

# Cultural Heritage Survey and Assessment For Speers Point Quarry

Prepared by:

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## **Executive Summary**

Lake Macquarie City Council is investigating a draft amendment to the 2004 *Lake Macquarie Environmental Study* for an area of land on the south western side of Munibung Hill known as Speers Point Quarry. RPS has been commissioned by Lake Macquarie City Council to provide a cultural heritage survey and assessment as part of a Local Environment Study to inform the proposed amendment.

The study area of 80.1 hectares, near Munibung Hill, is known as Speers Point Quarry and is bounded to the north by undeveloped land associated with the previous Cockle Creek Sulphide works. The east boundary has undeveloped and farm lands while the south and west area are largely bounded by the residential suburb of Speers Point.

A desktop survey of previous research, historic and ethnographic records revealed that the area known as Munibung Hill held ceremonial and spiritual significance for the Awabakal people. With regards to this, parts of Munibung Hill have been recommended for investigation for gazettal as an Aboriginal Place under Section 84 *National Parks and Wildlife Act 1974* (Lake Macquarie City Council 2009:5.17). The study area is flanked to the east, west and south by resource rich environments associated with creeks, wetlands and the Lake Macquarie foreshore. This would indicate high potential for Aboriginal use of both the study area and surrounding area.

Letters in accordance with the Interim Community Consultation Guidelines were mailed (13 January 2010). There were no respondents to the advertisement and subsequently Koompahtoo Local Aboriginal Land Council (Koompahtoo LALC) and Awabakal Descendants Traditional Owners Aboriginal Corporation (ADTOAC) were invited to participate. Shane Frost (ADTOAC) participated in the survey on 15 and 16 February 2010. Koompahtoo LALC registered an interest in the project and indicated an ability to participate on the agreed survey days. However, on the agreed survey day a number of phone calls were made to Koompahtoo LALC to obtain a sites officer to participate in the survey without success.

The survey initially recorded six Aboriginal cultural heritage sites. One further site was located and recorded in May 2011. No European heritage sites were noted or recorded.

No evidence was seen of stone arrangements recorded in the nineteenth century as being associated with Aboriginal ceremonial and spiritual sites. Five of the Aboriginal cultural heritage sites recorded consisted of isolated stone artefacts or small stone artefact scatters. One site recorded was a grinding groove most likely associated with the processing of food.

It is considered that the lack of evidence of sites of ceremonial or spiritual significance does not reduce the value that Aboriginal people put on the area. The relative lack of sites recorded during this survey may lend weight to the areas special role in Awabakal culture.

Dense vegetation and ground cover resulted in less than satisfactory survey coverage in some sections of the study area.

This survey and report were produced to inform the potential amendment and should be considered as a preliminary assessment therefore the following recommendation is made:

#### **Recommendation 1**

Any proposed development of the Speers Point Quarry study area should be informed by a full and comprehensive investigation of the area's Aboriginal and European cultural heritage values.

#### That investigation should be informed by the following recommendations:

#### It is considered with regards Aboriginal cultural heritage;

#### **Recommendation 2**

Investigation and consultation should occur into the gazettal of the ridgelines (Figure 8.1) as an Aboriginal Place under s.84 of *the National Parks and Wildlife Act (1974)*. If the ridgelines are not declared an Aboriginal Place any ground works, including remedial environmental work should be preceded by a targeted archaeological investigation. If any ground works are to occur that may impact on the Aboriginal cultural heritage sites recorded during this archaeological investigation then it will be necessary to apply for an Aboriginal Heritage Impact Permit to DECCW.

#### **Recommendation 3**

The valleys (Figure 8.1) should be designated as archaeologically sensitive in terms of Aboriginal cultural heritage. Any ground works to be carried out in these areas, including vegetation clearance should be preceded by a targeted archaeological investigation that may include both survey and test excavations. If any ground work occurs that may impact on the Aboriginal cultural heritage site recorded during this survey then it will be necessary to submit a s.90 application to DECCW.

#### **Recommendation 4**

The central valley and western slope (Figure 8.1) is not considered archaeologically sensitive and it is considered there is no impediment on Aboriginal or European cultural heritage grounds to works occurring.

#### **Recommendation 5**

During the course of proposed construction work, if suspected Aboriginal cultural heritage material is encountered, work should cease in that vicinity immediately and the DECCW, ADTOAC and New South Wales Aboriginal Land Council acting for Koompahtoo LALC immediately notified. Works should only recommence when an appropriate and approved management strategy has been agreed to by relevant stakeholders.

#### **Recommendation 6**

In the event that skeletal remains are uncovered whilst operations are underway, work is to stop in the vicinity immediately, the NSW Coroner's Office and NSW Police contacted. If the remains are deemed to be of Aboriginal origin, a representative of ADTOAC, New South Wales Aboriginal Land Council acting for Koompahtoo LALC and DECCW are also to be contacted.

#### With regard European cultural heritage;

#### **Recommendation 7**

While no European cultural heritage items were noted it is important to note that two graves and the Lochend mine (Section 4.1.2) were historically recorded within the study area. Any works should be mindful of the possibility of their presence with due care taken in the vicinity of the area areas designated in Figure 4.1.

#### **Recommendation 8**

If, during the course of clearing work, significant European cultural heritage material is uncovered, work should cease in that vicinity immediately. A significance assessment by a suitably qualified archaeologist adhering to the NSW Heritage Branch significance criteria should be carried out and the NSW Heritage Branch should be notified if significant historical items are identified. Works should only recommence when an appropriate and approved management strategy is instigated.

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## I Introduction

Lake Macquarie City Council is investigating a draft amendment to the 2004 *Lake Macquarie Environmental Study* for an area of land on the south western side of Munibung Hill known as Speers Point Quarry. RPS has been commissioned by Lake Macquarie City Council to provide a cultural heritage survey and assessment as part of the Local Environment Study to inform the proposed amendment.

### 1.1 The Study Area

The study area near Munibung Hill is known as Speers Point Quarry and is bounded to the north by undeveloped land associated with the previous Cockle Creek Sulphide works. The east boundary has undeveloped and farm lands while the south and west area are largely bounded by the residential suburb of Speers Point. The area, 80.1 hectares in size will now be referred to as the study area.

Lot	DP
1	210440
1	321254
1	105845
2	105845
1	557315
21	790637

The area encompasses the following Lot and DP numbers:

In terms of previous development in the central section of the study area there are two redundant quarry pits (A and B) that are separated by a vegetated ridgeline and the footprint of a water reservoir removed previously. In the north western sector is a further small water reservoir.

The remaining area appears undeveloped; however, previous uses likely include grazing and possibly other farm related activities. Vegetation on the ridgelines and upper slopes consists of sparse tree cover and dense pasture grasses while the narrow valleys are largely impenetrable due to dense vegetation. Numerous dirt access tracks occur across the area particularly along the ridgelines.

### 1.2 Background

There is evidence that prior to European settlement the area now known as Munibung Hill had spiritual and ceremonial significance for the local Awabakal people (Threlkeld in Gunson 1974:64). Following settlement the study area appears to have been used for farming and grazing with at least one small coal mine within the study area. The hilly nature of the area meant that, while the surrounding area was eventually subdivided for residential use, the study area remained undeveloped. Around the end of the nineteenth

century A. G. Hawkins acquired the land to establish a quarry with gravel extraction conducted here by various entities until 2007. It seems that the only use for the remainder and majority of the study area has been for grazing and/or farming.

### 1.3 Legislative Context

It is incumbent on any land manager to adhere to legislative requirements that protect both Aboriginal cultural heritage and European cultural heritage in NSW.

The primary state legislation relating to Aboriginal cultural heritage in NSW is the National Parks and Wildlife Act (1974), as amended. The legislation is overseen by the Department of Environment, Climate Change and Water (DECCW), and specifically the Director-General of the DECCW.

The primary NSW State legislation in relation to historic matters is covered by the NSW Heritage Act 1977 and matters relating to this legislation should be directed to the NSW Heritage Branch.

Appendix 1 details the various relevant legislative Acts.

### 1.4 **Scope of Assessment**

This cultural heritage report has incorporated a desk top review and a pedestrian survey of the study area. The objective was to determine through a desk top review if there was likelihood for Aboriginal and European historic sites to occur and through field survey test that premise.

The Aboriginal cultural heritage impact assessment component of this report is written in accordance with the National Parks and Wildlife Act of 1974 (NPW Act) and meets all of the requirements of the NPWS survey and assessment writing guidelines (1997). A review of the documentary evidence includes a search of the Department of Environment Climate Change and Water (DECCW) Aboriginal Heritage Information Management System (AHIMS) database (Appendix 2).

The European heritage component of the report was written with guidelines detailed in the NSW Heritage Manual (1994) issued by the NSW Heritage Branch.

### 1.5 Aboriginal Community Consultation

An advertisement was placed in the Newcastle Herald on 15 February 2010 and the Express Advocate on 16 February 2010. Letters in accordance with the Interim Community Consultation Guidelines were mailed (13 January 2010). There were no respondents to the advertisement and subsequently Koompahtoo Local Aboriginal Land Council (KLALC) and Awabakal Descendants Traditional Owners Aboriginal Corporation (ADTOAC) were invited to participate.

Shane Frost (ADTOAC) participated in the survey on 15 and 16 February 2010.

Koompahtoo LALC registered an interest in the project and indicated an ability to participate on the agreed survey days. However, on the survey day a number of phone calls were made to Koompahtoo LALC to obtain a sites officer to participate in the survey without success. Koompahtoo LALC during the course of the writing of this report ceased to exist in its previous capacity and is now administered by the NSW Aboriginal Land Council.

In May 2011 Shane Frost contacted RPS to advise that he had located another site, a rock shelter, within the study area. He requested that it be included in this report and it was accordingly surveyed and recorded.

A copy of this report will be forwarded to participants for comment. The Consultation Log can be found at Appendix 3.

### 1.6 Limitations

The desk top review was limited to all available documents with regard to the study area. The pedestrian based survey covered all landform types occurring in the study area with existing tracks providing good visibility. Away from these tracks visibility was nil to low with dense ground cover and leaf litter limiting ground surface visibility.

### 1.7 Authorship and Acknowledgements

This report was written by Laraine Nelson, Senior Archaeologist and Anna Nardis, Graduate Archaeologist and reviewed by Darrell Rigby, Archaeology Manager, all of RPS. The authors would like express their appreciation for the assistance given by the following people:

- Pam Dean-Jones. Project Manger. Sustainable Management of Aboriginal Cultural Heritage in the Lake Macquarie Local Government Area.
- Julie Christie. Information Services Librarian. Lake Macquarie City Library

### **1.8 Terms and Conditions**

AHIMS
ADTOAC
DECCW
Koompahtoo LALC
LMCC
LEP
LGA
NPWS
PAD

## 2 Environmental Context

The environmental context section of the report describes data relevant to the specific survey area and to broader areas. Environmental factors included are geology, climatic conditions, topography and hydrology and the likely availability of flora and fauna resources. This information is assessed and used to predict what the environment was like in the past. Interactions between people and their specific surroundings are important in considering both the initial formation of the archaeological record and its preservation.

## 2.1 Geology and Soils

The study area comprises primarily the Cedar Hill soil landscape with small portions of the Stockrington soil landscape. The Stockrington is a colluvial soil landscape comprising steep slopes on Permian sediments with occurrences on steep east facing slopes around Cardiff Heights (Mattei 1995:99). Cedar Hill is also a colluvial landscape with moderate to steep slopes on Permian siltstone and claystones, with a major occurrence recorded at Speers Point (Mattei 1995:73). Both these soil types are also commonly associated with the Awaba Hills and Sugarloaf ranges to the north and west of the study area.

The Newcastle Coal Measures underlie the study area and are associated with the shale, mudstone, sandstone, coal, tuff and clay (Mattei 1995:73&99). Mudstone and tuff are important stone resources which were often used in the production of Aboriginal stone tools. Rocky outcrops are absent; however, conglomerate boulders may occur on lower slopes and benches and such boulders may have been exploited by Aboriginal people for raw materials.

A description of both Cedar Hill and Stockrington soil landscapes is detailed in Table 2.1.

	Ce1	Ce2	Sna1
Colour	Black to brownish black	Brown, bright brown to dark brown but may range to yellowish brow	Black, occasionally brownish black or dark brown
Landform element	Silty clay loam to silt loam, or fine sandy loam	Silty to Medium Clay	Sandy loam through sandy clay loam to clay loam sandy
Features	High mass movement hazard, high foundation hazard, steep slopes, Mine Subsidence District, acid soils	High mass movement hazard, high foundation hazard, steep slopes, Mine Subsidence District, acid soils	Low slopes (< 20%), mass movement hazard, water erosion hazard, foundation hazard
Structure	Moderate, 10 – 20mm sub angular blocky	Strong, 20 – 50mm angular or sub angular blocky peds	Weak to moderate, 10 – 20mm sub angular blocky or occasionally polyhedral peds
pH level	Moderately (pH 5.5) to slightly acid (Ph 6.5)	Strongly (pH4.5) to slightly acid (pH6.0)	Slightly acid (pH 6.0 – 6.5)

#### Table 2-1: Soils profile

	Ce1	Ce2	Sna1
Permeability	Moderate	Slow	High
Erosion	Moderate	Moderate	Low
Fertility	Moderate to High	Moderate to High	Moderate

## 2.2 Topography and Hydrology

The study area, on the northern end of Lake Macquarie, is dominated by a high ridge system with moderate to steep slopes. There are three drainage lines and associated valleys, two leading from the ridge system in a westerly direction and a third from the ridge system leading in an easterly direction.

The topography of the study area within the Stockrington soil landscape comprises steep upper slopes with slope length of 200 - 500m. The steep upper slopes have gradients of 25 - >40%. Local relief is up to 180m. Colluvial benches and lower slopes have gradients of 15 - 20%. Terracetting and hummocky surfaces are common (Mattei 1995:99).

The Cedar Hill soil landscape comprises steep upper slopes with gradients of 15 - 40% and relief is up to 100m and elevation is 50 - 100m. Short steep upper slopes lead to narrow, rounded benches. The drainage lines are narrow and incised and terracettes are common with rock outcrop present (Mattei 1995:73).

The topography and hydrology suggest that some sections of the study area would provide a favourable environment for Aboriginal occupation. Freshwater resources available from the nearby creek and a diverse local habitat would have provided a variety of food and other exploitable resources.

Those parts of the study area with steep sections are inaccessible and are unlikely to be used as areas of occupation.

The crests of the ridgelines are considered, with regard ethnographic evidence, to have significant potential to have been an important part of the Awabakal spiritual and ceremonial world (Threlkeld in Gunson 1974:64).

### 2.3 Climate

Approximately 18,000 years ago climatic conditions began to change affecting the movement and behaviour of past human populations in their environments. During this time, notably at the start of the <u>Holocene (11,477 years ago)</u>, the melting of the ice sheets in the Northern Hemisphere and Antarctica caused the sea levels to rise, with a corresponding increase in rainfall and temperature. The change in climatic conditions reached its peak about 6,000 years ago (Short, 2000:19-21). Up until 1,500 years ago, temperatures decreased slightly and then stabilised about 1,000 years ago, which is similar to the temperature currently experienced. Consequently, the climate in the locality of the Study Area for the past 1,000 years would be much the same as present day providing a year round habitable environment.

The climatic conditions will impact upon the soils, vegetation and the potential occupation of an area. They may also affect the durability of associated cultural materials. The area has a warm temperate to sub humid climate which is dominated by high and low pressure systems in accordance with coastal environments. In the summer months the area will experience onshore winds with hot and humid weather. In the winter months the offshore winds will produce cool to mild and drier weather with frosts developing in low lying areas (Australian Bureau of Meteorology, 2009). Average temperatures throughout the year can range between a minimum of 4.6 degrees in July and maximum 27.5 degrees Celsius in January. Summer and autumn seasons are the wettest and produce an average rainfall of 153.4mm in February and a minimum of 68.5mm in September (Australian Bureau of Meteorology, 2009).

These regional temperatures would be suitable for occupation for the majority of the year, with appropriate shelter required during the cool and wet periods.

## 2.4 Flora and Fauna

A flora and fauna assessment of the study area (RPS 2010) identified three natural vegetation communities based on the Draft Natural Vegetation of the Lake Macquarie Local Government Area (Bell, 2009) They are:

- Coastal Narrabeen Moist Forest (MU 6). This community occurs along the drainage lines in the central and north-eastern area and covers approximately 4.14 ha of the study area although dense stands of exotic species, predominately Lantana, occur.
- Coastal Foothills Spotted Gum- Ironbark Forest (MU 15) this vegetation community covers approximately 32.67 ha of the upper slopes and ridges on the eastern portion of the study area. This community includes grassland with scattered remnant trees as well as areas of forest.
- Coastal Wet Gully Forest (MU 1). This vegetation community covers approximately 3.97 ha and occurs along drainage lines in southern end of the study area. This vegetation community is dominated by dense stands of Pittosporum undulatum (Sweet Pittosporum) and Ligustrum sinense (Small-leaved Privet).

Along the north-western portion and the two quarry areas are highly disturbed lands that comprise approximately 38.60 ha of the study area these are characterised by grasslands with scattered trees and shrubs.

The moderate to low fertility of both Stockrington and Cedar Hill soil type, but in particular the Cedar Hill soil type, results in low diversity of flora and fauna resources (Mattei 1995:75&101). With regard to Aboriginal occupation the area offered diversity; with two soil landscapes and drainage lines within the study area. In close proximity were the lake foreshore to the south; wetlands to the west and a permanent creek to the east; these characteristics provided significant potential for a diversity of resources to exist.

### 2.5 Condition of the Study Area

The study area has been severely affected by past land use practices. Vegetation cover up, until the late twentieth century, had been severely impacted on by the presence of fallout from the nearby Sulphide works, historic photographs from that period show a denuded landscape (Lake Macquarie Historic Photograph Collection).

In addition substantial quantities of material have been removed through quarrying practices at A and B Quarry and at another quarry (Council Quarry) just outside the southern border of the study area.

Unsurfaced vehicle tracks are common throughout the area particularly on the ridgelines resulting in some eroded gullies.

### 2.6 **Discussion**

The study area is unlikely to have been used on a regular basis for camp site occupation. The ethnographic record suggests that the range of high hills we now know as Munibung Hill was important in the spiritual and ceremonial life of the Awabakal people (Threlkeld in Gunson 1974:64).

The possible scenario for habitation in the area has camps around the foreshore of Lake Macquarie to the immediate south. The lake foreshore to the east and the west had a complexity of environments with lake, freshwater streams, wetlands and forests that were favoured by the Aboriginal people. The valleys within the study area with the fresh water available in drainage lines and flat terraces would have been potential camp sites as well.

The section of the study area dominated by high ridgelines was more likely used for ceremonies with the recording of bora grounds by Threlkeld (In Gunson 1974:66). Steep terrain would have meant difficulties in accessing some parts of the study area.

# 3 Aboriginal Prehistory

Early evidence of Aboriginal occupation around coastal Lake Macquarie was obtained through the dating of Aboriginal occupation sites, middens, at Swansea Heads. Excavations conducted there by Dyall in 1972 provided evidence of occupation dated to 8,000 years ago (Turner and Blyton 1995:10) while Pinny Beach five kilometres south of Swansea was dated to 1,200+/- 60 years BP by Donlon (1992:6). Regionally, other NSW coastal sites include Ettalong (1740 +/- 80 years BP) approximately 65 kilometres to the south (Donlon 1992:6) and Newcastle Bight, approximately 50 kilometres to the north-east where carbon dating at Fern Bay established a date of 2584 +/- 45 BP (ERM 2005:56).

The complexity of the Lake Macquarie environment particularly around Cockle Creek, approximately two kilometres south west of the study area and North Creek, Warners Bay, two kilometres south east of the study area, resulted in ecological diversity and a comparative abundance of food resources. The northern lake area has a diverse environment ranging from dry sclerophyll forests in the northern hills to freshwater creeks, the wetlands and lacustrine environment of Lake Macquarie to the south. Extensive shell middens once extended along the lake foreshore while freshwater creeks and lagoons provided a resource rich environment with a range of water birds, fish, shellfish, terrestrial animals and plant species (Haglund 1986:7).

There is evidence that the study area, with extensive views, particularly over Lake Macquarie, to the immediate south, had particular significance for the Awabakal people (Threlkeld in Gunson 1974:65).

### 3.1 Historic documents

The ethnographic information used to interpret the archaeological record is often biased and may be deeply prejudiced particularly in relation to lifestyle, social practices, community interactions, religion and other facets of Aboriginal life (L'Oste-Brown et al 1998). It is important to recognise this possible bias when using early European accounts regarding the lifestyles of Aboriginal people, particularly in interpretation of their daily life and beliefs. Nonetheless, some of these ethnographic records can provide important information and insight on local Aboriginal customs and cultural materials evidenced during the early years of European settlement.

In 1824 the Reverend Lancelot Threlkeld established a mission for Aboriginal people first at Belmont on the eastern shores of the lake and later at Toronto on the western shore. Threlkeld recorded in detail the daily life of the Awabakal people. In detailing their resource gathering strategies he found the lake provided an abundance of fish, describing Aborigines using canoes to exploit the wider area of lake. Threlkeld also accompanied them on hunting expeditions recording their skill with a spear (Threlkeld in Gunson 1974:190). Cooksey (1926a) surveyed the river and coastal area south from the Hunter River to the entrance of Lake Macquarie recording what he termed as sites and factories of stone tools at the areas now known as Bar Beach, Dudley, Redhead Lagoon, and Swansea Heads. In a later paper Cooksey (1926b) describes the factories or campsites as containing:

"heaps of burnt stones, all that is left of rough fireplaces and occasionally large pieces of sandstone are met with that appeared to have been used as anvil blocks. A few highly coloured small pebbles and pieces of crystalline quartz that may have been used by the medicine men to work magic. Animal remains are represented by a few bones of birds and marsupials, the shells of many sorts of saltwater fish and one small piece of bone that formed the gorge of a native fish hook. The only other relics worth mentioning are pieces of yellow and red oxide of iron ready for grinding into colouring matter".

Henry Dangar (1828:95-96) when surveying the area commented that it was not suited to a settler who looked to large flocks and herds, but was

'more suited to a gentleman fond of shooting, hunting and fishing with ducks, kangaroos, swans, pigeons, quails as well as fish and oysters in abundance'.

### 3.2 The Traditional Owners

The study area is located within the boundaries of the Awabakal people, the Aboriginal people of the Lake Macquarie area. There is some conjecture about the relationships between the Aboriginal clans however the following is generally accepted: to the north of the Awabakal territory were the Worimi people, the Darkinjung people were located to the south of Awabakal territory, the Wonnarua people were in the north-west (Brayshaw 1987:40). There is ethnographic evidence of interaction and communication between the clans, with Threlkeld reporting on the Awabakal visiting the Tuggara Beach tribe (Threlkeld in Gunson 1974:96) and interaction between the Worimi (Threlkeld in Gunson1974:56) and the Wonnarua (Threlkeld in Gunson 1974:3).

Within the Awabakal people were clan groups with the Pambulong clan's territory encompassed the northern shores of Lake Macquarie through to Hexham Swamp in the north. The Five Islands clan within the Pambulong lived and hunted in the area from Lake Macquarie to Mount Sugarloaf (Aboriginal Research Project Team 1995:4).

### 3.2.1 Implements for Gathering Food and Weapons

The toolkit of the Awabakal included a diverse range of implements with extensive finds of flaked stone artefacts recorded by Dyall (1972: 168-175) during survey work in the Dudley - Jewells Swamp area. Stone such as chert, silcrete, mudstone, etc was used to fashion implements such as knives, scrapers, axe heads and choppers.

Turner and Blyton (1995:19) described the resources utilised. Wooden implements included a variety of spears and woomera or spear thrower. Nullah nullah or hard wooden clubs were used with bark shields as part of the armoury. Axe handles were fashioned from wood with the gum of the Xanthorrhea (grass tree) and fibre used to secure the stone axe head to the handle. Coolamon or bowls for carrying water were made from wood or sheets of stringy bark. Bone needles were used for fashioning garments and stone and shell scrapers used for processing skins. Fishing lines using fibre and hooks fashioned from Turban shell were also used.

#### 3.2.2 Food and Useful Plants

Miller (1886:352) listed kangaroos, emus and reptiles as sources of protein with a variety of roots most importantly that of the water lily roasted and eaten. Fawcett (1898:152) included wallabies, bandicoots, kangaroo rats, opossums, rats, snakes, lizards, fish, shellfish, caterpillars, grubs, larvae of wasps, other insects and birds.

Sokoloff (1991:11) describes the forest resources available in the nearby Wallsend area with game such as kangaroo, wallaby, bandicoot and possum. Birds including emus, pigeons and ducks were targeted with reptiles available as a restricted and special food for elders. Plant varieties used included fern, orchid and lily tubers, macrozamia, and the gigantic lily. Freshwater creeks and lagoons provided a resource rich environment with a range of water birds, fish, shellfish and plant species

#### 3.2.3 Campsites and Shelters

Fawcett's (1898:152) description of preferred campsites reflects what is found in the archaeological record that is:

'proximity to fresh water was one essential; some food supply a second, whilst a vantage ground in case of attack from an enemy was a third important item'.

While huts were described as primitive with:

'A couple or three forked sticks, a few straight ones and some sheets of bark, stripped from trees growing nearby, supplied the requisites for the construction of their homes. The forked sticks were thrust into the ground, and the straight ones placed horizontally in the forks. The sheets of bark were then set up against the horizontal pole in a slanting position'.

### 3.2.4 Clothing

Summer weather and the milder days of Autumn and Spring required little in the way of protective clothing Winter however saw the use of animal skins for both clothing and as blankets (Heath,n.d.:43) Miller (1886:352) describes their dress as being of opossum skin cloaks with a girdle of spun opossum hair next to the skin with their principal ornament a nautilus shell suspended around the neck on a string. Bone needles were used for fashioning garments and stone and shell scrapers used for processing skins (Turner and Blyton 1995: 19).

### 3.3 Aboriginal History after European Contact

The first recorded evidence of Europeans visiting the Lake Macquarie was in 1800. Captain William Reid, master of the vessel Martha mistakenly entered the mouth of the Lake's channel assuming it to be the mouth of the Hunter River (Clouten 1967:10).

In 1801 again the Lake entrance was confused with that of the Hunter River when the vessel the Lady Nelson with Lieutenant Colonel William Paterson and his party on board was nearly wrecked while attempting to enter. The surgeon John Harris on venturing ashore was met by a friendly party of Awabakal. These included a native who called himself Budgeree Dick and used the word whaleboat. Budgeree Dick joined the Lady Nelson on its voyage to the Hunter River then disappeared the day after disembarking there. Some days later Budgeree Dick returned with two natives, one who had met Lieutenant Colonel Paterson in Sydney (Turner and Blyton 1995:27).

From the discovery of coal at the Hunter River by Shortland in 1797 until the establishment of a penal colony there in 1804 the area was regularly visited by parties to extract coal and timber. While contact between the Awabakal and the Europeans occurred it was the establishment of a permanent settlement that drastically changed the way of life for the Awabakal people.

## 3.4 Ethnographic accounts of use of high places and Munibung Hill

The prominence in the landscape of what is now known as Munibung Hill led to Reverend L. E. Threlkeld, an early missionary including it as part of 'ranges of mountains' on an 1827 map (Figure 3.1).

Threlkeld (Gunson 1974:64) records that at a large mountain called Ko-na-ko-na-ba at the northern extremity of Lake Macquarie the Awabakal people obtained a yellow substance (Ko-na-ko-na) used for paint in war like expeditions. The probability that the large mountain described by Threlkeld is Munibung Hill is supported by Murray (1988:7) who records the presence of limonite, a yellow substance known as true ochre in the weathering sandstone of Munibung Hill.

It is also possible that Threlkeld was referring to Munibung Hill when he advised W. A. Miles (1854:25-26), an early Sydney based ethnographer, that stone circles were present on the very summit of the mountains of Lake Macquarie. The circles were said to be associated with a legend that the stones were brought there by an eagle-hawk, a bird that was highly regarded by the Aboriginal people.

Threlkeld (Gunson 1974:65) recorded that the Aborigines considered high places as being sacred and distinguished them by placing symbolic engravings on rocks. He describes his finding on a high hill, or rather series of high hills, where a circular erection of stones about five to six feet in diameter and two to three feet high constructed without any form of cementing. He found a series of these stone circles over an area of more than a quarter mile. Thinking they may have been a burial area he dug within the area but found nothing. In questioning his Aboriginal tutor M'Gill he was told that the stones had been placed by the eagle-hawk.

### 3.5 Historic accounts of the Five Islands area

The establishment by Threlkeld of a mission to the Aborigines in the Lake Macquarie area, was on the instigation of the Reverend Daniel Tyerman and George Bennet Esq. As a deputation from the London Missionary Society they had embarked in 1821 on an extensive tour of the Pacific islands, the eastern coast of Australia and the East Indies. The London Missionary Society was keen to establish a mission to the Aborigines in Australia. Their initial consideration was for Moreton Bay, Bathurst or Wellington, but, these were discounted for an area described as Five Islands.

Five Islands is the area now known as Cockle Creek (present day Speers Point) on the northern extremity of Lake Macquarie. It was reported that the Aborigines were numerous and had preserved more of their primitive character and manners than elsewhere. The information came from a deputy surveyor who reported that the Aborigines came from the inland to that quarter of the coast to obtain fish, oysters and water fowl, grubs, etc. (Montgomery 1831:171).

In establishing his mission, one of the earliest in Australia, Threlkeld sought arable farming land. His initial choice of a mission site was an area called Biddaba at present day Warners Bay approximately thee kilometres from the study area. This area was chosen because of its close proximity to Five Islands, however, it was eventually discounted because its poor soils offered little opportunity for successful farming. Threlkeld instead chose present day Belmont approximately twelve kilometres further south as the location (Murray 2005:25).

Steetch of about Quarter Part Lake Miquarie prom'a draughts Mr Finch Government Surveyor Jugar Loaf Mountain Banges of mountains A 1821 nu Ranges of mountains Uy. Det state by un on the Blanch Road Threlkeld's map of Lake Macquarie showing the location of the London Missionary Society Station and the site for 'Ebenezer'. ct. p. 247 **\*\*\*\***\*\*\*\*\*\*\*\*\* iv

## 4 European History

Formal European occupation of the area commenced in 1828 with the selection by William Brooks of 1280 acres. The title deeds to that land were not acquired by Brooks until 1839 (Speers Point - Lake Macquarie Council Local History Website). The selection, called Lochend (also known as Biddaba), was bounded to the north by the present day Cardiff rail workshops, the west by Cockle Creek and to the east by the land holding of Jonathon Warner (Speers Point article nd:1). Notices in the Sydney Morning Herald (14.12.1837 & 7.12.1838) record the birth and death of Brook's children at Lochend indicating by that time that the family was in occupancy (Hartley research file).

The selection encompassed present day Speers Point and the area now known as Munibung Hill. Munibung Hill has also been known as Brooks' Mountain. Prior to the acquisition by Brooks it appeared a settler by the name of R. Sadleir resided in the area (Hartley 1998:55). In 1836 it was recorded also that William Clarke, a member of the Life Guards, resided on a farm at the northern end of the Lake with his dwelling described as 'a rough hut of split timber and bark' (Clouten 1967:55).

In 1843 Brooks announced the opening of a coal mine, named Lochend. The opening of the mine appears to have been foreshadowed by the success of Lancelot Threlkeld's court action against the monopoly held by the Australian Agricultural Company (AA Company) over coal mining (Clouten 1967:100).

Coal from the mine, which is thought to have been located around the top end of present day Hopkins Street was moved by trolley to a wharf on Lake Macquarie from where it was shipped to market. In 1847 Brooks sublet the Lochend Colliery and 20 acres to James Birrell and James Lindsay for a yearly rent of £10 per annum and a royalty of 9d. per ton. The article also noted that Lindsay and Birrell did not have access to the Brooks house and garden (Hartley research file).

The coal mine operated from 1843 until around 1856 (Hartley 1998:55).

Around 1870 the property was acquired by William Speer after the purchaser and new owner defaulted on the mortgage. Speer, a Sydney businessman and timber merchant, built a holiday home in an area described as being in the vicinity of present day Main Road and Park Street, Speers Point (Speers Point - Lake Macquarie Council Local History Website). A description notes that a portion of the holding was used for dairying and grazing with built structures including a dairy and a caretakers cottage (Speer Point article nd:1). The remnants of an orchard were also recorded in the area. Ryan, the occupant caretaker, was noted as the only permanent resident of the area in 1887 (Speers Point - Lake Macquarie Council Local History Website).

Speer, after whom Speers Point is named, was a significant figure in the development of the area being one of the original members of the Lake Macquarie Improvement Association founded in 1883. Speer had a coal mine on his property where a coal seam was in close proximity to the waters edge. From his jetty Speers had coal and timber

transported on a new schooner 'Mary Warner' he'd had built at Cardiff Point, Lake Macquarie (Clouten 1967: 186).

In 1902 the first subdivisions were made around Munibung Hill. To the west they extended from the Main Road Boolaroo, to the south they focussed around present day Thompson Road and to the east Fairfax Road. The remaining land was acquired by Mrs Mersie Hardy who subdivided some portions although the hilly area remained undeveloped. From around this time the area was known as Hardy's Hill. A quarry was operated from about that period with access from Hopkins Street. It is thought that a Mr Hopkins was the quarry manager (Read, 2003). The hilly area was sold on her death to A G Hawkins (Speers Point article nd:1).

A G Hawkins had previously established a profitable transport business with the construction of the Sulphide Works in 1897. Hawkins had purchased Munibung Hill to establish gravel quarries to support their road building activities (Boolaroo - Lake Macquarie Council Local History Website). From 1986 onward a gravel quarry was operated by Boral Resources Pty Ltd under an operating licence from Dekagra Pty Ltd (Resource Planning: 1989:29).

### 4.1 European Cultural Heritage

#### 4.1.1 Registered Historic Items

A search of the Lake Macquarie Local Environment Plan Schedule 4 - *Heritage Items other than of Indigenous and including potential archaeological sites* revealed that there were no listed historic sites within the study area. There are however listed historic sites within the surrounding area including Speers Point, Boolaroo and Warners Bay (Table 4.1).

Speers F	Point			
SP-03	L	House	10 Council St	Lot 1, DP 518527
SP-04	L	House	8 Council St	Lot 1, DP 521920
SP-08	L	House	18 Alley St	Lot 11, DP 525378
SP-09	L	House	37 Alley St	Lot 1, DP 587774
SP-10	L	Cottage	64 Speers St	Lot 1, DP 348879
SP-11	L	House	66 Speers St	Lot 3, DP 562487
SP-12	L	House	41 Albert St	Lot 1, DP 962726
SP-13	L	House	74 Speers St	Pt Lot 1, DP 956798
SP-14	L	House	214 The Esplanade	Lot 1, DP 108865
SP-16	L	House "The Knoll"	374 The Esplanade	Lot 3, DP 786053
SP-17	L	House	332 The Esplanade	Lot 4, DP 350608
SP-19	L	House	302 The Esplanade	Lot 32, DP 564214

#### Table 4-1: List of heritage sites near the study area

Speers	Speers Point				
SP-23	L	House	282 The Esplanade	Lot 145, DP 558308	
SP-25	L	Former Lake Macquarie Council Chambers	143 Main Rd	Lot 13, DP 810700	
SP-26	L	House	141 Main Rd	Lot 1, DP 368588	
SP-29	L	Speers Point Garage	155 Main Rd	Lot 12, Section A, DP 4063	
SP-30	L	House "Shangrila"	157 Main Rd	Lot 11, Section A, DP 4063	
SP-31	L	House	159 Main Rd	Lot 10, Section A, DP 4063	
SP-34	L	Lakeview Street Theatre	81 Lakeview St	Lot 14, Section B, DP 4063	
SP-36	L	Shelter Shed	15 Park Rd	Lot 1, DP 998238	
SP-37	L	Minenwerfer (or German Mortar)	15 Park Rd	Lot 1, DP 998238	
Boolaro	0				
BR-01	L	Group of 4 Cottages	8 Creek Reserve Rd 10 Creek Reserve Rd 12 Creek Reserve Rd 14 Creek Reserve Rd	Lot 11, DP 616785 Lot 1, DP 301687 Lot 3, DP 8704 Lot 4, DP 8704	
BR-02	L	Former Boolaroo Post Office	91 Main Rd	Lot 2, DP 809177	
BR-04	L	Former Motor Garage	19 Main Rd	Lot 1, DP 125272	
BR-05	L	Commercial Hotel	2 Main Rd	Lot 1, Section A, DP 3494, Lot 2, Section A, DP 3494	
BR-06	L	House "Alida"	Lakeview Rd	Lot 4, Section M, DP 3494	
	_				
Warners	Bay				
WB-01	L	House "Ali's Palace"	6 Fairfax Rd	Lot 2, DP 20222, Lot 34, DP 20222, Pt Lot 1, DP 20222	
WB-02	L	First Orange Orchard	The slope with north eastern aspect falling from crest of hill at corner Beryl and Mills Sts down to creek and tramway	(WB-03)	
WB-03	L	Mine Pithead and Coal Tramway to Lake	Follows creek from below Barbara St, to Lake between Howard and James Sts		

The City of Lake Macquarie Heritage Study (Suters Architects Snell 1993) listed additional items not included in the Lake Macquarie Local Environment Plan Schedule 4 - *Heritage Items other than of Indigenous and including potential archaeological sites.* These are in Table 4.2

Table 4-2: Item	s listed in the	<b>City of Lake</b>	Macquarie	<b>Heritage Study</b>
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Location, Item Number and Item	Significance	Comment
SPEERS POINT SP-07 Boolaroo Reservoir	Place in the history of water supply in the area. Operational 1951-1975. Landscape impact at end of Council Street	Previously demolished and possibly not within the study area
SPEERS POINT SP-15 Disused quarry	Historical significance unknown. Principal significance landmark quantities.	Adjacent the study area.
BOOLAROO BR-13 Boolaroo Reservoir	Reservoir constructed in 1926.	Within study area.

The only item that requires consideration as part of this survey is the Boolaroo Reservoir (BR-13). The reservoir listed under Speers Point (SP-07) has been removed, with no remaining fabric, and the Quarry (SP-15) area is skirted by the study area.

#### 4.1.2 Potential Historic and Archaeological Elements

#### Lochend mine

The Department of Minerals (Titles Officer, 5 February 2010) were contacted to ascertain if there were any information available on early mines within the area. There are no records on mines within the study area. It appears the Brooks mine would have been a minor operation operating from 1843 to 1856. There is no indication of where the mine operated by Speer may have been and the only information is that it was situated close by the waters edge.

Further sources consulted included maps of Department of Mines (1921) Edwards & Allen (1890) Map of Coal properties and NSW Department of Lands Parish Maps.

### Headstones, Raymond Street, Speers Point

A map in the local history collection of Lake Macquarie Library, Speers Point shows the location of headstones at the eastern end of Raymond Street. The area indicated is within the study area. There was no further information provided on the headstones.

The historically recorded location of these two items can be found at Figure 4.1.



TITLE: FIGURE 4-1 POTENTIAL EUROPEAN LOCATION: SPEERS POINT CULTURAL HERITAGE SITE

DATUM: DATUM PROJECTION: MGA ZONE 56 (GDA 94)

241 DENISON STREET BROADMEADOW PO BOX 428 HAMILTON NSW 2303 T: 02 4961 6500 F: 02 4961 6794 www.rpshso.com.au

18/2/2010 PURPOSE: ARCHEAOLOGY VERSION (PLAN BY): A (A.P-L.N)

# 5 Aboriginal Archaeological Context

This chapter presents a review of documentary and physical evidence pertaining to Aboriginal archaeology of the region and in particular the Study Area. Such information is considered as it provides context and accuracy to predictions made about the potential for archaeological remains within the Study Area.

## 5.1 Aboriginal Heritage Information Management System

A search was undertaken of the DECCW Aboriginal Heritage Information Management System (AHIMS) for an area encompassed by coordinates Easting 368242 to 378242 and Northing 6347385 to 6357385 (MGA Zone =56).

The AHIMS results indicate that Midden (n=34) are the most frequent site type found in the locality, followed by Artefact Scatter (n=21); Axe Grinding Groove (n=16); Isolated Finds (n=11); Artefact(s) Unspecified (n =12); Rock Engraving (n=1); Scarred Tree (n=1) and Axe Grinding Groove/Artefacts Unspecified (n=1)

Table 5-1 lists site type and frequency. Figure 5-1 provides the location of the AHIMS sites.

#### Table 5-1: Summary of AHIMS Results Ordered by Site Types and Frequency

Site Type	Frequency in Search Area
Midden	34
Artefact Scatter	21
Axe Grinding Groove	16
Artefact(s) Unspecified	12
Isolated Find	11
Axe Grinding Groove /Artefact(s) Unspecified	1
Rock Engraving	1
Scarred Tree	1
Stone Arrangement	1
Total	98

A complete list of results from the AHIMS search can be found in Appendix 2. A glossary of Aboriginal site types can be found in Appendix 4.



## 5.2 Regional Archaeological Context

A number of surveys and reports have been conducted over the northern lake Macquarie area. The following provides an overview of the results of surveys within an approximate ten kilometre radius. This information will assist with predictive modelling to help identify potential archaeological sites and allows for planning and management recommendations to be made with confidence. The following are in descending chronological order. *Section 5.3 Local Archaeological Context* provides a focus on reports within the immediate vicinity of the current study area.

# Lake Macquarie City Council. 2009. Draft Sustainable Management of Aboriginal Cultural Heritage in the Lake Macquarie Local Government Area.

The Lake Macquarie Aboriginal Heritage Management Strategy was developed over six years by a working group. While providing a comprehensive strategy for managing Aboriginal cultural heritage sites the report is particularly valuable in establishing a concept of *Sensitive Aboriginal Cultural Landscapes*.

The report addresses each landform type within the LGA and identifies potentially sensitive Aboriginal cultural landscapes within that type. The report has been supplemented by the production of a <u>draft LMLEP 2011 Sensitive Aboriginal Cultural Landscapes Map 2010</u>.

### ERM. 2004. Heritage Assessment. Seahampton to Rutherford.

The eastern sector of this assessment, near Seahampton is approximately nine kilometres north-west from the study area. Two sites were recorded in the Mount Sugarloaf area. This area was considered to have low potential for artefacts due to the rugged and steep terrain. This area would have limited resources for repetitive occupation and few sources of permanent water. One site, a grinding groove (NPWS #38-4-0109) had been previously recorded but not found during the survey. Two new sites (MS1 & MS2) were recorded. MS1 was an isolated artefact, MS2 an artefact scatter close to a creek line. ERM considered that Aboriginal land use was based on the resource rich Hexham Swamp to the north while ceremonial sites were linked to Mount Sugarloaf in the west and subsistence and stone working sites around the current West Wallsend area.

Insight Heritage, 2003. Archaeology Report for proposed Residential Development Lots 59, 79 and 114 Cameron Park.

In 2003 Insight Heritage, at Lake Macquarie City Council's request, conducted an archaeological assessment for a proposed residential development site at Edgeworth. The assessment was located approximately eight kilometres north west of the current Study area.

The survey was conducted on foot and included all exposed areas, drainage lines and where possible forested areas. Three sites were identified on the survey, all isolated mudstone flakes. Two were found adjacent to drainage lines and the third near road base at the entrance to a property. An area of Potential Archaeological Deposit (PAD) was identified in the northern portion of the proposed development area.

# Mills, 2000. An Aboriginal Heritage Study of a proposed Northlakes residential development at George Booth Drive, Newcastle.

In 2000 Mills was commissioned by Tyneside Pty Ltd to conduct an archaeological survey for a proposed residential development at Estellville, Lake Macquarie. The assessment was located approximately six kilometres north west of the current study area.

The survey, conducted on foot, covered 23.70 hectare of the estimated 307.05 hectare study area. Creek lines and lower slope areas were heavily vegetated with low visibility. The survey was confined to established tracks, electricity easements and eroded areas. One isolated artefact (NL-IF-1) was located and four potential areas of archaeological sensitivity. These areas, identified through predictive modelling, were not recorded as Potential Archaeological Deposits (PAD).

# Brayshaw and Kerr, 2000. Archaeological Survey for Aboriginal Sites. Land at Link Road Elermore Vale West of Newcastle.

In 2000 Brayshaw and Kerr (a geologist) were commissioned by Mirvac Homes to conduct an archaeological survey for a proposed rezoning. The assessment of two study areas designated Western (125 hectares) and Eastern (264 hectares) is approximately five kilometres north of the current study area. The landform consisted of creek lines, ridges and slopes.

In the Eastern area the survey identified a possible raw material extraction site (Brush Creek 1); an open site (Brush Creek 2) and two isolated finds (IF1 & IF2). A detailed investigation Brush Creek 1, the raw material site was conducted by Peter Hiscock, stone tool specialist, Australian National University. Hiscock found that damage to the site by heavy machinery had been such that fractured stones present could not be unambiguously identified as being Aboriginal artefacts. He concluded that there were possibly some artefacts present but given the difficulty of identification the site was not of high archaeological significance. Brush Creek 2, an open site, was located approximately 100 metres to the east side of Brush Creek. Six artefacts were recorded, all flakes comprising; iron stained tuff; pink silcrete; light grey siliceous tuff (2); red silcrete; silcrete. The context was deemed heavily disturbed with the shallow nature of the potential deposit providing little possibility of significant sub-surface deposits.

In the Western area the two isolated artefacts were recorded. IF1 was located on a track associated with an electricity easement approximately forty metres east of Minmi Road. The artefact of waxy grey silicified tuff was in a disturbed location and given the proximity of Minmi Road may have been relocated there during earthworks. IF2 was located on the same electricity easement track but about ten metres east of Brush Creek. The track was steep and heavily eroded with the artefact (buff coloured silcrete flake) found in a disturbed location. It was considered that the artefact given the steepness of the terrain may have been a chance discard with little chance of other finds being present.

The authors considered that the artefact finds support the occupation model for the hinterland region of Lake Macquarie. This area of low hills and ridges may have been a conduit between the northern Lake Macquarie area and the Hexham wetlands to the

north. In addition to short term foraging and hunting it was possibly a source for raw materials for stone tool production.

# Australian Museum Business Services. 1999. Archaeological Survey for Aboriginal Sites between Minmi Road and Transfield Avenue, Edgeworth, NSW.

The survey was of an area approximately five kilometres north of the current study area. Two isolated artefacts were located though neither appeared on the AHIMS list of sites. The authors requested that an extended area around the isolated finds that focused on Brush Creek be designated a potential archaeological deposit (PAD). The authors based this request on the work of Mills (1998) at Wentworth Creek near Hexham Swamp to the north where excavation work revealed extensive artefact deposits. While Hexham Swamp is a significant wetland area with a complex range of resources the area under consideration area was mainly open forest with the vegetation of perennial Brush Creek and ephemeral drainage lines providing the only variation in food resource availability.

# Patterson Britton and Partners, 1995. Archaeological Survey and Assessment, Construction of the West Wallsend Sewage Transportation Scheme.

In 1995 Patterson Britton and Partners undertook an archaeological assessment for a proposed sewage line five kilometres north east of the current study area. The survey route, 4.7 kilometres long between West Wallsend and Edgeworth, was limited to residential areas following suburban streets and was conducted on foot. The survey identified two isolated artefacts; the first in a public reserve next to Cockle Creek and the second adjacent Cockle Creek. ISF1 was an indurated mudstone flake found on a colluvial surface along a highly disturbed unpaved walking track. ISF2, an indurated mudstone flake also in a highly disturbed context was found 150 meters away.

### Nelson. 1994. Archaeological survey. Valentine and Eleebana, Lake Macquarie.

Valentine and Eleebana are residential suburbs in the Lake Macquarie area. The survey area is approximately seven kilometres south east of the current study area. The survey area encompassed slopes and drainage lines with no Aboriginal cultural heritage material found.

### Resource Planning, 1991. Archaeological Survey for George Booth Drive Upgrade.

In 1991 Resource Planning undertook an archaeological survey for a Review of Environmental Factors for a portion of road between Northville Drive roundabout and Cameron Park Drive approximately eight kilometres north west of the study area. The survey route of four kilometres was conducted in two stages with a recent bushfire providing good visibility.

In the Northville Drive to Withers Street survey two artefacts, one flaked piece and one flake core were identified. The artefacts were found in an area of high disturbance associated with a nearby housing estate. In the Withers Street to Cameron Park Drive survey located one isolated artefact, a flaked piece.

# Dallas and Navin. 1990. Archaeological Survey. Bennetts Green, Gateshead and Redhead.

This survey over Crown Land is approximately six kilometres south east of the study area. The area of Redhead, Bennetts Green and Gateshead would have been in proximity to the ecologically diverse Jewells Swamp. The survey did not locate any sites. Dallas and Navin discuss the work of Dyall who had previously recorded open campsites in the area but due to a lack of accurate co-ordinates these were not found. It was considered the lack of sites located reflects the close proximity resource rich zones outside the study zone area, whereas the study area was a more marginal environment. A further significant factor was destructive land use patterns in the recent times.

# Donlon & Brayshaw, 1986. Archaeological Survey – F3 Freeway Proposed Link Road Estelville to Wallsend, NSW.

In 1986 Donlon and Brayshaw undertook an archaeological survey for an Environmental Impact Study for a proposed Link to the F3 Freeway. This is approximately ten kilometres north east of the current study area.

Seven kilometres long the survey route was investigated on foot. Survey landscape incorporated ridges and the drainage lines of Cocked Hat Creek and Iron Bark Creek tributaries. Three sites were found one axe grinding grooves and two open sites. The axe grinding grooves were associated with a tributary of Cocked Hat Creek. The first open site, just below the top of a ridge, comprised twenty one artefacts over 330 square metres. They comprised indurated mudstone, silcrete and one of clear bottle glass. The authors considered that the assemblage with no indication of subsurface archaeological deposits and bottle glass may have all been from the post-Contact period. The second site, again just below a ridge line consisted of thirty two artefacts all mudstone.

The authors described the finds on the ridge tops as similar in appearance to other ridge sites in the Lower Hunter being small in area with few artefacts. They described the two open sites as being in a disturbed context with no further archaeological potential. The authors considered sites associated with ridges in the area were a result of Aborigines using the area as a route between Mount Sugarloaf to the west and the coast.

### Haglund, L. 1986. Regional Assessment. Lake Macquarie

In 1986 Haglund was commissioned by Lake Macquarie City Council to produce an assessment of the prehistoric heritage of the Lake area. Using a combination of interviews and desktop research the author found that the lifestyle of the inhabitants would have resulted in few records remaining within the environment, this assessment was confirmed by subsequent archaeological surveys.

The work of Vinnicombe (1980) on the land use patterns of the Aboriginal people in the Gosford/ Wyong area to the south of Lake Macquarie was used by Haglund as a general basis for the assessment. Vinnicombe's (1980) proposed a land use pattern where Aboriginal people utilised a variety of micro-climates on a seasonal basis. The seasonality was based on Aboriginal people utilising coastal resources: coast/lakes/swamps in the summer months then moving inland to use terrestrial resources inland forests and deep waterholes during the winter period.

Haglund, at the local level, used the published work of Dyall and Bentley (1975), the unpublished field survey work of Hanckel (1985) and sites recorded by the NSW National Parks and Wildlife Service as a basis for determining predictability for site location. Early ethnographic reports were used to provide further detail.

Haglund concluded that the Aboriginal people exploited the resources of the open and rocky coast as well as the swamp and hilly hinterland. It was also found likely that the preferred resource areas were the coastal strip and the swampy margins of the lake with the western rugged area less popular. Haglund included the current study area in a map of areas considered to be archaeologically sensitive (Haglund 1986:41).

### 5.3 Local Archaeological Context

A number of archaeological surveys and reports have been produced for the northern Lake Macquarie area. This section details the most relevant investigations to the study area.

# Lake Macquarie City Council. 2009. Draft Sustainable Management of Aboriginal Cultural Heritage in the Lake Macquarie Local Government Area.

The Lake Macquarie Aboriginal Heritage Management Strategy discussed under Regional Archaeological Context (Section 5.2 of this report) makes reference to the Munibung Hill area. Described as a mountain landscape it is considered that the Munibung Hill ridge crest and some slopes are important archaeological sites where ceremonial activities occurred with the area described in traditional Awabakal stories (LMCC 2009:3.12).

Table 5.1, which is an extract from the report (LMCC 2009:5.11), denotes *Parts of Munibung Hill* for consideration for nomination as *Aboriginal Places* under Section 84 the *NPW Act* 1974. The definition of Aboriginal Place, under the terms of the Act, is a place that, in the opinion of the Minister, is or was of special significance with respect to Aboriginal culture, to be an Aboriginal place for the purposes of this Act.

# ERM. 2000. Five Islands Road Project Indigenous and non-Indigenous Heritage Assessment. Teralba – Speers Point. Lake Macquarie.

This report to the Road and Transport Authority related to the widening of the roadway at Five Islands on the northern tip of Lake Macquarie which is approximately two kilometres east of the current study area. On the foreshore of the lake the Five Island landform units consisted of foreshore, alluvial flats and islands. The most likely site type was considered to be open camp sites including middens, post-Contact sites, isolated finds and culturally significant sites. A factor in site location was the work of an early amateur collector, A J Barrett, who with the encouragement of the Australian Museum between 1926 and 1929 had collected significant quantities of artefacts and forwarded them to the Museum. Many of these artefacts were subsequently discarded by the Museum. Barrett lived at Speers Point and it is most likely he would have collected extensively from that area. The remaining Barrett Collection, with no point of origin recorded, was found to contain tuff (27 flakes and large blades) silcrete (8 coarse and fine grained, including horse hoof scraper) and chert (12 artefacts). One site was located during the 2000 survey this consisted of

nine artefacts comprising silcrete or tuff. They were located on an A2 soil horizon. The report author considered there was a high likelihood of Aboriginal sites being located in buried surfaces due to the fluvial action of Cockle Creek.

# Dyall, L. 1981. Aboriginal axe grinding grooves located on BHP Stockton Borehole Colliery property.

This report records the presence of three sets of axe grinding grooves west of Cockle Creek and approximately 3 kilometres west of the study area. All grooves were small and located on conglomerate outcrops in the headwaters of small creeks. The author noted that this type of axe grinding grooves were common in the Lake Macquarie area.

### Haslam. P. 1974. Play area's link with the Aborigines.

A newspaper article written by Perce Haslam, a respected authority on Aboriginal culture, records the disturbance of a number of human skeletons at Warners Bay, less than a kilometre south east of the study area. The burial ground was associated with what is currently known as North Creek. The article discusses the historically recorded presence of large shell middens along that section of the lake foreshore. This is confirmed by an advertisement placed by Jonathon Warner the original settler at Warners Bay that described 'abundant supply of lime shells on the borders of the lake' (Sydney Morning Herald. 3 August 1840).

Haslam considered the presence of the burial ground and the large shell mounds indicated that it was possible that within the vicinity was a bora ground used for initiations and other sacred ceremonies.

#### 5.3.1 Literature Review Discussion

The literature review provides a background to archaeological investigation within the area identifying site types and establishing a model for Aboriginal land usage within the area.

Haglund's (1986) report considered that the Awabakal people led a nomadic existence moving between different resource zones in different seasons. ERM (2004) proposed a regional model for Aboriginal land use based on Hexham Swamp to the north with ceremonial sites associated with Mount Sugarloaf and subsistence and stone working sites along a corridor linking the two. The study area situated at the northern end of the lake with a diverse array of resources provided a favourable environment and also may have served as a transit route for people heading west after accessing the resources on the eastern side of Lake Macquarie. It is considered that the comparatively environmentally diverse area of northern Lake Macquarie could be included as part of that regional model.

An assessment of previous research indicates that middens (n=34) followed by Artefact scatter combined with Artefact/s Unspecified (n=33) are the most common site types located within the northern Lake Macquarie area. **Middens** can be largely discounted from the current study area, while the lake foreshore is close to the southern portion of the study area shell middens are most often found within the immediate proximity of the foreshore. If there are substantial permanent creeks in the study area small shell middens may occur however the most likely site type would be artefact scatters.

**Artefact scatter** and **Artefact/s Unspecified** (n=33) together with **Isolated artefacts** (n=11) all comprising stone tool/s are commonly found in the wider area. An overview of the reports indicates that these are most often found in association with drainage lines and creeks, an important source of fresh water.

While **ceremonial sites** and **stone circles** have been referred to by nineteenth century ethnographers no evidence of their occurrence or location has been recorded since that time. A copy of the NPWS Site Card #38-4-453 that records 'Manibang' as a ceremonial site was obtained. The site card does not give any indication that physical remains were observed or still exist. The basis for recording the site was Threlkeld's ethnographic journal from the nineteenth century. This site card also notes that a large cave once existed in the area but had been destroyed by quarrying.

**Grinding grooves** are most commonly considered as axe grinding sites however grinding grooves can also be associated with the processing of seed for food or ochre for ceremonies. Axe grinding groves were recorded by Dyall (1981) at BHP Stockton Borehole Colliery approximately three kilometres west of the study area. Grinding groves are generally found where sandstone is close to a water source and often associated with creek or drainage lines.

**Rock engravings** (1) and **scarred tree** (1) have also been recorded. Rock engravings may be found where suitable soft stone, such as sandstone is found. Scarred or modified trees can occur on suitable trees of considerable age (>150 years).

**Rock shelters** while there have been no rock shelters used by Aboriginal people recorded on the AHIMS there is a potential for caves to exist around Munibung Hill.

# 6 Predictive Model

A predictive model is created to form an estimate of the potential for an archaeological site to occur. It involves reviewing existing literature and consulting site databases to determine basic patterns of site distribution and correlating this distribution with the associated environment. The use of land systems and environmental factors in predictive modelling is based upon the assumption that these factors provided constraints that influenced land use patterns by past populations resulting in differing spatial distributions of various site types in the archaeological record. Predictive models can be used as a basis for the planning and management of Aboriginal heritage, and for formulating survey strategies to include areas of maximum archaeological potential.

The summary of environmental data (Section 2) and previous archaeological studies (Section 4) was used to create a predictive model for sites in the subject area.

### 6.1 **Predictive Model for Aboriginal Archaeology in the Study Area**

#### 6.1.1 Site Types and Location

The most likely site types to occur in the study area are isolated artefacts, artefact scatters, grinding grooves and ceremonial sites such as stone circles.

Isolated artefacts may be found anywhere within the environment as they are considered to be the result of intentional or accidental discard.

Artefact scatters, with a number of artefacts occurring are more often associated with areas preferred for occupation. Generally required are sources of fresh water within close proximity and level ground.

Grinding grooves require the presence of suitable stone, most often sandstone and water within close proximity to assist in the grinding process.

Ceremonial sites, as described by Threlkeld (Gunson 1974:64), were on a high hill or rather range of high hills and described as a circular erection of stones about five to six feet in diameter and two to three feet high constructed without any form of cementing. He found a series of these stone circles over an area of more than a quarter mile.

#### 6.1.2 Site Aspect

These potential sites may have a range of aspects. The crests of the ridgelines provide good viewpoints toward Lake Macquarie in the south, the Watagan Mountains and Mount Sugarloaf to the west and the coastline to the east. Site aspect is of particular importance in the location of ceremonial sites.
### 6.1.3 Slope

The flat top crests of the ridgelines provide the most likely location for ceremonial sites or for isolated artefacts. Other flat areas are likely to occur as terraces above the flood line of creeks. These areas are preferred locations for camps and have potential for artefact scatters to occur. Low slopes may have some potential while the steep slopes, except where shelters or caves are present, are considered to have low to nil potential.

### 6.1.4 Distance from Water

The requirement for fresh drinking water would increase the likelihood of cultural heritage sites within the vicinity of creeks and drainage lines. Freshwater from a permanent source would be required for campsites while water from a semi-permanent supply would be most likely adequate, if available, during ceremonial occasions.

### 6.1.5 Food

The study area is in close proximity to a complex of environmental and therefore food resources with Five Islands to the west and to the east North Creek, Warners Bay. The study area would have provided a range of forest-based resources and freshwater resources from minor creeks while the nearby lake provided important staple foods such as shellfish and fish.

#### 6.1.6 Summary

The study area has the potential for a range of Aboriginal cultural heritage sites to occur. The most significant are stone circles that would be associated with the ceremonial and spiritual life of the Awabakal people. The landform of particular note is the flat tops of the crests with greater consideration given if there was a source of fresh water close by. If the area is ceremonial in importance it is possible that the presence of food sources were not of particular importance.

Other site types are most likely to occur in close association with the availability of water. Campsites and grinding grooves both require the presence of water. Isolated artefacts may occur anywhere within the study area.

# 7 Predictive Model for European heritage in the Study Area

The results of database searches of the NSW Heritage Office, the Lake Macquarie City Council LEP Schedule 4 (Section 4.1.1), the City of lake Macquarie Heritage Study and additional historical research provided a concept of the types of sites and activities that may have been conducted in the subject area.

The most likely European heritage site types to occur is associated with:

**Farming** – While there is no documentary evidence of the presence of farming within the study area there is a street called Farm Street on the southern boundary. There is also documentary evidence of orchards in the surrounding area.

**Coal mining** – Lochend Colliery is reported to have been located near the end of Hopkins Street, Speers Point. As well as normal mine infrastructure the mine also had a tramway that transported coal south to the lake foreshore. It is possible that other small early coal mines were located within the study area.

**Water Supply** – within the study area are two reservoirs recorded in The City of Lake Macquarie Heritage Study (Suters Architects Snell 1993).

**Burials** – two headstones are informally recorded as being at the end of Raymond Street, Speers Point (Lake Macquarie Local History Collection – Pamphlet File – Speers Point).

**Habitation** – While no houses or residences are recorded it is possible that early huts or simple houses may be present.

## 8 Field Survey

The field survey was conducted on 15 and 16 February 2010 by Laraine Nelson, Senior Archaeologist, RPS and Shane Frost, ADTOAC. Koompahtoo LALC had agreed to the survey on those days but on the day was unable to provide a sites officer. The weather was overcast on the 15 February with clear skies on the 16 February.

The methodology chosen was to survey all accessible landform types with emphasis on the ridgelines and valleys. A prior assessment of the topography of the study area indicated that steep and inaccessible slopes (gradient 1:1) covered a significant portion of the area.

### 8.1 Landforms

The study area, with a range of landform type is dominated by a series of interconnected ridgelines. These ridgelines running roughly north-east to south-west are connected by an east-west running ridgeline on the northern boundary of the study area.

Within these steeply sloping ridgelines are a series of valleys marked by creeks and drainage lines.

The dominant landform types are:

- Narrow ridgelines;
- Steep slopes; and
- Small valleys with creek and drainage lines

Figure 8-1 provides a description of survey units in the study area while at Table 8-1 is an Effective Coverage Table.

### 8.2 Survey Units

The survey units were derived from the main landform units present while Survey Unit 2 - Central area and slopes incorporates the area impacted on by past quarrying activity.

### 8.2.1 Survey Unit I –Ridgelines

On the first day of survey all the ridgelines of the study area were walked. A series of walking tracks provided a band of good surface visibility although away from this band the visibility was minimal. The ridgelines for ease of identification were labelled one through to six. These ridgelines run roughly in a north - south direction and are linked at the northern extent of the study area by an east - west running ridgeline. See Figure 8.1

**Ridgeline One** on the western extent of the study area is the shortest of the ridgelines. Ridgeline One provides relatively easy access to the higher ridgelines to the east. The highest point of Ridgeline One has a large conglomerate boulder as a distinctive marker with the entire ridgeline having an expansive view toward the west and south (Plate 1). The summit of the ridgeline to the north has some disturbance caused by construction of a pole and possibly an underground tank. Approximately half way along the north-south track on the ridgeline crest is a small level terrace, here a small scatter of artefacts was recorded as site RPS Speers Point AS1 (Plate 2). West of the artefact scatter, the slope included a small vertical rock face. A further surface exposure approximately 50 metres south on the same ridgelines had some fragments of shell present. The small quantity of shell however was not enough to justify labelling it as an Aboriginal cultural heritage site or a midden.

**Ridgeline Two** provided views to the south, west and north and has been impacted on by quarry operations, with Quarry A to its east and Quarry B to the west. A sharp slope and dense vegetation on the southern end of the ridge hindered access. This ridgeline was accessed from the southern end on the second day. The ridgeline was truncated with severe disturbance most likely caused by quarrying operations.

**Ridgeline Three** had a restricted view with ridgelines on both sides. A track provided good visibility along a narrow band. A and B horizon soils were evident with small pebbles on the higher levels and large pebbles on the southern and lower ridgeline extent. Off the track dense grass in the higher area and vegetation on the lower areas provided nil visibility. To the east of the ridgeline was a small, sheltered valley while on the western side was a drainage line bordered by Quarry A.

**Ridgeline Four**, the eastern most and longest ridgeline, was walked to its southern extent. As on other ridgelines, surface visibility was restricted to an eroding track. The surface was seen as skeletal A eroding to B horizon soils with small pebbles. The southern extent of the ridgeline while outside the study area was inspected. With extensive views across Lake Macquarie to the south, the extremity had suffered from landslip. Two sites were recorded along the ridgeline; an isolated artefact was recorded as RPS Speers Point IF1 (Plate 3) and an artefact scatter as RPS Speers Point AS2 (Plate 4) while small deposits of a coarse ochre were seen in the eroding track. This track provides extensive views to the east, north and south (Plate 5).

**Ridgeline Five** was grassed and cleared of trees with an unformed vehicle track that narrowed to a walking track providing surface visibility. On the southern extent, there were eroded areas with large quantities of pebbles present from the weathering conglomerate rock. One site comprising two artefacts was recorded as RPS Speers Point AS3, an artefact scatter (Plate 6).

**Ridgeline Six** this is an east west trending ridgeline on the northern extent of the study area. The majority of the track is overgrown with minimal visibility. There is some erosion providing exposure toward the western extent.

Five Aboriginal cultural heritage sites were recorded during the survey of the ridgelines.

### 8.2.2 Survey Unit 2 – Central area and slopes

The majority of the central area has been reworked during quarry operations (Plate 7) with additional disturbance caused by associated structures such as dams and roads. Emphasis of the pedestrian survey was on the peripheral areas that had suffered less damage.

Historic records indicate that Lochend mine was at the end of Hopkins Street, Speers Point (Read 2003) and would be within the Central area and slopes. During the survey attention was paid to any areas that had coal in evidence, ground depressions or area where mines could have been worked into the sides of hills or rock faces. Apart from a few coal scatters near the foot slope of Ridgeline Two there was no evidence of the presence of an early coal mine. It should be noted that the western slope of Ridgeline Two was covered in dense vegetation and could not be investigated thoroughly (Plate 8).

The City of Lake Macquarie Heritage Study - Speers Point map had recorded the Boolaroo Reservoir (SP- 07) within this area. This has been demolished previously with the footprint of the reservoir noted during the survey

On the eastern side of Quarry A was a deep drainage line heavily overgrown and mostly inaccessible. It is also possible that this contained water and the sides of the drainage line may have rock faces with overhangs providing potential shelter. Some parts of the drainage line were checked however, the dense vegetation precluded a through examination. Shane Frost (pers. comm.) related the childhood memory of his father who had spent his childhood in the area. His father recalled there being a large cave on the creek line on the eastern side of Quarry A.

### 8.2.3 Survey Unit 3 – Valleys

The valleys while geographically separated were the same landform type and have been grouped for reporting and discussion.

Desktop research of the **Eastern valley** indicated that the area had high potential for Aboriginal cultural heritage sites. A sheltered valley, it was described as having a central drainage line with open forest (Resource Planning 1989:24). The area was not surveyed as presently it is inaccessible with large stands of lantana and dense undergrowth (Plate 10).

The **Western valley** includes the area off Raymond Street, Speers Point where the European grave headstones were reportedly located. The area immediately adjacent Raymond Street is low lying and may flood during periods of heavy rain. It would appear to be an unlikely location for burials, though it is possible that the location was further upslope. Dense grasses covered the area providing little visibility, no headstones were seen.

One Aboriginal cultural heritage site an isolated artefact recorded as RPS Speers Point IF2 (Plate 9) was found on a sloping surface between Ridgeline One and Ridgeline Two

near the northern extent of the valley. The site was on an eroding track with dense ground cover covering the majority of the area.

This small valley has the potential to be favoured by Aboriginal people for occupation. A drainage line with water indicated a permanent creek. The west facing aspect would have provided a sheltered environment with an elevated terrace on the south-eastern bank. Dense grasses cover the area, with little surface visibility and no mature trees present (Plate 11). The lack of trees would indicate they have either been removed in the past as part of land clearing practices or have been affected by deforestation caused by Pasminco's Cockle Creek Smelter.

The **Southern valley** accessed from Quarry Road, Speers Point is largely covered by dense undergrowth. A small walking track was used to investigate the southern end of this south facing valley. This walking track was through a modest forest flanking a dry drainage line (Plate 12). A number of large sandstone boulders were observed both in the drainage line and on the adjacent slopes. One large boulder had a number of initials (European) carved into a large flat horizontal surface and a number of parallel lines or grooves across the face of the rock. The later initials have cut through these lines. These grooves were examined for their potential to have been culturally modified by Aboriginal people, however, it was determined that the grooves were part of the natural weathering process.

In the main drainage line of this valley a series of boulders were examined. In two adjoining boulders shallow dish shaped depressions were recorded. It is considered these depressions were created by Aboriginal people using the rock for grinding, perhaps seed or tubers. This site was recorded as RPS Speers Point GG1 (Plate 13 & 14).

### 8.2.4 Survey Unit 4 – Western slopes

The majority of this survey unit was covered by dense pasture grasses with some small exposures (Plate 15). Unlike the remainder of the study area there were no eroded tracks to provide surface visibility.

The water reservoir listed in the City of Lake Macquarie Heritage Study (BR-13) is in this sector. Currently disused steep earth ramparts surround what appears to be a concrete structure. This steep earth slope leading to the rim deterred close inspection (Plate 16).

In terms of Aboriginal usage the western slopes would not have been a preferred occupation area: there was no water within the immediate vicinity and the slope of the ground (gradient 1:3) would have made campsites unlikely.

### Table 8-1: Survey Coverage Data

Landform Unit	Survey Unit	Total area of LF Unit sq. m.	Exposure %	Area of Exposure sq. m.	Visibility %	Area Available for Detection (sq. m.)	% of landform area available for site detection
Ridgeline	1	13,168	20	2633	80	2106	16
Central area and slopes	2	6240	5	312	80	249	4
Valleys	3	2,700	1	27	20	5	.2
Western Slopes	4	3740	<1	37	20	7.5	.2

### 8.3 Survey Results – Aboriginal Archaeology

Six Aboriginal cultural heritage sites were recorded during the initial survey (Table 7.2). Five of the sites were recorded either on the ridgelines or an associated slope. These sites all consisted of stone artefacts either as scatters (n=3) or isolated finds (n=2). Individually the artefacts were small in size consisting of flakes with one small core (RPS Speers Point IF1) found.

One grinding depression (RPS Speers Point GG1) was located in the southern valley. This site comprised two dish shaped depressions worn into a large boulder in the creek line. Depressions one maximum measurement was approximately 22 centimetres wide by 30 centimetres in length and 3 centimetres deep. Depression two was approximately 26 centimetres wide by 32 centimetres long and 3 centimetres deep (Plates 13 & 14).

The site cards required for the AHIMS are at Appendix 6.

### 8.4 Additional survey

In May 2011 Shane Frost advised RPS that following advice from his father, who had lived in the area as a boy, he had located a large rock shelter within the study area. That rock shelter was visited on the 26 May 2011 by Shane Frost accompanied by Laraine Nelson, Archaeologist. Kerrie Brauer (Awabakal Traditional Owners Aboriginal Corporation) also attended following an informal request from her. The rock shelter was in Survey Unit 2A.

The recorded rock shelter brought the total number of sites recorded to seven. The rock shelter, large enough to provide shelter for a large family group, was north-west facing and dry inside. It is reasonably difficult to access and is well hidden by lantana (Plate 17). The rock shelter floor dimensions were 5.2 metres deep and 4.7 metres wide. While the entrance was only one metre high once inside this extended to a height of 1.9 metres providing adequate head room (Plate 18). The floor had some depth of deposit with charcoal and some tree nuts observed on the floor together with an area of dried grasses and two sticks. A small quantity of melted hardened wax, most likely from a candle, was also noted. On the survey day the outside temperature was around 16 degrees and

raining, inside the shelter was at least two to three degrees warmer and dry. There was no water seepage into the rock shelter even after previous days of heavy rain.

Survey Unit	Site Name	Eastings	Northings	Site Type	Description
1 - Ridgeline	RPS Speers Point AS1	371863	6352743	7 chert / 1 silcrete	Artefact scatter - Ridgeline One
1 - Ridgeline	RPS Speers Point IF1	372526	6352168	1 chert core	Isolated find - Ridgeline Four
1 –Ridgeline	RPS Speers Point AS2	372280	6352022	2 chert /1 tuff	Artefact scatter - Ridgeline Five
1 – Ridgeline	RPS Speers Point AS3	372799	6352603	1 chert flake / 1 tuff	Artefact scatter - Ridgeline Five
1 - Ridgeline	RPS Speers Point IF2	371963	6352772	1 chert flake	Isolated find - High slope between Ridgeline One and Two
3 - Valley southern	RPS Speers Point GG1	377119	6351774	Grinding grooves in boulder	Survey Unit 6 - Drainage line in south facing valley
Additional survey	RPS Speers Point RS1	372309	6352095	Rock shelter	Large north west facing rock shelter

### Table 8-2: Aboriginal cultural heritage sites recorded





### 8.5 Survey Results – European Historic

No significant item of European heritage, other than the Boolaroo water reservoir (BR-13), was seen during the survey. The footprint of the demolished Boolaroo water reservoir (SP-07) was noted.

No evidence was found of any coal mine workings. It is possible that the Lochend mine was destroyed during the working of the A and B quarries as they are in close vicinity, or the mine shaft may have been filled in.

The headstones informally recorded as being at the end of Raymond Street, Speers Point were not found. The area is covered in dense grasses, it is possible the headstones have fallen over and been covered.

One minor item, a gateway was noted on the north-western boundary of the study area. It has the appearance of being an old entry to a house or property. Shane Frost recalled that his father said there was a dairy, possibly belonging to Mersie Hardy, an early twentieth century landholder, in that area (4.0 European History).

The density of vegetation covering the majority of the study area raises the possibility that some potential heritage items may be present but undetected. It is unlikely that other than the Lochend mine and the headstones that these items would have heritage significance.

# 9 Aboriginal Significance Assessment

The primary purpose of a significance assessment is to set criteria from which an effective determination of site significance can be made which can be used in the management of Aboriginal and European sites. A range of heritage values are considered which include but are not limited to Aboriginal cultural views, integrity of the site both locally and regionally, variability and complexity of the archaeological resource, research potential and spatial relationship of the site within the regional context.

### 9.1 Archaeological Significance

The term 'archaeological significance' (also referred to as scientific significance) in this case is a value allocated to Aboriginal sites by archaeologists to help determine appropriate management strategies and mitigation recommendations for their ongoing care and management. The archaeological significance given to a site or area in the absence of identified sites is based on several criteria. The criterion includes;

- Rarity in a local and regional context
- Representativeness in a local and regional context
- Integrity in a local and regional context
- Connectedness in a local and regional context
- Complexity in a local and regional context
- Ability to contribute to the archaeological understanding of the cultural sequence in a local and regional context

**Rarity:** This criterion examines the site type against those occurring in the local and regional context. If the site type being assessed is considered to be rare at either regional or local levels, this raises its importance in the archaeological record. In Australia, the most common site type is an artefact scatter.

**Representativeness:** This criterion relates to determining if the site can be characterised as representative of the sites (types, integrity etc) present in the local and regional context. The purpose of this is to conduct further investigations on a sample of sites within a given area in order to add to the archaeological understanding of the area, but, to leave a representative sample *in situ* for future generations.

**Integrity:** This criterion refers to how intact a site is and the level of disturbance associated with the site. A site with contextual integrity can provide information relating to chronology, social systems, tool technology, site formation processes, habitation and frequency of use, as well as other forms of analysis. If a site has been the subject of moderate to large degrees of disturbance, it has a low probability of retaining integrity and thus the information able to be obtained from the site is reduced.

**Connectedness:** The connectedness criterion relates to the relationship between a site and others in the local and regional environment. If a site is determined to have connectedness with other sites, the depth of knowledge that can be obtained from the connected sites increases and can be used to develop an understanding of more traditional practices that cannot be identified by looking at one site in isolation. The connectedness could relate to age, the landform in which they are contained, the contents of the sites etc. This criterion is often ascertained without subsurface investigations.

**Complexity:** The complexity criterion relates to the contents of the site. This may relate to a high number of artefacts per square metre or features which can add to the layer of information that can be obtained from a site (e.g. hearths, knapping floors, ochres etc).

**Contribution to Knowledge:** The ability of a site to contribute to knowledge is largely dependent on the site having moderate to high significance assessments for the other criteria. The reason for this is that the ability to contribute to knowledge requires 'new' knowledge to be drawn from the site in order to add to the local and/or regional context.

### 9.2 **Overall Significance Assessment**

Documentary evidence and oral history confirms the importance of the area known as Munibung to the Awabakal people. The area is rated highly significant with regard its place in the ceremonial and dreamtime stories of the Awabakal people.

Sections of the study area have been severely affected by past use practices with a resulting impact on sites recorded during this survey. The artefact scatters and isolated finds in addition to being one of the most common site types were all located in disturbed contexts. It is considered that all the Artefact Scatters and Isolated Finds recorded during this survey meet none of the above listed criteria for significance.

The **grinding groove** or depression is considered to have overall high significance. It would seem most likely that this grinding depression would have been used for processing food or similar resources. Situated in a drainage line water would have been included in the grinding process and been used to clean the grinding surface when the process was complete.

A grinding groove of this type meets the following criteria:

- Rare while axe grinding grooves are common in the area this type of groove or grinding depression is uncommon.
- Integrity while a small footbridge is located above it the boulder remains in context.
- Connectedness the grinding groove at northern end of the lake builds a more comprehensive view of Aboriginal occupation.
- Contribute to Knowledge advances the understanding of Aboriginal processing of food or related resources in the area.

The **rock shelter** is unusual with no other recorded in the northern Lake Macquarie area. Shane Frost quotes his father as remembering a large cave present in the 1920's that was destroyed during quarrying activities.

The rock shelter meets the following criteria:

- Rare rock shelters of this size are uncommon on the northern end of Lake Macquarie.
- Integrity the area is difficult to access and the entrance screened by lantana. A lack
  of rubbish in the cave would indicate it has been rarely visited in the recent past.
- **Connectedness** the rock shelter at northern end of the lake builds a more comprehensive view of Aboriginal occupation.
- Contribute to Knowledge advances the understanding of Aboriginal occupation of the area.

Table 9-1 summarises the sites located during this study with considered archaeological significance.

Site Name	Site Type	Archaeological Significance Criteria Met	Significance
RPS Speers Point AS1	Artefact scatter	Meets none of the criteria.	Low
RPS Speers Point AS2	Artefact scatter	Meets none of the criteria	Low
RPS Speers Point IF1	Isolated find	Meets none of the criteria	Low
RPS Speers Point AS3	Artefact scatter	Meets none of the criteria	Low
RPS Speers Point IF3	Isolated find	Meets none of the criteria	Low
RPS Speers Point GG1	Grinding groove	Rare; Integrity; Connectedness; Contribute to Knowledge	High
RPS Speers Point RS1	Rock Shelter	Rare; Integrity; Connectedness; Contribute to Knowledge	High

### Table 9-1: New sites located during Survey

### 9.3 Cultural Significance

This can only be determined by Aboriginal community. This section is to be completed once community feedback has been received with the responses at Appendix 5.

# 10 European Historic Significance Assessment

No items of European cultural historical significance were recorded during the survey.

## **II** Discussion

With regard **Aboriginal cultural heritage** six sites were recorded during the survey. Five of those sites, isolated artefacts and artefact scatters are of a type commonly found in the Lake Macquarie area. The grinding depression site is recorded as a grinding groove in accordance with AHIMS terminology. The grinding depression was possibly used for the processing of food such as seeds or tubers. Situated in a drainage line water would have been included in the grinding process and probably used to clean the grinding surface when the process was complete. The presence of two grinding depressions may indicate a two stage process with the ground material moved from one depression to the other. This not a common site type for the northern Lake Macquarie area and is considered to have archaeological significance.

There was no physical evidence of ceremonial sites on **ridgelines** as described by Threlkeld in the nineteenth century. The apparent absence of the ceremonial stones does not diminish the study areas link to the mythology of the Awabakal people. The recommendation for investigation for gazettal of parts of Munibung Hill as an Aboriginal Place under Section 84 *National Parks and Wildlife Act 1974* and the designation of these ridgelines as a Sensitive Aboriginal Cultural Landscape under Lake Macquarie City Council's *draft LMLEP 2011 Sensitive Aboriginal Cultural Landscapes Map 2010* confirms the role of the area in the Awabakal people's cultural heritage.

The **valleys** were often a preferred habitation area for the Aboriginal people. Fresh water in creeks and a sheltered location provides high potential for occupation sites to exist on flat areas. The recording of the grinding grooves, a potential food processing site within a drainage line in a sheltered valley may be an indication that further undetected sites are present. The southern and eastern valleys are densely vegetated with little opportunity for effective surveying. The western valley while clear of middle and upper storey vegetation had a dense cover of pasture grass. It is considered that all valleys within the study area comprise potential archeologically sensitive areas. The potential for further sites to occur was borne out by the subsequent location of a rock shelter, on the slope of the central valley that was not detected during the first survey.

The **central area and western slopes** has suffered from a range of disturbance through total reworking in the area of the quarry operations to disturbance of a lesser extent on some of the slopes. It is considered this area has nil to low archaeological sensitivity. The western slope also appears to have been significantly impacted on and the degree of slope would indicate that this would not be a preferred occupation area.

With regard **European cultural heritage** no sites were recorded. While it is most likely that the **Lochend mine** has been destroyed during quarrying or possibly filled in, any potential ground works in the western section of the study area should be mindful of the potential for remnants of the mine to exist.

The **European headstones** were not located. The only evidence of their existence is a handwritten note on a map (Lake Macquarie Local History Collection – Pamphlet File – Speers Point). It is possible that the headstones have fallen over and are hidden in the dense grass consequently any potential ground works in the western section of the study area should be mindful of their potential presence.

## 12 Recommendations

The management recommendations that are formulated from this archaeological assessment are based upon the legislation designed to address the impact of development on sites of cultural significance.

This survey and report were produced to inform the potential amendment and should be considered as a preliminary assessment therefore the following recommendation is made:

### **Recommendation 1**

Any proposed development of the Speers Point Quarry study area should be informed by a full and comprehensive investigation of the area's Aboriginal and European cultural heritage values.

That investigation should be informed by the following recommendations -

It is considered with regards Aboriginal cultural heritage;

### **Recommendation 2**

Investigation and consultation should occur into the gazettal of the ridgelines (Figure 8.1) as an Aboriginal Place under s.84 of the National Parks and Wildlife Act (1974). If the ridgelines are not declared an Aboriginal Place any ground works, including remedial environmental work should be preceded by a targeted archaeological investigation. If any ground works are to occur that may impact on the Aboriginal cultural heritage sites recorded during this archaeological investigation then it will be necessary to apply for an Aboriginal Heritage Impact Permit to DECCW.

### **Recommendation 3**

The valleys (Figure 8.1) should be designated as archaeologically sensitive in terms of Aboriginal cultural heritage. Any ground works to be carried out in these areas, including vegetation clearance should be preceded by a targeted archaeological investigation that may include both survey and test excavations. If any ground work occurs that may impact on the Aboriginal cultural heritage site recorded during this survey then it will be necessary to submit a s.90 application to DECCW.

### **Recommendation 4**

The central valley and western slope (Figure 8.1) is not considered archaeologically sensitive and it is considered there is no impediment on Aboriginal or European cultural heritage grounds to works occurring.

### **Recommendation 5**

During the course of proposed construction work, if suspected Aboriginal cultural heritage material is encountered, work should cease in that vicinity immediately and the DECCW, ADTOAC and New South Wales Aboriginal Land Council acting for Koompahtoo LALC immediately notified. Works should only recommence when an appropriate and approved management strategy has been agreed to by relevant stakeholders.

### **Recommendation 6**

In the event that skeletal remains are uncovered whilst operations are underway, work is to stop in the vicinity immediately, the NSW Coroner's Office and NSW Police contacted. If the remains are deemed to be of Aboriginal origin, a representative of ADTOAC, New South Wales Aboriginal Land Council acting for Koompahtoo LALC and DECCW are also to be contacted.

### With regard European cultural heritage;

### **Recommendation 7**

While no European cultural heritage items were noted it is important to note that two graves and the Lochend mine (Section 4.1.2) were historically recorded within the study area. Any works should be mindful of the possibility of their presence with due care taken in the vicinity of the area areas designated in Figure 4.1.

### **Recommendation 8**

If, during the course of clearing work, significant European cultural heritage material is uncovered, work should cease in that vicinity immediately. A significance assessment by a suitably qualified archaeologist adhering to the NSW Heritage Branch significance criteria should be carried out and the NSW Heritage Branch should be notified if significant historical items are identified. Works should only recommence when an appropriate and approved management strategy is instigated.

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# 14 PLATES



Plate 1: Survey Unit 1: Ridgeline One- Looking south to Lake Macquarie.



Plate 2: Survey Unit 1: Ridgeline One – one of the artefacts comprising RPS Speers Point AS1.



Plate 3: Survey Unit 1: Ridgeline Four – RPS Speers Point IF1



Plate 4: Survey Unit 1: Ridgeline Four – RPS Speers Point AS2



Plate 5: Survey Unit 1: Ridgeline Four - Looking south-east to the Pacific Ocean



Plate 6: Survey Unit 1: Ridgeline Five – RPS Speers Point AS3



Plate 7: Survey Unit 2: Central area and slopes – Quarry A



Plate 8: Survey Unit 2: Central area and slopes - looking north east



Plate 9: Survey Unit 3: Valleys – Eastern valley



Plate 10: Survey Unit 2: Central area and slopes – RPS Speers Point IF2



Plate 11: Survey Unit 3: Valleys – Western valley



Plate 12: Survey Unit 3: Valleys – Southern valley



Plate 13: Survey Unit 3: Valleys – Southern valley – RPS Speers Point GG1



Plate 14: Survey Unit 3: Valleys – Southern valley – RPS Speers Point GG1



Plate 15: Survey Unit 4: Western slopes



Plate 16: Survey Unit 4: Western slopes – redundant water reservoir



Plate 17: Additional survey: Rock shelter entrance



Plate 18: Additional survey: Inside rock shelter

# Appendix I

Legislative Requirements

# SUMMARY OF STATUTORY CONTROLS

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

### COMMONWEALTH

Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (ATSIHP Act), Amendment 2006

The purpose of this Act is to preserve and protect all heritage places of particular significance to Aboriginal and Torres Strait Islander people. This Act applies to all sites and objects across Australia and in Australian waters (s4).

It would appear that the intention of this Act is to provide national baseline protection for Aboriginal places and objects where State legislation is absent. It is not to exclude or limit State laws (s7(1)). Should State legislation cover a matter already covered in the Commonwealth legislation, and a person contravenes that matter, that person may be prosecuted under either Act, but not both (s7(3)).

The Act provides for the preservation and protection of all Aboriginal objects and places from injury and/or desecration. A place is construed to be injured or desecrated if it is not treated consistently with the manner of Aboriginal tradition or is or likely to be adversely affected (s3).

### THE AUSTRALIAN HERITAGE COMMISSION ACT 1975

The Australian Heritage Commission Act 1975 established the Australian Heritage Commission which assesses places to be included in the National Estate and maintains a register of those places. Places maintained in the register are those which are significant in terms of their association with particular community or social groups and they may be included for social, cultural or spiritual reasons. The Act does not include specific protective clauses.

The Australian Heritage Council Act 2003 together with The Environment Protection and Biodiversity Conservation Act 1999 (Amended) includes a National Heritage List of places of National heritage significance, maintains a Commonwealth Heritage List of heritage places owned or managed by the Commonwealth and ongoing management of the Register of the National Estate.

### STATE

It is incumbent on any land manager to adhere to legislative requirements that protect indigenous culture heritage in NSW. The relevant legislation includes but is not limited to:

National Parks & Wildlife Act 1974 (NPW Act), Amended 2001.

The DECCW issued the *Aboriginal cultural heritage consultation requirements for proponents* (April 2010) replace all previous consultation guidelines that related to Part 6 of the NPW Act 1974. There is a requirement where an <u>Aboriginal Heritage Impact Permit</u> is being applied for that the proponent, or consultant for the proponent contact the Local Aboriginal Land Council(s), Registrar of Aboriginal Owners, Native Title Services, local councils, the DECCW and the relevant catchment management authority, to request contact information for any/all potential Aboriginal people/groups with an ancestral interest in the cultural heritage of the project area.

The NPW Act provides statutory protection for all Aboriginal relics (not being a handicraft made for sale), with penalties levied for breaches of the Act. Part 6 of this Act is the relevant part concerned Aboriginal objects and places, with the Section 86 and Section 90 being the most pertinent:

**Section 91**: Under Section 91 of the Act it stipulates that a person who is aware of unregistered Aboriginal sites must report these to the DECC, regardless of the land status (Freehold, leasehold, Crown land).

Section 90: "A person who, without first obtaining the consent of the Director-General, knowingly destroys, defaces or damages, or knowingly causes or permits the destruction or defacement of or damage to, an Aboriginal object or Aboriginal place is guilty of an offence against this Act." Under s.5 of the Act "object" means any deposit, object or material evidence (not being a handicraft made for sale) relating to indigenous habitation of the area. This applies to habitation both prior to and concurrent with the occupation of that area by persons of non Aboriginal extraction, and includes Aboriginal remains.

**Section 87**: Preliminary Research Permits issued under Section 87 of the Act, allow the permit holder to conduct investigations of areas considered to be potential sites for the purpose of research, and also for conservation work associated with known sites.

Impact Permits issued under Section 90 of the Act are for salvaging sites prior to ground disturbance works associated with construction. Any disturbance, damage or destruction of Aboriginal sites, known or unknown, is considered to contravene the NPW Act (1974) and the DECC will pursue the person/company responsible.

Penalties under these two sections are currently 50 penalty units, or 6 months in gaol, or both for an individual and 200 penalty units for a corporation. The DECC record all S.87 and S.90 permits issued in order to manage Aboriginal sites and ensure representative samples of sites are left in situ for future generations. In order to achieve this, the DECC need to be made aware of all Aboriginal sites located in NSW.

**Section 86**: This section of the Act states that "A person, other than the Director-General or a person authorised by the Director-General in that behalf, who:

- disturbs or excavates any land, or causes any land to be disturbed or excavated, for the purpose of discovering an Aboriginal object;
- disturbs or moves on any land an Aboriginal object that is the property of the Crown, other than an Aboriginal object that is in the custody or under the control of the Australian Museum Trust;
- takes possession of an Aboriginal object that is in a national park, historic site, state conservation area, regional park, nature reserve, karst conservation reserve or Aboriginal area;
- removes an Aboriginal object from a national park, historic site, state conservation area, regional park, nature reserve, karst conservation reserve or Aboriginal area; or
- erects or maintains, in a national park, historic site, state conservation area, regional park, nature reserve, karst conservation reserve or Aboriginal area, a building or structure for the safe custody, storage or exhibition of any Aboriginal object,

except in accordance with the terms and conditions of an unrevoked permit issued to the person under section 87, being terms and conditions having force and effect at the time the act or thing to which the permit relates is done, is guilty of an offence against this Act."

Section 84: Aboriginal places of traditional significance (that may or may not contain archaeological material) are given protection under Section 84 of the NPW Act. To be an Aboriginal place for the purposes of this Act, this is a place that, in the opinion of the Minister, is or was of special significance with respect to Aboriginal culture.

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

This Act regulates a system of environmental planning and assessment for New South Wales. Land use planning requires that environmental impacts are considered, including the impact on cultural heritage and specifically Aboriginal heritage. Within the EP&A Acts, Parts III, IV, and V relate to Aboriginal heritage.

Part III regulates the preparation of planning policies and plans. Part IV governs the manner in which consent authorities determine development applications and outlines those that require an environmental impact statement. Part V regulates government agencies that act as determining authorities for activities conducted by that agency or by authority from the agency. The National Parks & Wildlife Service is a Part V authority under the EP&A Act.

In brief, the NPW Act provides protection for Aboriginal objects or places, while the EP&A Act ensures that Aboriginal cultural heritage is properly assessed in land use planning and development.

Part 3A of the EPA relates to major projects, and if applicable, obviates the need to conform to other specific legislation. In particular, s75U of the EPA Act explicitly removes the need to apply for s87 or s90 permits under the NPW Act. This means that although Aboriginal cultural heritage is
considered during the planning process, a permit is not required to disturb or destroy an Aboriginal object or place. However, the Director-General of Planning must nonetheless consult with other government agencies, including DECC and National Parks & Wildlife, prior to any decision being made.

# THE HERITAGE ACT 1977

This Act protects the natural and cultural history of NSW with emphasis on non-indigenous cultural heritage through protection provisions and the establishment of a Heritage Council. Although Aboriginal heritage sites and objects are primarily protected by the National Parks & Wildlife Act 1974 (NPW Act), Amended 2001, if an Aboriginal site, object or place is of great significance, it may be protected by a heritage order issued by the Minister subject to advice by the Heritage Council.

Other legislation of relevance to Aboriginal cultural heritage in NSW includes the NSW Local Government Act (1993). Local planning instruments also contain provisions relating to indigenous heritage and development conditions of consent.

Appendix 2

AHIMS Registered Sites

AHIMS Augul Harage Kumaiun Maragement System



# List of Sites (List - Short)

Speers Point

Grid Reference Type = AGD (Australian Geodetic Datum), Zone = 56, Easting From = 368242, Easting to = 378242, Northing From = 6347385, Northing to = 6357385, Requestor like 3023%, Service ID = 28856, Feature Search Type = AHIMS Features

Site ID	Site Name	Datum Zone Easting Northing Cor	ntext Site Features	Site Types	Recordina	Reports	State Arch. Box No
				(recorded prior to June 2001	(Primary)	(Catalogue Number)	(for office use only)
38-4-0005	<u>Cockle Bay;Teralba;</u>	AGD 56 369941 6351575 Opt	sn Site AFT :-	Open Camp Site	ASRSYS	98458	NRS/17798/1/252
		Status Destroyed					
		Primary Contact			Permit(s) 2104		
38-4-0006	<u>Boolaroo;Cockle Creek;</u>	AGD 56 370652 6352686 Opt	₃n Site AFT : -	Open Camp Site	ASRSYS	98458	NRS/17798/1/252
		Status Valid					
		Primary Contact			Permit(s)		
38-4-0007	Speers Point Park:	AGD 56 370671 6351680 Opt	₃n Site AFT : -	Open Camp Site	ASRSYS	98458	NRS/17798/1/252
		Status Valid					
		Primary Contact			Permit(s)		
38-4-0008	Cockle Bay;Marmong Point;	AGD 56 370693 6350492 Opt	₃n Site AFT : -	Open Camp Site	ASRSYS	98458	NRS/17798/1/252
		Status Valid					
		Primary Contact			Permit(s) 2181		
38-4-0009	Speers Point Manse	AGD 56 371594 6351241 Opt	∋n Site AFT : -	Open Camp Site	Unknown Author	98458	NRS/17798/1/252
		Status Valid					
		Primary Contact			Permit(s)		
38-4-0010	<u>The Knob</u>	AGD 56 372560 6348516 Opt	sn Site AFT : -, ETM : -, SHL : -	· Midden	Unknown Author	98458	NRS/17798/1/252
		Status Valid					
		Primary Contact			Permit(s)		
38-4-0011	North Creek:	AGD 56 373156 6350813 Opt	∋n Site AFT : -	Open Camp Site	ASRSYS	98458	NRS/17798/1/252
		Status Valid					
		Primary Contact			Permit(s)		
38-4-0015	<u> Windale;Dudley-Jewells Swamp Area;</u>	AGD 56 375947 6348306 Opt	₃n Site AFT : -	Open Camp Site	Dyall	98458	NRS/17798/1/252
		Status Valid					
		Primary Contact			Permit(s)		

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# List of Sites (List - Short)

Speers Point

Grid Reference Type = AGD (Australian Geodetic Datum), Zone = 56, Easting From = 368242, Easting to = 378242, Northing From = 6347385, Northing to = 6357385, Requestor like 3023%, Service ID = 28856, Feature Search Type = AHIMS Features

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					(recorded prior to June 2001	(Primary)	(Catalogue Number)	for office use only)
38-4-0016	<u>Cardiff;Blackbutt Reserve;</u>	AGD 56 37722	22 6353359 Open Site	GDG : -	Axe Grinding Groove	Dyall	98458	NRS/17798/1/252
		Status Valid						
		Primary Contact				Permit(s)		
38-4-0017	Cardiff;Blackbutt Reserve;	AGD 56 37722	22 6353359 Open Site	GDG : -	Axe Grinding Groove	Dyall	98458	NRS/17798/1/252
		Status Valid						
		Primary Contact				Permit(s)		
38-4-0018	Gateshead Dudley-Jewells Swamp Area	AGD 56 37730	)5 6348972 Open Site	AFT : -	Open Camp Site	Dyall	98458	NRS/17798/1/252
		Status Valid						
		Primary Contact				Permit(s)		
38-4-0019	<u>Gateshead;Dudley-Jewells Swamp Area;</u>	AGD 56 37736	32 6350802 Open Site	AFT : -	Open Camp Site	Dyall	98458	NRS/17798/1/252
		Status Valid						
		Primary Contact				Permit(s)		
38-4-0020	<u>Gateshead;Dudley-Jewells Swamp Area;</u>	AGD 56 37757	71 6349434 Open Site	AFT : -	Open Camp Site	Dyall	98458	NRS/17798/1/252
		Status Valid						
		Primary Contact				Permit(s)		
38-4-0021	Gateshead;Dudley-Jewells Swamp;	AGD 56 37803	35 6349077 Open Site	AFT : -	Open Camp Site	Dyall		NRS/17798/1/252
		Status Valid						
		Primary Contact				Permit(s)		
38-4-0022	Gateshead Dudley-Jewells Swamp	AGD 56 37821	14 6349264 Open Site	GDG : -	Axe Grinding Groove	Dyall		NRS/17798/1/252
		Status Valid						
		Primary Contact				Permit(s)		
38-4-0078	<u>Teralba;1;</u>	AGD 56 36863	30 6353310 Open Site	GDG : -	Axe Grinding Groove	Dyall	312, 1456, 98458	NRS/17798/1/253
		Status Valid						
		Primary Contact				Permit(s)		

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# List of Sites (List - Short)

Speers Point

Grid Reference Type = AGD (Australian Geodetic Datum), Zone = 56, Easting From = 368242, Easting to = 378242, Northing From = 6347385, Northing to = 6357385, Requestor like 3023%, Service ID = 28856, Feature Search Type = AHIMS Features

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38-4-0079	<u>Teralba 2</u>	AGD 5	56 368990	6353230 Open Site	GDG : -	Axe Grinding Groove	Dyall	312, 1456, 98458, 09450	NRS/17798/1/253
		Status Vali	p					00+00	
		Primary Co	ontact				Permit(s)		
38-4-0080	<u>Teralba;4;</u>	AGD 5	56 369850	6353260 Open Site	GDG : -	Axe Grinding Groove	Dyall	312, 1456, 98458,	NRS/17798/1/253
		Status Vali	jd					80409	
		Primary Co	ontact				Permit(s)		
38-4-0082	<u>Lambton</u>	AGD 5	56 377918	6355201 Open Site	GDG : -	Axe Grinding Groove	Dyall	98458, 98459	NRS/17798/1/253
		Status Vali	p						
		Primary Co	ontact				Permit(s)		
38-4-0085	Lambton:	AGD	56 377918	6355201 Open Site	GDG : -	Axe Grinding Groove	Dyall	98458, 98459	NRS/17798/1/253
		Status Vali	jd						
		Primary Co	ontact				Permit(s)		
38-4-0093	Floggy Creek M-W-10	AGD 5	56 368787	6354571 Open Site	GDG : -	Axe Grinding Groove	Lough	98458, 98459	NRS/17798/1/253
		Status Vali	įd						
		Primary Co	ontact				Permit(s)		
38-4-0099	Marmong Point Marmong	AGD 5	56 370480	6349140 Open Site	GDG : -	Axe Grinding Groove	Sullivan	98458, 98459	NRS/17798/1/253
		Status Vali	p						
		Primary Co	ontact				Permit(s)		
38-4-0108	<u>Booragul;</u>	AGD 5	56 370317	6355880 Open Site	GDG : -	Axe Grinding Groove	Sullivan	98458, 98459	NRS/17798/1/254
		Status Vali	id						
		Primary Co	ontact				Permit(s)		
38-4-0116	Site 2 (Newcastle, Wallsend)	AGD	56 371400	6354600 Open Site	AFT : -	Open Camp Site	Unknown Author	1022, 1221, 2067, 00450	NRS/17798/1/254
		Status Vali	p					00100	
		Primary Co	ontact				Permit(s) 272		

Number of Sites :98 Page 3 of 13

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Site ID	Site Name	Datum Zone Easting Northing Context Site Features	Site Types	Recording	Reports	State Arch. Box No
			(recorded prior to June 200	1 (Primary)	(Catalogue Number)	(for office use only)
38-4-0167	<u>Winding Creek (Glendale):</u>	AGD 56 373200 6355400 Open Site AFT :-	Open Camp Site	Dean-Jones	1672, 98458, 00450	NRS/17798/1/254
		Status Valid			90409	
		Primary Contact		Permit(s)		
38-4-0168	Winding Creek (Glendale) Site 5;	AGD 56 373500 6355300 Open Site AFT : -	Open Camp Site	Dean-Jones	1672, 98458,	NRS/17798/1/254
		Status Valid			98459	
		Primary Contact		Permit(s)		
38-4-0169	Winding Creek Glendale Site 2;	AGD 56 373400 6355400 Open Site AFT : -	Open Camp Site	Dean-Jones	1672, 98458,	NRS/17798/1/254
		Status Valid			98459	
		Primary Contact		Permit(s)		
38-4-0170	Winding Creek Glendale Site 3;	AGD 56 373500 6355400 Open Site AFT : -	Open Camp Site	Dean-Jones	1672, 98458,	NRS/17798/1/254
		Status Valid			98459	
		Primary Contact		Permit(s)		
38-4-0171	Winding Creek Glendale Site 4;	AGD 56 373700 6355100 Open Site AFT : -	Open Camp Site	Dean-Jones	1672, 98458,	NRS/17798/1/254
		Status Valid			98459	
		Primary Contact		Permit(s)		
38-4-0172	Winding CK Glendale Site 6;	AGD 56 373600 6354900 Open Site TRE : -	Scarred Tree	Dean-Jones	1672, 98458,	NRS/17798/1/254
		Status Valid			98459	
		Primary Contact		Permit(s)		
38-4-0173	Winding Ck Glendale Site 8;	AGD 56 373000 6355400 Open Site AFT : -	Open Camp Site	Dean-Jones	1672, 98458,	NRS/17798/1/254
		Status Valid			96409	
		Primary Contact		Permit(s) 924		
38-4-0174	Winding Ck Glendale Site 7;	AGD 56 373300 6355100 Open Site AFT : -	Isolated Find	Dean-Jones	1672, 98458, 00450	NRS/17798/1/254
		Status Valid			00100	
		Primary Contact		Permit(s) 924		

Grid Reference Type = AGD (Australian Geodetic Datum), Zone = 56, Easting From = 368242, Easting to = 378242, Northing From = 6347385, Northing to = 6357385, Requestor like 3023%, Service ID = 28856, Feature Search Type = AHIMS Features Speers Point

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List of Sites (List - Short)

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Site ID	Site Name	Datum Zone Easting	Northing Context	Site Features	Site Types	Recording	Reports	State Arch. Box No
					(recorded prior to June 200	11 (Primary)	(Catalogue Number)	(for office use only)
38-4-0175	Winding Ck Glendale Site 9;	AGD 56 373300	6354900 Open Site	AFT : -	Isolated Find	Dean-Jones	1672, 98458,	NRS/17798/1/254
		Status Valid					00400	
		Primary Contact				Permit(s) 924		
38-4-0185	Rocky Point;	AGD 56 370550	6347900 Open Site	AFT : -, ETM : -, SHL : -	Midden	Bluff	1333	NRS/17798/1/254
		Status Valid						
		Primary Contact				Permit(s)		
38-4-0186	Kooroora Bay:	AGD 56 369680	6348140 Open Site	AFT : -, ETM : -, SHL : -	Midden	Bluff	1333, 98458,	NRS/17798/1/254
		Status Valid					90409	
		Primary Contact				Permit(s)		
38-4-0187	Fennell Bay:	AGD 56 368310	6349290 Open Site	ART : -	Rock Engraving	Bluff	1333, 98458, 00450	NRS/17798/1/254
		Status Valid					V040V	
		Primary Contact				Permit(s)		
38-4-0188	<u>Fennell Bay;</u>	AGD 56 368340	6349300 Open Site	AFT : -	Isolated Find	Bluff	1333, 98458, 00450	NRS/17798/1/254
		Status Valid					V040V	
		Primary Contact				Permit(s)		
38-4-0192	<u>Koorooro Bay;</u>	AGD 56 369500	6348250 Open Site	AFT : -, ETM : -, SHL : -	Midden	Bluff	1333, 98458, 00450	NRS/17798/1/255
		Status Valid					90409	
		Primary Contact				Permit(s)		
38-4-0193	Bolton Point:	AGD 56 369740	6347500 Open Site	AFT : -, ETM : -, SHL : -	Midden	Bluff	1333	NRS/17798/1/255
		Status Valid						
		Primary Contact				Permit(s)		
38-4-0195	<u>Marmong Marina;</u>	AGD 56 370700	6350050 Open Site	AFT : -, ETM : -, SHL : -	Midden	Bluff	1333, 98458, 08460	NRS/17798/1/255
		Status Valid						
		Primary Contact				Permit(s)		

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List of Sites (List - Short)

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Grid Reference Type = AGD (Australian Geodetic Datum), Zone = 56, Easting From = 368242, Easting to = 378242, Northing From = 6347385, Northing to = 6357385, Requestor like 3023%, Service ID = 28856, Feature Search Type = AHIMS Features

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Site ID	Site Name	Datum Zone Easting Northing Context Site Features Site	te Types	Recording	Reports	State Arch. Box No
		(rec	corded prior to June 200	(Primary)	(Catalogue Number)	(for office use only)
38-4-0196	<u>Marmong Marina;</u>	AGD 56 370740 6349990 Open Site AFT :-, ETM :-, SHL :- Mid	dden	Bluff	1333, 98458, 09450	NRS/17798/1/255
		Status Valid			00+00	
		Primary Contact		Permit(s)		
38-4-0197	Marmong Point;	AGD 56 371050 6350220 Open Site AFT : -, ETM : -, SHL : - Mid	dden	Bluff	1333, 98458, 00450	NRS/17798/1/255
		Status Valid			90409	
		Primary Contact		Permit(s)		
38-4-0198	Marmong Point:	AGD 56 371050 6350200 Open Site AFT : -, ETM : -, SHL : - Mid	dden	Bluff	1333, 98458,	NRS/17798/1/255
		Status Valid			98459	
		Primary Contact		Permit(s)		
38-4-0199	Marmong Point;	AGD 56 370900 6349800 Open Site AFT : -, ETM : -, SHL : - Mid	dden	Bluff	1333, 98458,	NRS/17798/1/255
		Status Valid			90409	
		Primary Contact		Permit(s)		
38-4-0200	<u>Marmong Point;</u>	AGD 56 370810 6349510 Open Site AFT :-, ETM :-, SHL :- Mid	dden	Bluff	1333, 98458, 09450	NRS/17798/1/255
		Status Valid			00400	
		Primary Contact		Permit(s)		
38-4-0201	<u>Lake Macquarie;</u>	AGD 56 370550 6348860 Open Site AFT :-, ETM :-, SHL :- Mid	dden	Bluff	1333, 98458, 09450	NRS/17798/1/255
		Status Valid			90409	
		Primary Contact		Permit(s)		
38-4-0202	<u>Lake Macquarie;</u>	AGD 56 370550 6348810 Open Site AFT : -, ETM : -, SHL : - Mid	dden	Bluff	1333, 98458,	NRS/17798/1/255
		Status Valid			90409	
		Primary Contact		Permit(s)		
38-4-0203	<u>Lake Macquarie;</u>	AGD 56 370540 6348660 Open Site AFT :-, ETM :-, SHL :- Mid	dden	Bluff	1333, 98458, 08450	NRS/17798/1/255
		Status Valid			00000	
		Primary Contact		Permit(s)		

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List of Sites (List - Short)

Grid Reference Type = AGD (Australian Geodetic Datum), Zone = 56, Easting From = 368242, Easting to = 378242, Northing From = 6347385, Northing to = 6357385, Requestor like 3023%, Service ID = 28856, Feature Search Type = AHIMS Features

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Site ID	Site Name	Datum Zone Easting	Northing Context	Site Features	Site Types	Recording	Reports	State Arch. Box No
					(recorded prior to June 2001	(Primary)	(Catalogue Number)	(for office use only)
38-4-0204	<u>Lake Macquarie;</u>	AGD 56 370550	6348550 Open Site	AFT : -, ETM : -, SHL : -	Midden	Bluff	1333, 98458, 08450	NRS/17798/1/255
		Status Valid						
		Primary Contact				Permit(s)		
38-4-0205	Lake Macquarie <u>;</u>	AGD 56 370550	6348540 Open Site	AFT : -, ETM : -, SHL : -	Midden	Bluff	1333, 98458,	NRS/17798/1/255
		Status Valid					90409	
		Primary Contact				Permit(s)		
38-4-0206	Lake Macquarie;	AGD 56 370550	6348450 Open Site	AFT : -, ETM : -, SHL : -	Midden	Bluff	1333, 98458,	NRS/17798/1/255
		Status Valid					90409	
		Primary Contact				Permit(s)		
38-4-0207	Rocky Point:	AGD 56 370550	6347850 Open Site	AFT : -, ETM : -, SHL : -	Midden	Bluff	1333	NRS/17798/1/255
		Status Valid						
		Primary Contact				Permit(s)		
38-4-0208	<u>Kooroora Bay;</u>	AGD 56 369660	6348060 Open Site	AFT : -, ETM : -, SHL : -	Midden	Bluff	1333, 98458, 08450	NRS/17798/1/255
		Status Valid					V040V	
		Primary Contact				Permit(s)		
38-4-0209	<u>Kooroora Bay:</u>	AGD 56 369600	6348020 Open Site	AFT : -, ETM : -, SHL : -	Midden	Bluff	1333, 98458,	NRS/17798/1/255
		Status Valid					V040V	
		Primary Contact				Permit(s)		
38-4-0210	<u>Kooroora Bay;</u>	AGD 56 369570	6348080 Open Site	AFT : -, ETM : -, SHL : -	Midden	Bluff	1333, 98458,	NRS/17798/1/255
		Status Valid					V040V	
		Primary Contact				Permit(s)		
38-4-0211	<u>Kooroora Bay;</u>	AGD 56 369530	6348210 Open Site	AFT : -, ETM : -, SHL : -	Midden	Bluff	1333, 98458, 08450	NRS/17798/1/255
		Status Valid					00+00	
		Primary Contact				Permit(s)		

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List of Sites (List - Short)

Grid Reference Type = AGD (Australian Geodetic Datum), Zone = 56, Easting From = 368242, Easting to = 378242, Northing From = 6347385, Northing to = 6357385, Requestor like 3023%, Service ID = 28856, Feature Search Type = AHIMS Features

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# List of Sites (List - Short)

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Grid Reference Type = AGD (Australian Geodetic Datum), Zone = 56, Easting From = 368242, Easting to = 378242, Northing From = 6347385, Northing to = 6357385, Requestor like 3023%, Service ID = 28856, Feature Search Type = AHIMS Features

Site ID	Site Name	Datum Zone Easting	Northing Context	Site Features	Site Types	Recording	Reports	State Arch. Box No
					(recorded prior to June 2001	(Primary)	(Catalogue Number)	(for office use only)
38-4-0212	<u>Kooroora Bay;</u>	AGD 56 369150	6348250 Open Site	AFT : -, ETM : -, SHL :	- Midden	Bluff	1333, 98458, 08450	NRS/17798/1/255
		Status Valid						
		Primary Contact				Permit(s)		
38-4-0295	George Booth 1;	AGD 56 369900	6356300 Open Site	AFT : -	Isolated Find	Lloyd	607, 2067, 98458, 08450	NRS/17798/1/256
		Status Valid					80403	
		Primary Contact				Permit(s) 390		
38-4-0296	George Booth 2:	AGD 56 369900	6356300 Open Site	AFT : -	Isolated Find	Lloyd	607, 2067, 98458,	NRS/17798/1/256
		Status Valid					90409	
		Primary Contact				Permit(s) 390		
38-4-0343	<u>Garden Suburb</u>	AGD 56 376200	6353500 Open Site	GDG : -	Axe Grinding Groove	Effenberger	98458, 98459	NRS/17798/1/257
		Status Valid						
		Primary Contact				Permit(s)		
38-4-0357	<u>Garden Suburb;</u>	AGD 56 376200	6353500 Open Site	GDG : -	Axe Grinding Groove	Effenberger	98458, 98459	NRS/17798/1/257
		Status Valid						
		Primary Contact				Permit(s)		
38-4-0377	<u>ISF 1;Cockle Creek;</u>	AGD 56 369500	6355400 Open Site	AFT : -	Isolated Find	Effenberger	98458, 98459	NRS/17798/1/257
		Status Valid						
		Primary Contact				Permit(s) 1063		
38-4-0378	<u>ISF 2 Cockle Creek</u>	AGD 56 369350	6355550 Open Site	AFT : -	Isolated Find	Effenberger	3390, 98458, 09450	NRS/17798/1/257
		Status Valid					00400	
		Primary Contact				Permit(s) 1063		
38-4-0397	<u>ISF1 (Wallsend)</u>	AGD 56 369500	6355400 Open Site	AFT : -	Isolated Find	Effenberger	3390, 3464, 00450, 00450	NRS/17798/1/257
		Status Valid					00+00, 00+00	
		Primary Contact				Permit(s)		

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# List of Sites (List - Short)

Speers Point

Grid Reference Type = AGD (Australian Geodetic Datum), Zone = 56, Easting From = 368242, Easting to = 378242, Northing From = 6347385, Northing to = 6357385, Requestor like 3023%, Service ID = 28856, Feature Search Type = AHIMS Features

Site ID	Site Name	Datum Zone Easting	Northing Context	Site Features	Site Types	Recording	Reports	State Arch. Box No
					(recorded prior to June 2001	(Primary)	(Catalogue Number)	(for office use only)
38-4-0398	<u>ISF2;</u>	AGD 56 369350	6355550 Open Site	AFT : -	Isolated Find	Effenberger	3464, 98458, 09460	NRS/17798/1/257
		Status Valid					90409	
		<b>Primary Contact</b>				Permit(s)		
38-4-0442	<u>Brush Creek</u>	AGD 56 372260	6356800 Open Site	GDG : -	Axe Grinding Groove	Bluff, Miller	1333, 97766, 07000, 00450	NRS/17798/1/258
		Status Valid					91.822, 98438, 98459	
		Primary Contact				Permit(s)		
38-4-0453	Maniibang:	AGD 56 372880	6352880 Open Site	STA : -	Stone Arrangement	Bluff	1333, 98458, 00450	NRS/17798/1/258
		Status Valid					96409	
		Primary Contact				Permit(s)		
38-4-0531	Five Islands 1	AGD 56 369750	6351200 Open Site	AFT : -	Open Camp Site	Unknown Author	98458, 98459	
		Status Valid						
		Primary Contact				Permit(s)		
38-4-0602	BRUSH CREEK 1	AGD 56 372930	6356260 Open Site	AFT : -, GDG : -	None	Brayshaw	97766, 97822	NRS/17798/1/261
		Status Valid						
		Primary Contact				Permit(s)		
38-4-0603	BRUSH CREEK 2	AGD 56 372340	6356280 Open Site	AFT : -	None	Brayshaw	97766, 97822	NRS/17798/1/261
		Status Valid						
		Primary Contact				Permit(s)		
38-4-0631	<u>IF2/Glendale</u>	AGD 56 371710	6357310 Open Site	AFT : -	None	Brayshaw	97766	NRS/17798/1/262
		Status Valid						
		Primary Contact				Permit(s)		
38-4-0764	<u>Brush creek 1a</u>	AGD 56 371789	6355291 Open Site	AFT : 1, SHL : -	None	Umwelt (Australia) Pty Limited		
		Status Valid						
		Primary Contact				Permit(s)		

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# List of Sites (List - Short)

Speers Point

Grid Reference Type = AGD (Australian Geodetic Datum), Zone = 56, Easting From = 368242, Easting to = 378242, Northing From = 6347385, Northing to = 6357385, Requestor like 3023%, Service ID = 28856, Feature Search Type = AHIMS Features

Site ID	Site Name	Datum Zone Easting Northing Context Site Features	Site Types	Recording	Reports	State Arch. Box No
			(recorded prior to June 2001	(Primary) (C	(Catalogue Number)	(for office use only)
38-4-0767	Cocked Hat Creek 1	AGD 56 369928 6356749 Open Site AFT : 2	None	Umwelt (Australia) Pty Limited		NRS/17798/1/263
		Status Valid				
		Primary Contact		Permit(s)		
38-4-0768	Cocked Hat Creek 2	AGD 56 370047 6356940 Open Site AFT : 3	None	Umwelt (Australia) Pty Limited		NRS/17798/1/263
		Status Valid				
		Primary Contact		Permit(s)		
38-4-0770	Cocked Hat Creek 4	AGD 56 370041 6356578 Open Site AFT : 1	None	Umwelt (Australia) Pty Limited		NRS/17798/1/263
		Status Valid				
		Primary Contact		Permit(s)		
38-4-0776	Dunbar 1	AGD 56 369530 6356890 Open Site AFT :-	None	Besant	99020	NRS/17798/1/263
		Status Valid				
		Primary Contact		Permit(s) 2001		
38-4-0777	Dunbar <u>3</u>	AGD 56 369730 6356720 Open Site AFT :-	None	Besant	99020	NRS/17798/1/263
		Status Valid				
		Primary Contact		Permit(s) 2001		
38-4-0778	Dunbar 2	AGD 56 369392 6357132 Open Site AFT :-	None	Besant	99020	NRS/17798/1/263
		Status Valid				
		Primary Contact		Permit(s) 3060		
38-4-0840	<u>North Creek 2 Warners Bay</u>	AGD 56 373240 6351899 Open Site AFT : 3	None	Besant		
		Status Valid				
		Primary Contact		Permit(s) 2185		
38-4-0894	<u>Dunbar 3.</u>	AGD 56 369624 6356603 Open Site AFT : 1	None	Besant		NRS/17798/1/264
		Status Valid				
		Primary Contact		Permit(s)		

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	0 = 030/303, Requestor like 3023%, Service ID	= 20000, reature Search Type = Animo reatures				
Site ID	Site Name	Datum Zone Easting Northing Context Site Features	Site Types	Recording	Reports	State Arch. Box No
			(recorded prior to June 2001	(Primary)	(Catalogue Number)	(for office use only)
38-4-0991	Fennell Bay 2	AGD 56 368890 6347830 Open Site AFT :-, SHL :-	None	Clarke		
		Status Valid				
		Primary Contact		Permit(s) 2768		
38-4-0992	Fennell Bay 1	GDA 56 369060 6348230 Open Site AFT :-, SHL :-	None	Clarke		
		Status Valid				
		Primary Contact		Permit(s) 2768		
38-4-1013	<u>Booragul 1</u>	AGD 56 370527 6350578 Open Site AFT :-, SHL :-	None	Besant		
		Status Valid				
		Primary Contact		Permit(s)		
38-4-1021	<u>TFB 3</u>	AGD 56 368922 6347934 Open Site SHL :-	None	AECOM - Gordon/Pymble		
		Status Valid				
		Primary Contact		Permit(s)		
38-4-1070	IF 1 (Newcastle, Hunter)	GDA 56 371180 6357400 Open Site AFT :-	None	Brayshaw	97766, 97822	
		Status Valid				
		Primary Contact		Permit(s)		
38-4-1071	IF 2 (Newcastle, Hunter)	GDA 56 371710 6357310 Open Site AFT :-	None	Brayshaw	97766, 97822	
		Status Valid				
		Primary Contact		Permit(s)		
38-4-1187	<b>1 Nanda Street Marmong Point</b>	GDA 56 370972 6350342 Open Site SHL : 1	None	Eastoe Consulting Pty Ltd		
		Status Valid				
		Primary Contact		Permit(s)		
38-5-0154	<u>Myall Rd;</u>	AGD 56 377000 6353000 Open Site AFT :-	Open Camp Site	Effenberger	98458, 98459	NRS/17798/1/267
		Status Valid				
		Primary Contact		Permit(s) 854		

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List of Sites (List - Short)

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Speers Point

Grid Reference Type = AGD (Australian Geodetic Datum), Zone = 56, Easting From = 368242, Easting to = 378242, Northing From = 6347385,

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# List of Sites (List - Short)

Speers Point

Grid Reference Type = AGD (Australian Geodetic Datum), Zone = 56, Easting From = 368242, Easting to = 378242, Northing From = 6347385, Northing to = 6357385, Requestor like 3023%, Service ID = 28856, Feature Search Type = AHIMS Features

Site ID	Site Name	Datum	Zone Easting	Northing Context	Site Features	Site Types	Recording	Reports	State Arch. Box No
38-5-0155	<u>Hillsborough Rd;</u>	AGD	56 376550	6352400 Open Site	AFT : -	(recorded prior to June 2001 Open Camp Site	(Primary) Effenberger	(Catalogue Number) 98458, 98459	(for office use only) NRS/17798/1/267
		Status V	Valid						
		Primary	Contact				Permit(s) 854		
38-5-0156	Winding Ck:	AGD	56 376400	6352100 Open Site	AFT : -	Open Camp Site	Effenberger	98458, 98459	NRS/17798/1/267
		Status V	Valid						
		Primary	Contact				Permit(s) 854		
45-7-0043	Dudley-Jewells Swamp Area;Redhead South;	AGD	56 376055	6347394 Open Site	GDG : -	Axe Grinding Groove	Dyall		NRS/17798/1/433
		Status V	Valid						
		Primary	Contact				Permit(s)		
45-7-0073	Crokers Creek;Redhead;	AGD	56 375690	6347387 Open Site	GDG : -	Axe Grinding Groove	Dyall		NRS/17798/1/433
		Status V	Valid						
		Primary	Contact				Permit(s)		
45-7-0074	Dudley-Jewells Swamp Area Redhead	AGD	56 377966	6347887 Open Site	AFT : -	Open Camp Site	Dyall		NRS/17798/1/433
		Status V	Valid						
		Primary	Contact				Permit(s)		
45-7-0132	<u>Memorial Centre;</u>	AGD	56 370580	6347500 Open Site	AFT : -, ETM : -, SHL : -	Midden	Bluff	1333	NRS/17798/1/434
		Status V	Valid						
		Primary	Contact				Permit(s)		
45-7-0136	<u>Kooroora Bay:</u>	AGD	56 369900	6347600 Open Site	AFT : -, ETM : -, SHL : -	Midden	Bluff	1333	NRS/17798/1/434
		Status V	Valid						
		Primary	Contact				Permit(s)		
45-7-0137	<u>Kooroora Bay;</u>	AGD	56 369950	6347650 Open Site	AFT : -, ETM : -, SHL : -	Midden	Bluff	1333	NRS/17798/1/434
		Status V	Valid						
		Primary	Contact				Permit(s)		

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Speers Point

Grid Reference Type = AGD (Australian Geodetic Datum), Zone = 56, Easting From = 368242, Easting to = 378242, Northing From = 6347385, Northing to = 6357385, Requestor like 3023%, Service ID = 28856, Feature Search Type = AHIMS Features

Site ID	Site Name	Datum Zone Easting	Northing Context	Site Features	Site Types	Recording	Reports	State Arch. Box No
					(recorded prior to June 2001	(Primary)	(Catalogue Number)	(for office use only)
45-7-0209	<u>Sheppards Creek:</u>	AGD 56 372850	6347550 Open Site	AFT : -, ETM : -, SHL : -	Midden	Nelson		NRS/17798/1/434
		Status Valid						
		Primary Contact				Permit(s)		
45-7-0215	<u>Halton Park;</u>	AGD 56 372550	6347900 Open Site	AFT : -, ETM : -, SHL : -	Midden	Nelson		NRS/17798/1/435
		Status Valid						
		Primary Contact				Permit(s)		

# Appendix 3

Aboriginal Consultation Log

# Speers Point Consultation Log

Date	Description	Contact Method	Outcome
13/01/2010	Stage 1 Letters sent to DECCW, Lake Macquarie Council and Registrar of Aboriginal Owners.	Mail	Letters acknowledged.
13/01/2010	Stage 1 Letters sent to Koompahtoo Local Aboriginal Land Council (KLALC)	Mail	KLALC requested participation in assessment.
13/01/2010	Advert for expression of interest placed in Newcastle Herald and Express Advocate?	Newspaper	No responses.
03/02/2010	Stage 2 letters sent to KLALC and Shane Frost, Awabakal Descendants Traditional Owners Aboriginal Corporation (ADTOAC)	Mail	Both parties requested participation in the assessment.
03/02/2010	Emailed Stage 2 information to Shane Frost (ADTOAC)	Email	Shane Frost (ADTOAC) replied back sending registration of interest, certificate of currency and Elders insurance.
04/02/2010	Sent email back to Shane Frost (ADTOAC) and acknowledged his registration of interest.	Email	Shane Frost (ADTOAC) to participate in survey
11/02/2010	Kerrie Brauer (Awabakal Traditional Owners Aboriginal Corporation) phoned queried not been directly notified.	Phone	The full consultation process was not followed as AHIP is not being applied for. The survey is to identify and ascertain potential for sites.
15& 16/02/2010	Survey – Shane Frost attended (ADTOAC).	Study area survey	Attended two day survey
15& 16/02/2010	Koompahtoo LALC did not attend.	Study area survey	Left phone messages with Koompahtoo Office and Ashley Hudson (Koompahtoo Sites Officer) when Ashley had not arrived by 8.30am. Phoned Koompahtoo LALC office (9.30am) Lois Towney advised that Ashley was unaware of survey. Phoned Ashley, she had commitments both 15 and 16 Feb and could not attend survey
09/04/2010	Discussion with Shane Frost ADTOAC	Telephone	Discussed outcome of further investigation into grinding grooves.
06/04/2011	Shane Frost	Email from	Location of rock shelter not previously recorded.
26/05/2011	Survey – Shane Frost attended (ADTOAC). Kerrie Brauer (ATOAC) also attended.	Study area visit	Visited Speers Point to record the rock shelter.

Appendix 4

Glossary of Site Types

# Glossary Of Site Types

The following is a brief description of most Aboriginal site types.

# **Artefact Scatters**

Artefact scatters are defined by the presence of two or more stone artefacts in close association (i.e. within fifty metres of each other). An artefact scatter may consist solely of surface material exposed by erosion, or may contain sub-surface deposit of varying depth. Associated features may include hearths or stone-lined fireplaces, and heat treatment pits.

Artefact scatters may represent:

- Camp sites: involving short or long-term habitation, manufacture and maintenance of stone or wooden tools, raw material management, tool storage and food preparation and consumption;
- Hunting or gathering activities;
- Activities spatially separated from camp sites (e.g. tool manufacture or maintenance); or
- Transient movement through the landscape.

The detection of artefact scatters depends upon conditions of surface visibility, including vegetation cover, ground disturbance and recent sediment deposition. Unfavourable conditions obscure artefact scatters and prevent their detection during surface surveys.

# **Bora Grounds**

Bora grounds are a ceremonial site associated with initiations. They are usually comprise two circular depressions in the earth, and may be edged with stone. Bora grounds generally occur on soft sediments in river valleys, although they may also be located on high, rocky ground in association with stone arrangements.

# **Burials**

Human remains were often placed in hollow trees, caves or sand deposits and may have been marked by carved or scarred trees. Burials have been identified eroding out of sand deposits or creek banks, or when disturbed by development. The probability of detecting burials during archaeological fieldwork is extremely low.

# **Culturally Modified Trees**

Culturally modified trees include scarred and carved trees. Scarred trees are caused by the removal of bark for use in manufacturing canoes, containers, shields or shelters. Notches were also carved in trees to permit easier climbing. Scarred trees are only likely to be present on mature trees remaining from original vegetation. Carved trees, the easiest to identify, are caused by the removal of bark to create a working surface on which engravings are incised. Carved trees were used as markers for ceremonial and symbolic purposes, including burials. Although, carved trees were relatively common in NSW in the early 20th century, vegetation removal has rendered this site type extremely rare. Modified trees, where bark was removed for often domestic use are less easily identified. Criteria for identifying modified trees include: the age of the tree; type of tree (the bark of many trees is not suitable, also introduced species would be unlikely subjects); axe

marks (with the need to determine the type of axe - stone or steel – though Aborigines after settlement did use steel); shape of the scar (natural or humanly scarred); height of the scar above the ground (reasonable working height with consideration given to subsequent growth).

## **Fish Traps**

Fish traps comprised arrangements of stone, branches and/or wickerwork placed in watercourses, estuaries and along coasts to trap or permit the easier capture of sea-life.

## **Grinding Grooves**

Grinding grooves are elongated narrow depressions in soft rocks (particularly sedimentary), generally associated with watercourses, that are created by the shaping and sharpening of groundedge implements; by the processing of plant material such as seeds; or the reduction of products such as ochre. Grinding grooves are most commonly associated with axe production however they may have been used for other grinding processes. To produce a sharp edge the axe blank (or re-worked axe) was honed on a natural stone surface near a source of water. The water was required for lubricating the grinding process. Axe grinding grooves can be identified by features such as a narrow short groove, with greatest depth near the groove centre. The grooves also display a patina developed through friction between stone surfaces. Generally a series of grooves are found as a result of the repetitive process.

# **Isolated Finds**

Isolated finds occur where only one artefact is visible in a survey area. These finds are not found in apparent association with other evidence for prehistoric activity or occupation. Isolated finds occur anywhere and may represent loss, deliberate discard or abandonment of an artefact, or may be the remains of a dispersed artefact scatter. Numerous isolated finds have been recorded within the study area. An isolated find may flag the occurrence of other less visible artefacts in the vicinity or may indicate disturbance or relocation after the original discard.

## Middens

Shell middens comprise deposits of shell remaining from consumption and are common in coastal regions and along watercourses. Middens vary in size, preservation and content, although they often contain artefacts made from stone, bone or shell, charcoal, and the remains of terrestrial or aquatic fauna that formed an additional component of Aboriginal diet. Middens can provide significant information on land-use patterns, diet, chronology of occupation and environmental conditions.

## Mythological / Traditional Sites

Mythological and traditional sites of significance to Aboriginal people may occur in any location, although they are often associated with natural landscape features. They include sites associated with dreaming stories, massacre sites, traditional camp sites and contact sites. Consultation with the local Aboriginal community is essential for identifying these sites.

## Rock Shelters with Art and / or Occupation Deposit

Rock shelters occur where geological formations suitable for habitation or use are present, such as rock overhangs, shelters or caves. Rock shelter sites generally contain artefacts, food remains and/or rock art and may include sites with areas of potential archaeological deposit, where

evidence of rock-art or human occupation is expected but not visible. The geological composition of the study area greatly increases the likelihood for rock shelters to occur.

# **Stone Arrangements**

Stone arrangements include lines, circles, mounds, or other patterns of stone arranged by Aboriginal people. These may be associated with bora grounds, ceremonial sites, mythological or sacred sites. Stone arrangements are more likely to occur on hill tops and ridge crests that contain stone outcrops or surface stone, where impact from recent land use practices has been minimal.

# **Stone Quarries**

A stone quarry is a place at which stone resource exploitation has occurred. Quarry sites are only located where the exposed stone material is suitable for use either for ceremonial purposes (e.g. ochre) or for artefact manufacture.

# Appendix 5

# Aboriginal Community Responses

Speers Point Quarry, Final, November 2011



PO BOX 86 CLARENCE TOWN NSW 2321

Date: 8 June 2011

### Attention: Laraine Nelson (Senior Archaeologist) PO Box 428 Hamilton NSW 2303

### Re: Draft Cultural Heritage Survey & Assessment for Speers Point Quarry LES.

ALLA Laraine,

This letter is in response to your correspondence requesting feedback/comments from the **Awabakal Descendants Traditional Owners Aboriginal Corporation** in regard to the revised **Draft Cultural Heritage Survey & Assessment for Speers Point Quarry LES** received via email from RPS on the 8 June 2011. We would like to compliment you Laraine on your sterling effort to produce a draft report that reflects an attitude that is mindful of the impacts (both historically and up to this present day) that have been perpetrated on our Cultural Heritage. May we say we are very pleased with the overall contents and construction of the draft and the management recommendations. Saying this, we would also like to take advantage of your kind invitation to make some comments that we believe could be implemented to afford what we as Awabakal People believe to be a greater degree of protection and preservation for our Cultural Heritage. The **Draft Cultural Heritage Survey & Assessment for Speers Point Quarry LES** will be referred to in the following correspondence as the 'draft report'.

We are a registered Aboriginal Corporation under the Federal Governments **Aboriginal Corporations Act** to carry out business within Australia in regard to the representation of our people through this corporation known as the **Awabakal Descendants Traditional Owners Aboriginal Corporation**.

Being the direct Descendants of the Traditional Awabakal People of the Lake Macquarie/Newcastle area we take this opportunity in a few sentences to quickly formalise our position with you.

Our great great great Grandmother Mahrahkah was one of the first Aboriginal People to be recorded in the Lake Macquarie and Newcastle area in 1828 when the Reverend L.E.Threlkeld made the first list of the Aboriginal People of the Lake Macquarie and Newcastle districts from his mission station at Belmont. At Warner's Bay our great great great Grandmother and her daughter Charlotte, our great great Grandmother, were recorded by Jonathon Warner in 1833 and then again at Toronto in 1836 by L.E.Threlkeld at his mission there. We also have many well documented instances, as well as oral history of our People, which were also recorded by the Rev. L.E. Threlkeld living in and around this and other areas of the Newcastle and Lake Macquarie. Therefore, our people still live and maintain our Cultural ties with our Traditional Country and are concerned with the overall welfare of our Cultural Heritage and desire to be involved in all the affairs that may affect that Cultural Heritage which is vital to our People in maintaining connectedness in respect of our Traditional Country.

This area at Boolaroo/Speers Point where this proposed development project is located is within the Traditional Tribal Country of our People, the Awabakal. Our Traditional Tribal area is significant to us because our people have lived around Newcastle and Lake Macquarie for many thousands of years, these resource rich areas were utilised on many occasions to hunt, fish and carry on Traditions that have now been passed down for centuries from one generation to another. Subsequently, there are many sites located within our Traditional Country which provide tangible evidence of the Cultural Heritage of our people and of which identification and information regarding the locations and significance of many of these is only held by the Awabakal People who hold this knowledge.

It must also be emphasised that this area is highly significant to our People encompassing Munibung Hill and being situated in close proximity to the margins of Lake Macquarie and Cockle Creek. It has been the source of many rich recourses and a very sacred and spiritual area of which our people have depended on for thousands of years. As a result, due to the occupation of this area by our People, many deposits now make up the Awabakal Cultural Heritage that is located within the locale of Munibung Hill, Lake Macquarie and Cockle Creek and subsequently they are connected to the many other sites located within our Traditional Tribal Country.

As already explained, this area and every part of our Traditional Country are special to us, not just for the Physical aspect but also the Spiritual and Oral aspect which, when all combined, give us our complete Culture. Our Cultural Heritage and Traditional Tribal Country are two of the reasons why we take every opportunity to make ourselves available for consultation concerning the very important issues and decisions that need to be made in regard to protecting what is **OUR** Cultural Heritage, handed onto us as a legacy from our Ancestors and what also gives us the right through birth to be called Awabakal People.

### Recorded Aboriginal Occupation of the Lake Macquarie and Newcastle area

There are many historical documents which report the fact that this area was inhabited by Awabakal People. The 'Return of the Black Natives belonging to Lake Macquarie and Newcastle 21<sup>st</sup> May 1828'<sup>1</sup> recorded by the Rev. L.E. Threlkeld at his mission station at Belmont (only several Kilometres to the south east of this area) is one of those sources. In it he records the names of our direct Ancestors as belonging to a group of Aboriginal People that inhabit this very area; he described these People as 'old Jacky's Tribe'<sup>2</sup>. The Nominal Returns from Jonathon Warner (the Warners Bay area deriving its name from Jonathon Warner who was the Brisbane Water Police Magistrate and who lived on his estate at the northern end of Lake Macquarie in the shadow of Munibung Hill from 1830's to 1840s') in 1833 being a list of names of the Aboriginal People from the Lake Macquarie and Newcastle district shows the names of many of our People.<sup>3</sup> Again Threlkeld records the names of our People from this and other areas from the returns he made in 1836 at the mission at Toronto.<sup>4</sup> There are many other references from the early contact period of European settlement which are related in colonial newspapers and correspondence of the time.

\*These early ethnographical resources can be used to help build a picture of the area and occupation at the time our People were still dependant on their Traditional Lands for their resources.

### **Aboriginal Significance**

- Newcastle and Lake Macquarie as part of the Traditional Tribal Country of the Awabakal which includes the region of the proposed development, is considered by our People as extremely significant in regard to our Cultural Heritage. There are many and varied reasons our People have utilised this and other locations over thousands of years. As described in the *draft report* one of the earliest ethnographic records of the importance these areas played in the lives of our People is attributed to the Rev. L.E. Threlkeld. He reports, sometimes on a daily basis from his diaries, the many resources used by our People from these areas around the lake and the bush and records that these places, having spiritual significance because of certain objects or features, were found within the landscape (the surrounding area of the proposed development site is no exception to this). Some of these very features still exist within close proximity to the proposed project area. There are other early accounts within an array of documents which detail the Aboriginal occupation of these areas and relate the subsequent impacts that settlers have had on the Cultural Heritage and ultimately impacted the lifestyle of our People as the settlers moved into areas outside of what were then the known limits of the settlement.
- In his writings, Threlkeld records that 'Ko-na-ko-na-ba, The name of the place where the stone called, Ko-na-ko-na is found. There are veins in the stone, which contain a yellow substance, used for paint in warlike expeditions. The name of a large mountain, the N. extremity of Lake Macquarie.<sup>5</sup> Also in other writings he indicates that 'High places have always been distinguished as sacred...and the Aborigines of New South Wales appear to have distinguished high places by symbolic engravings on the rocks which remain to this present day, but no alters...The only thing I have ever noticed, as rather puzzling to account for on a high hill, or rather range of hills, was a circular erection of stones...'.<sup>6</sup>

He reports that these high places are venerated by the Awabakal People as having spiritual significance because of the stone structures erected on these hills. It is relayed to Threlkeld by Biraban, one of the head men of the Awabakal and one of our direct Ancestors, that these stone structures were placed there by the Eaglehawks.

> This mountain he refers to as Kona Konaba is what we today call Munibung Hill and was also known in latter times as Hardy's Hill. This is why it is of great importance to our People for protection and

<sup>&</sup>lt;sup>1</sup> Page 360-361 of Australian Reminiscences & Papers of L. E. Threlkeld, Missionary to the Aborigines, 1824-1859, Neil Gunson

<sup>&</sup>lt;sup>2</sup> Page 241 of Australian Reminiscences & Papers of L. E. Threlkeld, Missionary to the Aborigines, 1824-1859, Neil Gunson

<sup>&</sup>lt;sup>3</sup> Page 362-364 of Australian Reminiscences & Papers of L. E. Threlkeld, Missionary to the Aborigines, 1824-1859, Neil Gunson

<sup>&</sup>lt;sup>4</sup> Page 366-368 of Australian Reminiscences & Papers of L. E. Threlkeld, Missionary to the Aborigines, 1824-1859, Neil Gunson

<sup>&</sup>lt;sup>5</sup> Page 82 An Australian Grammar Comprehending the Principles of & Natural Rules of the Language as Spoken by the Aborigines in the Vicinity of Hunters River, Lake Macquarie & New South Wales by L. E. Threlkeld Sydney 1834

<sup>&</sup>lt;sup>6</sup> Page 65-66 Vol 1 of Australian Reminiscences & Papers of L. E. Threlkeld, Missionary to the Aborigines, 1824-1859, Neil Gunson

conservation of this and the surrounding areas that have had minimal impact from the industrial pursuits of the past and should be considered as being a significant and sacred place for the Awabakal People.

The landforms and resources of this locale fulfilled not just the basic needs that underpinned our Peoples subsistence but also satisfied the many other aspects that made up what can be described here as being part of the very Cultural foundations of our People. It must also be recognised that even though there has been these modifications from European industrial pursuits in the past, this does not mean that all areas or the archaeological record of our Cultural Heritage on the surface or subsurface have been affected by these mutilations (as shown in the *draft report*).

### Ground Visibility, Surface Exposure and Subsequent Impacts to Aboriginal Cultural Heritage

Many Aboriginal Cultural Heritage assessments suffer due to the poor visibility which very often presents itself when a field inspection is undertaken. It is expected that during a normal field inspection/assessment approximately 1-2 percent of the surface of the overall area to be surveyed will be clear of vegetation. It is suffice to say then that in nearly all of these field inspections the visibility plays, to a great extent, a pivotal role in what decisions will be arrived at concerning the existence of or management of the Aboriginal Cultural material present within the landscape (with some exceptions). Unfortunately the visibility question can be misleading and it is a common practise to assume that if there is little or no visible evidence/signs of Aboriginal Cultural Heritage then it is ok to presume there is none or possibly only a small amount present. Adopting this attitude could be no further from the truth.

Ground visibility during this field survey was limited to some small areas that had been subject to impacts such as pedestrian tracks and areas that were eroded or areas disturbed by use from motorbikes. However, it would be wrong to conclude that, because of the lack of visibility or detection of Aboriginal Cultural materials in other locations within the study area (precluding those locations that Cultural sites were found) on the day there would be no Aboriginal Cultural Heritage within these other areas. On the contrary; the study area and that surrounding it has been used by our People for thousands of years for a variety of purposes from ceremonial to the procurement of resources from Lake Macquarie, Cockle Creek and other smaller associated creek lines (including the natural spring just to the north of this area in the Pasminco site) that are all within close proximity.

To demonstrate the possibility of what could be contained sub-surface and subsequently disturbed during any excavations in the event of a proposed development, provided is a quote which sums up the possibility of disturbing, or worse, destroying Aboriginal Cultural Heritage objects or sites;

> 'Once discarded on the ground surface, artefacts are often readily incorporated into the topsoil horizons through the process of bioturbation. Most commonly, dense artefact deposits exist hidden beneath the upper surface, unobservable by the casual observer.' (c.f.Wandsnider and Camilli 1992; Fanning and Holdaway 2001).<sup>7</sup>

Also another example we have been involved with personally was an AHIP was obtained to excavate an area of which was believed may produce a minimal amount of artefacts. One of the sections chosen was believed to be nothing more than a couple of shells visible on the surface. After starting the excavation attitudes were changed dramatically, the archaeologist admitting they would have stated beyond a shadow of doubt that it was only a couple of shells scattered on the surface. It was found we were within what would be considered a quite large midden site (but was not visible) and what resulted from this excavation was the collection of many artefacts along with an undisturbed and virtually intact hearth surrounded by stones lying about 2 and a half feet below the surface underneath about 2 feet of midden shells. If we had employed the fact that what we could see is the extent of what we may find, then we would never have uncovered such an important and Culturally significant site as we did.

# \*\*\*\*\*We then must reiterate that just because there is low visibility or just a small quantity of Aboriginal Cultural Heritage located, it does not mean the area is not rich in Aboriginal Cultural Heritage sites or objects or significance!!!

### **AHIMS Database Search**

It would be reasonable to presume there will be a variety of sites represented within the context of this particular location as information from the AHIMS database search has found and relayed in the *draft report* on page 27, Figure 5.1: *Location of AHIMS sites* and also Appendix 2 AHIMS Registered Sites shows, there are many sites recorded on the DECCW AHIMS Database within close proximity to this area (which equates to 98 sites in all ) of sites which incidentally, don't include all recently recorded sites to date but only those recorded and entered presumably as of the time of

<sup>&</sup>lt;sup>7</sup> Page 3, Hunter Water Stage 2 Aboriginal Heritage Assessment Shortland Street, Newcastle 5.1.1 Archaeological Potential. (ERM2009)

writing the **draft report**, being May 2010). These 98 Cultural Heritage sites (not to mention that we located and added to the AHIMS Database another 7 new Cultural Heritage sites within this very area) are all shown to be within reasonably close proximity to the study area. Provided below is a statement from the OEH (Office of Environment and Heritage) formally DECCW which make note in the new 2011 document 'Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW':

### 2.2.4 Limits on the use of existing information

Note any limits on using any available existing information. For example:

- Aboriginal people involved in previous studies or surveys may not have disclosed the existence of places with cultural heritage values as they may not have been under immediate threat when the earlier study was undertaken
- a report from AHIMS does not represent a comprehensive list of all Aboriginal objects or sites in a specified area as it lists recorded sites only and is mostly a record of survey effort.'<sup>8</sup>

Many reports fail to indicate that there is the probability of being much more Aboriginal Cultural Heritage that is undetected in the area than reported and that the '*AHIMS is not a comprehensive list'* as expressed in the second dot point above.

**PLEASE NOTE**: This very fact has been demonstrated here in this case because there weren't any sites recorded within this specified study area before we surveyed it, and now there are another 7 new Cultural Heritage sites recorded within the confines of the boundary of the proposed development area!! What others are there just waiting to be discovered in this same location but just hidden??

### The Archaeological Field Survey

- > There were a couple of areas we did not investigate due to the steepness of the terrain or thick undergrowth.
  - **a.** One of these areas was the Eastern Valley and we agree with the draft report that this is an area that has potential for Aboriginal Cultural Heritage and more investigation needs to be undertaken prior to any development of this area.
  - b. Another area was the Central Areas and Slopes on the eastern side of the main creek line that runs directly opposite the quarry area. There are several flat areas above the eastern side of the creek line where there is potential for Aboriginal Cultural Heritage due to possible open campsites but we were unable to access this area due to quite significant undergrowth. Also there is the potential for shelters in some areas of exposed rock to the east of this main creek on the western extremities of the ridgelines 3, 4 and 5 (as indicated in the *draft report*).

**PLEASE NOTE**: There has been a further discovery after consultation with Cultural Knowledge holder and Awabakal Elder Mick Frost snr a director and Elder of our corporation who disclosed that there were two (2) large shelters located in the area of western Munibung Hill (which have not been previously recorded) that he had intimate knowledge of and had been introduced to and visited from the 1920's. Unfortunately one is gone now but the other is well hidden and can only be described as quite a large shelter with a smaller entrance and internal measurements of about 5 metres wide 6-7 metres deep and 1.9 metres high. He has confirmed that this was used by our People, is very significant and therefore it is of great concern to our People regarding the protection and conservation of the area. There are also several other shelters that have not been previously recorded and also we have grave concerns regarding these and the other sites if development was to go ahead without proper management and mitigation afforded to them.

There were deposits of cockle shell located in several locations around the Munibung Hill site which is also significant to us as Awabakal. We would have to say that to not afford the deserved protection to these sites and failure to thoroughly survey this area further before any proposed development would contravene the current Statutory, Legislative and Regulatory requirements put in place by the various government departments and authorities to protect Cultural Heritage and be unacceptable to us as Awabakal People considering the implications of overlooking such a significant area containing remarkable Cultural Heritage sites to which preservation and protection should go without question.

### Significance of the Artefact Scatters, Isolated Finds, Rock Shelters, Shell Deposits and Grinding Grooves

For us as Awabakal People the artefact scatters, isolated finds, rock shelters, shell deposits and the grinding grooves are all part of our Cultural Heritage and are considered by us to be of high

<sup>&</sup>lt;sup>8</sup> OHE-Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW page 6 - Office of Environment and Heritage, Department of Premier and Cabinet 2011

significance. For archaeologists there is sometimes a clinical 'put it in a box' view 'so it can be categorised and accessed when stacked up against criteria that someone has formulated to fit it into their bigger picture' type of response. This is fine in some circumstances but it doesn't always work. Not always can we narrow things down to squeeze them into the box of our choosing that we want them to fit into. We are talking about the influence of a lot of variables over many centuries. Therefore to restrict something to a standard that is only defined by someone who formulates a process so as to control or have it conform to their opinion, is not looking out to see what is there, but confines their perspectives which then limit the true boundaries of that same process. We should look past those things that limit and constrain us; there is always more than meets the eye!!

**PLEASE NOTE**: The Cultural Heritage sites which were discovered by our representative during the survey in 2010 and subsequent visit to the area in 2011 includes artefact scatters, isolated finds, large rock shelters, grinding groove site and some shell deposits all within very close proximity to the proposed development area are significant in themselves but are all connected. These sites provide for everyone the tangible evidence of our Peoples occupation of this area but it offers to us (apart from the oral history and spiritual connection) a physical connection through time for us as Awabakal People to our Ancestors.

### It must be remembered that:

- a. This is OUR Cultural Heritage that is being put on the line here!!
- b. This is OUR physical link to OUR Ancestors that will be destroyed in the process!!
- c. Once it is disturbed or destroyed it is final and will stay this way forever!!
- d. It may be easy for others to make what we consider to be dismissive and erroneous decisions about what has been passed down to us from OUR Ancestors; but what most consider to be progression and advancement is for us what ultimately cuts us off a little bit more from OUR Cultural Heritage!!

### Cultural Pathways-Connections Through the Landscape

- There were certain areas that were used by our People to travel through the landscape. These routes utilised certain landscape features to make travel easier or to bring those walking these routes closer to resources such as food, raw materials for tool making and sometimes areas offering shelter. They were also used to convey People to and from certain areas that were considered to be of great significance in regard to ceremony and spirituality and thus these routes are not just tracks but are Cultural Pathways that give a holistic view to the connectedness of Cultural Heritage sites within a greater area and distance from each other. The proposed project development area is as shown by the sites occurring within close proximity to it, namely Munibung Hill (significant place and story attached for Awabakal People) and just to the south west Kurrur Kurran (another significant place and story is attached to this area) and Cockle Creek and the Teralba and Warners Bay area themselves are areas that are of very high importance within the context of this landscape and the Cultural Heritage of our People. It is important to also note that the ridgelines of Munibung Hill give a significant outlook, which were used for specific purposes and this includes the view to the west to Sugarloaf Mountain range (also a significant area for Awabakal People) and consideration should be afforded to this fact.
- > It is imperative that such important factors not be overlooked when deliberating the proposed future development of this area.

### Excavations/Ground Disturbance

- There is the possibility that any disturbances to the proposed project development area from any subsurface excavations or ground disturbance works (including vegetation clearance/removal of trees etc/grading for pathways or community areas) could impact on Awabakal Aboriginal Cultural Heritage.
- It has been demonstrated from the assessment and subsequently reported in the *draft report* that there are identified Aboriginal Cultural Heritage sites within the area that is proposed for development and that it is most likely that there will be other Aboriginal Cultural Heritage sites (which were not discovered during the survey) that can and would be impacted/damaged or disturbed if excavations were to take place within this area proposed for development.

### Objections to Removal of Topsoil from the Proposed Development area and Construction Site

We object to removal of any topsoil from the site. All topsoils disturbed by any excavations should be retained within the confines of the development footprint and not transported off the construction site due to the possible inclusions of Awabakal Cultural Heritage within the soil. We do not agree to our Cultural Heritage being removed from this or any other sites. There are alternative ways to manage the process to stop the removal of our Cultural Heritage from the development area and these management options need to be discussed further with the Aboriginal Stakeholders prior to any possible future excavations being commenced.

### Small Quantity of Shell

> We believe the shell deposit that was found within the study area less than 50 metres south of an artefact scatter on a relatively flat area and is referred to on page 39 of the draft report for Ridgeline One comprising pieces of Cockle shell is Culturally related. The recent visit to the site (2011) also produced an area (to the east of the old quarry site) which comprised Cockle shell and there were scatterings of pieces of Cockle shell on the some of the walking tracks in a variety of locations around the ridgelines of Munibung Hill area. Taking into account that the use of Cockle as a food source and the location of the Cockle shell to the artefact scatter (and others) is an indication that adds weight to the reason we believe the artefact scatter and the shell deposit are related. We believe this very weathered shell deposit should be recorded as a 'shell deposit' that although it may not fit the model set out by the archaeological fraternity, it comprises what is a significant part of the resources used on a daily basis by our People and of which was found in abundance within Lake Macquarie and Cockle Creek, two areas that are very close by. Looking at the picture presented to us, we have an artefact scatter close to the remnant discards of a food source which was used by the very same people who would have utilised the artefacts, all set in a place that would not entice someone to frequent (let alone carry up some Cockles from the lake or creek) unless it was for reasons that are not apparent today or to be eaten. To overlook this important and relevant issue would be remiss especially considering the significance of this range of mountains to our People.

### **Rock Shelters**

- Knowledge was passed down from my father Mick Frost snr an Awabakal Elder that there was a cave in the area of the eastern side of the creek which was used by our People and of which is now destroyed due to mining of the gravel. He also mentioned that there was another rock shelter close by and this should be found so as to be added to this information at this time. Subsequently we visited the area in early 2011 and relocated the rock shelter he described as can be seen on page 10 of the *draft report* section 1.5 Aboriginal Consultation stating that 'In May 2011 Shane Frost contacted RPS to advise that he had located another site, a rock shelter, within the study area. He requested that it be included in this report and it was accordingly surveyed and recorded.' This is an example of the importance of talking to the Cultural Knowledge Holders of the area otherwise information and Cultural Heritage will be lost!!
- The rock shelter that was recorded and is reported in the *draft report* page 42 section 8.4 Additional Survey stating 'In May 2011 Shane Frost advised RPS that following advice from his father, who had lived in the area as a boy, he had located a large rock shelter within the study area. That rock shelter was visited on the 26 May 2011...The recorded rock shelter brought the total number of sites recorded to seven. The rock shelter, large enough to provide shelter for a large family group, was north-west facing and dry inside. It is reasonably difficult to access and is well hidden...On the survey day the outside temperature was around 16 degrees and raining, inside the shelter was at least two to three degrees warmer and dry. There was no water seepage into the rock shelter even after previous days of heavy rain.'

This and the other shelters on Munibung Hill are very significant to us as Awabakal People and should be protected, preserved and made accessible for future generations of Awabakal People to visit, learn from and enjoy without fear of them being destroyed or vandalised.

### Central Creek/Watercourse Bounding SU2 (Figure 8.1) and Western Slopes of Ridgeline 3, 4 and 5

After a discussion with Laraine Nelson RPS archaeologist it was agreed that this area should be considered as a significant landform with a high potential to contain Cultural Heritage. This decision is in light of the recent findings of another significant Cultural Heritage site (Rock Shelter) located within the proposed development area on the north western slope of ridgeline 5. *Figure 8.1* of the *draft report* which we are advised will be changed to reflect this decision. It also incorporates the western side of ridgeline 3 and part of ridgeline 4 down to the existing creek line which bounds SU2.

# Mitigation Management for Cultural Heritage

### A. <u>Mitigation/Management</u>

As reported, ground visibility was minimal in the majority of areas during the survey but it has been shown that many Cultural Heritage sites have subsequently been found (2010/2011) within the proposed development area which had not been previously recorded. This would suggest that if there were to be impacts to the ground surface brought about due to future excavations, clearing of vegetation or infrastructure/utilities such as roads, paths, water, electricity, sewer and telephone, we believe this could impact on the integrity of our Cultural Heritage and cause disturbance or damage which would be unacceptable. Therefore we agree with the recommendations in section **12** *Recommendations* on page 53 regarding the heritage mitigation measures outlined within the **draft** 

**report**. Further to these recommendations, we would like to see that an additional dot point inserted into this section that includes consultation with the ADTOAC/Awabakal Traditional Owners as part of the development process of a Cultural Heritage Plan of Management (PoM) to address any actions that may involve Cultural Heritage issues. We would also stress the need for systematic archaeological investigations to be carried out over the entire project application area proposed for development. If it is expected that ground clearance/disturbance through the use of grading or other machinery that will disturb the ground surface within the areas which have been subject to minimal impacts previously or those considered significant to the Awabakal People, within the proposed development area, we would like to see;

- a. Subsurface investigation prior to commencement of any disturbances so as to ascertain the variety/density of archaeological material contained subsurface within the areas considered by the Awabakal People as significant and those that will be considered as possible conservation lands. This should include areas such as creek lines, ridge lines and foot slopes, creek flats and other areas that are expected to contain archaeological materials.
- b. These investigations could be achieved through a series of test pits placed at specified locations within the areas to be affected by any subsurface excavations or ground disturbing works within the study area. It would be expected that the information gained from this investigation would ultimately contribute a source of reliable and valuable data for future archaeological investigations within this particular area. Currently information on subsurface archaeology within the study area is at present lacking and untested when compared to the local and regional archaeological context.

\*Cultural material was found in several locations around the study area so this should be a marker to investigate further before future development, not to do so would be in our opinion, negligent!!

### B. Protection and Preservation of all artefacts

- Therefore considering the implications that the above information presents, we believe that taking into account the location of the study area, the fact that Awabakal Cultural Heritage sites are located within this locale it is imperative that;
  - **a.** All necessary steps should be taken to Locate, Protect and Preserve our Awabakal Cultural Heritage. As Awabakal Descendants the Preservation and Protection of our Cultural Heritage is paramount and this extends to all of our Cultural Heritage whether visible or not.
  - **b.** Consideration should be given to the fact that if this area is developed, there will be subsurface excavations and disturbances to the study area. It has already been shown that this has the potential to disturb, damage or destroy as yet undetected Awabakal Cultural Heritage sites or objects that lay contained within the subsurface stratigraphy.
  - c. In the event of possible development of this study area, there should be consultation with the Aboriginal Stakeholders so as to formulate the best possible outcome for the Protection and Preservation of Awabakal Cultural Heritage. This could be achieved by a sequence of procedures that address certain aspects and criteria of any proposed development using timeframes to formulate an investigation period which precedes excavation works so as to establish whether Awabakal Cultural Heritage is present subsurface and ultimately not compromise the expected completion date of each phase of any part of the proposed development.
  - d. We also believe as an additional measure, an observance and collection program should be instituted (if the proposed development of the area is realised) during all proposed subsurface excavations by the developer and their contractors. This would involve a process in which the proponent engages the Aboriginal Stakeholders to observe all sections of the excavations (ground surface impacts) so as to afford collection of any artefacts that may be disturbed by the subsurface excavations. This would allow the Aboriginal Stakeholders to collect any Awabakal Aboriginal Cultural Heritage that would subsequently be uncovered during this phase of the process and allow for these artefacts to be reburied. We believe that if this observation and collection process is not instigated and implemented during subsurface excavations by the proponent and their contractors, then our Cultural Heritage is being compromised and could be viewed or considered as disrespectful and neglectful of Awabakal People and our Cultural Heritage that (as shown by the sites recorded on the OEH/DECCW AHIMS Database) continues to exist within this area.
  - e. All artefacts collected during this observation and collection process should then be relocated and reburied on site by the Aboriginal Stakeholders at a location that is designated as an area which will not have any future disturbance and is considered to be set aside as a conservation zone. This part of the process would be expected to take place and performed by the Aboriginal Stakeholders and a qualified archaeologist be in attendance to record the site of the reburial of the artefacts so as to forward this information onto OEH for inclusion in the AHIMS Database at the completion of the proposed developme

f. With all this said, we still believe there should be NO IMPACT whatsoever to any of our Cultural Heritage sites. Any proposed works or excavations, be it now or in the future, around or within close proximity to these areas, should trigger a management solution through the PoM and alert the proponent/developer to consult with the Aboriginal Stakeholders to mitigate any disturbance or damage to Cultural Heritage sites.

### C. <u>Development Related Impacts</u>

It is naturally anticipated that due to the arrival of new residents to the proposed development and due to this increased activity there will be the possibility of impacts to the Aboriginal Cultural Heritage sites located within the proposed development areas and also those sites within close proximity but outside of the proposed development area/footprint.

This is why it is imperative for this *draft report* and a **Plan of Management (PoM)** to:

- a. Adequately address any issues that could possibly affect the integrity of Awabakal Cultural Heritage sites or objects from this proposed development.
- b. It also needs to be taken into account and has been overlooked in the *draft report* the probable impacts from the increased pedestrian traffic which is likely to occur to these sites if the proposed development is realised. These impacts would be expected to take place and result from the increased visitation to the sites which could result from the influx of new residents to the proposed development that will be utilising any proposed conservation corridors (as walkways) where the Cultural Heritage sites will be reportedly protected!
- c. Address what mitigation measures have been put in place to alleviate and reduce the effects that the increased population and visitation may have on this and other Cultural Heritage sites located within the area.

### D. Awabakal Names for Streets/Parks/Walkways/Conservation Areas

As a sign of respect for the Awabakal People and the many thousands of years of occupation of this area, we would like to see the developer use words from the Awabakal language to name any streets/parks/communityconservation areas within the proposed development. We believe this would create a positive step in creating an enthusiasm within the community to look into the meanings of these names and the Cultural Heritage of our People.

### E. Interpretive Signage and Artworks for Parks/Walkways/Community Areas

Interpretive signage/artworks could be utilised by the developer in areas that are designated for pathways etc to raise awareness within the community and educate people in regard to the Cultural Heritage of the Awabakal. They could show the close relationship our People have with the Land and emphasise the significance of the area and highlight the importance for us all today to continue this caring for Country that they themselves live in. We see the development of signage/artworks as a collaboration between the developer and the Traditional Awabakal People which would promote the uniqueness of Awabakal Cultural Heritage within this area.

### F. Aboriginal Cultural Heritage Plan of Management (PoM)

There should be the development of a PoM between the developer and the Aboriginal Stakeholders so as to manage and mitigate any possible undesirable outcome (such as damage or disturbance) in relation to Awabakal Aboriginal Cultural Heritage that may be present on this proposed development site. We believe that without the inclusion of the Awabakal People in the development of this component of the PoM it could significantly diminish the desired outcome for the preservation of our Cultural Heritage.

### G. <u>Aboriginal Stakeholder Notification by Proponent & Cultural Awareness Training for</u> <u>Construction Workers</u>

- We would also like to see a commitment by the proponent which would require them to notify all the Aboriginal stakeholder groups in the event of any Aboriginal Cultural Heritage and archaeological evidence of any kind being uncovered or found during construction. We consider we have lost enough of our Cultural Heritage in the past and mitigation/management processes should be implemented and enforced so we don't lose any more of our Cultural Heritage.
- There should also be compulsory Cultural Awareness Training included in the induction process for all contractors and workers on site, particularly those undertaking any excavations within the footprint of the proposed development area. This would be developed and delivered by the Aboriginal stakeholders and archaeological consultants to allow all workers and contractors some form of basic knowledge, recognition and detection of artefacts if uncovered during the excavation/construction phase of the site works. Otherwise how do the construction workers know what an artefact or Cultural Material looks like if they are not shown beforehand by those who know?

### H. Aboriginal Stone Artefacts and Watercourses

- > This is one detail that needs to be addressed in the *draft report* and the subsequent management recommendations for this proposed project.
- Lake Macquarie, Cockle Creek and other watercourses in the area were utilised by our People for a variety of uses such as procuring food sources and fresh drinking water, therefore allowing the opportunity for both long and short term campsites to exist within close proximity to these creeks and watercourses. The very fact that there are several creek lines running through the proposed development area is an indication that we should be aware that artefacts may be hidden here by the dense vegetation or be located subsurface. Based on a predictive model by Kohen in 1986 we have provided an example below which outlines his studies:

His study showed that a large portion of artefact scatters occurred close to river and creek lines: 65% being within 100 metres of a permanent water supply (Kohen 1988 cited in Attenbrow 2002: 49-50). Kohen concluded that availability of water was the most important factor influencing the distribution of sites across the landscape (Kohen 1986: 292).<sup>9</sup>

This is why it is imperative to make sure appropriate decisions are made and a suitable management and mitigation process put in place so as to afford the protection and preservation that the Cultural Heritage of our People deserves and that still exists within the very landscape which is in close proximity to this proposed project area. It also goes without saying that this information reveals why it is essential to be vigilant. Without this protection and preservation, there will be little left for future generations to appreciate, therefore negating the model we pride ourselves on and call today **Intergenerational Equity**.

- **a.** Any proposed works or excavations around or within close proximity to creek lines should trigger a management solution through the PoM and alert the developer to consult with the Aboriginal Stakeholders to mitigate any possible disturbances or damage to the Cultural Heritage contained within the margins/extremities of the creek lines and watercourses.
- Before any potential disturbances from subsurface excavations or ground disturbances within close proximity to these areas, there should be a series of test pits placed along the watercourses to establish the level of Cultural Heritage within these locations.

# **Conclusion**

We hope that it has been shown here that this site is significant to us as Awabakal People and there is a great need to protect and preserve what is left of the Cultural Heritage of our People. We all need to regard the question of *Intergenerational Equity* as being of the utmost importance so that future generations are not disadvantaged in relation to what has or has not been left for them to appreciate and learn from. This again is why it is crucial to make sure appropriate decisions are made and a suitable management and mitigation process put in place so as to provide the protection and preservation that the Cultural Heritage of our People deserves and that still exists (as already shown) within the very locale that this development is proposed for.

### A. Intergenerational Equity

What is intergenerational Equity?? We see *Intergenerational Equity* as a provision for future generations to benefit from what has transpired in the past and to have been left as much as the previous generation. See page 13 section <u>2.5 Assessing Harm</u> of the new 2011 OEH document 'Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW' which states:

'As a minimum, consideration of ESD principles should result in:

- An understanding of the cumulative impact of the proposal; for example, the nature and extent of the Aboriginal object or place proposed to be harmed in relation to other identified sites in the region
- ascertaining how, wherever practicable, harm to significant Aboriginal object(s) or place(s) can be avoided (see stage 2.6)
- establishing and assessing the risks and consequences of various options
- assessing the costs and benefits of various options to future generations

<sup>&</sup>lt;sup>2</sup> Aboriginal Archaeological & Cultural Heritage Assessment (Updated) – Hoxton Park 2008, Austral Archaeology Pty Ltd. page 21

# • suggesting actions (either on or off site) which are proposed to help to promote intergenerational equity.'<sup>10</sup>

- Below are provided three (3) examples we have included, quoted from international organisations/standards from around the world, which explain what *Intergenerational Equity* represents;
  - a. Intergenerational equity: A core proposition is that future generations have a right to an inheritance (capital bequest) sufficient to allow them to generate a level of well-being no less than that of the current generation. Also refers to fairness in the treatment of different members of the same generation.<sup>11</sup>
  - **b.** Intergenerational equity: Meeting the needs of the present without compromising the ability of future generations to meet their own needs.<sup>12</sup>
  - *c. Intergenerational equity:* The principle of equity between people alive today and future generations. The implication is that unsustainable production and consumption by today's society will degrade the ecological, social, and economic basis for tomorrow's society, whereas sustainability involves ensuring that future generations will have the means to achieve a quality of life equal to or better than today's.<sup>13</sup>
- Intergenerational Equity is an issue that we believe is an important objective which can preserve and protect our Cultural Heritage and it is our concern that if this is not adequately addressed at this preliminary stage of the process then it may be overlooked as this development progresses, subsequently leaving our Cultural Heritage vulnerable.

### A. Munibung Hill as Conservation Lands.

As Awabakal People we believe that **Kona konaba** (Munibung Hill), being of such high significance to us and our Cultural Heritage and including all the land in between down to the surrounding foot slopes and associated creek lines within the proposed development area, should be preserved and zoned as conservation lands. This would be an acceptable and appropriate outcome which would preserve the area for future generations to appreciate and also be in line with the Intergeneration Equity model.

## Statement of Significance of this area to Awabakal Traditional Descendants

This area is considered by our People and many Archaeologists alike to be of great importance within our Cultural Heritage. There are many and varied reasons our People have benefited from using this location over thousands of years. As described in the *draft report* one of the earliest accounts of the importance of this area is attributed to the Rev. L.E. Threlkeld. There are other early accounts within an array of documents which detail the Aboriginal occupation of this area and relate the subsequent impacts that settlers have had on the Cultural Heritage and of which ultimately impacted the lifestyle of our People as the settlers moved into areas outside of what were then the known limits of the settlement.

As pointed out previously, and of which it is also stated several times in the *draft report*, this area has not just a physical presence within the Cultural Heritage of the Awabakal People but it is part of our oral history and a place of spiritual significance. The landforms and resources of this locale fulfilled not just the basic needs that underpinned our Peoples subsistence but also satisfied the many other aspects that made up what can be described here as being part of the very Cultural foundations of our People.

Our People have had a long history within this area which is unsurpassed. Our apical Ancestor Mahrahkah, an Awabakal woman and her two daughters were recorded as living in and around this and other areas of their Traditional Country by Threlkeld and Warner. This apart from everything else makes it a very important location for our family, knowing that Mahrahkah walked this area before any white man was ever seen in the Newcastle and Lake Macquarie areas. She was intrinsically acquainted with her land and she has left a legacy for us to carry on in this day and age and to pass onto our Descendants. This area is of very high significance to our People and therefore it would be expected that after the many generations of our People that have walked the pathways of their Ancestors, there would be numerous areas that contain evidence of this connection.

<sup>&</sup>lt;sup>10</sup> **OHE**-Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW page 13 - Office of Environment and Heritage, Department of Premier and Cabinet 2011

<sup>&</sup>lt;sup>11</sup> From Website 'www.traditionalknowledge.info/glossary.php'

<sup>&</sup>lt;sup>12</sup> From Website'www.konsult.leeds.ac.uk/public/level1/sec17/index.htm'

<sup>&</sup>lt;sup>13</sup> From Website'www.ic.gc.ca/eic/site/ee-ee.nsf/eng/h\_ef00016.html'

Through the years, occupation on varying levels has taken place by our people in Lake Macquarie to the south, Cockle Creek to the west, Winding Creek to the north and North Creek to the east. Traditionally these areas where the supply of rich resources of which our people have depended on for thousands of years.

There are physical reminders left by our Ancestors, some in the form of stone tools (artefacts) and grinding grooves which provide us as Descendants of the Awabakal People an opportunity to make a connection through time with our Ancestors. This connection is brought about in a variety of ways, one is through the physical senses such as touch or knowing we are seeing where they lived or what they used, or by holding or touching something our Ancestors handled or made, possibly many thousands of years previously. This connection creates in us a sense of perception, appreciation, familiarity and recognition of who we are and where we belong as Awabakal Descendants.

It is very difficult for us to see our Cultural Heritage compromised by 'development' as it causes much heartache for our People knowing that due to 'progress' our physical connection to the past is becoming more of a chasm than a gap in time. As stated previously, we reiterate that if a proposed development was to eventuate, this is **OUR** Cultural Heritage that is being put on the line!! This is **OUR** physical link to **OUR** Ancestors that will be destroyed in the process!! Once it is disturbed or destroyed it is this way forever!! It may be easy for others to make what we consider to be dismissive and erroneous decisions with good intentions about what has been passed down to us from **OUR** Ancestors; but what most consider to be progression and advancement, is for us, what ultimately cuts us off a little bit more from **OUR** Ancestors and Cultural Heritage!!

Therefore, we thank you Laraine for the opportunity to contribute these comments in regard to this proposed project. We would ask for the entire contents of our submission to be added to the *final report* and that you forward a copy of this same *final report* to us for our records. We hope this addresses any queries you may have, if not and further information is required please don't hesitate to contact us ASAP to discuss this matter.

Our contact details are as follows.

### NGI NOA

Shane Frost: Managing Director-Awabakal Descendants Traditional Owners Aboriginal Corporation Email:shanefrost@bigpond.com Phone: 49964362 Fax: 49964325 Mobile: 0428320671

<u>Cultural Heritage Sites</u> - Physical reminders of our Ancestors; once they are gone, they are gone forever and impossible to bring back!! <u>THINK</u> first and make <u>WISE</u> decisions last!!

# Appendix 6

AHIMS Site cards



# Aboriginal Site Recording Form



AHIMS Registrar PO Box 1967, Hurstville NSW 2220

Office Use Only				
Date received Date entered into system Date catalogued				
Entered by (I.D.)				
Information Access	Office Use			
Gender/male Gender/female Location restriction General restriction No access	Only			
For Further Information Contact:				
Nominated Trustee				
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Mapsheet W a I I s e n d				
Zone 56 Location Method Non-Differential GPS				
Other Registration				
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	Client on			
	system			
Phone number 0 2 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7				


NPWS Aborigina	I Site Recording Fo	prmation page 3			
Gen	eral Site Information		Features		
Closed Site		Open Site	1. Aboriginal Ceremony & Dreaming		
Shelter/Cave Formation	Rock Surface Condition	Site Orientation	2. Aboriginal Resource & Gathering		
Boulder	Boulder	✓ N-S	3. Art		
Wind erosion	Sandstone platform	NE-SW	4. Artefact		
Water erosion	Silica gloss	E-W	5. Burial		
Rock collapse	Tessellated	SE-NW	6. Ceremonial Ring		
	Weathered	N/A	7. Conflict		
	Other platform		8. Earth Mound		
Condition of Ceiling	Shelter Aspect		9. Fish Trap		
Boulder	North		10. Grinding Groove		
Sandstone platform	North East		11. Habitation Structure		
Silica gloss	East		12. Hearth		
Tessellated	South East		13. Non Human Bone & Organic Material		
Weathered	South		14. Ochre quarry		
Other platform	South West		15. Potential Archaeological Deposit		
	West		16. Stone Quarry		
	North West		17. Shell		
			18. Stone Arrangement		
			19. Modified Tree		
			20. Water Hole		

Site Plan Indicate scale, boundaries of site, features N NW NE SCALE: 10MM W SE sw S

### Site Dimensions

### **Closed Site Dimensions (m)**



Internal length Internal width Shelter height Shelter floor area

# **Open Site Dimensions (m)**

20	
2	
40sqm	
100m	

Total length of visible site Average width of visible site Estimated area of visible site Length of assessed site area

Е

NPWS Aboriginal Site I	Recording Form - Site Interpretation and Community Statement page 2							
Aboriginal Community Inter	Aboriginal Community Interpretation and Management Recommendations							
Preliminary Site Asses	sment							
Disturbed site on track, all ve	alysis and Preliminary Management Recommendations							
of a series of ridge lines kno	wn as Munibung Hill. Significant spiritual and cultural importance of area recorded by Rev.							
Threlkeld in early nineteenth	century.							
This section should only be fil	led in by the Endorsees							
Endorsed by: Know								
Title	Surname First Name Initials							
Organisation								
Address								
Phone number								
Attachmonts (No.)	Commonts							
	Artefact 1 - grey chert - flaked piece - (L)11mmX (W)18mmX (T)1.6mm							
	Artefacts 2-6 possible debitage all <10mm in length							
	Artefact 7 - silcrete (L)12mm X (W) 8mm X (T) 1.3mm							
Site plans, drawings								
Recording tables								
eature inserts-No.								



# Aboriginal Site Recording Form



AHIMS Registrar PO Box 1967, Hurstville NSW 2220

Office Use Only		
Date received	Date entered into system	
Entered by (I.D.		
Information	Access	055-11-1
Gender/ma	le Gender/female Location restriction General restriction No access	Only
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Aboriginal	Heritage Unit or Cultural Heritage Division Contacts	
Geographic	Location	
Site Name	R P S S p e e r s P o i n t A S 2	
Easting	3       7       2       2       8       0       Northing       6       3       5       2       0       2       2       AGD/GDA       GDA	
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Phone number	4 9 4 0 4 2 0 0 Fax	
Date recorded	15/03/2010	

NPWS Aboriginal Site Recording Form - Site Information         page 2							
	OPEN/CLOSE SITE	Open Site					
Site Context							
Landform	Landform Unit						
Mountainous	Beach	Tidal Flat	Upper slope	Stream bank			
Plain	Coastal rock platform	Cliff	Plain	Stream channel			
Rolling hills	Dune	Crest	✓ Ridge	Swamp			
Steep hills	Intertidal flat	Flat	Tor	Terrace			
Undulating plain	Lagoon	Lower slope	Valley flat	Terrace flat			
Slope	Tidal Creek	Mid slope	Levy				
degrees							
Vegetation	Land use	Water					
Closed forest	Conservation	Distance to permane	ent water source	1 km + metres			
Grasslands	Established urban	Distance to tempora	ry water source	2 0 0m + metres			
Isolated clumps of trees	Farming-intensive	Name of nearest per	rmanent water source				
✓ Open forest	Farming-low intensity	Name of nearest ten	nporary water				
Open woodland	Forestry						
Scrub	Industrial	walking east fro	Directions for Reloca	ation of Sixth Street, Boolaroo			
Woodland	Mining	the site is on the eastern and further most north south running					
Cleared	Pastoral/grazing	ridge line					
Revegetated	Recreation						
N/A	Semi-rural						
	Service corridor						
	Transport corridor		Site Location M	lan			
	Urban expansion	NW	N	NE			
	Residential		ALS U				
Current Land Tenure			the liter	Contraction of the			
Public Dept.	rrk / other Government						
Private			An and the	5-O Million Market			
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Ν	NPWS Aboriginal Site Recording Form - Site Informationpage 3								
	Gen	eral	Features						
Cle	Closed Site			Op	en Site		1. Aboriginal Ceremony & Dreaming		
She	elter/Cave Formation	Ro	ck Surface Condition	Site	e Orientation		2. Aboriginal Resource & Gathering		
	Boulder		Boulder	$\checkmark$	N-S	L	3. Art		
	Wind erosion		Sandstone platform		NE-SW	V	4. Artefact		
	Water erosion		Silica gloss		E-W	ļĻ	5. Burial		
	Rock collapse		Tessellated		SE-NW		6. Ceremonial Ring		
			Weathered		N/A		7. Conflict		
	Other platform						8. Earth Mound		
Со	Condition of Ceiling Shelter Aspect					ļĻ	9. Fish Trap		
	Boulder		North			Ļ	10. Grinding Groove		
	Sandstone platform		North East			Ļ	11. Habitation Structure		
	Silica gloss		East			Ļ	12. Hearth		
	Tessellated		South East			Ļ	13. Non Human Bone & Organic Material		
	Weathered		South			Ļ	14. Ochre quarry		
	Other platform		South West	15. Potential Archaeological Depos			15. Potential Archaeological Deposit		
			West		16. Stone Quarry				
North West						17. Shell			
						Ļ	18. Stone Arrangement		
							19. Modified Tree		
							20. Water Hole		

Site Plan Indicate scale, boundaries of site, features N NW NE SCALE: 10MM Е W SE S





Total length of visible site Average width of visible site Estimated area of visible site Length of assessed site area

NPWS Aboriginal Site Recording Form - Site Interpretation and Community Statement pa	ge 4
boriginal Community Interpretation and Management Recommendations	
Preliminary Site Assessment	
Site Cultural & Scientific Analysis and Preliminary Management Recommendations	
his section should only be filled in by the Endorsees	
	ensus
Title Surname First Name Initials	CHOUS
Organisation	]
Address	]
Phone number	
Attachments (No.) Comments	
A4 location map	
B/W photographs	
Slides	
Aerial photographs	
Site plans, drawings	
Recording tables	
Other	
Feature inserts-No.	

NPWS FEATURE RECO	RDING FORM - ARTEFACT	page 1						
Site I.D.	Site Name RPS Speers Point AS2							
First recorded date 15/02/20	10 Importance Contributes to primary site importa							
No. of instances								
Recorded by L Nelson								
Yes No								
Stone artefacts only Yes	Percentage of Non-stone Artefacts to Percentage of st	Stone Artefacts						
Artefacts collected No	0-9% 10-19% 20-29% 30-39% 40-49% 50-59% 60-69% 70-79%	%   80-89%   90-100%						
Permit issued No	0-9%							
Feature Context & Condition       Scatter No.       2       Easting       3       7       2       8       0       Northing       6       3       5       2       0       2       2								
(Artefact count per square metre)	5 Length (m) $5$ Width (m) $1$ Denth (	In situ No						
		Stratified No						
Feature Condition General C	ondition Recommended Action							
	Boardwalk	Revegetation						
Good Vehicl	le damage	Signage						
✓ Poor	Closure to public	Soil erosion control						
Fire d	amage Continued inspection	Track closure/re-routing						
Erosic	Dn Fire hazard reduction	Additional recording						
Stock	damage Expert assessment							
Expos	Sed archaeological material							
Feature Plan (Indicate scale, location of instances) NW N NE Feature Environment (Complete when <i>feature</i> environment								
		from cover card, p. 2)						
	hills L	and form						
	ridgeline	and form unit						
	s	ilope						
	grass v	'egetation						
	N recreational L	and use						
W								

# Water

SE

SW

S

Distance to permanent water source	1,000	metres
Distance to temporary water source	200	metres

Name of nearest permanent water source Cockle Creek

Name of nearest temporary water unamed

NPWS	S FEATUR	RE	RECOF	RDIN	G TABL	E - A	RTEFA	СТ					pa	ge 2
					S	stone	Artefa	ct				_		ess (
Instance No.	Recording Date	A M	rtefact laterial	Arte	fact Type	Pla Su	tform rface	Platform Ty	pe	Termination	Cross Section	Length (mm)	Width (mm)	Thickne (mm)
1	15/02/2010	Che	ert	Flake					F	eather		19.7	22.8	8.3
2	15/02/2010	Che	ert	Flake	d Piece							10.8	18	10.8
3	15/02/2010	Che	ert	Наке	d Piece							11.2	7.2	4
						-		_						S
Instance	Decerdin	~	Artofo	act	Oth	າer A	rtefact	Туре		vistics		n) gth	ے <del>ل</del> ا	knes m)
No.	Date	ıg	Mater	act ial	Artefact	Туре		D	esc	ription		(mr	Widt mm	Thick (m
Mater Basalt Chert Fine gra Granite Quartz Quartzi Sandsto Silcrete	ial ained siliceous te one	Clea Cer Tin Wire Nail Butt She	ar glass amic celain can e ton	Arte Adze Anvil Axe Back Blade Core Core	ed blade	Flake Flake Flake Ham Manu Millin Morta Mulle Nucle	n e tool ed piece merstone uport g slab ar er ear tool		<b>PI</b> Co Fla Mo Fa Gr Ino Bip	atform Surfac ortex ake scar ore than one flake aceted round determinate polar	<b>:e Te</b> Fea Hin scar Ste Ou Bip	rminati ather ge p trepasse olar	on	
Green o Amber Amethy	glass glass /st glass	Bon Woo Res	ie od sin	Dista Elour Flake	l fragment a	Pirri Proxi Tula Othe Modi Unwo	imal fragmo r diagnosti fied orked	ent c type	P Wi Fc Sh Ind Bij	latform Type ide ocal nattered determinate polar	<b>Cr</b> Hig Hig Lov	ross Se gh/strong gh/weak w/weak egular	ction	
Comn	nents:													

NPWS FEATURE R		A - MODIFIED TREE	E	page 3
Site I.D. First recorded date No. of instances Recorded by	Sit	ie Name Importance		Aboriginal Information Recorded?
Feature description	on (	Easting Condition Re	Commended Action	hing
No. of carved panels		Ringbarked         Fire damage         Vehicle damage         Insects/termites	Closure to public Continued inspection Expert assessment Fire hazard reduction	Track closure/re-routing Additional recording
Poor		Rot Limb fall Stock damage	Insect removal Meeting with land mana Rubbish removal Signage	ager
	nent <sub>(Complete when feature er</sub> Land form Land form unit Slope	vironment differs to <i>site</i> environment, us <b>Water</b> Distance to perr Distance to tem	e attributes from cover card, page 2) manent water source porary water source	metres metres
Feat	Vegetation Land use ture Location Plar	Name of neares Name of neares	st permanent water source st temporary water Scar/Carvec	Panel Drawing
w				
SW Indicate scale	S	SE	Attach additional drawings	

page 2	on Axe Marks	Orientation North East East South East South West	west North West North
	g Orientatio	<b>e Marks</b> stal one determinate	
	f d Carvinç s Type	<b>g Type Ax</b> Me stric Std al Inc	
	e Carveo Panels	pe Carvin Linear ar Geome Pictoria	
	f Shape	<b>Scar Sha</b> Oval Rectangul Square Round Other	
	ht /e No. o nd Scars		
	th Abov Groun		
	th of Dep		
	ngth of Wid Scar So		
	Regrowth Le	<b>Regrowth</b> Yes No y	
IED TREE	Tree Status	<b>Tree Status</b> Standing Lying down Partially felled Subject to salinit Not <i>in situ</i>	
<b>3LE - MODIF</b>	Living Status	<b>Living Status</b> Dead Alive Dying	
ORDING TAI	Species	<b>Tree Species</b> Eucalypt Red Gum d Angotha	
ATURE REC	g Type	<b>Type of Tree</b> Carved Tree Scarred Tree Carved/Scarrec Tree	
WS FEA	ce Recordin. Date		comments:
ДZ	nstan No.		

NPWS FEATURE RECORDING FORM - GROOVE         page 1								
Fi	Site I.D.	Site Name Importance		Aboriginal Information Recorded?				
	eature Description ype of Grinding Feature	Seed Species Present		Recording date				
	Broad Narrow/point	Groove Function	Groove Function					
	Hollow							
P	Flat rofile Shape	Dimensions Smallest	Largest					
	'U' shaped	Length (mm)	Length (mm)	Groove count				
	'V' shaped	Width (mm)	Width (mm)	Cluster count				
	Flat	Depth (mm)	Depth (mm)					
8	Condition	Easting	Northing					
	Feature Condition Ge	Dimensions of Whole I neral Condition ctd	Recommended Action	Width (m)				
	Very good	Fire damage	Boardwalk	Revegetation				
	Good	Surface water wash	Cage/barrier/fencing	Rubbish removal				
	Poor	Graffiti	Closure to public	Signage				
	General Condition	Vehicle damage	Continued inspection	Erosion control				
	Weathered	Erosion	Expert assessment	Track closure/re-routing				
	Vandalised	Stock damage	Graffiti removal	Additional recording				
E	eature Plan	(Indicate scale, location of i	Meeting with land manager					
NŴ		N <sup>N</sup>	NE Feature Envi	(Complete when <i>feature</i> environment differs to <i>site</i> environment, use attributes from cover card, p. 2)				
				Land form				
				Land form unit				
				Slope				
				Vegetation				
W			E	Land use				
			Water					
			Distance to pern	nanent water source				
				oorary water sourcemetres				
			Name of neares	t permanent water source				
			Name of neares	t temporary water				
0.00			SE SE					
SW		S	3E					

NPWS FEATURE RECORDING FORM - ART     page 1						
Site I.D.	Aboriginal Information Recorded?					
Recorded by						
-						
Feature Context & Condition	Easting  Northing    Pigment  Engraved   Super-impositioning					
Artwork Condition	General Condition Recommended Action					
Very good	Weathered Boardwalk	Rubbish removal				
Good	Vandalised Cage/barrier/fencing	Signage				
Poor	Surface water wash Closure to public	Erosion control				
	Mineralisation Continued inspection	Track closure/re-routing				
	Graffiti Dripline	Additional recording				
	Fire damage					
	Insects/termites Fire hazard removal Craffiti removal					
	Stock					
	Linstehle structure					
Feature Environm	nent (Complete when <i>feature</i> environment differs to <i>site</i> environment, use attributes from cover card	d, p. 2)				
	Land form Water					
	Land form unit Distance to permanent water source	metres				
	Slope Distance to temporary water source	metres				
	Vegetation Name of nearest permanent water source					
	I Land use Name of nearest temporary water					
Art Sketch Plan	Sketch and number motif groups					

# NPWS FEATURE RECORDING TABLE - ART MOTIF

Instance	Recording Date	Motif	Application Technique	Form	Main Colour	Location	Condition

в Л		
IVI	OTH:	
	vui	

Mouli	
Anthropomorphic	Female
Bird	Fish
Bird Track	Foot
Canoe	Hand
Circle	Jellyfish
Contact material culture	Kangaroo
Duck	Line
Eel	Lizard
Emu	Macropod
Emu track	Macropod Track
European figure	Male

## Application

Other

Pattern

Reptile

Rifle Shield

Ship

Snake

Spear

Wallaby

Quadruped

Marine-Other Technique Abraded Drawn Other Painted Pecked Pigment & Engraved Stencilled Form Fill Line Line+ Fill Other Pattern

# Main

Art Location Black Mauve \* N/A Orange \* Other Red \* White \* Yellow \*

### Condition

Faded Stained Mineralisation Evident Weathered

# Colour

All over shelter surfaces ceiling Floor Mostly near largest sheltered space V brant Colours Mostly on out of the way surfaces Unweathered Other Wall

# Comments:

page 2

NP	NPWS FEATURE RECORDING FORM - SHELL   page 1							
Firs N	Site I.D.		Site Name Importar	nce			Aboriginal Information Recorded?	
Fea & (	Feature Context     Easting     Northing       & Condition							
Dim	nensions of Whole F	eat	ure Lengt	th (n	n) Width (m)		Depth (m)	
Sh	ell Distribution							
	Surface scatter		Distar	nce	to high water mark (m)			
	Stratified deposit							
	Mounded							
Fea	ture Condition	Ge	neral Condition ctd	Red	commended Action			
	Very good		Fire damage		Boardwalk		Revegetation	
	Good		Vehicle damage		Cage/barrier/fencing		Rubbish removal	
	Poor		Insects/termites		Closure to public		Signage	
Ger	neral Condition		Erosion		Continued inspection		Erosion control	
	Weathered		Stock damage		Expert assessment		Track closure/re-routing	
	Vandalised		Unstable structure		Fire hazard removal		Additional recording	
	Surface water wash		Exposed bone material		Graffiti removal			
	Mineralisation		Exposed archaeological		Meeting with land manager			
	Graffiti material Insect/bird nest removal							



# NPWS FEATURE RECORDING TABLE - SHELL

Instance No.	Recording Date	Shell Species	% of this species shell to % total of other shell

### Species

Anadara	Nerita
Bimbala	Ocean Snail
Chiton	Periwinkle
Cowrie	Pippi
Dog Cockle	Ribbed Cockle
Duck Bill	Rock Oyster
Limpit	Thiad
Mud oyster	Triton
Mutton Fish	Turban (large)

# Percentage of this Species Shell to Percentage Total of other Shell

 $\begin{array}{c} 0-9\% \\ 10-19\% \\ 20-29\% \\ 30-39\% \\ 40-49\% \\ 50-59\% \\ 60-69\% \\ 70-79\% \\ 80-89\% \\ 90-100\% \end{array}$ 

Comments:	



# Aboriginal Site Recording Form



AHIMS Registrar PO Box 1967, Hurstville NSW 2220

Office Use Only						
Date received Date entered into system/ Date catalogued/						
Entered by (I.D.)						
Information A	Access	Office Llos				
Gender/ma	le Gender/female Location restriction General restriction No access	Only				
For Further I	nformation Contact:					
Nominated	I Trustee					
Title	Surname First Name Initials					
		Client on				
Organisation		system				
Address						
Phone number	Fax					
Knowledge	e Holder					
Title	Surname First Name Initials	Client on				
mr	F   r   o   s   t   s   h   a   n   e   s	system				
Organisation	A         w         a         b         a         k         a         I         T         r         a         d         O         w         n         e         r         s         I         I         I         T         r         a         d         O         w         n         e         r         s         I         I         I         I         I         I         r         a         d         O         w         n         e         r         s         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I					
Address	PO         Box         86         CIar         encent         wn					
Phone number	0 4 2 8 3 2 0 6 7 1 Fax					
Aboriginal Heritage Unit or Cultural Heritage Division Contacts						
Geographic	Location					
Site Name	R P S S p e e r s P o i n t A S 3					
Easting	3       7       2       7       9       9       Northing       6       3       5       2       6       0       3       AGD/GDA       GDA					
Mapsheet	w a l l s e n d					
Zone	56 Location Method Differential GPS					
	Other Registration					
Primary Re	corder					
Title	Surname First Name Initials					
m r s	N   e   I   s   o   n   I   L   a   r   a   i   n   e   I					
Organisation		Client on				
Address	PO       Box       428       Hamilar       Iton       Iton       Iton       Iton	system				
Phone number	4 9 4 0 4 2 0 0 Fax					
Date recorded	15/02/2010					

NPWS Aboriginal Site Recording Form - Site Information       page 2					
	OPEN/CLOSE SITE	Open Site			
Site Context					
Landform	Landform Unit				
Mountainous	Beach	Tidal Flat	Upper slope	Stream bank	
Plain	Coastal rock platform	Cliff	Plain	Stream channel	
Rolling hills	Dune	Crest	✓ Ridge	Swamp	
Steep hills	Intertidal flat	Flat	Tor	Terrace	
Undulating plain	Lagoon	Lower slope	Valley flat	Terrace flat	
Slope	Tidal Creek	Mid slope	Levy		
degrees					
<b>v</b>					
Vegetation	Land use	Water			
Closed forest	Conservation	Distance to perman	ent water source	. km + metres	
Grasslands	Established urban	Distance to tempora	ary water source	200m + metres	
Isolated clumps of trees	Farming-intensive	Name of nearest pe	rmanent water source		
✓ Open forest	Farming-low intensity	Name of nearest ter	mporary water		
Open woodland	Forestry				
Scrub	Industrial	Using map the	Directions for Relocat	ion	
Woodland	Mining				
Cleared	Pastoral/grazing				
Revegetated	Recreation				
N/A	Semi-rural				
	Service corridor				
	Transport corridor				
	Urban expansion	NW	Site Location Ma	р NE	
	Residential		- 18 S.G		
Current Land Tenure					
Public National Pa	rk / other Government				
Private					
				-	
Primary report I.D.	(I.D. Office Use only)	SP AND			
		44 ( K. S. C.	No and a state of the state of	2 S Martin	
		w - Kingge		E	
			The second		
			-		
		SW	S	SE	

NPWS Aboriginal Site Recording Form - Site Informationpage 3							
General Site Information Features							
Closed Site		Ор	en Site		1. Aboriginal Ceremony & Dreaming		
Shelter/Cave Formation Rock	s Surface Condition	Site	Orientation		2. Aboriginal Resource & Gathering		
Boulder E	Boulder	$\checkmark$	N-S		3. Art		
Wind erosion	Sandstone platform		NE-SW		4. Artefact		
Water erosion	Silica gloss		E-W		5. Burial		
Rock collapse	Tessellated		SE-NW		6. Ceremonial Ring		
v	Weathered		N/A		7. Conflict		
	Other platform				8. Earth Mound		
Condition of Ceiling Shelt	ter Aspect				9. Fish Trap		
Boulder	North			Ļ	10. Grinding Groove		
Sandstone platform	North East				11. Habitation Structure		
Silica gloss	East				12. Hearth		
Tessellated	South East				13. Non Human Bone & Organic Material		
Weathered S	South				14. Ochre quarry		
Other platform	South West				15. Potential Archaeological Deposit		
v	West				16. Stone Quarry		
	North West				17. Shell		
					18. Stone Arrangement		
					19. Modified Tree		
					20. Water Hole		





Length of assessed site area

NPWS Aboriginal Site Recording Form - Site Interpretation and Community Statement page	ge 4
boriginal Community Interpretation and Management Recommendations	
Preliminary Site Assessment	
Site Cultural & Scientific Analysis and Preliminary Management Recommendations	
his section should only be filled in by the Endorsees	
	ensus
Title Surname First Name Initials	CHOUS
Organisation	]
Address	]
Phone number	
Attachments (No.) Comments	
A4 location map	
B/W photographs	
Slides	
Aerial photographs	
Site plans, drawings	
Recording tables	
Other	
Feature inserts-No.	

NPWS FEATURE RECORDIN	IG FORM - ARTEFACT	page 1					
Site I.D. Site Name RPS Speers Point AS3							
First recorded date 15/02/2010 Contributes to primary site importa							
No. of instances							
Recorded by L Nelson							
Yes No							
Stone artefacts only Yes	Percentage of Non-stone Artefacts to Percentage of	Stone Artefacts					
Artefacts collected No	-9% 10-19% 20-29% 30-39% 40-49% 50-59% 60-69% 70-79%	% 80-89% 90-100%					
Permit issued No	0-9%						
Feature Context & Scatter	No. 2 Easting 3 7 2 7 9 9 North	ing 6 3 5 2 6 0 3					
Density		Yes No					
(Artefact count per square metre)	Length (m) Width (m) Depth (	m) Stratified					
Fosturo Condition General Conditi	00	Stratilied No					
	Recommended Action	-					
Very good Weathered	Boardwalk	Revegetation					
Good Vehicle dam	age	Signage					
Poor Surface wat	er wash	Soil erosion control					
Fire damage		I rack closure/re-routing					
Erosion		Additional recording					
Stock dama	ge						
Exposed arc	chaeological material						
Feature Plan (Indicate scale, location	of instances)						
NW N	Feature Environme	nt (Complete when <i>feature</i> environment					
		from cover card, p. 2)					
	hills						
	ridgeline	and form					
		and form unit					
		Nobe					
		/egetation					
	N recreational L	and use					

# Water

Е

SE

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SW

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Distance to permanent water source	1,000	metres
Distance to temporary water source	200	metres

Name of nearest permanent water source Cockle Creek

Name of nearest temporary water unamed

NPWS FEATURE RECORDING TABLE - ARTEFACT         page 2														
					S	Stone	Artefa	ct				_		ess (
Instance No.	Recording Date	A N	rtefact laterial	Arte	fact Type	Pla Su	tform rface	Platform <sup>-</sup>	Гуре	Termination	Cross Section	Length (mm)	Width (mm)	Thickn∈ (mm)
1	15/02/2010	Che	ert	Flake								20.6	19.6	7.6
2	15/02/2010	Che	ert	Flake	d Piece									
					0.1			-						S
Instance	Decerdir	. ~	Artof	act	Oti	her A	rtefact	Туре	Dee	a vin ti a v		n) gth	년 년	knes m)
No.	Date	ıg	Mate	rial	Artefact	Туре			Des	scription		(mr	Widt (mm	Thick (m
Mater Basalt Chert Fine gra Granite Quartz Quartzi Sandsto Silcrete	rial ained siliceous te one	Clea Cer Tin Win Naii But She	ar glass amic celain can e ton	Arte Adze Anvil Axe Back Blade Core Core Cyclo	ed blade	Flake Flake Flake Ham Manu Millin Morta Mulle Nucle	n e tool ed piece merstone uport ug slab ar er ear tool		F F F C I E	Platform Surface Cortex Flake scar More than one flake Faceted Ground ndeterminate Bipolar	<b>ce Te</b> Fe Hir scar Ste Ou Bip	erminati ather nge ep trepasse polar	on	
Green s Amber Amethy	glass glass /st glass	Bor Wo Res	ie od sin	Dista Elour Flake	l fragment a	Pirri Prox Tula Othe Modi Unwe	imal fragm r diagnosti fied orked	ent c type	       	Platform Type Wide Focal Shattered Indeterminate Bipolar	CI Hig Lo Irre	ross Se gh/strong gh/weak w/weak egular	ction	
Comr	nents:													

NPWS FEATURE R		A - MODIFIED TREE	E	page 3
Site I.D. First recorded date No. of instances Recorded by	Sit	ie Name Importance		Aboriginal Information Recorded?
Feature description	on (	Easting Condition Re	Commended Action	hing
No. of carved panels		Ringbarked         Fire damage         Vehicle damage         Insects/termites	Closure to public Continued inspection Expert assessment Fire hazard reduction	Track closure/re-routing Additional recording
Poor		Rot Limb fall Stock damage	Insect removal Meeting with land mana Rubbish removal Signage	ager
	nent <sub>(Complete when feature er</sub> Land form Land form unit Slope	vironment differs to <i>site</i> environment, us <b>Water</b> Distance to perr Distance to tem	e attributes from cover card, page 2) manent water source porary water source	metres metres
Feat	Vegetation Land use ture Location Plar	Name of neares Name of neares	st permanent water source st temporary water Scar/Carvec	Panel Drawing
w				
SW Indicate scale	S	SE	Attach additional drawings	

page 2	on Axe Marks	Orientation North East East South East South West	west North West North
	g Orientatio	<b>e Marks</b> stal one determinate	
	f d Carvinç s Type	<b>g Type Ax</b> Me stric Sto al Inc	
	e Carveo Panels	pe Carvin Linear ar Geome Pictoria	
	f Shape	<b>Scar Sha</b> Oval Rectangul Square Round Other	
	ht /e No. o nd Scars		
	th Abov Groun		
	th of Dep		
	ngth of Wid Scar So		
	Regrowth Le	<b>Regrowth</b> Yes No y	
ED TREE	Tree Status	<b>Tree Status</b> Standing Lying down Partially felled Subject to salinit Not <i>in situ</i>	
<b>3LE - MODIF</b>	Living Status	<b>Living Status</b> Dead Alive Dying	
ORDING TAE	Species	<b>Tree Species</b> Eucalypt Red Gum d Angotha	
ATURE REC	g Type	<b>Type of Tree</b> Carved Tree Scarred Tree Carved/Scarrec Tree	
WS FEA	ce Recordin. Date		comments:
ДZ	nstan No.		

NPWS FEATURE RECORDING FORM - GROOVE     page 1					
Fi	Site I.D.	Site Name Importance		Aboriginal Information Recorded?	
	eature Description ype of Grinding Feature	Seed Species Present		Recording date	
	Broad Narrow/point	Groove Function			
	Hollow				
P	Flat rofile Shape	Dimensions Smallest	Largest		
	'U' shaped	Length (mm)	Length (mm)	Groove count	
	'V' shaped	Width (mm)	Width (mm)	Cluster count	
	Flat	Depth (mm)	Depth (mm)		
8	Condition	Easting	Northing		
	Feature Condition Ge	Dimensions of Whole I neral Condition ctd	Recommended Action	Width (m)	
	Very good	Fire damage	Boardwalk	Revegetation	
	Good	Surface water wash	Cage/barrier/fencing	Rubbish removal	
	Poor	Graffiti	Closure to public	Signage	
	General Condition	Vehicle damage	Continued inspection	Erosion control	
	Weathered	Erosion	Expert assessment	Track closure/re-routing	
	Vandalised	Stock damage	Graffiti removal	Additional recording	
E	eature Plan	(Indicate scale, location of i	Meeting with land manager		
NŴ		N <sup>N</sup>	NE Feature Envi	(Complete when <i>feature</i> environment differs to <i>site</i> environment, use attributes from cover card, p. 2)	
				Land form	
				Land form unit	
				Slope	
				Vegetation	
W			E	Land use	
			Water		
			Distance to pern	nanent water source	
				oorary water sourcemetres	
			Name of neares	t permanent water source	
			Name of neares	t temporary water	
0.00			SE SE		
SW		S	3E		

NPWS FEATURE RECORDING FORM - ARTpage 1							
Site I.D.	Site Name Importance	Aboriginal Information Recorded?					
Recorded by							
-							
Feature Context       Easting       Northing         & Condition       Pigment       Engraved       Super-impositioning							
Artwork Condition	General Condition Recommended Action						
Very good	Weathered Boardwalk	Rubbish removal					
Good	Vandalised Cage/barrier/fencing	Signage					
Poor	Surface water wash Closure to public	Erosion control					
	Mineralisation Continued inspection	Track closure/re-routing					
	Graffiti Dripline	Additional recording					
	Fire damage						
	Insects/termites Fire hazard removal Craffiti removal						
	Stock						
	Linstehle structure						
Feature Environm	nent (Complete when <i>feature</i> environment differs to <i>site</i> environment, use attributes from cover card	d, p. 2)					
	Land form Water						
	Land form unit Distance to permanent water source	metres					
	Slope Distance to temporary water source	metres					
	Vegetation Name of nearest permanent water source	e of nearest permanent water source					
	I Land use Name of nearest temporary water						
Art Sketch Plan	Sketch and number motif groups						

# NPWS FEATURE RECORDING TABLE - ART MOTIF

Instance	Recording Date	Motif	Application Technique	Form	Main Colour	Location	Condition

в Л		
IVI	OTH:	
	vui	

Mouli	
Anthropomorphic	Female
Bird	Fish
Bird Track	Foot
Canoe	Hand
Circle	Jellyfish
Contact material culture	Kangaroo
Duck	Line
Eel	Lizard
Emu	Macropod
Emu track	Macropod Track
European figure	Male

## Application

Other

Pattern

Reptile

Rifle Shield

Ship

Snake

Spear

Wallaby

Quadruped

Marine-Other Technique Abraded Drawn Other Painted Pecked Pigment & Engraved Stencilled Form Fill Line Line+ Fill Other Pattern

# Main

Art Location Black Mauve \* N/A Orange \* Other Red \* White \* Yellow \*

### Condition

Faded Stained Mineralisation Evident Weathered

# Colour

All over shelter surfaces ceiling Floor Mostly near largest sheltered space V brant Colours Mostly on out of the way surfaces Unweathered Other Wall

# Comments:

page 2

NP	NPWS FEATURE RECORDING FORM - SHELL   page 1								
Firs N	Site I.D.		Site Name Importar	nce			Aboriginal Information Recorded?		
Fea & (	Feature Context     Easting     Northing       & Condition								
Dim	nensions of Whole F	eat	ure Lengt	th (n	n) Width (m)		Depth (m)		
Sh	ell Distribution								
	Surface scatter		Distar	nce	to high water mark (m)				
	Stratified deposit								
	Mounded								
Fea	ture Condition	Ge	neral Condition ctd	Red	commended Action				
	Very good		Fire damage		Boardwalk		Revegetation		
	Good		Vehicle damage		Cage/barrier/fencing		Rubbish removal		
	Poor		Insects/termites		Closure to public		Signage		
Ger	neral Condition		Erosion		Continued inspection		Erosion control		
	Weathered		Stock damage		Expert assessment		Track closure/re-routing		
	Vandalised		Unstable structure		Fire hazard removal		Additional recording		
	Surface water wash		Exposed bone material		Graffiti removal				
	Mineralisation		Exposed archaeological		Meeting with land manager				
	Graffiti material Insect/bird nest removal								



# NPWS FEATURE RECORDING TABLE - SHELL

Instance No.	Recording Date	Shell Species	% of this species shell to % total of other shell

### Species

Anadara	Nerita
Bimbala	Ocean Snail
Chiton	Periwinkle
Cowrie	Pippi
Dog Cockle	Ribbed Cockle
Duck Bill	Rock Oyster
Limpit	Thiad
Mud oyster	Triton
Mutton Fish	Turban (large)

# Percentage of this Species Shell to Percentage Total of other Shell

 $\begin{array}{c} 0-9\% \\ 10-19\% \\ 20-29\% \\ 30-39\% \\ 40-49\% \\ 50-59\% \\ 60-69\% \\ 70-79\% \\ 80-89\% \\ 90-100\% \end{array}$ 

Comments:	



# Aboriginal Site Recording Form



AHIMS Registrar PO Box 1967, Hurstville NSW 2220

Office Use Only		
Date received	Date entered into system	
Entered by (I.D.)		
Information A	Access	
Gender/male	e Gender/female Location restriction General restriction No access	Office Use Only
For Further I	nformation Contact:	
Nominated	Trustee	
Title	Surname First Name Initials	
		Client on
Organisation		system
Address		
Phone number	Fax	
Knowledge	Holder	
Title	Surname First Name Initials	<b></b>
mr	Frost	Svstem
Organisation		
Address	P O B o x 8 6 C I a r e n c e t o w n	
Phone number	0 4 2 8 3 2 0 6 7 1 Fax	
Aboriginal H	leritage Unit or Cultural Heritage Division Contacts	
Geographic		
Site Name L		
Easting	AGD/GDA GDA	
Mapsheet	w a l l s e n d	
Zone 🤤	56 Location Method Differential GPS	
	Other Registration	
Primary Reg	corder	
Title	Surname First Name Initials	
m r s	N e I s o n L a r a i n e	
Organisation	R P S	Client on
Address	P O B o x 4 2 8 H a m i I t o n I	system
Phone number	4 9 4 0 4 2 0 0 Fax	
Date recorded	15/03/2010	

NPWS Aboriginal Site Recording Form - Site Information         page 2						
	OPEN/CLOSE SITE	Open Site				
Site Context						
Landform	Landform Unit					
Mountainous	Beach	Tidal Flat	Upper slope	Stream bank		
Plain	Coastal rock platform	Cliff	Plain	Stream channel		
Rolling hills	Dune	Crest	Ridge	Swamp		
Steep hills	Intertidal flat	Flat	Tor	Terrace		
Undulating plain	Lagoon	Lower slope	Valley flat	Terrace flat		
Slope	Tidal Creek	Mid slope	Levy			
degrees						
Vegetation	Land use	Water				
Closed forest	Conservation	Distance to permane	ent water source	1 km + metres		
Grasslands	Established urban	Distance to tempora	ary water source	1m metres		
Isolated clumps of trees	Farming-intensive	Name of nearest pe	rmanent water source			
Open forest	Farming-low intensity	Name of nearest ter	mporary water			
Open woodland	Forestry					
Scrub	Industrial	refer to man	Directions for Reloca	ation		
Woodland	Mining					
Cleared	Pastoral/grazing					
Revegetated	Recreation					
N/A	Semi-rural					
	Service corridor					
	Transport corridor					
	Urban expansion		Site Location M	lap NE		
	Residential					
Current Land Tenure			and the second			
Public National Par	rk / other Government	the same	THE AD			
Private						
			and the second second			
Primary report I.D.	(I.D. Office Use only)		Concern Andrews			
		<b>GECCON</b>	H-P-AN			
		w -		E E		
			A SOR			
		GA C				
		SW	S	SE		



Site Plan Indicate scale, boundaries of site, features



# Site Dimensions Closed Site Dimensions (m) Internal length Internal width Shelter height Shelter floor area Open Site Dimensions (m) Curve 2 Total length of visible site Average width of visible site



Total length of visible site Average width of visible site Estimated area of visible site Length of assessed site area

NPWS Aboriginal Site Recording Form - Site Interpretation and Community Statement page	ge 4
boriginal Community Interpretation and Management Recommendations	
Preliminary Site Assessment	
Site Cultural & Scientific Analysis and Preliminary Management Recommendations	
This section should only be filled in by the Endorsees	
	onsus
Title Surname First Name Initials	CHOUS
Organisation	]
Address	]
Phone number	
Attachments (No.) Comments	
A4 location map	
B/W photographs	
Slides	
Aerial photographs	
Site plans, drawings	
Recording tables	
Other	
Feature inserts-No.	

NPWS FEATURE RECORDING FORM - ARTEFACT	age 1
Site I.D.     Site Name	
First recorded date Cannot be presently determined	
No. of instances	
Recorded by	
Yes No	
Stone artefacts only No Percentage of Non-stone Artefacts to Percentage of Stone Artefacts	
Artefacts collected No 0-9% 10-19% 20-29% 30-39% 40-49% 50-59% 60-69% 70-79% 80-89% 90-100%	
Permit issued No 0-9%	
Feature Context & Condition       Scatter No.       Easting       2       Northing       2	
Density     Dimensions     Ye       (Artefact count per square metre)     Length (m)     Width (m)     Depth (m)       Stratified     Stratified	es No
Feature Condition General Condition Recommended Action	
Very good         Weathered         Boardwalk         Revegetation	
Good Vehicle damage Fencing Signage	
Reor     Surface water wash     Closure to public     Soil erosion contro	bl
Fire damage	outing
Erosion Fire hazard reduction Additional recordin	ıg
Stock damage	
Exposed archaeological material Meeting with land manager	

Feature Plan (Indicate scale, location of instances)



NPWS FEATURE RECORDING TABLE - ARTEFACT         page 2													
			A	S	Stone	Artefa			<b>T</b> errer in etiere	Cross	÷ Ç	50	ness n)
Instance No.	Recording Date	Artefact Materia	Arte	fact Type	Pla Su	tform rface	Platform Ty	pe	Iermination	Section	Leng (mm	Widt (mm	Thick (mr
				Oth	her A	rtefact	Type						SS
Instance	Recordin	ig Art	efact	Artefact	Туре	liciaet	. <b>турс</b> С	Descr	iption		ength mm)	idth nm)	ickne (mm)
No.	Date	Ma	terial								) E	≥ ÷	μ
Mater Basalt Chert Fine gr Granite Quartz Quartz Sandst Silcrete	rial ained siliceous te one	Clear glass Ceramic Porcelain Tin can Wire Nail Button Shell	Arte Adze Anvii Axe Back Blad Core Core Cycle	efact Desc ed blade e tool	Flake Flake Ham Manu Millin Morta Mulle Nucle	n e tool ed piece merstone uport g slab ar er ear tool		Pla Cor Flal Mor Fac Gro Inde Bipe	atform Surfac rtex ke scar re than one flake ceted bund eterminate iolar	<b>:e le</b> Fea Hir scar Ste Ou Bip	rminati ather ige p trepasse iolar	on	
Green Amber Amethy	glass glass /st glass	Bone Wood Resin	Dista Elou Flake	il fragment ra e	Pirri Proxi Tula Othe Modi Unwo	mal fragm r diagnost fied orked	ient ic type	<b>Pla</b> Wic Foc Sha Ind Bip	atform Type de cal attered leterminate polar	CI Hig Hiç Lov Irre	ross Se gh/strong gh/weak w/weak egular	ction	
Comr	nents:												
Heat trea	ated												
<u> </u>													

NPWS FEATURE R		1 - MODIFIED TREE		page 3
Site I.D. First recorded date No. of instances Recorded by	Sit	e Name Importance	A	Aboriginal Information Recorded?
Feature description	on C	Easting Condition Rec	Commended Action	Tree health assessment
No. of carved panels Feature Condition Very good Good		Ringbarked       Image         Fire damage       Image         Vehicle damage       Image         Insects/termites       Image	Closure to public Continued inspection Expert assessment Fire hazard reduction	Track closure/re-routing Additional recording
Poor		Rot         Limb fall         Stock damage	Insect removal Meeting with land manage Rubbish removal Signage	r
Feature environm	Land form Land form Land form unit Slope	vironment differs to <i>site</i> environment, use a <b>Water</b> Distance to perma Distance to tempo	attributes from cover card, page 2) anent water source orary water source	metres metres
Feat	Vegetation Land use ture Location Plan	Name of nearest Name of nearest	permanent water source temporary water Scar/Carved P	anel Drawing
<b>VW</b>		NE		
w				
SW		SE		

page 2	on Axe Marks	Orientation North East East South East South West	west North West North				
	g Orientatio	<b>e Marks</b> stal one determinate					
	f d Carvinç s Type	<b>g Type Ax</b> Me stric Sto al Inc					
	e Carveo Panels	pe Carvin Linear ar Geome Pictoria					
	f Shape	<b>Scar Sha</b> Oval Rectangul Square Round Other					
	ht /e No. o nd Scars						
	th Abov Groun						
	th of Dep						
	ngth of Wid Scar So						
	Regrowth Le	<b>Regrowth</b> Yes No y					
IED TREE	Tree Status	<b>Tree Status</b> Standing Lying down Partially felled Subject to salinit Not <i>in situ</i>					
<b>3LE - MODIF</b>	Living Status	<b>Living Status</b> Dead Alive Dying					
ORDING TAI	Species	<b>Tree Species</b> Eucalypt Red Gum d Angotha					
ATURE REC	g Type	<b>Type of Tree</b> Carved Tree Scarred Tree Carved/Scarrec Tree					
WS FEA	ce Recordin. Date		comments:				
ДZ	nstan No.						
NPWS FEATURE RECORDING FORM - GROOVE         page 1							
-------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------	--	--	--	--
Site I.D. Site Name RPS Speers Point GG1 Importance Contributes to primary site impd No. of instances Recorded by							
Feature Description         Type of Grinding Feature         Image: Strength of Grinding Feature	Seed Species Present		Recording date 15/03/20/10				
Hollow Flat Profile Shape	food processing area. Two Dimensions Smallest	shallow dish shaped grooves on top of la Largest	arge boulder in dry creek bed				
<ul><li>✓ 'U' shaped</li><li>✓ 'V' shaped</li><li>✓ Flat</li></ul>	Length (mm) <sup>300</sup> Width (mm) <sup>220</sup> Depth (mm) <sup>15</sup>	Length (mm) <sup>320</sup> Width (mm) <sup>260</sup> Depth (mm) <sup>30</sup>	Groove count <sup>2</sup> Cluster count				
Feature Context & Condition Feature Condition Ge	Easting 3 7 7 1 1 Dimensions of Whole F neral Condition ctd	9         Northing         6         3         5         1         7         7         4           eature         0.4         Length (m)         1         1           Recommended Action         1         1         1         1	Width (m)				
Very good         ✓ Good         Poor         General Condition         Weathered         Vandalised	Fire damage Surface water wash Graffiti Vehicle damage Erosion Stock damage	Boardwalk Graffiti removal	Revegetation Rubbish removal Signage Erosion control Track closure/re-routing Additional recording				
Feature Plan	N (Indicate scale, location of ir	nstances) NE Feature Environm	(Complete when <i>feature</i> environment differs to <i>site</i> environment, use attributes from cover card, p. 2)				
		steep hills creek bed flat closed forest	Land form Land form unit Slope Vegetation				
W		E Water Distance to permanent Distance to temporary Name of nearest perma	water source 1,000 <sub>metres</sub> water source 1 <sub>metres</sub>				
SW	S	North Creek Name of nearest tempo unknown SE	prary water				

NPWS FEATURE F	RECORDING FORM - ART	page 1
Site I.D.	Site Name Importance	Aboriginal Information Recorded?
Recorded by		
-		
Feature Context & Condition	Easting  Northing    Pigment  Engraved   Super-impositioning	
Artwork Condition	General Condition Recommended Action	
Very good	Weathered Boardwalk	Rubbish removal
Good	Vandalised Cage/barrier/fencing	Signage
Poor	Surface water wash Closure to public	Erosion control
	Mineralisation Continued inspection	Track closure/re-routing
	Graffiti Dripline	Additional recording
	Fire damage	
	Insects/termites Fire hazard removal Craffiti removal	
	Stock	
	Linstehle structure	
Feature Environm	nent (Complete when <i>feature</i> environment differs to <i>site</i> environment, use attributes from cover card	d, p. 2)
	Land form Water	
	Land form unit Distance to permanent water source	metres
	Slope Distance to temporary water source	metres
	Vegetation Name of nearest permanent water source	
	I Land use Name of nearest temporary water	
Art Sketch Plan	Sketch and number motif groups	

### NPWS FEATURE RECORDING TABLE - ART MOTIF

Instance	Recording Date	Motif	Application Technique	Form	Main Colour	Location	Condition

в Л		
IVI	OTH:	
	vui	

Mouli	
Anthropomorphic	Female
Bird	Fish
Bird Track	Foot
Canoe	Hand
Circle	Jellyfish
Contact material culture	Kangaroo
Duck	Line
Eel	Lizard
Emu	Macropod
Emu track	Macropod Track
European figure	Male

### Application

Other

Pattern

Reptile

Rifle Shield

Ship

Snake

Spear

Wallaby

Quadruped

Marine-Other Technique Abraded Drawn Other Painted Pecked Pigment & Engraved Stencilled Form Fill Line Line+ Fill Other Pattern

### Main

Art Location Black Mauve \* N/A Orange \* Other Red \* White \* Yellow \*

#### Condition

Faded Stained Mineralisation Evident Weathered

### Colour

All over shelter surfaces ceiling Floor Mostly near largest sheltered space V brant Colours Mostly on out of the way surfaces Unweathered Other Wall

### Comments:

page 2

NP	NPW5 FEATURE RECORDING FORM - SHELL   page 1						
Firs N	Site I.D.		Site Name Importar	nce			Aboriginal Information Recorded?
Fea & (	ature Context Condition		Easting		Northing		
Dim	nensions of Whole F	eat	ure Lengt	th (n	n) Width (m)		Depth (m)
Sh	ell Distribution						
	Surface scatter		Distar	nce	to high water mark (m)		
	Stratified deposit						
	Mounded						
Fea	ture Condition	Ge	neral Condition ctd	Red	commended Action		
	Very good		Fire damage		Boardwalk		Revegetation
	Good		Vehicle damage		Cage/barrier/fencing		Rubbish removal
	Poor		Insects/termites		Closure to public		Signage
Ger	neral Condition		Erosion		Continued inspection		Erosion control
	Weathered		Stock damage		Expert assessment		Track closure/re-routing
	Vandalised		Unstable structure		Fire hazard removal		Additional recording
	Surface water wash		Exposed bone material		Graffiti removal		
	Mineralisation		Exposed archaeological		Meeting with land manager		
	Graffiti		material		Insect/bird nest removal		



### NPWS FEATURE RECORDING TABLE - SHELL

Instance No.	Recording Date	Shell Species	% of this species shell to % total of other shell

#### Species

Anadara	Nerita
Bimbala	Ocean Snail
Chiton	Periwinkle
Cowrie	Pippi
Dog Cockle	Ribbed Cockle
Duck Bill	Rock Oyster
Limpit	Thiad
Mud oyster	Triton
Mutton Fish	Turban (large)

# Percentage of this Species Shell to Percentage Total of other Shell

 $\begin{array}{c} 0-9\% \\ 10-19\% \\ 20-29\% \\ 30-39\% \\ 40-49\% \\ 50-59\% \\ 60-69\% \\ 70-79\% \\ 80-89\% \\ 90-100\% \end{array}$ 

Comments:	



## Aboriginal Site Recording Form



AHIMS Registrar PO Box 1967, Hurstville NSW 2220

Office Use Only		
Date received	Date entered into system	
Entered by (I.D.)		
Information	Access	Office lies
Gender/ma	e Gender/female Location restriction General restriction No access	Only
For Further	nformation Contact:	
Nominated	I Trustee	
Title	Surname First Name Initials	
		Client on
Organisation		system
Address		
Phone number	Fax     Image: Second sec	
Knowledge	e Holder	
Title	Surname First Name Initials	Client on
mr	F   r   o   s   h   a   n   e   l	system
Organisation	A w a b a k a I T r a d O w n e r s	
Address	PO         Box         86         CIar         encent         wn	
Phone number	0 4 2 8 3 2 0 6 7 1 Fax	
Aboriginal I	Heritage Unit or Cultural Heritage Division Contacts	
Geographic	Location	
Site Name	R P S S p e e r s P o i n t I F 1	
Easting	3       7       2       5       2       6       3       5       2       1       6       8       AGD/GDA       GDA	
Mapsheet	w a l l s e n d l l s l s e n d l s s s s s s s s s s s s s s s s s s	
Zone	56 Location Method Differential GPS	
	Other Registration	
Primary Re	corder	
Title	Surname First Name Initials	
m r s	n e I s o n L a r a i n e	
Organisation		Client on
Address	PO       Box       428       Hamilar       Iton       Iton       Iton       Iton	system
Phone number	4 9 4 0 4 2 0 0 Fax	
Date recorded	15/03/2010	



NPWS Aboriginal Site Recording Form - Site Informationpage 3					
Ge	eneral Site Information		Features		
Closed Site		Open Site	1. Aboriginal Ceremony & Dreaming		
Shelter/Cave Formatio	n Rock Surface Condition	Site Orientation	2. Aboriginal Resource & Gathering		
Boulder	Boulder	N-S	3. Art		
Wind erosion	Sandstone platform	NE-SW	4. Artefact		
Water erosion	Silica gloss	E-W	5. Burial		
Rock collapse	Tessellated	SE-NW	6. Ceremonial Ring		
	Weathered	N/A	7. Conflict		
	Other platform		8. Earth Mound		
Condition of Ceiling	Shelter Aspect		9. Fish Trap		
Boulder	North		10. Grinding Groove		
Sandstone platform	n 🔲 North East		11. Habitation Structure		
Silica gloss	East		12. Hearth		
Tessellated	South East		13. Non Human Bone & Organic Material		
Weathered	South		14. Ochre quarry		
Other platform	South West		15. Potential Archaeological Deposit		
	West		16. Stone Quarry		
	North West		17. Shell		
			18. Stone Arrangement		
			19. Modified Tree		
			20. Water Hole		



### Site Dimensions

#### **Closed Site Dimensions (m)**



Internal length Internal width Shelter height Shelter floor area

#### **Open Site Dimensions (m)**



Total length of visible site Average width of visible site Estimated area of visible site Length of assessed site area

NPWS Aboriginal Site Recording Form - Site Interpretation and Community Statement page	ge 4
boriginal Community Interpretation and Management Recommendations	
Preliminary Site Assessment	
Site Cultural & Scientific Analysis and Preliminary Management Recommendations	
his section should only be filled in by the Endorsees	
	ensus
Title Surname First Name Initials	CHOUS
Organisation	]
Address	]
Phone number	
Attachments (No.) Comments	
A4 location map	
B/W photographs	
Slides	
Aerial photographs	
Site plans, drawings	
Recording tables	
Other	
Feature inserts-No.	

NPWS FEATURE RECORD	DING FORM - ARTEFACT	page 1					
Site I.D.	Site Name RPS Speers Point IF1						
First recorded date 15/02/2010	Importance Contributes to primary site importa						
No. of instances							
Recorded by L Nelson							
Yes     No       Stone artefacts only     Yes       Artefacts collected     No       Permit issued     No	Percentage of Non-stone Artefacts to Percentage of Stone Arter           0-9%         10-19%         20-29%         30-39%         40-49%         50-59%         60-69%         70-79%         80-89%         90           0-9%         0-9%         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0	<b>facts</b> 0-100%					
Feature Context & Condition       Scatter No.       I       Easting       3       7       2       5       2       6       3       5       2       1       6       8							
Oensity (Artefact count per square metre)	Dimensions Length (m) Width (m) Depth (m) Stra	Yes     No       n situ     No       tified     No					
Feature Condition General Con	dition Recommended Action						
Very good Weather	ed Boardwalk Revegetati	on					
Good Vehicle d	amage Fencing Signage						
Poor Surface	vater wash	n control					
Fire dam	age Continued inspection Track closu	ure/re-routing					
<b>V</b> Erosion	Fire hazard reduction Additional	recording					
Stock da	mage Expert assessment						
Exposed	archaeological material Meeting with land manager						

Feature Plan (Indicate scale, location of instances)

NW	N	NE	
			Feature Environment (Complete when <i>feature</i> environment differs to <i>site</i> environment, use attributes from cover card, p. 2)
			hills Land form
			ridgeline Land form unit
	SCALE: 10MM		Slope
			grass Vegetation
14/		F	recreational Land use
vv		L	Water
			Distance to permanent water source 1,000 metres
	The Contraction		Distance to temporary water source 200 metres
			Name of nearest permanent water source
			Cockle Creek
-			Name of nearest temporary water
			unamed
SW	S	SE	

NPWS	S FEATUR	RE	RECO	RDIN	G TABL	E - A	RTEFA	СТ					pa	ge 2
					S	Stone	Artefa	ct				_		ess (
Instance No.	Recording Date	A M	rtefact aterial	Arte	act Type	Pla Su	tform rface	Platform Ty	pe Te	ermination	Cross Section	Length (mm)	Width (mm)	Thickne (mm)
1	15/02/2010	Che	ert	Core		More t	han one					27	24	10.4
					Ot	hor A	rtofact	Туре						SS
Instance	Recordir	na	Artefa	act	Artefact	Type	leiaci	туре D	escrin	otion		nm)	n H	kne nm)
No.	Date	.9	Mater	rial	,	1900		_	0001.p			Ler (J	(Ţ Mie	Thio (r
Mater	ial			Arte	fact Des	criptio	n		Plat	form Surfa	ce Te	rminati	on	
Basalt Chert Fine granite Quartz Quartzi Sandsto Silcrete	ained siliceous te one	Clea Cera Pore Tin Wire Nail Butt She	ar glass amic celain can e on Il	Adze Anvil Axe Back Blade Core Core Cyclo	ed blade tool	Flake Flake Ham Manu Millin Morta Mulle Nucle	e tool ed piece merstone uport ig slab ar er ear tool		Corte Flake More Face Grou Indet Bipol	ex e scar than one flake ted nd erminate ar	Fe: Hir scar Ste Ou Bip	ather nge p trepasse polar		
Green ( Amber Amethy	glass glass /st glass	Bon Woo Res	e od in	Dista Elour Flake	l fragment a	Pirri Proxi Tula Othe Modi Unwo	imal fragmo r diagnosti fied orked	ent c type	Plat Wide Foca Shat Indet Bipol	tform Type a l tered terminate lar	CI Hig Lo Irre	r <b>oss Se</b> gh/strong gh/weak w/weak egular	ction	
Com	nents:													
Heat trea	ated													

NPWS FEATURE R		A - MODIFIED TREE	E	page 3
Site I.D. First recorded date No. of instances Recorded by	Sit	ie Name Importance		Aboriginal Information Recorded?
Feature description	on (	Easting Condition Re	Commended Action	hing
No. of carved panels		Ringbarked         Fire damage         Vehicle damage         Insects/termites	Closure to public Continued inspection Expert assessment Fire hazard reduction	Track closure/re-routing Additional recording
Poor		Rot Limb fall Stock damage	Insect removal Meeting with land mana Rubbish removal Signage	ager
	nent <sub>(Complete when feature er</sub> Land form Land form unit Slope	vironment differs to <i>site</i> environment, us <b>Water</b> Distance to perr Distance to tem	e attributes from cover card, page 2) manent water source porary water source	metres metres
Feat	Vegetation Land use ture Location Plar	Name of neares Name of neares	st permanent water source st temporary water Scar/Carvec	Panel Drawing
w				
SW Indicate scale	S	SE	Attach additional drawings	

page 2	on Axe Marks	Orientation North East East South East South West	west North West North
	g Orientatio	<b>e Marks</b> stal one determinate	
	f d Carvinç s Type	<b>g Type Ax</b> Me stric Sto al Inc	
	e Carveo Panels	pe Carvin Linear ar Geome Pictoria	
	f Shape	<b>Scar Sha</b> Oval Rectangul Square Round Other	
	ht /e No. o nd Scars		
	th Abov Groun		
	th of Dep		
	ngth of Wid Scar So		
	Regrowth Le	<b>Regrowth</b> Yes No y	
IED TREE	Tree Status	<b>Tree Status</b> Standing Lying down Partially felled Subject to salinit Not <i>in situ</i>	
<b>3LE - MODIF</b>	Living Status	<b>Living Status</b> Dead Alive Dying	
ORDING TAI	Species	<b>Tree Species</b> Eucalypt Red Gum d Angotha	
ATURE REC	g Type	<b>Type of Tree</b> Carved Tree Scarred Tree Carved/Scarrec Tree	
WS FEA	ce Recordin. Date		comments:
ДZ	nstan No.		

NPWS FEATURE RECORDING FORM - GROOVE         page 1									
Fi	Site I.D. Site Name Aboriginal Information Recorded?								
	eature Description ype of Grinding Feature	Seed Species Present		Recording date					
	Broad Narrow/point	Groove Function							
	Hollow								
P	Flat rofile Shape	Dimensions Smallest	Largest						
	'U' shaped	Length (mm)	Length (mm)	Groove count					
	'V' shaped	Width (mm)	Width (mm)	Cluster count					
	Flat	Depth (mm)	Depth (mm)						
8	Condition	Easting	Northing						
	Feature Condition Ge	Dimensions of Whole I neral Condition ctd	Recommended Action	Width (m)					
	Very good	Fire damage	Boardwalk	Revegetation					
	Good	Surface water wash	Cage/barrier/fencing	Rubbish removal					
	Poor	Graffiti	Closure to public	Signage					
	General Condition	Vehicle damage	Continued inspection	Erosion control					
	Weathered	Erosion	Expert assessment	Track closure/re-routing					
	Vandalised	Stock damage	Graffiti removal	Additional recording					
E	eature Plan	(Indicate scale, location of i	Meeting with land manager						
NŴ		N <sup>N</sup>	NE Feature Envi	ronment (Complete when <i>feature</i> environment differs to <i>site</i> environment, use attributes from cover card, p. 2)					
				Land form					
				Land form unit					
				Slope					
				Vegetation					
W			E	Land use					
			Water						
			Distance to pern	nanent water source					
				oorary water sourcemetres					
			Name of neares	t permanent water source					
			Name of neares	t temporary water					
0.00			SE SE						
SW		S	3E						

NPWS FEATURE F	RECORDING FORM - ART	page 1		
Site I.D.	Site Name Importance	Aboriginal Information Recorded?		
Recorded by				
-				
Feature Context & Condition	Easting  Northing    Pigment  Engraved   Super-impositioning			
Artwork Condition	General Condition Recommended Action			
Very good	Weathered Boardwalk	Rubbish removal		
Good	Vandalised Cage/barrier/fencing	Signage		
Poor	Surface water wash Closure to public	Erosion control		
	Mineralisation Continued inspection	Track closure/re-routing		
	Graffiti Dripline	Additional recording		
	Fire damage			
	Insects/termites Fire hazard removal Craffiti removal			
	Stock			
	Linstehle structure			
Feature Environm	nent (Complete when <i>feature</i> environment differs to <i>site</i> environment, use attributes from cover card	d, p. 2)		
	Land form Water			
	Land form unit Distance to permanent water source	metres		
	Slope Distance to temporary water source	metres		
	Vegetation Name of nearest permanent water source			
	I Land use Name of nearest temporary water			
Art Sketch Plan	Sketch and number motif groups			

### NPWS FEATURE RECORDING TABLE - ART MOTIF

Instance	Recording Date	Motif	Application Technique	Form	Main Colour	Location	Condition

в Л		
IVI	OTH:	
	vui	

Mouli	
Anthropomorphic	Female
Bird	Fish
Bird Track	Foot
Canoe	Hand
Circle	Jellyfish
Contact material culture	Kangaroo
Duck	Line
Eel	Lizard
Emu	Macropod
Emu track	Macropod Track
European figure	Male

### Application

Other

Pattern

Reptile

Rifle Shield

Ship

Snake

Spear

Wallaby

Quadruped

Marine-Other Technique Abraded Drawn Other Painted Pecked Pigment & Engraved Stencilled Form Fill Line Line+ Fill Other Pattern

### Main

Art Location Black Mauve \* N/A Orange \* Other Red \* White \* Yellow \*

#### Condition

Faded Stained Mineralisation Evident Weathered

### Colour

All over shelter surfaces ceiling Floor Mostly near largest sheltered space V brant Colours Mostly on out of the way surfaces Unweathered Other Wall

### Comments:

page 2

NP	NPWS FEATURE RECORDING FORM - SHELL page 7							
Firs N	Site I.D.		Site Name Importar	nce			Aboriginal Information Recorded?	
Feature Context     Easting     Northing       & Condition								
Dim	nensions of Whole F	eat	ure Lengt	th (n	n) Width (m)		Depth (m)	
Sh	ell Distribution							
	Surface scatter		Distar	nce	to high water mark (m)			
	Stratified deposit							
	Mounded							
Fea	ture Condition	Ge	neral Condition ctd	Red	commended Action			
	Very good		Fire damage		Boardwalk		Revegetation	
	Good		Vehicle damage		Cage/barrier/fencing		Rubbish removal	
	Poor		Insects/termites		Closure to public		Signage	
Ger	neral Condition		Erosion		Continued inspection		Erosion control	
	Weathered	ered Stock damage			Expert assessment		Track closure/re-routing	
	Vandalised		Unstable structure		Fire hazard removal		Additional recording	
	Surface water wash		Exposed bone material		Graffiti removal			
	Mineralisation		Exposed archaeological		Meeting with land manager			
	Graffiti material Insect/bird nest removal							



### NPWS FEATURE RECORDING TABLE - SHELL

Instance No.	Recording Date	Shell Species	% of this species shell to % total of other shell

#### Species

Anadara	Nerita
Bimbala	Ocean Snail
Chiton	Periwinkle
Cowrie	Pippi
Dog Cockle	Ribbed Cockle
Duck Bill	Rock Oyster
Limpit	Thiad
Mud oyster	Triton
Mutton Fish	Turban (large)

# Percentage of this Species Shell to Percentage Total of other Shell

 $\begin{array}{c} 0-9\% \\ 10-19\% \\ 20-29\% \\ 30-39\% \\ 40-49\% \\ 50-59\% \\ 60-69\% \\ 70-79\% \\ 80-89\% \\ 90-100\% \end{array}$ 

Comments:	



## Aboriginal Site Recording Form



AHIMS Registrar PO Box 1967, Hurstville NSW 2220

Office Use Only				
Date received // Date entered into system // Date catalogued //				
Entered by (I.D.				
Information	Access			
Gender/ma	le Gender/female Location restriction General restriction No access	Only		
For Further	Information Contact:			
Nominated	I Trustee			
Title	Surname First Name Initials			
		Client on		
Organisation		system		
Address				
Phone number	Fax			
Knowledge	e Holder			
Title	Surname First Name Initials	Client on		
mr	F   r   o   s   t   s   h   a   n   e   s	system		
Organisation	A w a b a k a I T r a d O w n e r s			
Address	POBOX       BOX       BOX       BOX       CIA       CIA <td< td=""><td></td></td<>			
Phone number	0 4 2 8 3 2 0 6 7 1 Fax			
Aboriginal	Heritage Unit or Cultural Heritage Division Contacts			
Geographic	Location			
Site Name	R P S S p e e r s P o i n t I F 2			
Easting	3       7       1       9       6       3       5       2       7       7       2       AGD/GDA       GDA			
Mapsheet	wallsend			
Zone	56 Location Method Differential GPS			
	Other Registration			
Primary Re	corder			
Title	Surname First Name Initials			
m r s	n e l s o n L a r a i n e			
Organisation		Client on		
Address	P       O       B       o       x       4       2       8       H       a       m       i       I       t       o       n       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I	system		
Phone number	4 9 4 0 4 2 0 0 Fax			
Date recorded	15/03/2010			

NPWS Aboriginal Site Recording Form - Site Information         page 2								
	OPEN/CLOSE SITE	Open Site						
Site Context	Site Context							
Landform	Landform Unit							
Mountainous	Beach	Tidal Flat Upper slope Stream bank						
Plain	Coastal rock platform	Cliff Plain Stream channel						
Rolling hills	Dune	Crest <b>V</b> Ridge Swamp						
✓ Steep hills	Intertidal flat	Flat Tor Terrace						
Undulating plain	Lagoon	Lower slope Valley flat Terrace flat						
Slope	Tidal Creek	Mid slope Levy						
degrees								
Vegetation	Land use	Water						
Closed forest	Conservation	Distance to permanent water source 1 km + metres						
Grasslands	Established urban	Distance to temporary water source 200m + metres						
Isolated clumps of trees	Farming-intensive	Name of nearest permanent water source						
✓ Open forest	Farming-low intensity	Name of nearest temporary water						
Open woodland	Forestry							
Scrub	Industrial	Directions for Relocation						
Woodland	Mining							
Cleared	Pastoral/grazing							
Revegetated	Recreation							
N/A	Semi-rural							
	Service corridor							
	Transport corridor							
	Urban expansion	NWN	NE					
	Residential							
Current Land Tenure			4					
Public National Par	k / other Government							
Private								
Primary report I.D.	(I.D. Office Use only)							
		Service Street Street Street Street						
			E					
			H					
			1					
			_					
		SW S	SE					

NPWS Aboriginal Site Recording Form - Site Informationpage 3									
Ge	General Site Information Features								
Closed Site		1. Aboriginal Ceremony & Dreaming							
Shelter/Cave Formatio	n Rock Surface Condition	Site Orientation	2. Aboriginal Resource & Gathering						
Boulder	Boulder	N-S	3. Art						
Wind erosion	Sandstone platform	NE-SW	4. Artefact						
Water erosion	Silica gloss	E-W	5. Burial						
Rock collapse	Tessellated	SE-NW	6. Ceremonial Ring						
	Weathered	N/A	7. Conflict						
	Other platform		8. Earth Mound						
Condition of Ceiling	Shelter Aspect		9. Fish Trap						
Boulder	North		10. Grinding Groove						
Sandstone platform	n 🔲 North East		11. Habitation Structure						
Silica gloss	East		12. Hearth						
Tessellated	South East		13. Non Human Bone & Organic Material						
Weathered	South		14. Ochre quarry						
Other platform	South West		15. Potential Archaeological Deposit						
	West		16. Stone Quarry						
	North West	17. Shell							
		18. Stone Arrangement							
		19. Modified Tree							
			20. Water Hole						



### Site Dimensions

#### **Closed Site Dimensions (m)**



Internal length Internal width Shelter height Shelter floor area

#### **Open Site Dimensions (m)**



Total length of visible site Average width of visible site Estimated area of visible site Length of assessed site area

NPWS Aboriginal Site Recording Form - Site Interpretation and Community Statement page	ge 4
boriginal Community Interpretation and Management Recommendations	
Preliminary Site Assessment	
Site Cultural & Scientific Analysis and Preliminary Management Recommendations	
his section should only be filled in by the Endorsees	
	ensus
Title Surname First Name Initials	CHOUS
Organisation	]
Address	]
Phone number	
Attachments (No.) Comments	
A4 location map	
B/W photographs	
Slides	
Aerial photographs	
Site plans, drawings	
Recording tables	
Other	
Feature inserts-No.	

NPWS FEATURE RECO	RDING FORM - ARTEFACT	page 1
Site I.D.	Site Name RPS Speers Point IF2	
First recorded date 15/02/20	10 Importance Contributes to primary site importa	
No. of instances		
Recorded by L Nelson		
Yes No         Stone artefacts only         Yes         Artefacts collected         No         Permit issued	Percentage of Non-stone Artefacts to Percentage of Stone Artefact           0-9%         10-19%         20-29%         30-39%         40-49%         50-59%         60-69%         70-79%         80-89%         90-10           0-9%         0-9%         10-19%         20-29%         30-39%         40-49%         50-59%         60-69%         70-79%         80-89%         90-10	<b>ts</b> 0%
Feature Context & Condition	Scatter No. 1 Easting 2 Northing 2	
(Artefact count per square metre)	y Dimensions Length (m) Width (m) Depth (m) Stratifie	tu No
Very good Weath Good Vehic ✓ Poor Surfac ✓ Erosic Stock	Recommended Action         nered       Boardwalk       Revegetation         ie damage       Fencing       Signage         ic water wash       Closure to public       Soil erosion c         amage       Continued inspection       Track closure.         on       Fire hazard reduction       Additional rec         damage       Meeting with land manager	ontrol /re-routing ording

Feature Plan (Indicate scale, location of instances)

NW		NE	_ , ,
			<b>Feature Environment</b> (Complete when <i>feature</i> environment differs to <i>site</i> environment, use attributes from cover card, p. 2)
			hills Land form
	SCALE: 10MM		ridgeline Land form unit
	1/200 - BOXA		Slope
		-	grass Vegetation
14/	BRANK AND	F	recreational Land use
vv			Water
			Distance to permanent water source 1,000 metres
	Delanse and lanes		Distance to temporary water source 200
		-	metres
			Name of nearest permanent water source
			Cockle Creek
		_	Name of nearest temporary water
			unamed
0.147		SE	
500	S	JL	

NPWS	NPWS FEATURE RECORDING TABLE - ARTEFACT       page 2												
Instance No.	Recording Date	A N	rtefact laterial	Artef	act Type	Stone Pla Su	Artefa tform rface	<b>ct</b> Platform Type	Termination	Cross Section	Length (mm)	Width (mm)	Thickness (mm)
1	15/02/2010	Che	ert	Flake		More t	han one	Wide	Feather		38.7	20.2	4.4
					Ot	her A	rtefact	Туре			는 다		n)
Instance No.	Recordir Date	ng	Artefa Mater	ict ial	Artefact	Туре		Des	cription		-eng (mm	Nidth (mm)	hickr (mr
	Dato										_	20	F
Mater	ial			Arte	fact Des	criptio	n		Platform Surfac	ce Te	rminati	on	
Basalt Chert		Cle Cer	ar glass amic	Adze Anvil		- Flake Flake	e tool ed piece	( F	Cortex Flake scar	Fea Hin	ather ge		
Fine gra Granite	ained siliceous	Por Tin	celain can	Axe Back	ed blade	Hamı Manı	merstone uport	r F	More than one flake Faceted	scar Ste Out	p repasse		
Quartz Quartzi	te	Wir Nai	e I	Blade Core	lade Milling slab ore Mortar			Ground Indeterminate			Bipolar		
Sandste Silcrete	one	But She	ton ell	Core Cyclo	tool n	Mulle Nucle	er ear tool	E	Bipolar				
Green g Amber	glass glass	Bor Wo	ne od	Dista Elour	fragment a	Pirri Proxi	mal fragm	ent	Platform Type	Cr	oss Se	ction	
Amethy	/st glass	Res	sin	Flake		Tula Othe	r diagnosti	c type	Nide Focal	Hig Hig	h/strong h/weak		
						Modi <sup>:</sup> Unwo	fied orked		Shattered ndeterminate	Lov Irre	v/weak gular		
	Bipolar												
Comn	Comments:												
Heat treated													

NPWS FEATURE R		A - MODIFIED TREE	E	page 3
Site I.D. First recorded date No. of instances Recorded by	Sit	ie Name Importance		Aboriginal Information Recorded?
Feature description	on (	Easting Condition Re	Commended Action	hing
No. of carved panels		Ringbarked         Fire damage         Vehicle damage         Insects/termites	Closure to public Continued inspection Expert assessment Fire hazard reduction	Track closure/re-routing Additional recording
Poor		Rot Limb fall Stock damage	Insect removal Meeting with land mana Rubbish removal Signage	ager
	nent <sub>(Complete when feature er</sub> Land form Land form unit Slope	vironment differs to <i>site</i> environment, us <b>Water</b> Distance to perr Distance to tem	e attributes from cover card, page 2) manent water source porary water source	metres metres
Feat	Vegetation Land use ture Location Plar	Name of neares Name of neares	st permanent water source st temporary water Scar/Carvec	Panel Drawing
w				
SW Indicate scale	S	SE	Attach additional drawings	

page 2	on Axe Marks	Orientation North East East South East South West	west North West North
	ng Orientati	<b>xe Marks</b> letal tone determinate	
	of ed Carvir Is Type	<b>ng Type A</b> M M etric Si ial In	
	pe Carve Pane	<b>ape Carvi</b> Linear ular Geom Pictor	
	of Sha Irs	Scar Sh Oval Rectang Square Round Other	
	eight bove No. bund Sca		
	Depth At		
	f Width of Scar		
	th Length o	wth	
	Regrow	ed Regrc	
IED TREE	Tree Status	<b>Tree Status</b> Standing Lying down Partially fell Subject to s Not <i>in situ</i>	
E - MODIF	Living Status	<b>iving Status</b> ead live ying	
<b>ORDING TABLE</b>	Species	<b>Tree Species L</b> Eucalypt E Red Gum A Angotha D	
TURE RECC	t Type	<b>Iype of Tree</b> Carved Tree Scarred Tree Carved/Scarred Tree	
WS FEA	ce Recording Date	FOMOF	omments:
Д И И	Instanc No.		0

NPWS FEATURE RECORDING FORM - GROOVE       page 1									
Fi	Site I.D.	Site Name Importance		Aboriginal Information Recorded?					
	eature Description ype of Grinding Feature	Seed Species Present		Recording date					
	Broad Narrow/point	Groove Function	Groove Function						
	Hollow								
P	Flat rofile Shape	Dimensions Smallest	Largest						
	'U' shaped	Length (mm)	Length (mm)	Groove count					
	'V' shaped	Width (mm)	Width (mm)	Cluster count					
	Flat	Depth (mm)	Depth (mm)						
8	Condition	Easting	Northing						
	Feature Condition Ge	Dimensions of Whole I neral Condition ctd	Recommended Action	Width (m)					
	Very good	Fire damage	Boardwalk	Revegetation					
	Good	Surface water wash	Cage/barrier/fencing	Rubbish removal					
	Poor	Graffiti	Closure to public	Signage					
	General Condition	Vehicle damage	Continued inspection	Erosion control					
	Weathered	Erosion	Expert assessment	Track closure/re-routing					
	Vandalised	Stock damage	Graffiti removal	Additional recording					
E	eature Plan	(Indicate scale, location of i	Meeting with land manager						
NŴ		N <sup>N</sup>	NE Feature Envi	(Complete when <i>feature</i> environment differs to <i>site</i> environment, use attributes from cover card, p. 2)					
				Land form					
				Land form unit					
				Slope					
				Vegetation					
W			E	Land use					
			Water						
			Distance to pern	nanent water source					
				oorary water sourcemetres					
			Name of neares	t permanent water source					
			Name of neares	t temporary water					
0.00			SE SE						
SW		S	3E						

NPWS FEATURE	RECORDING FORM - ART	page 1					
Site I.D.	Site Name Importance	Aboriginal Information Recorded?					
Recorded by							
Feature Context & Condition	Easting  Northing    Pigment  Engraved   Super-impositioning	]					
Artwork Condition	General Condition Recommended Action						
Very good	Weathered Boardwalk	Rubbish removal					
Good	Vandalised Cage/barrier/fencing	Signage					
Poor	Surface water wash Closure to public	Erosion control					
	Mineralisation Continued inspection	Track closure/re-routing					
	Graffiti Dripline	Additional recording					
	Fire damage Expert assessment						
	Insects/termites						
	Stock	Graffiti removal					
	Stock     Insect/bird nest removal						
Feature Environ	Complete when <i>feature</i> environment differs to <i>site</i> environment, use attributes from cover card,	, p. 2)					
	Land form Water						
	□ Land form unit Distance to permanent water source	metres					
	Slope Distance to temporary water source	metres					
	□ Vegetation Name of nearest permanent water source □						
	□ Land use Name of nearest temporary water L						
Art Sketch Plan	Sketch and number motif groups						

### NPWS FEATURE RECORDING TABLE - ART MOTIF

Instance	Recording Date	Motif	Application Technique	Form	Main Colour	Location	Condition

в Л		
IVI	OTH:	
	vui	

WOUL	
Anthropomorphic	Female
Bird	Fish
Bird Track	Foot
Canoe	Hand
Circle	Jellyfish
Contact material culture	Kangaroo
Duck	Line
Eel	Lizard
Emu	Macropod
Emu track	Macropod Track
European figure	Male

### Application

Other

Pattern

Reptile

Rifle Shield

Ship

Snake

Spear

Wallaby

Quadruped

Marine-Other Technique Abraded Drawn Other Painted Pecked Pigment & Engraved Stencilled Form Fill Line Line+ Fill Other Pattern

#### Main Colour

Black Mauve \* N/A Orange \* Other Red \* Other White \* Wall Yellow \*

#### Condition

Faded Stained Mineralisation Evident Weathered

#### Art Location All over shelter surfaces ceiling Floor Mostly near largest sheltered space V brant Colours Mostly on out of the way surfaces Unweathered

ommonte:

Comments.		

page 2

NPW5 FEATURE RECORDING FORM - SHELL   page 1							
Site I.D. Site Name   First recorded date //   Importance Recorded?   No. of instances Recorded by							
Feature Context       Easting       Northing         & Condition       Northing       Image: State of Whele Feature							
Sh	elisions of whole r	eat	Lengt	th (n	n) Width (m)		Depth (m)
511	Surface scatter		Distar	nce	to high water mark (m)		
	Stratified deposit						
	Moundea						
Fea	ture Condition	Ge	neral Condition ctd	Rec	commended Action		
	Very good		Fire damage		Boardwalk		Revegetation
	Good		Vehicle damage		Cage/barrier/fencing		Rubbish removal
	Poor		Insects/termites		Closure to public		Signage
Ger	eral Condition		Erosion		Continued inspection		Erosion control
	Weathered		Stock damage		Expert assessment		Track closure/re-routing
	Vandalised		Unstable structure		Fire hazard removal		Additional recording
	Surface water wash		Exposed bone material		Graffiti removal		
	Mineralisation		Exposed archaeological		Meeting with land manager		
	Graffiti material Insect/bird nest removal						



### NPWS FEATURE RECORDING TABLE - SHELL

Instance No.	Recording Date	Shell Species	% of this species shell to % total of other shell

#### Species

Anadara	Nerita
Bimbala	Ocean Snail
Chiton	Periwinkle
Cowrie	Pippi
Dog Cockle	Ribbed Cockle
Duck Bill	Rock Oyster
Limpit	Thiad
Mud oyster	Triton
Mutton Fish	Turban (large)

# Percentage of this Species Shell to Percentage Total of other Shell

 $\begin{array}{c} 0-9\% \\ 10-19\% \\ 20-29\% \\ 30-39\% \\ 40-49\% \\ 50-59\% \\ 60-69\% \\ 70-79\% \\ 80-89\% \\ 90-100\% \end{array}$ 

Comments:	