was that the nature of the archaeology discovered within the project corridor did not represent a significant difference from that located in the surrounding region (Brooke *et al.* 2012).

Everick Heritage Consultants (2014) conducted an Aboriginal Cultural Heritage Due Diligence Assessment in relation to the expansion of an existing quarry at Mororo, some 25 kms south of the subject study area. Surveying an area of some 12.5 ha, in conditions of variable archaeological visibility, no Aboriginal objects were identified, and the area was generally assessed to be of low archaeological potential, due in part because of high levels of ground disturbance.

NSW Roads and Maritime Services (2014) commissioned an Aboriginal Cultural Heritage Assessment Report in relation to their proposal to construct an additional new bridge at Grafton, about 70 m downstream of the existing bridge. In addition, to two previously recorded Aboriginal places, an area with two Aboriginal sandstone artefacts near to the river was recorded. These artefacts being sandstone river cobbles with one a modified river cobble most likely used for as a chopping tool and the other a grinding stone.

2.3.2 Predictive Model of Aboriginal Site Distribution

Based on the above review and a consideration of the elevation, geology, hydrology and topography of the study area, the type of Aboriginal objects known to occur in the region and the potential for their presence within the subject area are listed as follows.

Stone Artefacts

Stones artefacts are located either on the surface and/or in subsurface contexts. The detection of artefacts depends on ground surface factors and whether or not the potential archaeological bearing soil profile is visible. Prior ground disturbance, vegetation cover and sediment/gravel deposition can act to obscure artefact presence. The raw materials used for artefact manufacture will commonly be silcrete, chert, quartzite, quartz and volcanics. Within the local area, stone artefacts will be widely distributed across the landscape in a virtual continuum, but with significant variations in density in relation to different environmental factors. Artefact density and site complexity will be greater near reliable water and the confluence of resource zones.

Given the environmental context, it is assessed that in the subject area stone artefacts will be present in variable densities ranging from negligible/very low to low/moderate. Higher artefact density is predicted to be present on reasonably flat ground close to Seelems Creek. Elsewhere, artefact density is predicted to be very low.

Grinding Grooves

Grinding grooves are found in rock surfaces and result from the manufacture and maintenance of ground edge tools. Given the absence of large sandstone exposures, grinding groove sites are unlikely to be present.

Burials sites

Burial sites have been recorded within the wider region. This site type is rarely located during field survey and is not predicted to be present in the subject area.

Rock Shelter Sites

Rock shelters sites are unlikely to be present in the study area given the absence of vertical stone outcrops.

Scarred and Carved Trees

Scarred and carved trees result from either domestic or ceremonial bark removal. Carved trees associated with burial grounds and other ceremonial places have been recorded in the wider region. In an Aboriginal land use context this site type would most likely have been situated on flat or low gradient landform units in areas suitable for either habitation and/or ceremonial purposes.

Bark removal by European people through the entire historic period and by natural processes such as fire blistering and branch fall make the identification of scarring from a causal point of view very difficult. Accordingly, given the propensity for trees to bear scarring from natural causes, their positive identification is impossible unless culturally specific variables such as stone hatchet cut marks or incised designs are evident and rigorous criteria with regard to tree species/age/size and specific characteristics with regard to regrowth is adopted.

Nevertheless, the likelihood of trees bearing cultural scarring remaining extant and in situ is low given events such as land clearance and bushfires. Generally scarred trees will only survive if they have been carefully protected (such as the trees associated with Yuranigh's grave at Molong where successive generations of European landholders have actively cared for them).

The subject area has been cleared previously and this site type is unlikely to be present.

Stone Quarry and Procurement Sites

A lithic quarry is the location of an exploited stone source (Hiscock & Mitchell 1993:32). Sites will only be located where exposures of a stone type suitable for use in artefact manufacture occur. Given the presence of stone outcrops in the proposal area this site type may be recorded during the study.

Ceremonial Places and Sacred Geography

Burbung and ceremonial sites are places which were used for ritual and ceremonial purposes. Possibly the most significant ceremonial practices were those which were concerned with initiation and other rites of passage such as those associated with death. Sites associated with these ceremonies are burbung grounds and burial sites. Additionally, secret rituals were undertaken by individuals such as clever men. These rituals were commonly undertaken in 'natural' locations such as water holes. Ceremonial grounds are known to exist in the local area.

In addition to site specific types and locales, Aboriginal people invested the landscape with meaning and significance; this is commonly referred to as a sacred geography. Natural features are those physical places which are intimately associated with spirits or the dwelling/activity places of certain mythical beings (cf. Knight 2001; Boot 2002). Boot (2002) refers to the sacred and secular meaning of landscape to Aboriginal people which has '...

legitimated their occupation as the guardians of the places created by their spiritual ancestors’.

Knight’s (2001) Masters research conducted in the area of the Weddin Mountains, examined the cultural construction and social practice of inhabiting a sacred landscape. This approach is a departure from a consideration of the land and its resources as being a determinant of behaviour, to one in which land is regarded as a *text*; – within this conception, land and its individual features, are redolent with meanings and significances which are religiously and ritually centred, rather than economically based.

Knight’s (*cf.* 2001:1) work was possible in great measure by the historical record which explicitly defines Weddin as a site of ritual significance. However, the research was additionally driven by a theoretical approach to ‘cultural landscapes’. Landscape is redefined away from considerations of its material features which provide a backdrop to human activity, towards a view that a landscape *is rather*, a conceptual entity. According to this view, the natural world does not exist outside of its conceptual or cognitive apprehension. The landscape becomes known within a naming process or narrative; thus the landscape is brought into being and understanding – within this process: - ‘... explanatory parables...’ such as legends and mythology are the embodiment of the landscape narrative (Knight 2001: 6).

These narratives are relative to a particular culture, and it is this which makes an archaeological investigation of the cultural landscape such a thorny one. At distance in time and cultural geography, and especially in the absence of specific ethnographic information, how can the archaeologist attempt to investigate and know these narratives? Knight (2001: 11) employed the concept of the landscape as *mentifact*, whereby archaeological interpretation is concerned with the reconstruction of the landscape as a reflection of prehistoric cosmologies. He argued that this can be reconstructed by exploring the systematic relationships between sites and their topographic setting. This is defined as an *inherent* approach as it is concerned with the role of landscape in both everyday and sacred life. This view is concerned with an integration of the sacred and profane rather than their existence as separate categories of social life: - where “Cult activity may have existed as an inextricably ‘embedded’ component of daily life, where significant locations and ritual aspects of material culture were thoroughly incorporated into secular ranges and uses” (Knight 2001:13). In this regard, Knight (2001: 14) correctly points out that no dichotomy between the material and ideational world existed within Aboriginal life.

Knight (2001: 15) argued that the notion of sacred space is of central concern within an inherent perspective on interpreting cultural landscape. Within human cosmologies, locales within the landscape are constructed as being sacred space; this process of the construction of sacred space has been termed *hierophany* by Eliade (1961 in Knight 2001: 15). However, while Knight (2001: 15) suggests that physical entities such as stones, trees, or topographic features such as mountains, caves and rocky outcrops may be subject to such processes of transformation or construction, in reality, in Aboriginal society any natural feature of less obvious significance can and should be included within this listing. Aboriginal constructions

of heirophany can include the most insignificant landscape features and objects of less fixed temporal existence such as animals and plants. While the outside observer readily ‘sees’ and apprehends mountains and rocky features, more subtle elements of the natural world are easily passed ‘unseen’. This point is one which suggests that the personal cultural geography of the archaeologist can severely impact upon the interpretation of the sacred landscape (*cf.* also, Boot 2002: 288). Knight (2001) does acknowledge this to some extent illustrating the issue by referring to the example of “Jump Up Rock” situated north of Weddin. This place is only understood to have been an important landscape feature by recourse to prior knowledge regarding the meaning of the site name; the hill itself is insignificant and therefore not readily apprehended through an outsiders gaze as being of special significance. Knight (2001: 16) refers to the issue of peculiarities of form (e.g. shape, colour, size or texture) and natural distinctiveness (e.g. isolated mountains or rocky features within a plains context) as being an important distinguishing feature of sacred locales. Knight (2001: 16) argues that the construction of sacred space in such a manner is particularly relevant to people for whom the natural domain is the dwelling place of/or the manifestation of their deities. Knight (2001: 16) again draws from Eliade (1964) to suggest that it is at the sacred place that the three fundamental cosmological worlds, the everyday, the upper and underworld may converge; typically the upper world will be associated as a point of ‘access’ with tall things such as trees while the underworld will be associated with pools and caves. Eliade contends that places where all three worlds can possibly connect, the *axis mundi*, are of a heightened order of sacredness. Hierophanies are therefore natural features which are ascribed sacredness. Additionally, Knight (2001: 17) refers to their ability to provide a landscape based opportunity for people to commune with other worldly deities and associated power because they may constitute spatial access between worlds via ritual.

Guided by these theoretical considerations, Knight (2001: 20) engaged with Bradley’s (cited in Knight 2001) model of the ‘archaeology of natural places’ in order to provide guidance for investigating the cultural landscape. In this view, natural places can be explored archaeologically in order to determine the nature of their role in human cosmologies by attending to four archaeological categories: - Votive offerings, rock art, production sites and monuments. This model was developed within a European context, with its attendant biases of concepts and archaeological categories; clearly not all concepts, some of which are clearly Eurocentric, will be applicable in Australia. Nor will all these data sets be found within the Australian context.

Knight (2001) gives consideration to the types of natural places which might be ascribed sacred significance. These include mountains, woodlands and groves, springs, pools and lagoons, rock outcrops and caves and sinkholes. He argues that Aboriginal cosmology is expressed via the natural landscape and sacred places were those which were directly related to the Dreaming. He says that these sacred sites typically are those which are remarkable or important physiographically such as caves, rocks and so on. Given the potential for natural features to have been important places within an Aboriginal cosmological frame of reference, the survey has sought to identify outstanding natural features present in the study area. A number of special places have been recorded in the immediate local area as a

result of cultural mapping conducted for the Native Title claimants (Ashley Moran pers. comm 25/8/15). One of which is located in the western end of Lot 402: AHIMS # 04-4-0122.

Contact Sites

These sites are those which contain evidence of Aboriginal occupation during the period of early European occupation. Evidence of this period of ‘contact’ could potentially be Aboriginal flaked glass, burials with historic grave goods or markers, and debris from ‘fringe camps’ where Aborigines who were employed by, or traded with the white community, may have lived or camped. The most likely location for contact period occupation sites would be places adjacent to permanent water and located in relative proximity to centres of European occupation such as towns and homesteads. The potential for such sites to be in the proposal area is possible but unlikely.

2.3.3 Field Inspection – Methodology

In accordance with the OEH *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW*, the purpose of a field survey is to record the material traces and evidence of Aboriginal land use that are:

- Visible at or on the ground surface, or
 - Exposed in section or visible as features (e.g. rock shelters with rock-art),
- and to identify those areas where it can be inferred that, although not visible, material traces have a high likelihood of being present under the ground surface (DECCW 2010a: 12).

The methodological approach adopted in this assessment attends particularly to location and relationality as a means of contextualising the material evidence of cultural practice across space. Given the nature of the physiography, different places within the region are likely to have been utilised for different purposes, and also by different categories of people. Landscape is more than a set of ‘objective’ topographic features. Landscapes are constructed out of cultural and social engagement; they are ‘... topographies of the social and cultural as much as they are physical contours’ (David & Thomas 2008: 35). The conceptual approach to understanding landscape in this assessment is based on a concern with experience, occupation and bodily practice (cf. Thomas 2008: 305). The location of material evidence in different environmental and topographic contexts across the region has the potential to be informative of different activities and social contexts. Landform and environmental elements, as measurable empirical space, will be employed methodologically to explore landuse, occupation and the nature of both recorded and unseen (ie subsurface) material evidence. Given the space encompassed by the study area, this methodology allows for the identification, at a fine level of spatial resolution, of elements representative of the patterns of social life and how these may vary over space.

The approach to recording in the current study has been a ‘nonsite’ methodology (cf. Dunnell 1993; Shott 1995). The density and nature of the artefact distribution will vary across the landscape in accordance with a number of behavioural factors which resulted in artefact discard. While cultural factors will have informed the nature of land use, and the

resultant artefact discard, environmental variables are those which can be utilised archaeologically in order to analyse the variability in artefact density and nature across the landscape. Accordingly, in this study, while the artefact is the elementary unit recorded, Landform Units are utilised as a framework of recording, analysis (cf. Wandsnider and Camilli 1992) and ultimately, the formulation of recommendations. The Landform Units variables recorded are described below.

The field inspection entailed a comprehensive pedestrian survey undertaken across the subject area. The survey was aimed at locating Aboriginal objects, areas and places. An assessment was also made of prior land disturbance, survey coverage variables (ground exposure and archaeological visibility) and the potential archaeological sensitivity of the land.

The field survey was designed to assess the archaeological sensitivity of all areas where impacts are proposed. The data collected during this field assessment forms the basis for the documentation of survey results outlined in the section below. The variables recorded are defined below:

Survey Unit Variables

Landscape variables utilised are conventional categories taken from the *Australian Soil and Land Survey Field Handbook* (McDonald *et al.* 1998).

Survey Coverage Variables

Survey Coverage Variables are a measure of ground surveyed during the study and the type of archaeological visibility present within that surveyed area. Survey coverage variables provide a measure with which to assess the effectiveness of the survey so as to provide an informed basis for the formulation of management strategies.

Specifically, an analysis of survey coverage is necessary in order to determine whether or not the opportunity to observe stone artefacts in or on the ground was achieved during the survey. In the event that it is determined that ground exposures provided a minimal opportunity to record stone artefacts, it may be necessary to rely on the relevant predictive modelling to assess the archaeological nature of an area. In some cases archaeological test excavation may need to be undertaken to determine whether or not stone artefacts are present. Conversely, if ground exposures encountered provided an ideal opportunity to record the presence of stone artefacts, the survey results may be considered to be reliable.

Two variables were used to measure ground surface visibility during the study; the area of ground exposure encountered, and the quality and type of ground visibility (archaeological visibility) within those exposures. The survey coverage variables estimated during the survey are defined as follows:

Ground Exposure (GE) – an estimate of the area of exposures of bare ground; and

Archaeology Visibility (AV) – an estimate of the average levels of potential archaeological surface visibility within those exposures of bare ground. Archaeological visibility is generally less than ground exposure as it is dependent on adequate breaching of the bare ground surface which provides a view of the subsurface soil context. Based on subsurface test excavation results conducted in a range of different soil types across New South Wales it is understood that artefacts are primarily situated 10 - 30 cm below the ground; reasonable archaeological visibility therefore requires breaching of the ground surface to at least a depth of 10 cm.

Based on the two visibility variables as defined above, an estimate (Net Effective Exposure – NEE) of the archaeological potential of exposure area within a survey unit has been calculated. The Effective Survey Coverage (ESC) calculation is a percentage estimate of the proportion of the Survey Unit which provided the potential to view archaeological material.

2.3.4 Field Inspection – Results

The entire area in which impacts would occur has undergone relatively high levels of prior disturbance associated with land clearance/agriculture and previous quarrying. This previous landuse is assessed to have caused reasonably high levels of impact to almost all ground surfaces and hence, to any Aboriginal objects which may once have been present in those areas.

The impacts associated with almost 100 years of quarrying cover an area measuring approximately 17.5 hectares (Plates 1-4). These impacts include deep quarrying (Plate 5) and more shallow disturbances associated within stockpile clearing (eg Plate 3). All areas however, possess negligible areas of original ground surface. Accordingly, the area encompassed by the existing quarrying works (Survey Unit 1) has no potential to host Aboriginal cultural materials.

Impacts in the remainder of the subject area vary. All areas have been cleared of original native vegetation and have been used for agriculture. Ground surfaces are now covered with introduced pasture species including couch and kikuyu (Plate 6). Remnants of farm fences and infrastructure remain (Plate 7). Generally the ground surfaces are uneven indicating prior disturbance. Minor quarrying has been undertaken at the west edge of the basalt in Lot 401 (Plate 8). Elsewhere farm dams, water diversion channels and a well formed access road into Lot 401 have caused localised impacts (Plate 9).

During the field survey, effective survey coverage (ESC) was variable, but generally low. Survey coverage is described and summarised in Tables 2 and 3 below. The assessment area and individual Survey Units are shown in Figures 4 and 5 respectively.

Table 2 Survey Unit descriptions and proposed impacts.

Name	Proposed impact	Description
SU1	Quarrying, stockpile, processing plant.	Crest; open aspect; nil original ground surface. Existing quarry area; highly disturbed.
SU2	Lot 401: quarrying; Lot 402: stockpile.	Crest; open aspect; flat; very shallow soil (<20cm). Grassed farm land.
SU3	Stockpile	Simple slope to west; 6-8° gradient. Grassed farm land.
SU4	Nil: Proposed <i>Aboriginal Archaeological Conservation Zone</i>	Simple slope to west; 1-2° gradient. Grassed farm land.
SU5	Stockpile	Simple slope to north-west; 6-8° gradient. Grassed farm land.

Table 3 Survey coverage.

Name	Area (sq m)	GE (%)	GE (sq m)	AV (%)	NEE	ESC (%)	Aboriginal site recordings	Predicted artefact density
SU1	174,508	0	0	0	0	-	nil	Negligible
SU2	162,874	<0.5	<814	80	<651	0.4	nil	Very low
SU3	45,962	<0.5	<229	80	<183	0.4	nil	Very low
SU4	11,142	<0.5	<55.7	20	<11	0.09	Sensitive Archaeological Landform - SAL 1	Low/moderate
SU5	42,701	<0.5	<213	80	<170	0.4	nil	Very low
	437,187		<1,311.7		<1,015	0.2		

A total of area of c. 44 hectares was assessed during the field work (Table 3). Ground exposures inspected included areas of bare earth, erosion, animal burrows and vehicle tracks, and measured approximately less than 0.1 hectares in area. Of that ground exposure area, archaeological visibility inspected (the potential artefact bearing soil profile) is estimated to have been c. 0.1 hectares (NEE). Effective Survey Coverage is calculated to have been 0.2% of the proposal area. The ESC encountered during the field survey is considered to be very low. However, areas of ground exposure with reasonable archaeological visibility (the potential artefact bearing soil profile) were frequently encountered. Given the absence of artefacts recorded, it is concluded that artefact density is likely to be extremely patchy in distribution and present in generally very low density.

Site Recordings

No Aboriginal stone objects were recorded during the field assessment. However, Survey Unit 4, a very gently inclined simple slope adjacent to the wetland is predicted to contain artefact density in a low/moderate distribution. For the purposes of this assessment it is described as an sensitive archaeologically landform (Plate 10).



Plate 1 Existing stockpile area at the west end of Petersons Quarry site; looking 90°. This area would be quarried first which would then provide access into Lot 401. Arrow denotes the south east corner of Lot 401.



Plate 2 Existing stockpile area at the west end of Petersons Quarry site; looking 130°. Note, grassed bund wall in middle distance and proposed stockpile area beyond as indicated by arrow.



Plate 3 Existing stockpile area at the west end of Petersons Quarry site; looking 260°. Note, Spring Hill Trig indicated by an arrow.



Plate 4 The weighbridge area at the east end of the existing quarry; looking south-east.



Plate 5 The floor of existing quarry in Lot 403 where the processing plant is proposed.



Plate 6 Pasture on Lot 401; looking west. Note, boundary fence and visual screening bund on existing Petersons quarry.



Plate 7 Remains of farm infrastructure on basalt near east end of Lot 401; looking 250°.



Plate 8 Minor quarrying at northwest edge of basalt on Lot 401; looking 90°.



Plate 9 Formed road providing access into Lot 401; looking north. Note also, farm dam as denoted by arrow.



Plate 10 Sensitive archaeological landform - SAL 1; looking south.



Figure 4 Location of Assessment Area.

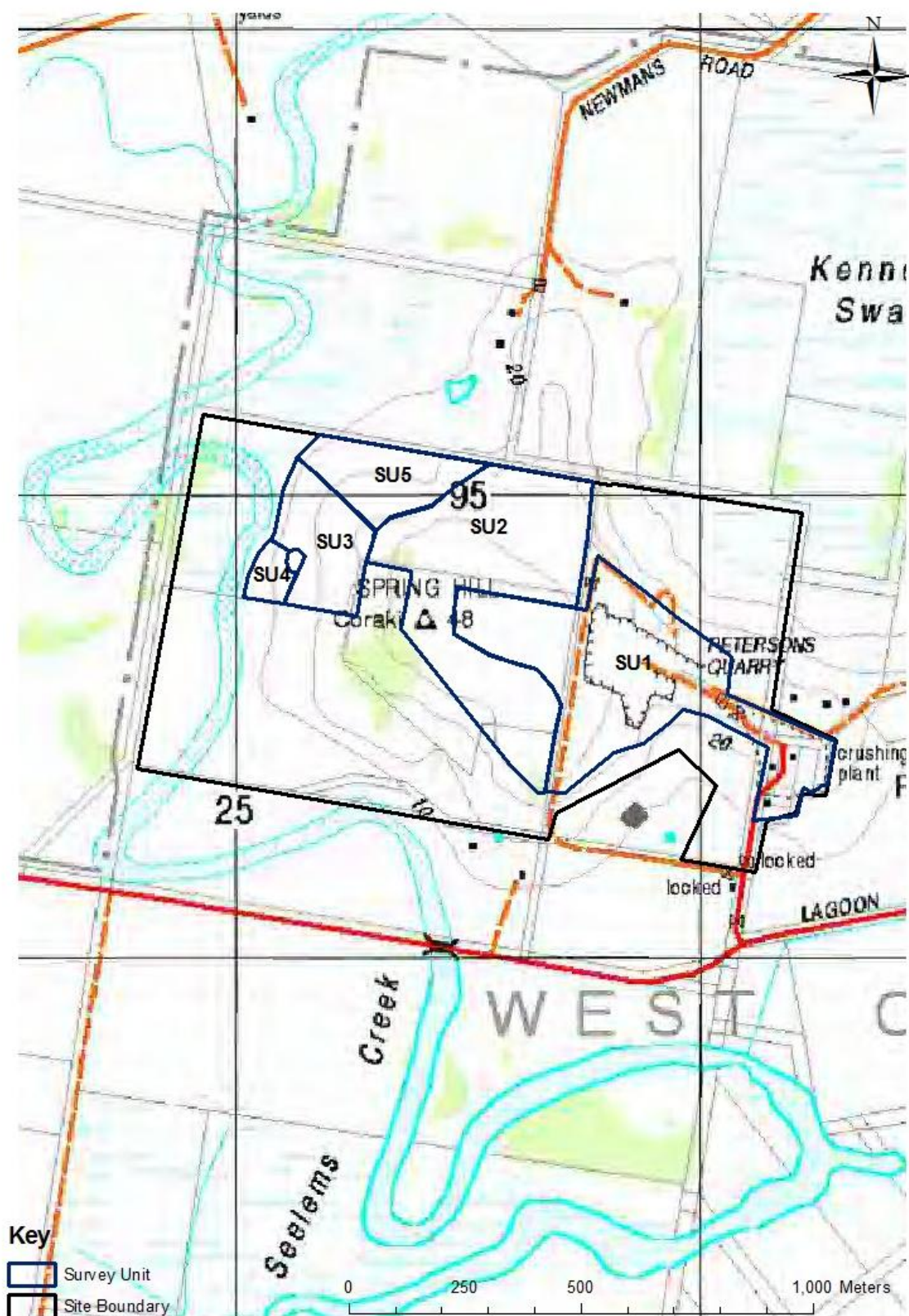


Figure 5 Location of Survey Units.

3. CONSULTATION PROCESS

A formal process of Aboriginal community consultation has been undertaken in accordance with the guidelines as set out in the NSW OEH's *Aboriginal cultural heritage consultation requirements for proponents 2010* (NSW DECCW 2010b).

3.1 Consultation

In order to identify, notify and register Aboriginal people who may hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and/or places in the subject area, the following procedure was implemented (see Appendix 1).

Correspondence dated 4 May 2015 was sent to:

- The NSW OEH;
- Bogal Local Aboriginal Land Council (BLALC);
- Office of the Registrar, *Aboriginal Land Rights Act 1983*;
- The National Native Title Tribunal;
- Native Title Services Corporation Limited;
- Richmond Council.

In addition, an advertisement has been placed with the local paper (Northern Star) and appeared in the 6 May 2015 edition.

Following advice received from NSW OEH, further correspondence dated 18 May 2015 was sent to a list of known Aboriginal Parties for the Richmond Valley local Government area that OEH considered likely to have an interest in the proposal.

The Office of the Registrar Aboriginal Land Rights Act 1983 responded (no date) indicating that it did not appear that there were registered Aboriginal owners for the project area.

NTSCORP responded on 7 May 2015, indicating that they would provide our correspondence to any individuals, groups or organisations NTSCORP is aware assert traditional interest in the area.

The Bogal Local Aboriginal Land Council responded (11 May 2015) indicating that they required a survey of the area to be undertaken. We have taken this response to assume a registration of interest in the Aboriginal consultation process.

The National Native Title Tribunal responded via email on 7 May 2015 indicating that Native Title has been extinguished for the area in question given the property is freehold.

No Registrations of Interest were made by any Aboriginal Parties other than Bogal Local Aboriginal Land Council.

The Bandjalang Aboriginal Corporation Prescribed Body Corporate RNTBC administers land on behalf of the Bandjalang People. Their native title rights and interests were first recognised in the Bandjalang People #2 native title determinations of 2013. This matter recognises the Bandjalang people as having non-exclusive native title rights and interests over traditional lands on the north coast of New South Wales, at and around Evans Head.

Further enquires were made of ntscorp on 2 June 2015 advising that we had not heard from the Bandjalang Aboriginal Corporation Prescribed Body Corporate. Mr George Toona indicated that further communications would be made with this group. A ntscorp person was to meet with them in person on 4 June 2015 and was to advise on that occasion about the quarry project and my attempts to communicate with them. A further email was received from Mr Toona on 11 June 2015 indicating that no comments had been received from the Bandjalang Directors about the project.

We discussed this matter further with Ms Rosalie Neve, NSW OEH on 12 June 2015. It was discussed that in regard to the Aboriginal site on Lot 402, an Aboriginal place nomination was in progress but not yet determined. Ms Neve advised that while no response has been received from the Bandjalang Aboriginal Corporation and we may therefore reasonably assume that there are not any issues, we should ensure that the proposal does not undermine any possible future aspirations the Corporation may have in regard to the site. Furthermore, she advised that we ensure an ongoing communications strategy is in place.

In accordance with Section 4.2 and 4.3 of the *Aboriginal cultural heritage consultation requirements for proponents 2010* (NSW DECCW 2010b) guidelines, information with regard to the project, proposed consultation process and assessment methodology was furnished to the Bogal Local Aboriginal Land Council for input and comment; none received.

Following a modification to the original project description, further letters were sent to the agencies on 7 August 2015 providing notification. Again following advice from OEH, a second batch of letters were sent to a list of Aboriginal groups OEH felt may have an interest in the area. No responses have been received.

A draft copy of this report has be furnished to Bogal Local Aboriginal Land Council (BLALC) for review (sent 2/9/15). BLALC had previously reported via email (dated 25/8/15) that Darryl Knight had reported a 'clear inspection'.

4. SUMMARY AND ANALYSIS OF BACKGROUND INFORMATION

In previous sections, the results of the background research and survey have been outlined. The purpose of this section of the ACHAR is to summarise and explain the results.

It is noted that no information about Aboriginal places, areas or objects has been received as a result of the formal process of Aboriginal consultation which has been undertaken (as specified in clause 80C of the NPW Regulation – see previous section).

One Aboriginal site is known to be present in the subject area. This site is located within a previously defined *Indigenous Heritage Non Disturbance Zone* (see Figure 6). This area will be retained and honoured within the context of the proposed development.

No Aboriginal object sites were recorded during the current assessment. However, a Sensitive Archaeological Landform (SAL 1) has been identified. In an Aboriginal land use context, the majority of the subject area is assessed to have been used for low levels of occupation and that artefact discard would have been correspondingly low. However, Survey Unit 4, a very gently inclined simple slope situated adjacent to Seelems Creek, is predicted to have been subject to a certain level of land use which may have resulted in the accumulated discard of stone artefacts of low/moderate density.

It is probable that land adjacent to larger wetlands located elsewhere in the district would have sustained intensive Aboriginal occupation and may well have functioned as base camp locales. Places such as the subject area where water is less abundant and expansive, are likely to have been used during hunting and gathering forays conducted away from base camps by small groups of people. As such, we predict that the landform encompassed by Survey Unit 4 may contain an artefact occurrence associated with such land use.

In the predictive model outlined in Section 2.3.2, it was suggested that stone quarrying or procurement may have taken place at the basalt outcrop. However, no evidence of such activity was found during the field inspection.

While the Effective Survey Coverage for the surveyed area is calculated to have been relatively low at the time of survey, many areas of reasonable ground exposure possessing reasonable archaeological visibility were distributed throughout the subject area. These exposures enabled a reasonable characterisation of artefact distribution within the proposal area. The survey results are therefore assessed to be a relatively accurate reflection of the artefact density in the proposal area. That is, the absence of Aboriginal object recordings is assessed to be real. Accordingly, based on the relevant predictive model of site distribution for the area, and the results of the field survey, artefact density in the study area is assessed to be very low. The exception is Survey Unit 4 located adjacent to Seelems Creek.

Archaeological test excavation has not been undertaken in respect of the proposal as it could not be justified (*cf.* NSW DECCW 2010a: 24). While Survey Unit 4 situated near to the creek is assessed to be of relatively higher archaeological sensitivity than the majority of the

subject area, it is able to be avoided and, accordingly, will be subject to a conservation outcome. While Effective Survey Coverage was generally very low during field survey, given the high levels of previous disturbance and predicted very low density of stone artefact distribution, subsurface test excavation is not warranted. The predictions in regard to the nature of any undetected (subsurface) archaeology is made with relatively high confidence.

It is concluded there are no information gaps which are of a significant magnitude to warrant further consideration.

5. CULTURAL HERITAGE VALUES AND STATEMENT OF SIGNIFICANCE

The information provided in this report and the assessment of significance of Aboriginal objects provides the basis for the proponent to make informed decisions regarding management and mitigation which should be undertaken in respect of proposed impacts.

5.1 Significance Assessment Criteria

The NPWS (1997) defines significance as relating to the meaning of sites: “meaning is to do with the values people put on things, places, sites, land”. The following significance assessment criteria is derived from the relevant aspects of ICOMOS Burra Charter and NSW Department of Urban Affairs and Planning’s ‘State Heritage Inventory Evaluation Criteria and Management Guidelines’.

Aboriginal sites are assessed under the following categories of significance:

- cultural value to contemporary Aboriginal people,
- archaeological value,
- aesthetic value,
- representativeness, and
- educational value.

Aboriginal cultural significance

The Aboriginal community will value a place in accordance with a variety of factors including contemporary associations and beliefs and historical relationships. Most heritage evidence is valued by Aboriginal people given its symbolic embodiment and physical relationship with their ancestral past.

Archaeological value

The assessment of archaeological value involves determining the potential of a place to provide information which is of value in scientific analysis and the resolution of potential archaeological research questions. Relevant research topics may be defined and addressed within the academy, the context of cultural heritage management or Aboriginal communities. Increasingly, research issues are being constructed with reference to the broader landscape rather than focusing specifically on individual site locales. In order to assess scientific value, sites are evaluated in terms of nature of the evidence, whether or not they contain undisturbed artefactual material, occur within a context which enables the testing of certain propositions, are very old or contain significant time depth, contain large artefactual assemblages or material diversity, have unusual characteristics, are of good preservation, or are a part of a larger site complex. Increasingly, a range of site types, including low density artefact distributions, are regarded to be just as important as high density sites for providing research opportunities.

In order to assess the criteria of archaeological significance further, and also to consider the criteria of rarity, consideration can be given to the distribution of stone artefacts across the continent. There are two estimates of the quantity of accumulated stone artefacts in Australia (Wright 1983:118; Kamminga 1991:14; 2002). Wright estimated an average of 500,000 débitage items and 24,000 finished tools per square kilometre, which equates to a total of about 180 billion finished stone tools and four trillion stone débitage items in Australia. Kamminga's estimates, which were determined from a different set of variables, provide a conservative estimate of 200 billion stone tools and 40 million tonnes of flaking débitage (see Kamminga 1991:14; 2002). These two estimates are similar, and suggest that the actual number of stone tools and items of flaking débitage in Australia is in the trillions. The stone artefacts distributed in the proposed activity area cannot, therefore, be considered to be rare.

The vast majority of stone artefacts found in Australia comprise flaking debris (termed débitage) from stone tool making. While it can be reasonably inferred from a range of ethnographic and archaeological evidence that discarded stone artefacts and flaking debris was not valued by the maker, in certain circumstances these objects may to varying degrees have archaeological research potential and/or Aboriginal social value. However, only in very exceptional circumstances is archaeological research potential high for particular open context sites such as those encountered in the subject area (Kamminga, J. pers. comm. June 2009).

Representativeness

Representative value is the degree to which a "class of sites are conserved and whether the particular site being assessed should be conserved in order to ensure that we retain a representative sample of the archaeological record as a whole" (NPWS 1997). Factors defined by NPWS (1997) for assessing sites in terms of representativeness include defining variability, knowing what is already conserved and considering the connectivity of sites.

Educational value

The educational value of cultural heritage is dependent on the potential for interpretation to a general visitor audience, compatible Aboriginal values, a resistant site fabric, and feasible site access and management resources.

Aesthetic value

Aesthetic value relates to aspects of sensory perception. This value is culturally contingent.

5.2 Significance Value of the Aboriginal Object Sites in the Study Area

The majority of the subject area is assessed to be of relatively low archaeological value primarily because of the predicted very low density artefact distribution and the significant extent of previous impacts. It is noted that Aboriginal heritage sites often have high cultural value to the local Aboriginal community given that they provide direct physical

and symbolic linkages to their ancestral past and to the landscape. The cultural values of the identified sites may possibly differ to the archaeological significance values.

5.3 Statement of Significance

A total of five Survey Units were defined in the proposal area. No Aboriginal objects were found and significant previous impacts have taken place. Because of the high levels of prior ground disturbance and the predicted low distribution of the artefacts, the value of the materiality in proposed impact area is low. The exception is the Sensitive Archaeological Landform (SAL 1) which is likely to hold a greater level of significance.

6. THE PROPOSED ACTIVITY

In this section, the nature and extent of the proposed activity and any potential harm to Aboriginal areas, objects and/or places is identified.

Petersons Quarry has been operating since 1916, and was formally approved under DA 103/85 in 1985. To date, extraction within the approved Petersons Quarry has generally continued in a westerly direction, starting from the eastern end of the quarry area. The quarry has been upgraded twice, first in the 1950s and then in the late 1970s. In 1985, an EIS was prepared for the continued use and expansion of the quarry and development approval was given (DA 103/85) for quarrying operations within Lot 405 DP 632493 and Lot 402 DP 802985. A further modification was made on 2009. Existing operations at Petersons Quarry are continuing under the terms of that approval.

6.1 Proposed Impacts

Quarry Solutions, the proponent, has been granted a lease by Richmond Valley Council to operate the existing Petersons Quarry on behalf of the Council. Petersons Quarry will be used as an integral part of the new Coraki Quarry project operations. Access into the Lot 401 rock resource and extraction, would occur from Petersons Quarry. The existing processing area of the Petersons Quarry would be used for the material extracted from Lot 401 and the processed material would be stockpiled on the existing Petersons Quarry site and on Lot 401 (Figure 6).

6.2 Type of Harm

The proposed development would entail the removal and disturbance of potential artefact bearing deposit and, accordingly, has the potential to cause fundamental impacts to any Aboriginal areas, places or objects.

6.3 Harm Assessment

The proposed works entail ground disturbance and, accordingly, have the potential to cause impacts to any Aboriginal areas, places or objects which may be present within the zones of direct impact. However, no Aboriginal object sites have been recorded in the proposal area other than Sensitive Archaeological Landform (SAL 1). This area will be subject to active conservation measures within the development context (Figures 6 & 7). Accordingly, no harm to Aboriginal objects is proposed.

It is noted that the previously identified *Indigenous Non Disturbance Zone* in which AHIMS 04-4-0142 is located will be maintained and would not be disturbed as a result of the proposal (Figures 6 & 7).



Figure 6 The proposed impacts. Note, location of Indigenous Heritage Non Disturbance Zones.

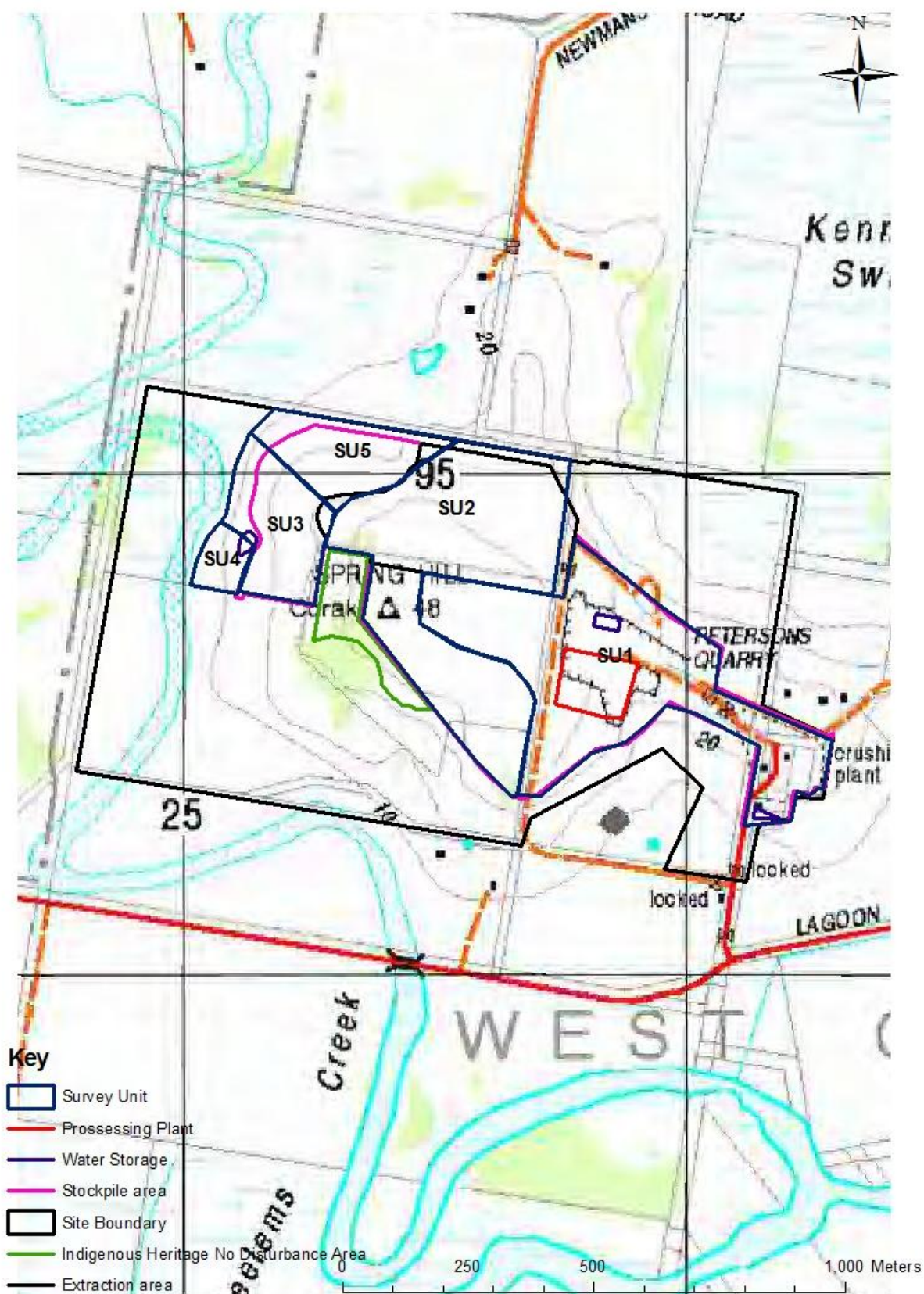


Figure 7 Proposed impacts in relations of Survey Units and Indigenous Heritage Non Disturbance Zones inclusive of Survey Unit 4.

7. AVOIDING AND/OR MINIMISING HARM

Ecologically Sustainable Development (ESD) is defined in the Protection of the Environment Administration Act 1991. Section 6(2) of that Act states that ESD requires the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

- (a) the precautionary principle,
- (b) inter-generational equity,
- (c) conservation of biological diversity and ecological integrity,
- (d) improved valuation, pricing and incentive mechanisms.

The principles of ecologically sustainable development and the matter of cumulative harm have been considered for this project. Given the low levels of prior, existing and potential future impacts in the local and regional context in which the proposed activity area is situated, the majority of cultural values, including archaeological, which attach to comparable landforms and the broader landscape remain intact across the region.

Given that the majority of area in which impacts would occur has sustained very high levels of prior impact, the proposed works would therefore occur in areas which have already received a certain level of impact and harm. Therefore, considerations of ecologically sustainable development and cumulative impacts can be considered largely irrelevant in the matter at hand.

However, no Aboriginal objects or cultural values are known to occur in the area of the proposed impacts (the development footprint). Therefore, considerations of ecologically sustainable development and cumulative impacts in regard to Aboriginal heritage are not necessary.

Avoidance or the mitigation of harm has not been considered as an option in relation to the proposed activities. However, as noted previously, Survey Unit 4 which has been defined as a Sensitive Archaeological Landform will be formalised as a Aboriginal Archaeological Conservation Zone.

A number of management strategies are possible and these are each given consideration below.

7.1 Management and Mitigation Strategies

Further Investigation

The field survey has been focused on recording artefactual material present on visible ground surfaces. Further archaeological investigation would entail subsurface excavation undertaken as test pits for the purposes of identifying the presence of artefact bearing soil deposits and their nature, extent, integrity and significance. Further archaeological

investigation in the form of subsurface test excavation can be appropriate in certain situations. These generally arise when a proposed development is expected to involve ground disturbance in areas which are assessed to have potential to contain high density artefactual material and when the Effective Survey Coverage achieved during a survey of a project area is low due to ground cover, vegetation etc.

No areas of the proposal area have been identified to warrant further archaeological investigation in order to formulate appropriate management and mitigation strategies. The archaeological nature of the proposed impact areas are relatively well established. As noted above, we have assessed the impact areas to contain very low or low density distributions of artefacts and identified it to be disturbed.

Finally, it is noted that no Aboriginal objects or survey units with potential conservation value have been identified to have a high probability of being present in the development footprint. Accordingly, test excavation conducted under OEHS *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010: 24) is not necessary.

Conservation

Conservation is a suitable management option in any situation, however, it is not always feasible to achieve. Such a strategy is generally adopted in relation to sites which are assessed to be of high cultural and scientific significance, but can be adopted in relation to any site type.

In the case at hand, the development of a Aboriginal Archaeological Conservation strategy for the area encompassed by Survey Unit 4 has been conducted during the context of this heritage assessment.

Mitigated Impacts

Mitigated impact usually takes the form of partial impacts only (i.e. conservation of part of an Aboriginal site or Survey Unit) and/or salvage in the form of further research and archaeological analysis prior to impacts. Such a management strategy is generally appropriate when Aboriginal objects are assessed to be of moderate or high significance to the scientific and/or Aboriginal community and when avoidance of impacts and hence full conservation is not feasible. Salvage can include the surface collection or subsurface excavation of Aboriginal objects and subsequent research and analysis. In the case at hand, the development of a mitigated impact strategy is not considered to be essential from an archaeological perspective.

However, given the development of a heritage conservation strategy for Survey Unit 4, this serves to mitigate development impacts.

Monitoring

Monitoring during construction for the purposes of identifying cultural material that may be uncovered during earth disturbance can be implemented as a management strategy. However, monitoring is a reactive rather than proactive strategy, and as such, is not an ideal management tool in cultural heritage management. Monitoring for artefacts is not a widely accepted method of management because sites of significance can be destroyed as monitoring is taking place and because it can result in lengthy and costly delays to development works if significant cultural material is uncovered. In the case at hand, the development of a monitoring strategy is not considered necessary or appropriate.

8. STATUTORY INFORMATION

The NPW Act provides statutory protection for all Aboriginal objects and Aboriginal Places.

An ‘Aboriginal object’ is defined as

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

An Aboriginal place is an area declared by the Minister to be an Aboriginal place for the purposes of the Act (s84), being a place that in the opinion of the Minister *is or was of special significance with respect to Aboriginal culture*.

Part 6 of the National Parks and Wildlife Act 1974 (NPW Act) provides specific protection for Aboriginal objects and declared Aboriginal places by establishing offences of harm. Harm is defined to mean destroying, defacing, damaging or moving an object from the land. There are a number of defences and exemptions to the offence of harming an Aboriginal object or place. One of the defences is that the harm is carried out under an Aboriginal Heritage Impact Permit (AHIP).

However, under Section 89J of the Environmental Planning and Assessment Act 1979, the following authorisations are not required for State Significant Development that is authorised by a development consent granted after the commencement of this Division (and accordingly the provisions of any Act that prohibit an activity without such an authority do not apply):

an Aboriginal heritage impact permit under section 90 of the National Parks and Wildlife Act 1974.

However, the management and mitigation strategies proposed in this report should form Statement of Commitments for inclusion in any Development Approval documents.

9. RECOMMENDATIONS

The recommendations are made on the basis of:

- A consideration of the relevant legislation (see Section 8 Statutory Information).
- The results of the investigation as documented in this report.
- Consideration of the type and scale of impacts proposed.

The following conclusions and recommendations are made:

1. No Aboriginal objects have been recorded in impact areas.
2. Section 7 of this report sets out possible management and mitigation strategies and these should be given consideration by the proponent and the Registered Aboriginal Party. Their implementation can occur within the framework of the Aboriginal Heritage Management Plan developed for the project.
3. During the conduct of this assessment an Aboriginal Heritage Conservation Zone has been developed for the area encompassed by Survey Unit 4.
4. An Aboriginal Heritage Management Plan (AHMP) must be developed by an archaeologist, in consultation with the NSW OEH and the Registered Aboriginal Party. The AHMP must set out the procedures relating to the management and mitigation of development impacts, a protocol for the management of unexpected finds and the conservation of relevant areas outside the extraction area.
5. The AHMP would provide the framework to ensure the conservation of heritage within Survey Unit 4 and the existing Indigenous Heritage Non Disturbance Zone.

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GLOSSARY

Aboriginal object - A statutory term, meaning: ‘... any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises NSW, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains’ (s.5 NPW Act).

Declared Aboriginal place - A statutory term, meaning any place declared to be an Aboriginal place (under s.84 of the NPW Act) by the Minister administering the NPW Act, by order published in the NSW Government Gazette, because the Minister is of the opinion that the place is or was of special significance with respect to Aboriginal culture. It may or may not contain Aboriginal objects.

Development area - Area proposed to be impacted as part of a specified activity or development proposal.

Harm - A statutory term meaning ‘... any act or omission that destroys, defaces, damages an object or place or, in relation to an object – moves the object from the land on which it had been situated’ (s.5 NPW Act).

Place - An area of cultural value to Aboriginal people in the area (whether or not it is an Aboriginal place declared under s.84 of the Act).

Proponent - A person proposing an activity that may harm Aboriginal objects or declared Aboriginal places and who may apply for an AHIP under the NPW Act.

Proposed activity - The activity or works being proposed.

Subject area - The area that is the subject of archaeological investigation. Ordinarily this would include the area that is being considered for development approval, inclusive of the proposed development footprint and all associated land parcels. In this instance, the subject area is defined as the area in which proposed impacts would take place.

APPENDIX 1

Example of letter sent to agencies:

New South Wales Archaeology Pty Limited

ABN 53106044366

PO Box 2135
Central Tilba NSW 2546
Ph 02 44737947
www.nswarchaeology.com.au

4 May 2015
Aboriginal Heritage
Regional Operations Group
Office of Environment and Heritage
Locked Bag 914
Coffs Harbour NSW 2450

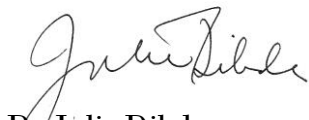
Dear Sir/Madam

Re: Coraki Quarry - Aboriginal Cultural Heritage Assessment

A new hard rock extraction quarry is proposed for Lot 401 DP 633427, Seelems Road, via Petersons Quarry Road, 2.5 kilometres northwest of Coraki. An Aboriginal Heritage Assessment is being prepared. NSW Archaeology Pty Ltd is undertaking consultation with Aboriginal people on behalf of the proponent according to the requirements stipulated in the former NSW DECCW Aboriginal cultural heritage consultation requirements for proponents, 2010. The purpose of Aboriginal community consultation is to assist the proponent in understanding Aboriginal peoples views and concerns about the project, and to understand cultural values present in the area, and to assist the NSW Office of Environment and Heritage (OEH) in a determination of an AHIP application or development determination, if and as required.

We are seeking to identify Aboriginal persons who hold cultural knowledge relevant to this project area and who may wish to register an interest in the process of community consultation. Those who choose to register will have the opportunity to provide culturally appropriate information and to comment on the cultural heritage significance of Aboriginal objects and the area. If you are aware of Aboriginal people or groups who you believe may wish to register an interest in the process of Aboriginal consultation please provide contact details to NSW Archaeology Pty Ltd on behalf of the proponent before the 18 May 2015.

Yours faithfully



Dr Julie Dibden
New South Wales Archaeology Pty Limited

Example of letter sent to potential Aboriginal RAPs:

New South Wales Archaeology Pty Limited ABN 53106044366

PO Box 2135
Central Tilba NSW 2546
Ph 02 44737947
www.nswarchaeology.com.au

18 May 2015

Aaron Talbot & Natalene Mercy
6 Bando St
Gunnedah NSW 2380

Dear Sir/Madam

Re: Coraki Quarry - Aboriginal Cultural Heritage Assessment

A new hard rock extraction quarry is proposed for Lot 401 DP 633427, Seelems Road, via Petersons Quarry Road, 2.5 kilometres northwest of Coraki. An Aboriginal Heritage Assessment is being prepared. NSW Archaeology Pty Ltd is undertaking consultation with Aboriginal people on behalf of the proponent according to the requirements stipulated in the former NSW DECCW Aboriginal cultural heritage consultation requirements for proponents, 2010. The purpose of Aboriginal community consultation is to assist the proponent in understanding Aboriginal peoples views and concerns about the project, and to understand cultural values present in the area, and to assist the NSW Office of Environment and Heritage (OEH) in a determination of an AHIP application or development determination, if and as required.

Aboriginal people with cultural knowledge relevant to determining the significance of Aboriginal objects and/or places in the area are invited to register an interest in the process of community consultation. OEH provided your details to us and indicated that you may have an interest in the area.

If you wish to, please register in writing to: Julie Dibden, NSW Archaeology PL, PO Box 2135 Central Tilba NSW 2546; ph 0427074901, before 1 June 2015. Please note that if you do register an interest, your details will be forwarded to the NSW OEH and the Bogal Local Aboriginal Land Council unless you specify that you do not want your details released.

Yours faithfully



Dr Julie Dibden
New South Wales Archaeology Pty Limited

Example of 2nd letter sent to agencies:

New South Wales Archaeology Pty Limited

ABN 53106044366

**PO Box 2135
Central Tilba NSW 2546
Ph 02 44737947
www.nswarchaeology.com.au**

7 August 2015

Aboriginal Heritage
Regional Operations Group
Office of Environment and Heritage
Locked Bag 914
Coffs Harbour NSW 2450

Dear Sir/Madam

Re: Coraki Quarry - Aboriginal Cultural Heritage Assessment

Further to my original correspondence dated 4 May 2015 in regard to a new hard rock extraction quarry for Lot 401 DP 633427, Seelems Road, via Petersons Quarry Road, a modification to the works is proposed. Quarry Solutions, the proponent, has been granted a lease by Richmond Valley Council to operate the existing Petersons Quarry on behalf of the Council. Petersons Quarry will be used as an integral part of the new Coraki Quarry project operations. Access into the Lot 401 rock resource and extraction, would occur from Petersons Quarry. The existing processing area of the Petersons Quarry would be used for the material extracted from Lot 401 and the processed material would be stockpiled on the existing Petersons Quarry site as well as the proposed stockpiling area on Lot 401.

The existing Petersons Quarry currently operates in accordance with the conditions of a consent acquired in 1985 and further modified in 2009. At that time, an Aboriginal Heritage Non Disturbance zone was proposed to be established on the western boundary of the Petersons Quarry site. This zone would be retained and respected for the proposed Coraki Quarry project.

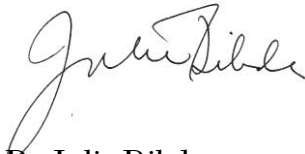
An Aboriginal Heritage Assessment is currently being prepared and NSW Archaeology Pty Ltd is undertaking consultation with Aboriginal people in accordance with the requirements stipulated in the former NSW DECCW Aboriginal cultural heritage consultation requirements for proponents, 2010. The purpose of Aboriginal community consultation is to assist the proponent in understanding Aboriginal peoples views and concerns about the project, and to understand cultural values present in the area, and to assist the NSW Office of Environment and Heritage (OEH) in a determination of an AHIP application or development determination, if and as required.

In light of the modification as described above, we are seeking to identify Aboriginal persons who hold cultural knowledge relevant to this project area and who may wish

to register an interest in the process of community consultation. Those who choose to register will have the opportunity to provide culturally appropriate information and to comment on the cultural heritage significance of Aboriginal objects and the area.

If you are aware of Aboriginal people or groups who you believe may wish to register an interest in the process of Aboriginal consultation please provide contact details to NSW Archaeology Pty Ltd on behalf of the proponent before the 21 August 2015.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Julie Dibden', written in a cursive style.

Dr Julie Dibden

New South Wales Archaeology Pty Limited

Advertisement:

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www.northernstar.com.au

Notices Public Notices A new hard-rock extraction quarry is proposed for Coraki located 2.5 kms northwest of the township. The project site is Lot 401 DP 633427, Seelens Road via Petersons Quarry Road. An Aboriginal Heritage Assessment is being prepared. Aboriginal people with cultural knowledge relevant to determining the significance of Aboriginal objects and/or places in the area are invited to register an interest in the process of community consultation. The purpose of community consultation with Aboriginal people is to assist the proponent with the preparation of an Aboriginal Cultural Heritage Assessment. Please register on behalf of the proponent, to NSW Archaeology PL, PO Box 2135 Central Tilba NSW 2546, before 20 May 2015.	Jobs Banking, Finance & Insurance PARAPLANNER A local Boutique life insurance & financial planner is looking for an experienced paraplanner or back office worker. Salary and hours negotiable for the right applicant. Experience with Xplan is preferred Contact: 02 66876082 or 0428607353 Email trish.carterfinancial@bigpond.com	General Vacancies BUNDABERG SUGAR <i>Looking for a lifestyle change?</i> We require two Shift Supervisors for our Millaquin and Bingera sites in Bundaberg. These positions offer challenging and rewarding results for candidates who excel in their work as supervisors for sugar factory operations. Duties will include the maintenance of factory operations to meet rate, lost time, sugar quality, recovery and customer interface requirements as well as the monitoring mill performance. To apply or for further information contact: applications@bundysugar.com.au Or refer to our website www.bundysugar.com.au An Equal Opportunity Employer	
Found Border Collie X Found Young male, about 6 mths old Found wandering at Lagoon Grass Monday eve, 4th May Please telephone 0405 134 363	Medical & Healthcare RSL LifeCare Care Staff Night Shifts, Permanent Part-time & Casual Positions Florence Price Gardens Ballina is a new 120 bed aged care home providing exceptional aged care to the local community. We are seeking qualified care staff for night shifts on a casual and permanent part-time basis. Essential Criteria: • Certificate 3 in Aged Care or equivalent • Experience in residential care; plus skills and experience working within dementia specific areas will be highly regarded • Current National Criminal History Check This is an opportunity to work with a quality leading provider in Aged Care Services. You will enjoy benefits, including a thorough orientation and training program and a tremendous sense of self-worth and achievement. Please send your resume or any enquiries to: Pamela Robertson - Manager Email: pamela.robertson@rslifecare.org.au or Phone: 02 6681 9016 or 0419 996 679 Applications open to: 15 May 2015	Experienced Traffic Controller Supervisors Required for long-term local work Starting 1st June. Must have current red card and ideally first aid certificate. Please email resumes to nswtraffic@workforce.com.au	Hospitality, Tourism & Travel Cook Required Applicants should hold formal cooking qualifications and have knowledge of a range of cooking techniques and use of ingredients. Good English required as well as the ability to work well with others. This is a full-time position working 38 hours a week. To apply, please apply to cypustreety@bigpond.com, Byron Bay 2481. E: cypustreety@bigpond.com
Jobs Accounting Accountant Position We are seeking a full time Accountant for approx 15 months to cover a maternity leave period. The Accountant is responsible for weekly reporting, month end close, monthly profit and loss, financial reporting, variance analysis, general ledger and bank reconciliations, monthly BAS preparation, FBT, maintenance of Fixed Asset registers. Required skills:- Ability to perform under pressure, meet deadlines, accurate data entry skills, excellent Excel skills, Word, Outlook, knowledge of SAP software an advantage. Qualifications:- Relevant tertiary degree, CPA desirable, minimum 5 years experience. Salary - negotiable Please apply by forwarding your application letter and resume by 8 May 2015: Accountant Position Macadamia Processing Co Limited 2 Cowlong Road Alphadale via Lismore 2480 Or email to reception@mpcmacs.com.au	Surgical Specialty Clinic Receptionist Leading surgical specialty clinic is looking for an enthusiastic and energetic Receptionist to be an integral part of our busy team. Dental or Medical nursing experience will be required to fulfil this position, as well as, great administration and organisational skills; strong computer knowledge, good listening skills, able to show initiative and communicate effectively within a team. A great opportunity to extend your skills in a specialist field. Please email letter of application and resume to manager@maxlifefacial.com.au	GOT YOUR EYE ON SOMETHING SPECIAL??? Earn Extra \$\$\$ Delivering Catalogues into Letterboxes • Enthusiastic and reliable people are needed for immediate start in ALSTONVILLE, LISMORE, GOONELLABAH, LISMORE HEIGHTS, WOLLONGBAR on an independent contracting basis • Car an advantage Apply NOW at www.deliver4dollars.com.au (visit to learn more) or phone 1800 178 119 Please enter Ref No 1614 in application SALMAT - www.salmat.com.au	Restaurant Manager wanted Lennox Head For busy Asian restaurant in Lennox Head. Diploma of Management and on the job training required. Salary \$53900 plus super. Contact: Ricky 0418 193 138
Accounting Staff (Multiple positions) TURSA is seeking applications from suitably qualified persons with previous accounting experience to be based in our Lismore head office Accounting Unit. Administrative Assistant—Accounting Administrative Assistant—Data Entry Applicants who are highly organised, and display a proven ability to multi-task, are encouraged to apply. High volume payroll experience would be highly regarded. Further information regarding these roles, selection criteria, and application details are available on www.tursa.com.au Applications Close: COB Tuesday 5th of May 2015	General Vacancies LISMORE SHOPPING Square MARKETING MANAGER An exciting opportunity exists for a full time Marketing Manager with drive and flair to join our busy retail team. Responsibilities: • Manage ongoing execution of the brand program • Formulate and manage marketing budgets • Conduct market research to identify new opportunities • Build strong relationships with retailers, and understand their business • Manage social media platforms and website • Merchandising and presentation of centre • Develop and execute centre events, campaigns, competitions • Assisting in the day to day running of the Centre to be considered you will need: • At least two years of marketing experience is favourable • Sound computer skills (Microsoft Office Suite) • A clear and confident communication style • A strong work ethic and desire to be a team member • Be a creative thinker • Previous shopping centre marketing experience favourable An attractive package, commensurate with experience will be negotiated. Applications close 15th May 2015 If you would like to be part of our friendly, supportive and professional team, please email your covering letter and confidential CV to enquiries@lismoreshoppingsquare.com	Harvey Norman Harvey Norman is seeking a Part Time Debtors Clerk for the Ballina store. Previous experience preferred but not essential. Please apply: theresa.mccluskie@ou.harveynorman.com	Apprentice Chef Wanted South Lismore Bowling Club looking for an Apprentice Chef to join the team. No qualifications needed Please call 02 66213510 or send resumes to slbc@onestream.com.au Applications close Friday 15th May
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Wednesday, May 6, 2015

Northern Star

Proposed project information, consultation process and project methods documents:

PROJECT DESCRIPTION AND PROPOSED CULTURAL HERITAGE ASSESSMENT AND CONSULTATION PROCESS

Coraki Quarry - Aboriginal Cultural Heritage Assessment

PROPOSED PROJECT INFORMATION

NSW Archaeology Pty Ltd has been commissioned by Groundwork Plus on behalf of Quarry Solutions Pty Ltd to conduct a formal process of Aboriginal Consultation in relation to a proposed quarry development as described below.

This document is being provided to Registered Aboriginal Parties (RAPs) for the purposes of providing information in regard to the project and agreeing on outcomes relating to the assessment process.

Groundwork Plus is preparing a development application for an Extractive Industry at Seelems Road (via Petersons Quarry Road), Coraki New South Wales (the Site) on land described as Lot 401 DP633427 (the proposed activity area – see map below). The approximate area of Lot 401 DP633427 is 23.06 hectares. Activities would occur on approximately half of the lot.

It is noted that access to the site is from Seelems Road via Petersons Quarry Road through Lot 403 on DP802985.

The site has an elevation of approximately 4m-41m AHD. Toward the east where the extraction would occur, the area is elevated from the areas to the west and north with elevations between 32m-40m AHD.

The land consists of mainly open grassland with minor patchy scrub at lower elevations towards Seelems Creek. An area of lowland rainforest exists on the adjoining Petersons Quarry to the south of the Site and extending into Lot 403 on DP802985 (where access is proposed).

The map below shows the location of the proposed quarry and access road in relation to an existing quarry.



PROPOSED CULTURAL HERITAGE ASSESSMENT AND CONSULTATION PROCESS

The cultural heritage assessment process for this project would be conducted in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (NSW DECCW). The NSW Office of Environment and Heritage - OEH (formally DECCW) manages Aboriginal cultural heritage in NSW in accordance with the National Parks and Wildlife Act 1974. Part 6 of the Act provides specific protection for Aboriginal objects and Aboriginal places by administering offences for harming them without authorisation. When an activity is likely to impact Aboriginal objects or declared Aboriginal Places, approval of the OEH is required, issued in the form of an Aboriginal Heritage Impact Permit (AHIP).

NSW OEH requires effective consultation with Aboriginal people because it recognises that:

- Aboriginal people should have the right to maintain culture, language, knowledge and identity;
- Aboriginal people should have the right to directly participate in matters that may affect their heritage; and
- Aboriginal people are the primary determinants of the cultural significance of their heritage.

The purpose of the NSW OEH Aboriginal Cultural Heritage Consultation Requirements for Proponents document (NSW DECCW 2010) is to facilitate positive Aboriginal cultural heritage outcomes by:

- affording an opportunity for Aboriginal people who hold cultural knowledge relevant to determining the significance of Aboriginal object(s) and/or place(s) in the area of the proposed project to be involved in consultation so that information about cultural significance can be provided to NSW OEH to inform decisions regarding applications for an AHIP; and
- providing Aboriginal people who hold cultural knowledge relevant to determining the significance of Aboriginal object(s) and/or place(s) in the area of the proposed project with the opportunity to participate in decision-making regarding the management of their cultural heritage by providing proponents with information regarding cultural significance and inputting into management options (NSW DECCW 2010).

The ACHCRP requirements outline four main consultation stages to be implemented in the course of consultation undertaken with Aboriginal people (these are outlined below). In summary, the consultation process involves getting the views of, and information from, Aboriginal people and reporting these.

In order to fulfil the consultation requirements, NSW Archaeology Pty Ltd, on behalf of the proponent, proposes to implement the following procedure:

Stage 1 Notification of project proposal and registration of interest.

This stage is already underway, and the aim is to identify, notify and register Aboriginal people who hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and/or places in the proposal area.

- NSW Archaeology, on behalf of the proponent, has sought to identify the names of Aboriginal people who may hold cultural knowledge relevant to determining the significance of Aboriginal objects and/or places. An advertisement has been placed in the local paper and letters have been written to various agencies.
- As we receive registrations of interest, NSW Archaeology is making a record of the names of each Aboriginal person or group who has registered an interest. Unless it is specified by a registered Aboriginal party that they do not want their names released, the list of names will be provided to OEH and the Local Aboriginal Land Council.
- Where an Aboriginal organization representing Aboriginal people who hold cultural knowledge has registered an interest, a contact person for that organization must be nominated. We rely on that organization to make these arrangements. Where Aboriginal cultural knowledge holders have appointed a representative to act on their behalf, this information must be provided in writing to NSW Archaeology.

Stage 2 Presentation of information about the proposed project

The aim of this stage is to provide Registered Aboriginal Parties with information about the scope of the proposed project and the proposed cultural heritage assessment process.

- The proponent has engaged NSW Archaeology to conduct the consultation process. It is therefore the role of Julie Dibden, NSW Archaeology, to co-ordinate the assessment process. Aboriginal parties are invited to define their role, function and responsibility in this process.
- All Registered Aboriginal Parties are invited to identify, raise and discuss any cultural concerns, perspectives and assessment requirements (if any). In this regard Registered Aboriginal Parties should contact Julie Dibden, and this may be done in writing or by telephone.
- Provision of project information and the proposed cultural heritage process is provided to Registered Aboriginal Parties as per this document and the accompanying *Methodology* document.
- If further information is required in regard to the proposal this will be provided to Registered Aboriginal Parties upon request. If necessary, additional information about the project will be provided; this may entail a project site visit.
- A record will be made that the proposed project information has been submitted. A record of any agreed outcomes and any contentious issues that

may require further discussion to establish mutual resolution (if applicable) will be made and provided to Registered Aboriginal Parties.

- All comments and feedback in regard to the Consultation Process and Project Methodology should be provided to NSW Archaeology within 28 days.

Stage 3 Gathering information about cultural significance

The aim of stage 3 is to facilitate a process whereby Registered Aboriginal Parties can contribute to culturally appropriate information gathering and the project methodology, provide information that will enable the cultural significance of Aboriginal objects and/or place in the proposal area to be determined, and to have input into the development of cultural heritage management options.

- A proposed methodology for the cultural heritage assessment will be provided to Registered Aboriginal Parties for review. Any comments in regard to the methodology should be provided to Julie Dibden, NSW Archaeology, within 28 days. Any protocols that Registered Aboriginal Parties wish to be adopted into the information gathering process and assessment methodology, and any other matters should be provided in writing or may be sought by the consultant.
- As a part of consultation, NSW Archaeology, on behalf of the proponent, seeks cultural information from Registered Aboriginal Parties to identify whether there are any Aboriginal objects or places of cultural value to Aboriginal people in the proposal area and if so, to uncover knowledge about their context in order to reveal their meaning and significance. Registered Aboriginal Parties who wish to contribute to this process should make contact with Julie Dibden (within 28 days) so that appropriate arrangements regarding collecting cultural knowledge can be made.
- If any information obtained is sensitive, appropriate protocols will be developed and implemented for sourcing and holding sensitive information.
- Registered Aboriginal Parties are invited to identify, raise and discuss any cultural concerns, perspectives and assessment requirements by telephone or in writing to Julie Dibden, NSW Archaeology, within 28 days.
- All feedback received from Registered Aboriginal Parties will be documented in the Aboriginal cultural heritage assessment report as appropriate.

Stage 4 Review of Draft Cultural Heritage Assessment Report

The aim of this stage is to prepare and finalise an Aboriginal cultural heritage assessment report with input from Registered Aboriginal Parties.

- A draft report will be compiled.
- The draft report will be provided to Registered Aboriginal Parties for review and comment.
- Any comments in regard to the report should be provided to Julie Dibden, NSW, within 28 days.

- After considering comments the report will be finalised and copies will be provided to registered Aboriginal parties. The final report will include copies of any submissions made and the proponents response to any submissions.

PROPOSED METHODOLOGY FOR THE INDIGENOUS HERITAGE (CULTURAL AND ARCHAEOLOGICAL) ASSESSMENT

Coraki Quarry - Aboriginal Cultural Heritage Assessment Aboriginal Cultural Heritage Assessment

NSW Archaeology Pty Ltd has been commissioned by Groundwork Plus to conduct a formal process of Aboriginal Consultation in relation to the proposed Coraki Quarry (the proposed activity area – see map below). The proponent is preparing an Aboriginal Cultural Heritage Assessment for the proposed development.

NSW Archaeology Pty Ltd is undertaking consultation with Aboriginal people on behalf of the proponent according to the requirements stipulated in the former NSW DECCW Aboriginal cultural heritage consultation requirements for proponents, 2010.

NSW Archaeology Pty Ltd is a consultancy specialising in Indigenous cultural heritage management, and aims to prepare assessments of a high standard to satisfy all stakeholders including the local Aboriginal community and the NSW Office of Environment and Heritage – OEH.

The project will be conducted in accordance with the requirements of the OEH *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* and the *DECCW 2010 Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales*. In addition the study is being undertaken following the requirements for *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (ACHCRP) (NSW DECCW 2010).

In accordance with the process as outlined in *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (ACHCRP) (NSW DECCW 2010), this methodology is being provided to all Aboriginal groups/individuals who have registered an interest in this process of consultation. The purpose of providing registered stakeholders with this methodology is for stakeholders to review and provide feedback to the consultant, including identification of issues/areas of cultural significance that might affect the methodology. Stakeholders are invited to make a written response to this proposed methodology within 28 days.

The methodology which is proposed to be implemented during this project is set out below.

It is proposed that the assessment of cultural heritage values of the project area will entail the following aspects as defined in the OEH *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW*:

Review of background information: Definition and mapping of the physical landscape; reviewing historic values via recourse to written and oral histories and existing heritage data bases; and define the material evidence of Aboriginal land use via review of previous

research, development of predictive model and a field inspection and survey (the latter to be documented in a survey report). Any information received from registered Aboriginal parties will be used in this process. Registered Aboriginal parties are invited to inform Julie Dibden in regard to areas, objects and places of cultural value in the proposed activity area.

Initiate ongoing consultation in accordance with the OEH's Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010. Information is sought from registered Aboriginal parties on whether there are any Aboriginal areas, objects or places of cultural value to Aboriginal people in the proposed activity area.

Identify and assess the cultural heritage values: Upon receipt of information that would enable the cultural significance of Aboriginal areas, objects and/or places in the proposed activity area to be determined, the range of social, historical, scientific and aesthetic values present across the study area would be identified, mapped, and assessed as to why they are important. A field survey will be undertaken.

Assess harm of the proposed activity: Identification of the nature of the proposed activity and any potential harm to Aboriginal areas, objects and/or places. This would take into consideration the principles of ecologically sustainable development (ESD) if relevant.

Develop harm avoidance and/or minimisation strategies: Registered stakeholders would be invited to have input into the development of cultural heritage management options. The development of avoidance and/or minimisation strategies if required would commence in the field, and be developed further within an Aboriginal cultural heritage assessment report.

Documentation of Findings: An Aboriginal cultural heritage assessment report would be prepared. The report would be prepared in accordance with the report outline as set out in OEH's *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW*.

A draft copy of the report will be provided to all Aboriginal groups or individuals who register an interest in this project for review and comment.

Upon review of this proposed methodology, registered stakeholders are invited to make submissions relating to the information gathering and assessment methodology, and any matters such as issues/areas of cultural significance that might affect, inform or refine the assessment methodology, to Julie Dibden within 28 days. All feedback received will be documented in the cultural heritage assessment report, which will include copies of submissions received and the proponents response to issues raised.