

Catherine Hill Bay/ Gwandalan

Aboriginal Heritage Assessment

Asquith & de Witt

May 2007

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Asquith & de Witt

Catherine Hill Bay/
Gwandalan

*Aboriginal Heritage
Assessment*

May 2007

**Environmental Resources Management
Australia**

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EXECUTIVE SUMMARY

An Aboriginal heritage assessment was undertaken of land on the eastern side of Kanangra Drive at Gwandalan, and land on the northern and southern sides of Montefiore Street at Catherine Hill Bay, which Rosecorp proposes to develop for residential and commercial purposes.

No new archaeological sites were recorded. Exposures of two previously recorded sites were recorded, however all of these exposures were located outside of the proposed development areas. No direct or ancillary impacts to these sites are anticipated under the current concept plans. As such, no Aboriginal heritage constraints were identified for the proposed development.

INTRODUCTION

Environmental Resources Management Australia (ERM) has been commissioned by Rosecorp through Asquith and de Witt to prepare an Aboriginal heritage assessment, as part of an application under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act), of land at Gwandalan and Catherine Hill Bay, in the southern area of Lake Macquarie and the Wallarah peninsula.

This report presents the results of archaeological survey and Aboriginal consultation conducted from November 2006-May 2007.

1.1

ASSESSMENT AIM AND OBJECTIVES

The overall aim of this assessment was to ascertain whether there are any Aboriginal heritage constraints to the proposed development. To achieve these aims the following objectives were established:

- to consult with the local Aboriginal community as to the specific social value of the land;
- to determine whether heritage site patterning indicates potential heritage issues on the land;
- to identify and record any Aboriginal heritage objects and places on the land;
- to assess the significance of any Aboriginal heritage objects and places on the land;
- to assess the impact of the proposed development on Aboriginal heritage values; and
- to prepare recommendations on the management of Aboriginal heritage values in consultation with the local Aboriginal community.

1.2

PROJECT BACKGROUND

Rosecorp proposes to develop land on the northern and southern sides of Montefiore Street, Catherine Hill Bay (the Catherine Hill Bay study area; see *Figure 1.1*) for residential and commercial purposes, and land on the eastern side of Kanangra Drive, Gwandalan (the Gwandalan study area; see *Figure 1.2*) for residential purposes.

A generalised depiction of the proposed development at Catherine Hill Bay can be found in *Figure 1.3*, and a plan of the proposed residential development at Gwandalan can be found in *Figure 1.4*.

1.3 *STUDY AREA*

The study area comprises land on the eastern side of Kanangra Drive at Gwandalan (the Gwandalan study area), and land on the northern and southern sides of Montefiore Street, Catherine Hill Bay (the Catherine Hill Bay study area). These two areas are approximately 4.5 km apart (Gwandalan being located north west of Catherine Hill Bay) and are located in the southern area of Lake Macquarie and on the Wallarah peninsula.

1.3.1 *Catherine Hill Bay*

The Catherine Hill Bay land comprises approximately 60 ha of the old Moonee Colliery land at the south end of Catherine Hill Bay, on the Wallarah peninsula. Land owned by Rosecorp and subject to the development concept plan extends from the southern end of the village to the south for approximately 1 km, and from the edge of the relict coal loader structure at the eastern coastal cliff back to the west for just over 1 km.

1.3.2 *Gwandalan*

The Gwandalan land comprises approximately 26 ha of land at Gwandalan in the south east part of Lake Macquarie. The land is roughly triangular in shape and approximately 500 m by 700 m in size. The eastern edge has a small 130 m frontage to Lake Macquarie. The western boundary runs along Kanangra Drive for approximately 570 m.

1.4 *STRUCTURE OF THIS REPORT*

Chapter 2 provides environmental and archaeological contextual information.

Chapter 3 describes the assessment methodology employed.

Chapter 4 outlines the results of consultation and the archaeological survey.

Chapter 5 discusses the implications of the results for the Aboriginal heritage assessment.

Chapter 6 provides an assessment of the construction impact on heritage in the two study areas.

Chapter 7 outlines the Aboriginal consultation process.

Chapter 8 provides a significance assessment of heritage identified within the two study areas.

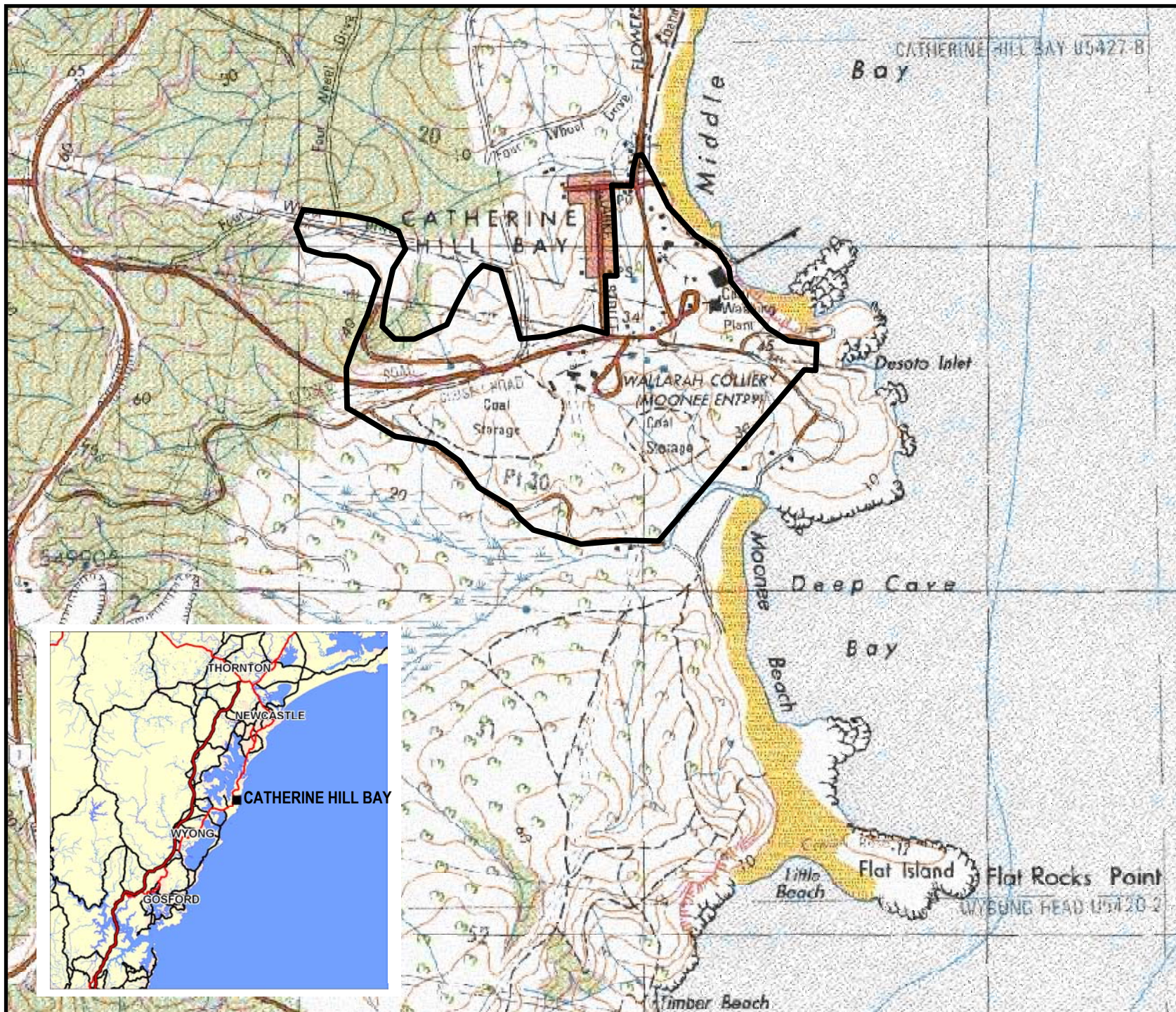
Chapter 9 provides the statutory framework guiding NSW heritage management.

Chapter 10 provides heritage management recommendations.

1.5

PROJECT TEAM

Jenna Lamb (ERM Archaeologist) conducted the Aboriginal heritage field survey and authored the report. Neville Baker (ERM National Heritage Team Leader) contributed various sections of the report and completed the technical review of the report. Nine representatives from the local Aboriginal community participated in the fieldwork: Dene Hawken and Kerrie Brauer from Awabakal Traditional Owners Aboriginal Corporation (ATOAC), Shane Frost, Joshua Frost and James Frost from Awabakal Descendants Traditional Owners Aboriginal Corporation (ADTOAC), Tracey Howie and Kevin Robinson from Guringai Tribal Link Aboriginal Corporation (GTLAC) and Noel Drake and Cliff Grav from Bahtabah Local Aboriginal Land Council (BLALC).





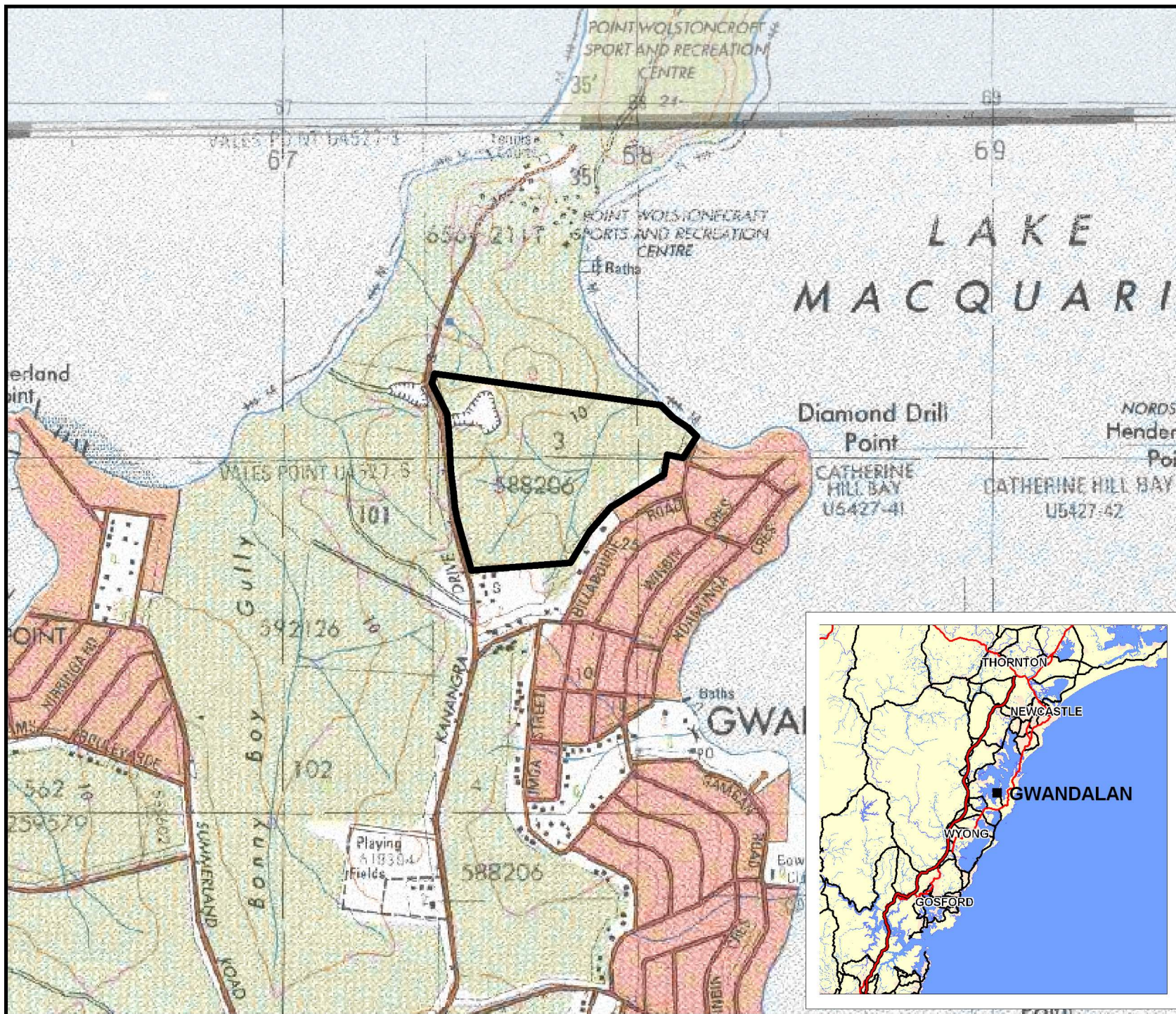
Legend

 Study Area

Figure 1.1

**Location of Study Area
at Catherine Hill Bay**

| | | | |
|--|---|---------------|-----|
| Client: | Asquith & de Witt | | |
| Project: | Gwandalan/Catherine Hill Bay | | |
| Drawing No: | 0059261_Fig11 | | |
| Date: | 08.02.07 | Drawing Size: | A4 |
| Drawn By: | TH | Reviewed By: | JL |
| Source: | - | | |
| Scale: | 1:15,000 | | |
| | 250 | 0 | 250 |
|  N |  Metres | | |
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Legend



Study Area

Figure 1.2

**Location of Study Area
at Gwandalan**

| | | | |
|-------------|------------------------------|---------------|----|
| Client: | Asquith & de Witt | | |
| Project: | Gwandalan/Catherine Hill Bay | | |
| Drawing No: | 0059261_Fig12 | | |
| Date: | 08.02.07 | Drawing Size: | A4 |
| Drawn By: | TH | Reviewed By: | JL |
| Source: | - | | |
| Scale: | 1:15,000 | | |



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catherine hill bay concept plan



Figure 1.3

**Proposed Concept Plan for
Development at Catherine Hill Bay**

| | | | |
|-------------|--------------------------------|---------------|----|
| Client: | Asquith & de Witt | | |
| Project: | Gwandalan / Catherine Hill Bay | | |
| Drawing No: | 0059261_02 | | |
| Date: | 09/02/2007 | Drawing size: | A4 |
| Drawn by: | ML | Reviewed by: | - |
| Source: | - | | |
| Scale: | N/A | | |



- site boundary
- township of Catherine Hill Bay
- heritage buildings
- paths + access
- adaptive re-use of existing building
- amenity buildings
- development area
- park land/open space
- indicative pocket parks
- water storage ponds
- detention/retention basins
- verge/cp/z
- formal street tree plantings
- copied street trees
- regeneration + in-fill native plantings
- sites not included in concept plan
- commercial area

masterplan
job no. 7148
november 2006



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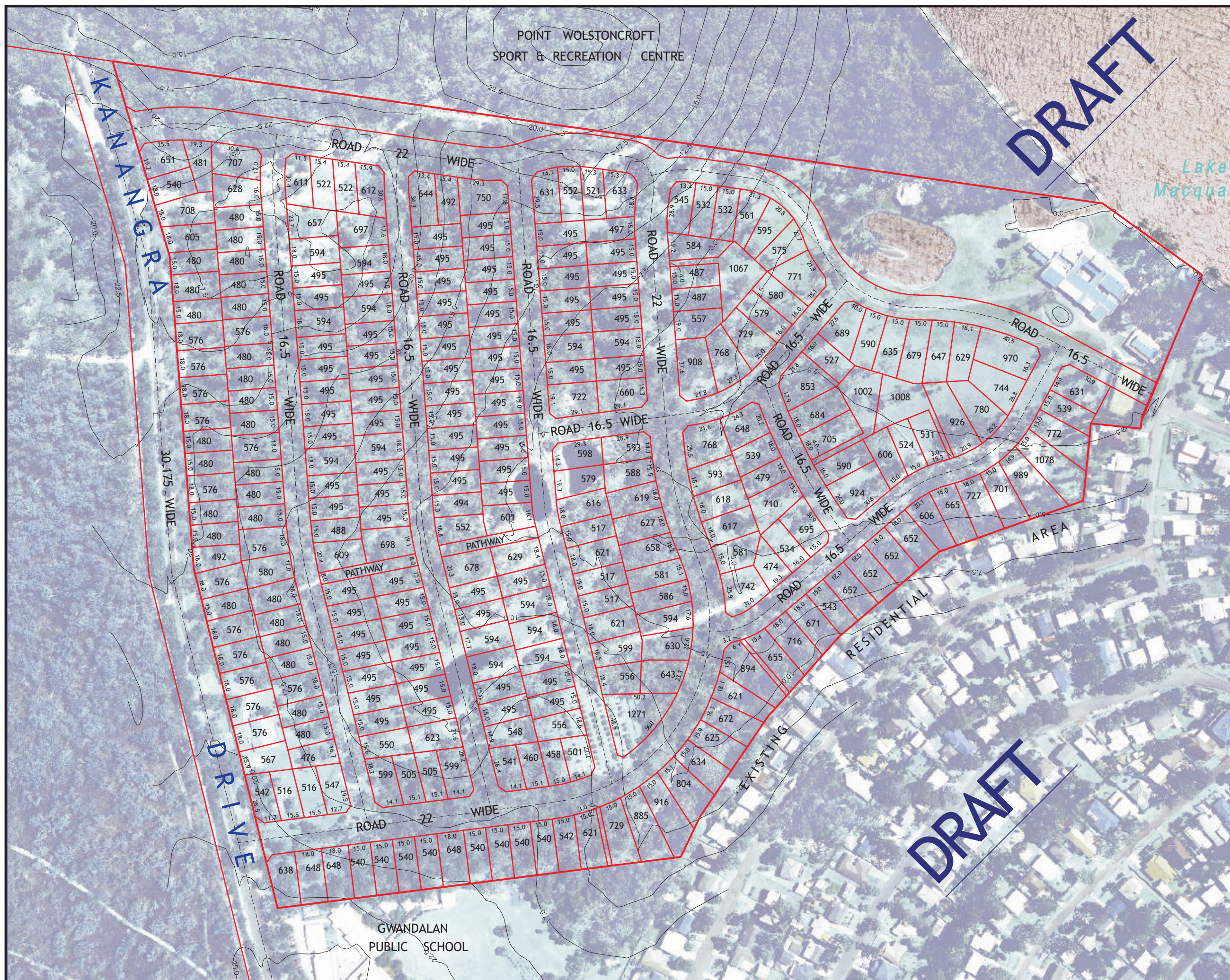
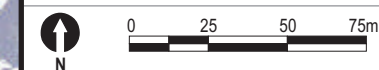


Figure 1.4
Proposed Concept Plan for Residential Development at Gwandalan

| | | | |
|-------------|--------------------------------|---------------|----|
| Client: | Asquith & de Witt | | |
| Project: | Gwandalan / Catherine Hill Bay | | |
| Drawing No: | 0059261_01_R1 | | |
| Date: | 21/02/2007 | Drawing size: | A3 |
| Drawn by: | ML | Reviewed by: | - |
| Source: | - | | |
| Scale: | Refer to Scale Bar | | |



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2.1 ENVIRONMENTAL CONTEXT

2.1.1 *Geomorphology And Landforms*

The Catherine Hill Bay study area is located on the coast on the Wallarah peninsula. The Gwandalan study area is located in the southern part of Lake Macquarie, the largest tidal lake in Australia. Prior to 10,000 years ago, Lake Macquarie existed only as a broad, shallow embayment. However, following the increase in sea levels in the early-mid Holocene, a marine sand barrier had been created at the Lake entrance by approximately 6,000 years ago, causing the formation of Lake Macquarie as a barrier estuary (NPWS 2005).

Speight (1990) describes categories of landform divisions, including ten morphological types of landform element units. For archaeological investigations they divide the landscape into standardised elements that can be used for comparative purposes and predictive modelling. Based on a survey of the study area, a number of landform units were identified within the two study areas, being slopes, ridges, flats, dunes, rock platforms, Lake shore, and gullies/creeks.

Catherine Hill Bay

The Catherine Hill Bay study area comprises old colliery land on the coastal ridge between Middle Camp Beach at Catherine Hill Bay and Moonee Beach to the south. This ridge terminates in the cliffs and coastal conglomerate rock platforms between the beaches, which are outside of the proposed development area. The original landform comprises limited ridge top flat areas and predominantly sloping landform elements with minor first order drainage depressions, the vast majority of which have been modified through colliery operations (see *Section 2.1.4*). The site types most likely to occur in these landforms are shell middens (adjacent to the coast) and stone artefact sites (see *Table 2.1* for a description of each site type).

Gwandalan

The landform of Gwandalan is composed of the Triassic Clifton Sub-group comprising Munmorah Conglomerates (Nilsen 1995:19-21). The Gwandalan study area consists of land sloping gently up to the west to Kanangra Drive, with the eastern edge situated on the Lake shore. An old constructed depression occurs in the north west due to some minor historic quarrying activity.

Archaeologically sensitive landform is limited to the Lake edge (where shell middens would be the most likely site to occur; c.f *Section 2.1.4*) and does not extend to the western area.

Table 2.1 ***Aboriginal Archaeological Site Types (ERM 2004)***

| Site types | Definition |
|--------------------------------------|---|
| Open sites [stone artefact scatters] | Open sites, also known as open campsites, are usually indicated by surface scatters of stone artefacts and sometimes fire blackened stones and charcoal. Where such sites are buried by sediment they may not be noticeable unless exposed by erosion or disturbed by modern activities. The term campsite is used as a convenient label which, in the case of open sites, does not necessarily imply that Aboriginal people actually camped on the sites; rather it indicates only that some type of activity was carried out there. |
| Middens | Middens consist of accumulations of shell that represent the exploitation and consumption of shellfish by Aboriginal people. Shell species may be marine, estuarine or freshwater depending on the environmental context and middens may also include other faunal remains, stone artefacts, hearths and charcoal. |
| Shelter sites | Sandstone shelters and overhangs were used by Aboriginal people to provide campsites sheltered from the rain and sun. The deposits in such sites are commonly very important because they often contain clearly stratified material in a good state of preservation. |
| Grinding grooves | Grooves resulting from the grinding of stone axes or other implements are found on flat areas of suitable sandstone. They are often located near waterholes or creek beds as water is necessary in the sharpening process. In areas where suitable outcrops of rock were not available, transportable pieces of sandstone were used. |
| Quarries | These are areas where stone was obtained for flaked artefacts or ground-edge artefacts, or where ochre was obtained for rock paintings, body decoration or decorating wooden artefacts. |
| Art sites | Aboriginal paintings, drawings and stencils are commonly to be found where suitable surfaces occur in sandstone shelters and overhangs. These sites are often referred to as rock shelters with painted art. Rock engravings, carvings or peckings are also to be found on sandstone surfaces both in the open and in shelters. These are referred to as rock engraving sites. |

| Site types | Definition |
|---|---|
| Scarred trees | Scarred trees bear the marks of bark and wood removal for utilisation as canoes, shields, boomerangs or containers. It is commonly very difficult to confidently distinguish between Aboriginal scars and natural scars or those made by Europeans. |
| Burial sites | Burials may be of isolated individuals, or they may form complex burial grounds. |
| Stone arrangements, carved trees and ceremonial grounds | These site types are often interrelated. Stone arrangements range from simple cairns or piles of rocks to more elaborate arrangements; patterns of stone laid out to form circles and other designs, or standing slabs of rock held upright by stones around the base. Carved trees are trees with intricate geometric or linear patterns or representations of animals carved into their trunks. Ceremonial grounds and graves were often marked by such trees. Bora grounds are a common type of ceremonial site and they are generally associated with initiation ceremonies. They comprise two circles, generally edged with low banks of earth but sometimes of stone, a short distance apart and connected by a path. |

2.1.2

Geology

Catherine Hill Bay

The Newcastle Coal Measures outcrop in the headland at Catherine Hill Bay, although the most abundant rock is Munmorah Conglomerate. While tuffs form a part of the Newcastle Coal Measures and have been previously reported as a significant raw material source for Aboriginal stone tool making, there are no obvious outcrops evident in the study area, nor any weathered cobbles of tuff at the cliff base. As such, stone quarry sites are not expected to occur. The lack of suitable stone outcrops also indicates that shelter sites, stone engraving/art sites and axe grinding grooves will not occur.

Where patches of intact soils were observed on the southern sloping area of Catherine Hill Bay, they comprise duplex soils formed from weathering conglomerate bedrock from the Narrabeen Formation, indicating that significant stratified archaeological deposits will not occur.

Gwandalan

The Gwandalan study area comprises Munmorah Conglomerates of the Triassic Clifton Sub-group, and is located on Doyalson soil types. Nilsen (1995: 94-95) has concluded that there is a greater likelihood for small shell midden sites to occur on Doyalson soil types in areas within 3 km of a creek, or close to a wetland area.

Suitable stone outcrops or cobbles are not present in the Gwandalan study area, indicating that shelter sites, quarrying sites, stone engraving/art sites and axe grinding grooves will not occur.

2.1.3 *Drainage*

The availability of water has significant implications for the range of resources available and the suitability of an area for human occupation. A number of small creek tributaries exist in each of the study areas.

Catherine Hill Bay

Swampy land is located to the south of the Catherine Hill Bay study area, and a number of small streams and soaks/dams are also present.

All of the previously disturbed and modified landform (see *Section 2.1.4*) occurs north of a creek that is located just south of the development area. This unnamed third order creek flows to the north end of Moonee Beach where it cuts through the foredune. Stone artefact sites may occur in close proximity to this water source.

Gwandalan

A minor first order watercourse flows from the north west corner of the Gwandalan study area through constructed ponds to the Lake. Small stone artefact sites may occur in close proximity to this water source

2.1.4 *Land Use And Disturbance*

The area surrounding Lake Macquarie was the subject of settlement activity during the early 1830s, with timber-getting and coal mining being the major industries. The removal of large trees may have resulted in the destruction of scarred or carved trees and may also have caused the disturbance of subsurface deposits.

The population expansion in the Newcastle area has resulted in increasing development in the Lake Macquarie and Wallarah area, including the construction of housing, roads and the associated infrastructure.

Catherine Hill Bay

The Catherine Hill Bay land comprises a largely modified landscape comprising a complex of abandoned buildings and hard surfaces from recently concluded underground coal mining operations. The land is a complex of rehabilitating coal dump pads, berms and constructed landforms mostly with no potential for Aboriginal material. The original landform comprises limited ridge top flat areas and predominantly sloping landform elements with minor first order drainage depressions, however all of these have been modified through colliery operations with the exception of the very small sloping areas along the southern margin. The present appearance is of abandoned buildings and open concreted surfaces with a complex of old coal storage pads covered in mulch and young plantings.

The significant modification and disturbance to landform has resulted in negligible potential for archaeological evidence of Aboriginal occupation remaining. While middens on elevated landforms are known to occur, midden sites in the local area are more closely positioned to rock platforms and beach dunes in locales outside of the study area. If there were any evidence of midden material, it is likely that this would have been destroyed by landform modification. Further, the disturbance indicates that no stone arrangements or ceremonial grounds (including bora rings) will be found.

Gwandalan

The Gwandalan land is a partly modified private parkland landscape which presently serves as the backyard of a private dwelling complex on the Lake Macquarie edge. Carefully maintained lawn and some minor constructed features occur along the Lake edge; nevertheless this is the most archaeologically sensitive area, with shell middens the most likely site to occur. The eastern part of the land is mostly cleared, with carefully maintained lawns, yards, sheds and gardens. Land in the west is predominantly regrowth bushland with some tracks and structures. An old constructed depression occurs in the north west due to some minor historic quarrying activity.

2.1.5

Flora And Fauna

Some large trees are evident in patches of Angophora woodland in the southern part of the Catherine Hill Bay land, but these do not appear to be pre-Contact remnants. Vegetation is otherwise of recent regrowth and extremely dense.

The Gwandalan land is predominantly regrowth bushland, with clearing and other disturbance resulting in a lack of any remnant trees.

The lack of mature trees in each study area indicates that scarred and carved trees will not be present.

2.1.6 *Conclusions*

The environmental context outlined above has a number of implications for archaeology in the study area. Firstly, the clearing that has occurred makes it unlikely that scarred or carved trees will be located, as mature trees do not tend to exist in such cleared contexts. Secondly, previous disturbance indicates that no stone arrangements or ceremonial grounds (including bora rings) will be found. Thirdly, as no suitable stone outcrops are present, shelter sites, quarrying sites, axe grinding grooves and stone engraving/art sites will not be found in the study areas.

The Catherine Hill Bay study area is situated in close proximity to two beaches (Moonee Beach in the south and Middle Camp Beach in the north), while part of the Gwandalan study area is situated on the shore of Lake Macquarie, an environment that is very well resourced. Shell midden material may therefore be present in these areas.

Small streams are present in each of the study areas, which allow for the existence of stone artefact sites.

The rich range of resources surrounding the study areas includes those associated with Lake Macquarie, the ocean and swampy land. However, the level of disturbance associated with the development of the Lake Macquarie and Wallarah area is extremely high and has affected the archaeological integrity of the area as a whole.

2.2 *ARCHAEOLOGICAL CONTEXT*

2.2.1 *Regional Aboriginal Archaeological Context*

Prior to European settlement of the region, the Lake Macquarie region was inhabited by the Awabakal and Guringai people (Threlkeld 1892; Fraser in Threlkeld 1892). Although information about the Aboriginal occupation of the Catherine Hill Bay and Gwandalan areas is somewhat limited, the abundance of food resources indicates that they would have been attractive to the groups living in the area. By the start of the twentieth century only a small number of Aboriginal people remained in the area living on the outskirts of settlements including Catherine Hill Bay. However, the community remained in the region and has since grown to be one of the most dynamic and largest in NSW (Turner and Blyton 1995:51-52).

A brief literature review of the NSW Department of Environment and Climate Change (DECC, gazetted 2 April 2007; formerly Department of Environment & Conservation [DEC]) library was made to understand archaeological sites in the broader region. This review was targeted to those reports relevant to the study areas. Key word searches were used to find reports for the localities in the AHIMS database. *Table 2.2* lists reports which were briefly reviewed and the locality with which they were concerned.

By far the bulk of the archaeological investigations in the Lake Macquarie region (including the Wallarah peninsula) have been carried out in relation to development projects. Consequently, the locations of previous studies are generally linked to the primary areas of development, rather than reflecting a cohesive research design. A review of previous archaeological work undertaken throughout the region (see *Table 2.2*) enables the identification of a number of trends in site location and patterning within the local area.

A range of site types have been recorded within the region including shell middens, stone artefact scatters and isolated finds, shelter sites and burials (see *Table 2.1*). Of these, shell middens are by far the most common in close proximity to the Lake and the coast, with stone artefact scatters and isolated finds the most common site types further back from the shores. It is apparent that the majority of sites contain stone artefacts. This is to be expected due to the durability of stone in comparison to other organic raw materials that have not been preserved in the archaeological record.

Any discussion of the type of artefacts and lithic raw materials is somewhat hindered by the potential for discrepancies in the way in which archaeologists classify raw materials and artefact types. However, in the Lake Macquarie region as a whole, indurated mudstone/tuff (also known as Merewether chert or Nobby's tuff; see Hughes 1984:80) is the predominant raw material for artefact manufacture (with coastal tuffs predominantly used along the coast), and chert, quartzite, silcrete, quartz, basalt and petrified wood also occur in smaller quantities. In general terms, the most common artefact types are flakes, flake fragments and flaked pieces. Cores, edge-ground axes, and retouched and backed artefacts also occur, though in lower frequencies.

Along the coast, the stabilisation of sea levels around 6,000 years ago has resulted in the majority of coastal sites being formed during this time period. In the areas of Lake Macquarie and the coast, the main archaeological research questions centre around the antiquity and content of middens, and to a lesser extent on stone artefact manufacturing technology and raw material sources.

The general patterning of Aboriginal sites in the coastal area shows a strong association with the coast and little recorded in the immediate hinterland. This reflects Aboriginal focus on coastal resources, predominantly shellfish from rock platforms, and coastal outcrops of Permian tuffs used for stone tool manufacture. Aboriginal burials have been found in coastal dunes. While there is a general pattern in Australian archaeology of stone artefact sites concentrated along watercourses, this appears to be less pronounced along the coast. In short, shell middens close to rock platforms and stone artefact sites close to stone sources may be anticipated in the local coastal stretch.

Table 2.2 *Literature Review of Relevant Archaeological Reports from the AHIMS Database*

| Author of Report | Distance from study area | Type of development/ report | Locality | Sites Recorded |
|-------------------------|--|---|---|--|
| Haglund (1985) | Includes western part of study area at Catherine Hill Bay | Aboriginal archaeological survey for proposed coal reject emplacement and associated conveyor belts at Wallarah Colliery | Wallarah Colliery, Catherine Hill Bay | None |
| Navin & McIntyre (1995) | Includes northern part of study area at Catherine Hill Bay | Aboriginal archaeological strategic issues study of Wallarah Peninsula | Wallarah Peninsula, Catherine Hill Bay | No survey undertaken; six registered sites noted in the area but caution recommended as co-ordinates may be inaccurate; recommended that complete survey be undertaken |
| Griffiths (1992) | Opposite (west) side of Kanangra Drive, Gwandalan | Aboriginal archaeological survey for proposed water sports club and holiday cabins | Kanangra Drive, Gwandalan, Lake Macquarie | Shell midden comprising cockle (<i>A. trapezia</i>) shell found on Lake foreshore |
| Haglund (1987) | Between Pacific Highway and township of Catherine Hill Bay, adjacent to study area at Catherine Hill Bay | Aboriginal archaeological survey for proposed coal reject emplacement and coal handling developments at Wallarah Colliery | Wallarah Colliery, Catherine Hill Bay | None |

| Author of Report | Distance from study area | Type of development/ report | Locality | Sites Recorded |
|----------------------------|--|---|--|---|
| Brayshaw (1989) | Within 1 km west of study area at Gwandalan, at Summerland Point | Aboriginal archaeological survey for proposed tourist resort | Area on fore-shore of Lake Macquarie, at Summerland Point | Shell midden comprising <i>A. trapezia</i> , whelk (<i>Pyrasmus ebeninus</i>) and abalone (<i>Haliotis ruber</i>) found on western bank of Bonny Boy Gully near Lake foreshore |
| Dallas (1986) | Includes sewage treatment works site approximately 1.5 km south of study area at Gwandalan | Aboriginal archaeological survey of proposed pipeline between Gwandalan and Mannering Park Sewage Treatment Works | Proposed pipeline between sewage treatment works sites at Gwandalan and Mannering Park | Shell midden comprising <i>A. trapezia</i> found in roadway |
| Dallas <i>et al</i> (1993) | Morisset peninsula approximately 3 km west of the study area at Gwandalan | Aboriginal heritage assessment of proposed Morisset Peninsula Sewerage Scheme | Morisset peninsula, Lake Macquarie | 12 shell middens comprising mainly <i>A. trapezia</i> , with some mud oyster (<i>O. angasi</i>), <i>P. ebeninus</i> , periwinkle (<i>Bembicium sp.</i>), mud creeper (<i>Velacumantus australis</i>), scallop (<i>Notovola sp.</i>) and <i>Bittium sp.</i> found on foreshore flats, beaches, toes of hills, and hillslopes, with more concentrated middens adjacent to permanent creeks and where small freshwater creeks enter the Lake; chert artefact at one midden |
| Brayshaw (1988) | Caves Beach approximately 3 km north of study area at Catherine Hill Bay | Aboriginal archaeological survey for proposed Caves Beach Resort development | Caves Beach, Lake Macquarie | One midden, one shelter with PAD and one midden and burial site (relocated). Midden and burial site located on creek estuary and beach with associated rock platforms, included turban (<i>Ninella torquata</i>), <i>H. ruber</i> , <i>A. trapezia</i> , limpet (<i>Cellana tramoserica</i>), ducks-bill (<i>Scutus antipodes</i>), rock oyster (<i>Saccostrea commercialis</i>) and sea urchin (<i>Heliocidaris erythrogramma</i>), stone artefacts (including some backed artefacts) of chert, petrified wood, quartzite and basalt, and a fish hook file. Midden on Lakeshore included <i>A. trapezia</i> , <i>O. angasi</i> , <i>P. ebeninus</i> , <i>S. commercialis</i> |

| Author of Report | Distance from study area | Type of development/ report | Locality | Sites Recorded |
|--------------------------|--|---|--------------------------------------|--|
| | | | | and scallop, and stone artefacts of quartzite, chert and volcanic rock. Shelter with PAD consisted of conglomerate bedrock outcropping near a creek |
| Dean-Jones (1988) | Lot 37 Lambton Parade, Swansea Heads, approximately 4 km north of study area at Catherine Hill Bay | Aboriginal archaeological survey of property at Swansea Heads | Lot 37 Lambton Parade, Swansea Heads | Shell midden material found on property comprising <i>A. trapezia</i> , <i>P. ebeninus</i> , mussel and oyster shells, and stone artefacts made from Nobby's tuff |
| Dyall (1975) | Swansea Heads, approximately 4 km north of study area at Catherine Hill Bay | Aboriginal archaeological excavation at Swansea Heads | Swansea Heads, Lake Macquarie | Midden material including <i>A. trapezia</i> , <i>O. angasi</i> , <i>P. ebeninus</i> , <i>Nerita sp.</i> , fish bone, bone points, stone cobbles used for tools (including ground-edge axes and anvils), and human burials |
| Donlon (1991) | Swansea Channel burial ground, approximately 4 km north of study area at Catherine Hill Bay | Skeletal remains identification of remains from the Swansea Channel burial ground | Swansea Heads, Lake Macquarie | Remains found indicated 21 individuals recovered, including 4 cremations, on the beach in a midden at the Lake entrance |
| Resource Planning (1992) | Windermere Creek, approximately 5 km west of study area at Gwandalan | Aboriginal archaeological survey for dredging and stabilisation of Windermere Creek | Windermere Creek, Lake Macquarie | Isolated tuff stone artefact found on cleared land. Small midden comprising <i>A. trapezia</i> found on swampy foreshore on bank of (eroding into) Windermere Creek near its junction with Lake Petite |

A search of the Aboriginal Heritage Information Management System (AHIMS) Aboriginal Sites Database at DECC within a 13 km x 14 km area centred on the two study areas was undertaken on 23 November 2006. The search identified 94 recorded sites, some of which are duplicate recordings (thus resulting in a total of 89 site locations; see *Figure 2.1*), which comprised 67 middens (two associated with quarries, two associated with stone artefact scatters and one associated with burials [at Swansea]), 14 stone artefact sites (13 stone artefact scatters and one isolated find), four scarred trees, three Potential Archaeological Deposits (PADs) and one Aboriginal place (Pulbah Island).

This search of the southern Lake Macquarie and Wallarah peninsula area shows that middens are the main Aboriginal site type recorded in the area. Coastal middens have developed as a result of Aboriginal harvesting of shellfish from rock platforms. Coastal middens are generally found in nearby dunes or elevated ground in close proximity to the rock platforms. Estuarine middens comprising mostly cockle shells with some oyster and whelk are found in many parts of the Lake Macquarie shore. While there has been some misidentification of naturally occurring or dredge waste shell as midden in comparable contexts, many reliable midden records reflect the sensitivity of the Lake Macquarie shore for midden material.

Catherine Hill Bay

An archaeological survey of the western emplacements areas of the colliery site was conducted in 1985 by Laila Haglund. No archaeological sites were recorded at this time, and Haglund's consultation did not reveal any non-archaeological traditional significance specifically attributed to the study area.

Aboriginal midden sites have been previously recorded adjacent to the rock platform immediately east of the development area and along the Moonee Beach dunes to the south east. Both of these areas are separated from the development by abrupt landform changes. Site 45-7-0016 is scattered midden material recorded at either end of Middle Camp Beach with no further specific location provided. Presumably this includes an observation in the vicinity of the rock platform immediately to the east of the development; however the coordinates for this site card are an unreliable translation from imperial map coordinates to metric, and the AMG coordinates in AHIMS from such old records are notoriously inaccurate. A midden (site 45-7-0216) was recorded by Theresa Bonhomme along the Moonee Beach dunes.

Many archaeological studies around Lake Macquarie have consistently identified Lake foreshore middens comprising predominantly cockle (*A. trapezia*) shell harvested by Aboriginal people from the inter-tidal zone. Two midden sites (45-7-0183 and 14-7-0149) are recorded to the north of the study area along the Lake shore. In addition, an archaeological survey by Terry Griffiths (1992) on 100 ha of land fronting Lake Macquarie directly to the west of the study area identified a continuous distribution of dense cockle shell along the shore edge (site 45-7-0176).

These records combined with general records of midden occurrence along the shore of Lake Macquarie point to the potential sensitivity of the shore edge within the study area.

2.2.3 *Implications For The Study Area – Predictive Model Of Site Location*

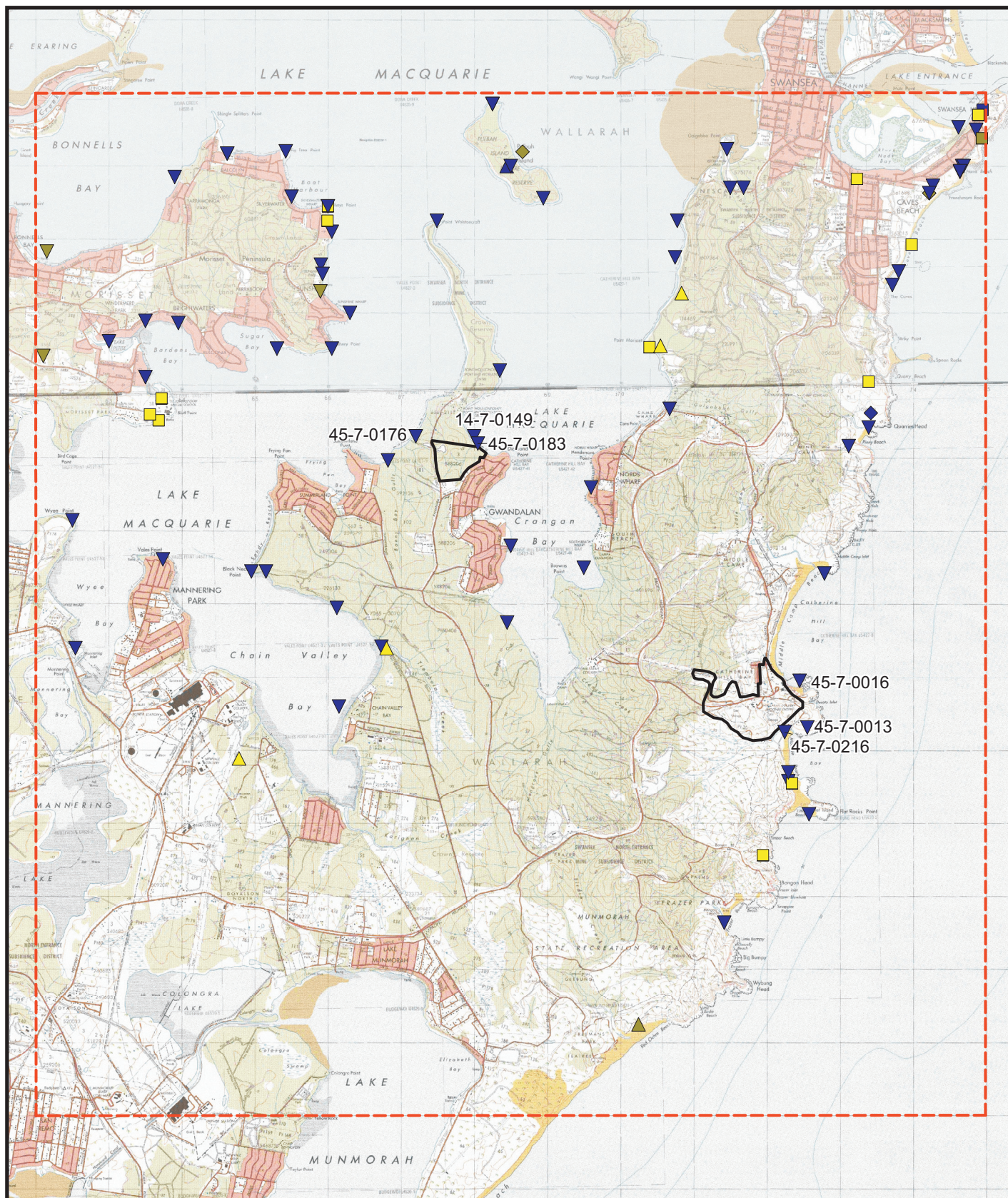
Based on the results of the range of studies conducted within the Lake Macquarie and Wallarah peninsula areas, the following general statements can be made in relation to archaeological patterning within the region:

- a wide variety of site types are represented, with shell middens (particularly on the Lake shore and beaches) by far the most common, and stone artefact sites more common further away from the Lake and coast;
- stone artefacts are primarily manufactured from chert/indurated mudstone/tuff (particularly coastal tuffs along the coast), as well as quartzite, silcrete, quartz, basalt and petrified wood;
- a greater proportion of sites are situated on the coast and on the shores of Lake Macquarie in close proximity to the abundant marine and lacustrine resources available; and
- the probability of finding large sites away from the coast and Lake shores increases significantly in close proximity to permanent water.

It is predicted that shell middens and stone artefact sites (scatters and isolated finds) are the site types most likely to be found in the study areas. Middens are most likely to be found close to the Lake foreshore at Gwandalan, and close to the beach at Catherine Hill Bay, probably adjacent to the small creeks present in each of the study areas. Stone artefacts are most likely to be found on ridges and flats adjacent to the small creeks present in each of the study areas, and close to the swamp area to the south west of the Catherine Hill Bay study area. However, the disturbance that has occurred over the majority of the Catherine Hill Bay study area indicates that Aboriginal heritage material is unlikely to have survived intact, and that any remaining material will be sparse and disturbed. The dense vegetation that is present over the west of the Gwandalan study area indicates that artefacts are unlikely to be seen during survey, and in fact no artefacts were identified in this area during the survey. It is unlikely, given the clearing that occurred in the Lake Macquarie region in the 19th century, that any of the trees within the two study areas are remnant vegetation, and therefore scarred and carved trees are unlikely to be present. Previous disturbance also indicates that no stone arrangements or ceremonial grounds (including bora rings) will be found.

A lack of stone outcrops and cobbles within the two study areas indicates that stone quarry sites, shelter sites, rock art/engravings and axe grinding grooves will not occur within either of the study areas.

It is possible that burials may occur within the study areas if midden material is present; however recorded burials in the vicinity indicate that burials are more likely to occur in middens in the soft sand of the beach, particularly near the Lake entrance. There is no indication that burials are more likely to occur in the two study areas than in any of the surrounding localities.



Legend

- ▲ Aboriginal Place, Natural Mythological (Ritual)
- Burials, Midden
- ◆ Isolated Find
- ▼ Midden
- ▲ Midden, Ochre Quarry
- Midden, Quarry
- ◆ Midden, Stone Artefact Scatter
- ▼ Potential Archaeological Deposit
- ▲ Scarred Tree
- Stone Artefact Scatter
- Study Area
- - - Search Extent

Client: Asquith & de Witt
 Project: Gwandalan/Catherine Hill Bay
 Drawing No: 0059261_GIS01
 Date: 12.12.2006 Drawing Size: A4
 Drawn By: DH Reviewed By: -
 Source: -
 Scale: Refer to Scale Bar



0 1 2km

Figure 2.1

Location of Registered AHIMS Sites in Relation to the Study Areas

Environmental Resources Management Australia Pty Ltd
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3.1 SITE SURVEY AND RECORDING

The site survey was conducted according to a methodology (upon which the local Aboriginal community agreed; see *Chapter 7* for details on the consultation process, and see *Chapter 4* for the results of the consultation) which pursued particularly the identification of Aboriginal heritage values relating to archaeological sites. Field survey methods were adopted to pursue the discovery of new archaeological sites, ensure their accurate recording and provide sufficient background information to provide an assessment of cultural significance to the extent that surface survey allows. The field survey also aimed to determine the extent of midden site 45-7-0216 in the dune at the northern end of Moonee Beach, to ascertain whether the proposed development is likely to have any direct or ancillary impacts on the site.

Field survey of the proposed development areas was completed by one ERM archaeologist (Jenna Lamb) and nine Aboriginal representatives (Dene Hawken and Kerrie Brauer from ATOAC, Shane Frost, Joshua Frost and James Frost from ADTOAC, Tracey Howie and Kevin Robinson from GTLAC and Noel Drake and Cliff Grav from BLALC). Each of the different landforms identified in the study areas were surveyed, namely slopes, ridges, flats, dunes, rock platforms, Lake shore, and gullies/creeks (see *Sections 1.1.1 and 3.1.3*). Tracks across the study areas, swampy ground, creek lines, mature trees and erosion scours were all inspected, as were the areas currently used for pastoral, residential and road activities. In order to ensure the highest likelihood of finding sites if present, survey focussed particularly on areas of visibility, water courses (including the beach and Lake shore) and trees. Photographic recording was made of the area.

3.1.1 Fieldwork Constraints And Opportunities

The survey was limited by the dense vegetation cover that was present over most of the study areas. Accordingly, it is estimated that approximately 1% of the Catherine Hill Bay study area and 4% of the Gwandalan study area was sampled during the survey (see *Annex B* for Effective Coverage Tables). Erosion occurred around the vehicle tracks, slopes and dunes, and the occasional patches of exposed ground surface over the properties mainly occurred in these areas of erosion. In light of these constraints, the survey focused particularly on the occasional patches of visible ground; however a sample of each of the landforms identified was surveyed (see below, and *Annex A*) to ensure that the full range of potential site locations was inspected. The two study areas were traversed on foot.

3.1.2

Catherine Hill Bay

In order to survey a sample of each landform across the study area and make best use of the areas of exposure available, this study area was surveyed in twelve transects (see *Annex D* for a map of survey transects), as follows:

- Transect 1 (T1) traversed a slope down from the coal preparation plant to the tidal creek and dune where midden 45-7-0216 was recorded;
- T2 traversed the dune adjacent to the tidal creek. Although this area is outside of the study area, the area was traversed to ascertain the extent of the dune sands in which shell midden material (from site 45-7-0216) is present, in accordance with the aims of the survey (see *Section 3.1*);
- T3 traversed the headland/rock platform behind Desoto Inlet;
- T4 traversed a ridge, on a track from the headland west to the coal preparation plant;
- T5 traversed two ridges on tracks to the north of the coal stockpile;
- T6 traversed five slopes along tracks to the south and east of the coal stockpile, and included a slope through part of the stockpile;
- T7 traversed a slope along a bicycle path, to the east of Clarke Street and to the west of the coal tailings;
- T8 traversed a track beside an unnamed creek to the north of the coal tailings;
- T9 traversed two ridges around the coal tailings and one along a track out to Montefiore Street;
- T10 traversed a ridge on a grassed area to the east of Hale Street;
- T11 traversed a slope east of Hale Street towards the Surf Club; and
- T12 traversed a flat beside the beach on a road leading south from the Surf Club, observing soil from the previously traversed slope that had been cut vertically to form the road.

3.1.3

Gwandalan

In order to survey a sample of each landform across the study area and make best use of the areas of exposure available, this study area was surveyed in nine transects (see *Annex D* for a map of survey transects), as follows:

- T1 traversed the Lake shore;
- T2 traversed a flat along the northern edge of the property fence along a modified inlet to the church;
- T3 traversed an unnamed creek and tributary from the dam in front of the church;
- T4 traversed a slope up to a building in the centre of the northern boundary of the property;
- T5 traversed two ridges along a vehicle track near the northern boundary;
- T6 traversed a flat on a vehicle track along the western property boundary;
- T7 traversed a ridge through the north western part of the property, along a track through a vegetated area;
- T8 traversed a slope between the front gate of the property and an unnamed creek tributary; and
- T9 traversed two slopes along a track leading to the building in the centre of the northern boundary of the property.

Initial consultation with the local Aboriginal community indicated that Aboriginal heritage issues were associated with the potential for Aboriginal heritage sites in the study areas (see Chapter 7 for details of the Aboriginal consultation process). Bearing this in mind, the field survey was completed on 20-21 December 2006 by Jenna Lamb (ERM), Dene Hawken and Kerrie Brauer (ATOAC), Shane Frost, Joshua Frost and James Frost (ADTOAC), Tracey Howie and Kevin Robinson (GTLAC) and Noel Drake and Cliff Grav (BLALC).

No new Aboriginal heritage sites were located within the boundaries of the study areas during the survey. One extension of a previously recorded Aboriginal shell midden (site 45-7-0183) was located on the Lake shore in the Gwandalan study area, outside of the area of proposed development impact.

4.1.1

Catherine Hill Bay

As mentioned in *Section 3.1*, one of the aims of the field survey was to determine the extent of midden site 45-7-0216 in the dune at the northern end of Moonee Beach, to ascertain whether the proposed development is likely to have any direct or ancillary impacts on the site. A preliminary inspection of the area identified midden shell and stone artefacts matching the description of the 45-7-0216 site card, in soil exposures at the highest point of the dune either side of the third order creek, and hypothesised that the extent of the midden corresponds to the extent of dune sands. These sands stop well outside the development area. A walk from this midden site north west into the development area reveals a marked change from sand to clay soils and then, on entering the colliery land, to introduced soil and rock which make up the berms constructed to contain colliery activity.

During the survey of T2 (see *Section 1.1.1* for a description of survey transects and *Annex D* for a map of survey transects), a number of stone artefacts and a turban shell were noted eroding from a small rocky (conglomerate), sandy hillock cliff, with naturally occurring chert and quartz, approximately 10 m north of the third order creek and approximately 50 m from the beach. Disturbance was evident in the form of rubbish and the remains of a campfire. A small quantity of red ochre was also observed eroding out of the adjacent hillock. The stone artefacts observed here were a chert decortication flake (70 mm x 50 mm), a silcrete distal flake (40 mm x 32 mm) and a silcrete flake (50 mm x 20 mm). This material was recorded as being part of the midden site 45-7-0216, and photographs and GPS coordinates were taken. At the eastern end of T2, the location of the midden shell and stone artefacts identified in the preliminary inspection was confirmed through reference to photographs and GPS coordinates. In order to determine how far the midden material extends towards the proposed development area, field participants pushed through the dense Bitou bush in areas where dune sands were observed. A number of gullies to the north west of this area were then traversed to ascertain the soil

profiles around this area, but no dune sand or archaeological material was observed in the profiles. No archaeological material was observed closer to the development area than a triton shell on the surface a short distance from one of the gullies. Photographs and GPS coordinates were taken in this area. The GPS coordinates of this triton shell (marking the extent of the midden closest to the development area), of the shell and artefacts observed during the preliminary inspection and relocated during the survey, and of the artefacts, ochre and shell observed along T2, were plotted in relation to the proposed development area, using cadastral data obtained from the client to accurately plot the proposed outer edge of the development. The results of this geographical plotting may be seen in *Figure 4.1*, which shows the extent of these three midden exposures in this sandy foredune as being approximately 40 m from the boundary of the development/study area (see *Annex C* for the additional site card information to be submitted to DECC).

An inspection of the conglomerate rock platform to the east of the development area failed to identify any midden material along vehicle track exposures. Away from track exposures visibility was significantly hampered by vegetation, particularly the dense Bitou bush.

The southern part of the study area (traversed in T6) extends close to a creek, but the land rises sharply from the creek edge and affords little opportunity for campsites on the sloping ground. No stone artefacts or midden material were observed in the vehicle track exposures through this area. Eucalypts and Angophora trees through this area were sizeable, but did not appear to bear Aboriginal scarring from the pre-contact and contact period.

Figure 4.1 shows the extent of an exposure of stone artefacts on a track behind Moonee Beach (labelled Moonee Beach Track northern and southern ends on this figure). These stone artefacts were recorded as being part of site 45-7-0216, which is described as including scatters of stone artefacts, as well as midden shell, throughout the dune behind Moonee Beach, from the tidal creek in the north to Flat Island in the south. Since artefacts were located at many points along this track, the extent of the northern and southern ends of the track were recorded on *Figure 4.1*, rather than each individual “exposure” (or artefact) of 45-7-0216 (see *Annex C* for the additional site card information to be submitted to DECC). The closest point of this exposure to the proposed development area is approximately 40 m away. This was ascertained by taking GPS coordinates from each end of the artefact exposure and plotting the coordinates in relation to the cadastral data obtained from the client.

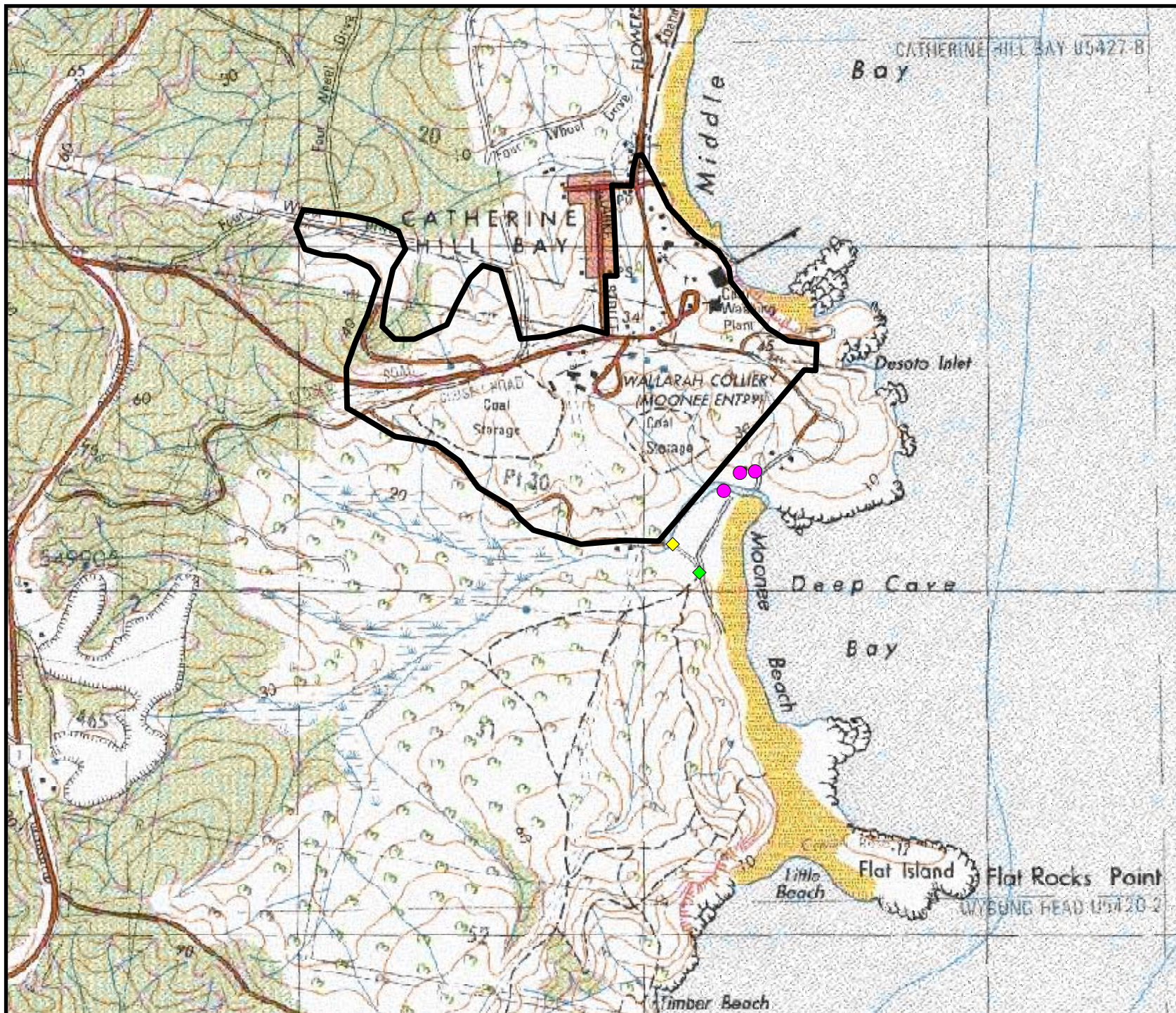
No other archaeological material was located during the survey of the Catherine Hill Bay study area. Despite the proximity of T12 to the beach and to the previously recorded location of midden 45-7-0016 (see *Figure 2.1*), no shells or other archaeological material were seen eroding from the slope, and the soil was noted as duplex soil rather than sand.

An extension of registered midden 45-7-0183 was recorded within the study area, but occurs outside of the proposed development area at Gwandalan (see *Figure 4.2*). This midden extension is located immediately on the Lake shore in a modified landscape (the Lake shore having been cut into in several places), to the east of a large house. Photographs and GPS coordinates of this exposure were taken, and geographical plotting of this material against cadastral data obtained from the client revealed that none of this site area is proposed to be developed under the current concept plan (see *Figure 1.4* and *Figure 4.2*). No other archaeological material was located during the survey of the Gwandalan study area, and throughout the study area soil was observed to have been quite disturbed and displaced from its original context. No mature trees exhibiting Aboriginal scars or carvings were observed.

Extension of Diamond Drill Point Midden (45-7-0183)

AMG: E 368105, N 6333116

The site card for the Diamond Drill Point midden (AHIMS #45-7-0183) indicates that midden material was observed in an unnamed bay to the north of Diamond Drill Point. However, as the Gwandalan study area is located on private property, it was clearly unable to be accessed during the survey which located the 45-7-0183 midden site. For this reason, given the plotted location of the 45-7-0183 midden site (see *Figure 2.1*), and the description of its location given in the site card (an unnamed bay to the north of Diamond Drill Point), the midden material observed in the Gwandalan study area was recorded as part of the same midden complex, which extends along the shore of Lake Macquarie in this area. The midden material identified during the survey of the Gwandalan study area comprises predominantly *A. trapezia* shell with some *O. angasi*. Some of these shells are small and may be the result of reworking by the tides of the Lake, but many are of large, edible size. These shells were found eroding out of two cut sections of the Lake shore, in a black organic soil below brown sandy topsoil. In addition, one stone artefact was located, being a small fine-grained silcrete core (measuring 10 mm x 12 mm x 5 mm thick). Some shell is also present in cement in the cut sections of the Lake shore, but it is uncertain whether this shell derives from the midden. Below the cut section on the top of the sandy Lake shore are many recently, naturally deposited non-midden shells, comprising mainly clams, mussel, pipi, scallop and crustacean.





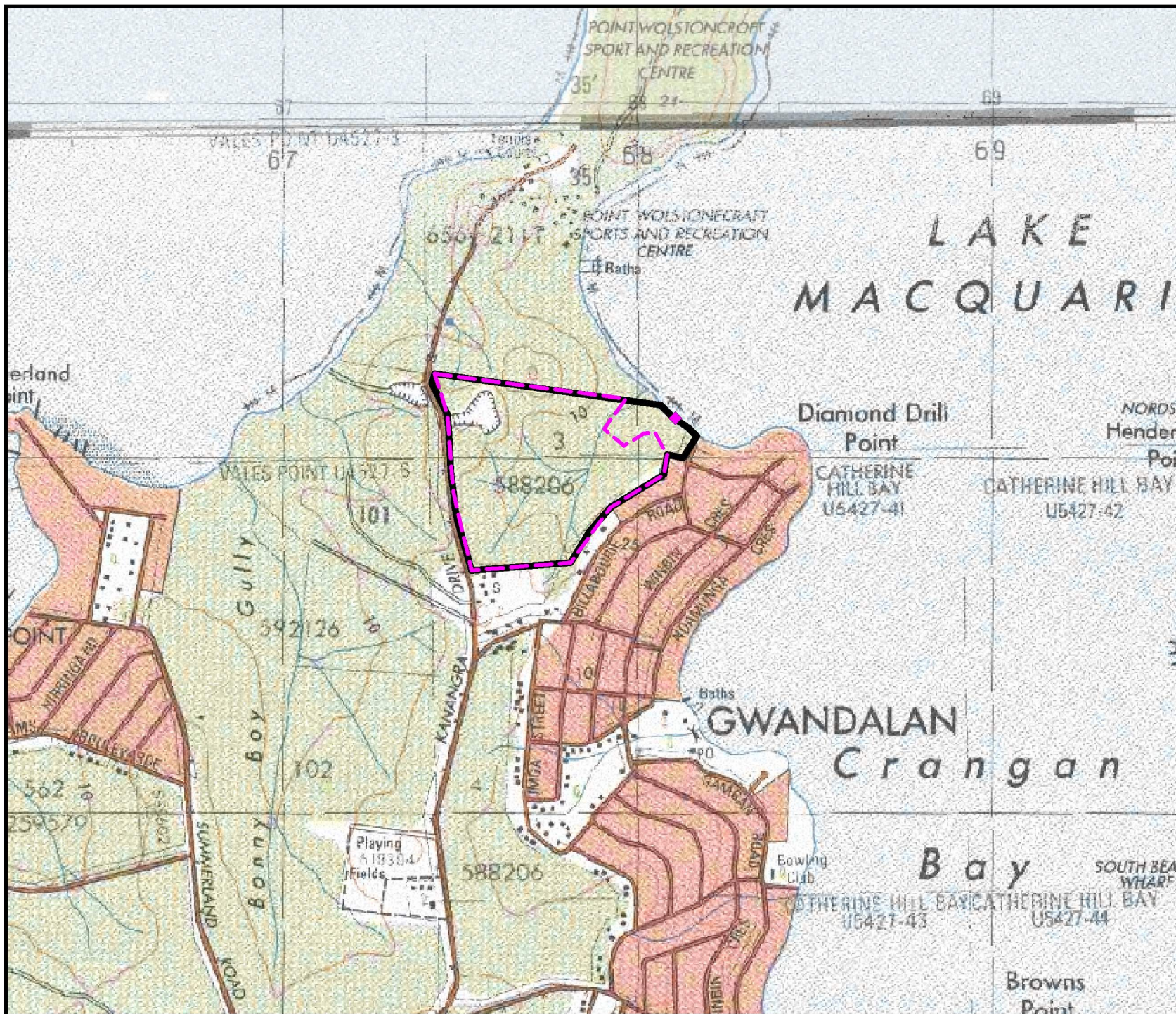
Legend

- Study Area
- Exposure of 45-7-0216
- ◆ Moonee Beach Track Northern End
- ◆ Moonee Beach Track Southern End

Figure 4.1

Location of Site Exposures Identified at Catherine Hill Bay during Survey

| | | | |
|---|---|---------------|-----|
| Client: | Asquith & de Witt | | |
| Project: | Gwandalan/Catherine Hill Bay | | |
| Drawing No: | 0059261_Fig41 | | |
| Date: | 08.02.07 | Drawing Size: | A4 |
| Drawn By: | TH | Reviewed By: | JL |
| Source: | - | | |
| Scale: | 1:15,000 | | |
|  | 250 | 0 | 250 |
| N |  | | |
| | Metres | | |
| Environmental Resources Management Australia Pty Ltd Building C, 33 Saunders St, Pyrmont, NSW, 2009 Telephone +61 2 8584 8888 | | | |



Legend






-  Study Area
-  Proposed Residential Development Area
-  Exposure of 45-7-1083

Figure 4.2
Location of Site Exposures
Identified at Gwandalan
during Survey

| | | | |
|---|------------------------------|---------------|----|
| Client: | Asquith & de Witt | | |
| Project: | Gwandalan/Catherine Hill Bay | | |
| Drawing No: | 0059261_Fig41 | | |
| Date: | 08.02.07 | Drawing Size: | A4 |
| Drawn By: | TH | Reviewed By: | JL |
| Source: | - | | |
| Scale: | 1:15,000 | | |
| <div><div> N</div><div><div>250</div><div>0</div><div>250</div><div></div><div>Metres</div></div></div> | | | |
| Environmental Resources Management Australia Pty Ltd Building C, 33 Saunders St, Pyrmont, NSW, 2009 Telephone +61 2 8584 8888 | | | |

5.1

CATHERINE HILL BAY

Air photo indications of gross disturbance and modifications across the majority of the study area were confirmed during the survey. The construction of large emplacement areas for coal stockpiles has resulted in significant landform modification not only on the pads, but in surrounding areas where large berms have been constructed to contain and conceal operations. The extent of modification is such that any ground exposure over the colliery inevitably displayed layers of introduced soil, gravel and coal waste. There are some areas of bush in the south east of the land although the signs of ground disturbance are almost everywhere along the tracks and ground exposures.

The two small areas of land in the north western part of the development area comprised modified land from a past emplacement area and an area of older regrowth on sloping land without extensive water association and hence of low archaeological potential. Survey by Haglund (1985) in these areas failed to identify any Aboriginal sites, as did the current survey.

The north eastern part of the study area includes part of the historic village complete with sealed roads, houses and grass lawns. The landform is well elevated above the beach and slopes down to the north from the coal preparation plant itself. There is no archaeological potential in this area which includes gravely soils developed from conglomerate bedrock.

In short, only areas outside of the proposed development area at Catherine Hill Bay were found to contain archaeological material. This archaeological material was located at distances of approximately 40 m outside of the study area, which indicates that no direct or ancillary impacts will occur to this material as a result of the development. The study area itself has been subject to such disturbance that *in situ* archaeological material is not predicted to remain within the proposed development area.

Particular attention was paid to the Lake edge where carefully maintained lawns extend to the water's edge. While the large shells located were not observed in dense concentrations in the soil sections, there was some evidence of dark soil normally associated with middens, and one stone artefact was also located. This midden material was identified as part of a larger midden which was recorded adjacent to the study area and is currently registered as site 45-7-0183 on the AHIMS database. Under the current concept plan for residential development of the Gwandalan study area, this midden material will be retained as is with the existing house, and is not proposed for any development impact.

The western parts of the study area were surveyed and found to have been largely disturbed by clearing and landscape modification, with piles of vegetation and soil noted to have been dumped in many locations after being transported from other parts of the study area, including the Lake shore (presumably when this was cut into to form the current shore line within the study area). The small first order watercourse flowing from the south west corner is a dry gutter-like trench draining the adjacent school grounds. As such, no *in situ* archaeological material is predicted to be present within the western part of the study area, away from the Lake shore.

No new Aboriginal sites were found within either of the study areas. The disturbed shell midden located along the Lake shore in the Gwandalan study area was concluded to be an extension of the previously recorded midden site 45-7-0183 and is outside the area currently proposed for development. No other sites were located within the boundaries of either study area. Although surface evidence can sometimes be an unreliable guide to subsurface archaeological content where soil surface is bare but not eroded, the eroded exposures in the study areas provided a "window" into the topsoil archaeological content. The absence of artefacts from these exposures (apart from the Lake shore at Gwandalan), and the previous disturbance of the two study areas, can be regarded as an indication of the current archaeological paucity of the study areas (also reflected in the results of previous assessments), and thus a lack of Aboriginal archaeological research potential. While dense vegetation cover resulted in a lack of surface visibility over the majority of the study areas, meaning that any artefacts that are present are unlikely to have been found during a surface survey, there is nevertheless minimal potential for undetected Aboriginal heritage material to be located in the study areas. Any such material is likely to be low in quantity and density, and is unlikely to remain *in situ*.

No impact to Aboriginal heritage is predicted. A reasonable assessment of archaeological potential, based on the known archaeology of Lake Macquarie and the Wallarah peninsula and the surface evidence, suggests that there is only minimal potential for sparse undetected subsurface Aboriginal heritage material. Further, the shell midden material located on the Lake shore at Gwandalan is not proposed to be developed, and thus no impact to this midden is predicted. The registered site 45-7-0216 recorded at various places along Moonee Beach near the Catherine Hill Bay study area is located, at its closest points, at a distance of approximately 40 m from the study area, and thus no direct or ancillary impacts to this midden material, stone artefacts or the dune sands are predicted.

Aboriginal consultation is required for any assessment of Aboriginal heritage. The DECC (gazetted 2 April 2007; formerly DEC) has released the Interim Community Consultation Requirements guideline (2004) for Aboriginal consultation in relation to any study that might eventually be used to support an application under Part 6 of the National Parks & Wildlife Act 1974 (i.e. Section 90 consents to destroy sites and Section 87 permits to collect/investigate). The interim guideline sets out a process of inviting Aboriginal groups to register interest as a party to consultation (including local press advertisement), seeking responses on proposed assessment methodology, and seeking comment on proposed assessments and recommendations. The interim guideline requires proponents to allow 10 working days for Aboriginal groups to respond to invitations to register, and then 21 days for registered Aboriginal parties to respond to a proposed assessment methodology. An additional ten days are allowed for groups to review a draft report and comment on the results and management recommendations made.

This project is being assessed under Part 3A of the *Environmental Planning and Assessment Act 1979* and therefore Section 87 and Section 90 permits are not applicable to the project. However, the consultation guidelines are considered best practice and applicable to the Part 3A assessment process and have been adopted for this study.

Letters requesting advice on Aboriginal organisations to consult and any known heritage issues to be taken into consideration in the area were faxed on 7 November 2006 to:

- NSW Department of Environment and Climate Change (DECC, gazetted 2 April 2007; formerly Department of Environment & Conservation [DEC]);
- Registrar, Aboriginal Land Rights Act 1983 (NSW);
- Wyong Shire Council;
- Lake Macquarie City Council;
- Darkinjung Local Aboriginal Land Council (DLALC); and
- Bahtabah Local Aboriginal Land Council (BLALC).

A local press advertisement requesting Aboriginal individuals and groups interested in being consulted on this project to write to ERM, was run in the Lake Macquarie News on 8 November 2006 and in the Central Coast Express Advocate newspaper on 10 November 2006. One response to this advertisement was received, from Guringai Tribal Link Aboriginal Corporation (GTLAC). Lake Macquarie City Council identified three Aboriginal parties to be contacted:

- Bahtabah Local Aboriginal Land Council;
- Awabakal Traditional Owners Aboriginal Corporation; and
- Awabakal Descendants Traditional Owners Aboriginal Corporation.

DECC identified two Aboriginal parties to be contacted:

- Guringai Tribal Link Aboriginal Corporation; and
- Mur-Roo-Ma Inc.

Wyong Shire Council identified two Aboriginal parties to be contacted:

- Darkinjung Local Aboriginal Land Council; and
- Awabakal Newcastle Aboriginal Co-op.

These parties were therefore contacted about whether they wished to be consulted on this project. In addition, each party was asked to identify any further individuals or groups who would be interested in being consulted regarding this project. Five responses to these letters have been received, from DLALC, BLALC, ATOAC, ADTOAC and GTLAC. These parties were provided with a proposed assessment methodology, and each indicated their agreement with this methodology.

A search of the National Native Title Tribunal website undertaken on 7 November 2006 revealed no active claimant applications, and two active non-claimant applications in the Lake Macquarie LGA (both for BLALC). Native Title is extinguished in all land that is freehold or was freehold in the past. Therefore, all freehold land in NSW cannot be claimed by Native Title applicants. As the study area is freehold land, Native Title is extinguished, but such claims in the area are useful for identifying Traditional Owner groups, regardless of land tenure.

Fieldwork for the assessment was undertaken on 20-21 December 2006, and included a total of nine local Aboriginal community representatives: Dene Hawken and Kerrie Brauer from ATOAC, Shane Frost, Joshua Frost and James Frost from ADTOAC, Tracey Howie and Kevin Robinson from GTLAC and Noel Drake and Cliff Grav from BLALC. These representatives were invited to comment on Aboriginal heritage issues in the field.

A copy of the draft final report was sent to the five registered Aboriginal parties on 23 February 2007, so that they had the opportunity to comment on its content and recommendations.

Three parties, GTLAC, ADTOAC and ATOAC, responded with comments. This feedback is provided in *Annex E*.

No further Aboriginal parties have so far been identified through this process. Details of the Aboriginal consultation are provided in *Annex A*.

8.1

ASSESSMENT OF ABORIGINAL ARCHAEOLOGICAL SIGNIFICANCE

Heritage sites, objects and places hold value for communities in many different ways. The nature of those heritage values is an important consideration when deciding how to manage a heritage site, object or place and balance competing land-use options. The many heritage values are summed up in an assessment of “Cultural Significance”.

The primary guide to management of heritage places is the Australia ICOMOS Burra Charter 1999. The Burra Charter defines cultural significance as:

Cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations.

Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects.

Places may have a range of values for different individuals or groups.

This assessment has attempted to identify heritage objects and sites within the study areas and obtain enough information to allow the values of those objects and sites to be determined.

Research and consultation with the Aboriginal community was also conducted to determine whether any heritage value relates specifically to the study areas regardless of the archaeological evidence. While it is accepted that the Lake Macquarie and Wallarah landscape is of significance to Aboriginal people, this study sought to identify whether the study areas held specific values either in themselves, or as part of a specific local area of particular significance. To date no information has been received that identifies specific heritage value unrelated to the Aboriginal sites.

Aboriginal heritage sites with archaeological evidence are all of value to the Aboriginal community through the tangible connection they represent to pre-European Aboriginal land use.

Scientific value is assessed according to the research potential of a site. Rarity and representativeness are also related concepts taken into account. Research potential or demonstrated research importance is considered according to the contribution that a heritage site can make to present understanding of human society and the human past. Those heritage sites, objects or places of high scientific significance are those which provide an uncommon opportunity to inform us about the specific age of people in an area, or provide a rare glimpse of artistic endeavour or a rare chronological record of changing life through deep archaeological stratigraphy.

The comparative rarity of a site is a consideration in assessing scientific significance. A certain site type may be “one of a kind” in one region, but very common in another. Artefacts of a particular type may be common in one region, but outside the known distribution in another.

The integrity of a site is also a consideration in determining scientific significance. While disturbance of a topsoil deposit with artefacts does not entirely diminish research value, it may limit the types of questions that may be addressed. A heavily cultivated paddock may be unsuited to addressing research questions of small-scale site structure, but it may still be suitable for answering more general questions of implement distribution in a region and raw material logistics.

The capacity of a site to address research questions is predicated on a definition of what the key research issues are for a region. In the areas of Lake Macquarie and the Wallarah peninsula, the main archaeological research questions centre around the antiquity and content of middens, and to a lesser extent on stone artefact manufacturing technology and raw material sources. While there is a general pattern in Australian archaeology of stone artefact sites concentrated along watercourses, this appears to be less pronounced along the coast. Sites not conforming to this pattern may be of interest for research potential. Well preserved, mounded or stratified midden sites would also be significant for answering research questions.

The shell midden site identified within the Gwandalan study area (comprised predominantly of cockle shell) is not rare at Lake Macquarie, nor is there any evidence to suggest stratification or mounding. Further, it has been heavily disturbed and is not greatly concentrated, so it has very limited research potential. As such, the site is of low scientific/research significance for this lack of research potential and the restricted local representativeness that it may reveal.

Aboriginal cultural heritage in NSW is protected by the *National Parks and Wildlife Act 1974*. Land managers are required to consider the effects of their activities or proposed development on the environment under several pieces of legislation, principally the *Environmental Planning & Assessment Act 1979*. Cultural heritage, which includes Aboriginal heritage, is subsumed within the definition of “environment”. Commonwealth legislation protecting indigenous heritage may also apply to indigenous heritage places in NSW in certain circumstances. Key legislation is summarised below.

9.1

NATIONAL PARKS AND WILDLIFE ACT 1974 (NSW)

All Aboriginal objects within the state of New South Wales are protected under section 90 of the *National Parks and Wildlife Act 1974* (NPW Act).

Under section 5 of the Act, “Aboriginal Object” means any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains.

Sites of traditional significance that do not necessarily contain archaeological materials may be gazetted as “Aboriginal places” and are protected under Section 84 of the Act. This protection applies to all sites, regardless of their significance or land tenure. Under 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.

Amendments introduced by the *National Parks & Wildlife Amendment Act 2001* which strengthen the provisions of section 90 have yet to commence.

The Department of Environment and Climate Change (formerly DEC) is the statutory authority for the protection of Aboriginal objects and places within NSW, with the Director-General of that department the consent authority.

9.2

ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 (NSW)

The *Environmental Planning and Assessment Act 1979* (EP&A Act) requires that environmental impacts are considered in land-use planning, including impacts on indigenous and non-indigenous heritage. Various planning instruments prepared under the Act identify permissible land use and development constraints.

The DECC (formerly DEC) provides guidelines for Aboriginal heritage assessment, including those conducted under the EP&A Act 1979. Where Aboriginal heritage assessment is conducted under the Integrated Development Approval process, a more detailed set of NPWS guidelines applies.

Where a development is approved under Part 3A of the Act, further approvals under the National Parks & Wildlife Act 1974 are not required. In those instances management of heritage sites must follow the statement of commitments included in the Part 3A development approval.

9.3

ABORIGINAL AND TORRES STRAIT ISLANDER HERITAGE PROTECTION ACT 1984 (COMMONWEALTH)

The *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* protects areas and/or objects which are of significance to Aboriginal people and which are under threat of destruction. The Act can, in certain circumstances override state and territory provisions, or it can be implemented in circumstances where state or territory provisions are lacking or are not enforced. A significant area or object is defined as one that is of particular importance to Aboriginal people according to Aboriginal tradition. The Act must be invoked by or on behalf of an Aboriginal or Torres Strait Islander or organisation.

The following recommendations are made in light of the findings of the field survey, the input of the Aboriginal stakeholders and the relevant legislation protecting Aboriginal heritage in NSW, bearing in mind the Part 3A nature of the proposed development.

*10.1**CATHERINE HILL BAY*

No archaeological constraints to development were identified in this survey. This is due largely to the landform in closest proximity to the beach being atop a cliffed incline and significantly elevated over 40 m above the rock platform shellfish resource zone. Midden sites in association with this rock platform are located on the immediately adjacent lands and the Moonee Beach dunes, and not on the development land. The shell midden material located at the northern end of Moonee Beach, and the stone artefacts located on a track behind Moonee Beach, are not proposed to be impacted.

*10.2**GWANDALAN*

The survey indicates that there are no Aboriginal objects present which may be impacted by development. The shell midden material located on the Lake shore is not proposed to be impacted.

*10.3**GENERAL RECOMMENDATIONS*

As no Aboriginal sites were found within the proposed development area in either of the study areas during the field survey, and the study areas are assessed as having negligible potential for subsurface heritage material, no further heritage work is required. However, the following cautionary recommendations are made:

- while no Aboriginal sites were identified in the impact areas and none are predicted to occur in these impact areas, should any Aboriginal objects be identified in the course of development all works should cease and an assessment and recovery of the material should be conducted by an archaeologist working with relevant local Aboriginal community groups; and
- in the unlikely event of discovery of skeletal material all works should cease, and the police, relevant local Aboriginal community groups and a suitably experienced archaeologist or physical anthropologist should be contacted to assess the material before determining the correct management action.

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Annex A

Aboriginal Consultation Log

Table A.1 Stage 1 Advisory Requests

| Date | Organisation/group/individual | Contact Name | Details |
|----------|--|------------------|---|
| 7/11/06 | DEC | Brendan Diacono | Faxed a request for a list of groups to be consulted for this project. Received letter on 16/11/06 supplying names of organisations other than LALCs: Guringai Tribal Link Aboriginal Corporation and Mur-Roo-Ma Inc. |
| 7/11/06 | Bahtabah LALC | Michael Green | Faxed a request for a list of groups to be consulted for this project. |
| 7/11/06 | Darkinjung LALC | Roger Sentance | Faxed a request for a list of groups to be consulted for this project. |
| 7/11/06 | Registrar Aboriginal Owners | Megan Mebberson | Faxed a request for a list of groups to be consulted for this project. |
| 7/11/06 | Lake Macquarie City Council | Mary Loder | Faxed a request for a list of groups to be consulted for this project. Received email on 9/11/06 supplying names of Bahtabah LALC, Awabakal Traditional Owners Aboriginal Corporation and Awabakal Descendents Traditional Owners Aboriginal Corporation. |
| 7/11/06 | Wyong Shire Council | Danielle Dickson | Faxed a request for a list of groups to be consulted for this project. Received email on 23/11/06 suggesting ERM contacts Darkinjung LALC and Awabakal Newcastle Aboriginal Co-op. Council knows of no other studies done in the area. |
| 20/11/06 | Mur-Roo-Ma Inc. | N/A | Sent a letter requesting a list of groups to be consulted for this project. |
| 21/11/06 | Awabakal Descendants Traditional Owners Aboriginal Corporation | Shane Frost | Rang and left message explaining reason for call and requesting fax number to send some information to. Shane rang back and gave me his email address to send information to, which I did. |
| 21/11/06 | Awabakal Traditional Owners Aboriginal Corporation | Dene Hawken | Rang and left message explaining reason for call and requesting fax number to send some information to. Dene rang back and gave me his email address to send information to, which I did. |

Table A.2 *Stage 1 Aboriginal Group Registrations Received*

| Date | Organisation/group/individual | Contact Name | Details |
|-------------|--|-------------------------------------|--|
| 8/11/06 | Darkinjung LALC | Roger Sentence | Fax received with request to be involved in site survey and outlining costs. |
| 10/11/06 | Darkinjung LALC | Roger Sentence | Emailed to ascertain availability of representatives over December-January. |
| 16/11/06 | Guringai Tribal Link Aboriginal Corporation | Kevin Robinson and Tracey-lee Howie | Received 20/11/06. Registered interest in being consulted on every aspect of the proposed projects. |
| 21/11/06 | Awabakal Traditional Owners Aboriginal Corporation | Dene Hawken | Verbal expression of interest (by phone) in being consulted, asking when we planned to do the work (early 2007, perhaps January) and offering to supply sites officers if we required. |
| 21/11/06 | Awabakal Descendants Traditional Owners Aboriginal Corporation | Shane Frost | Verbal expression of interest (by phone) in being consulted, asking when we planned to do the work (early 2007, perhaps January) and saying that he would get back to me. |
| 29/11/06 | Awabakal Descendants Traditional Owners Aboriginal Corporation | Shane Frost | Phone call to identify another traditional owner group in the area, the Awabakal Traditional Owners Aboriginal Corporation. |

Table A.3 Stage 2 Briefing and Methodology Advice Sent

| Date | Organisation/group/individual | Contact Name | Details |
|---------|--|------------------|---|
| 4/12/06 | Bahtabah LALC | Michael Green | Letter of methodology and invitation to offer fieldwork services by 15/12/2006; proposed survey on 20-21/12/2006. |
| 4/12/06 | Darkinjung LALC | Roger Sentance | Email of methodology and invitation to offer fieldwork services by 15/12/2006; proposed survey on 20-21/12/2006. |
| 4/12/06 | Awabakal Traditional Owners Aboriginal Corporation | Dene Hawken | Email of methodology and invitation to offer fieldwork services by 15/12/2006; proposed survey on 20-21/12/2006. |
| 4/12/06 | Awabakal Descendents Traditional Owners Aboriginal Corporation | Shane Frost | Email of methodology and invitation to offer fieldwork services by 15/12/2006; proposed survey on 20-21/12/2006. |
| 4/12/06 | Guringai Tribal Link Aboriginal Corporation | Tracey-lee Howie | Letter of methodology and invitation to offer fieldwork services by 15/12/2006; proposed survey on 20-21/12/2006. |
| 4/12/06 | Mur-Roo-Ma Inc. | N/A | Letter of methodology and invitation to offer fieldwork services by 15/12/2006; proposed survey on 20-21/12/2006. |
| 4/12/06 | Awabakal Newcastle Aboriginal Co-op | N/A | Letter of methodology and invitation to offer fieldwork services by 15/12/2006; proposed survey on 20-21/12/2006. |

Table A.4 Stage 2 Aboriginal Comments Received

| Date | Organisation/group/individual | Contact Name | Details |
|----------|--|-------------------------------------|---|
| 11/12/06 | Guringai Tribal Link Aboriginal Corporation | Tracey-lee Howie and Kevin Robinson | Email confirming agreement with methodology, and offering fieldwork services for proposed survey. |
| 13/12/06 | Awabakal Descendents Traditional Owners Aboriginal Corporation | Shane Frost | Email confirming agreement with methodology, and offering fieldwork services for proposed survey. |
| 14/12/06 | Awabakal Traditional Owners Aboriginal Corporation | Dene Hawken | Phone call confirming agreement with methodology and offering fieldwork services for proposed survey. |

Table A.5 Stage 3 Draft Reports for Review Sent

| Date | Organisation/group/individual | Contact Name | Details |
|---------|--|---------------------------|--|
| 22/2/07 | Bahtabah LALC | Michael Green | Posted copy of draft report requesting feedback. |
| 22/2/07 | Darkinjung LALC | Roger Sentance | Tried to email copy of draft report requesting feedback. Error message received saying file too large to be delivered. Sent email to check if they had received it. Received reply that they hadn't received it. |
| 22/2/07 | Awabakal Traditional Owners Aboriginal Corporation | Dene Hawken | Tried to email copy of draft report requesting feedback. Error message received saying file too large to be delivered. Sent email to check if they had received it. Received reply that they hadn't received it, so emailed to check postal address correct. |
| 22/2/07 | Awabakal Descendents Traditional Owners Aboriginal Corporation | Shane Frost | Tried to email copy of draft report requesting feedback. Error message received saying file too large to be delivered. Sent email to check if they had received it, and second email to confirm their postal address. |
| 22/2/07 | Guringai Tribal Link Aboriginal Corporation | Tracey-lee Howie | Tried to email copy of draft report requesting feedback. Error message received saying file too large to be delivered. Sent email to check if they had received it. |
| 23/2/07 | Darkinjung LALC | Roger Sentance | Posted copy of draft report requesting feedback. |
| 23/2/07 | Awabakal Traditional Owners Aboriginal Corporation | Dene Hawken/Kerrie Brauer | Posted copy of draft report requesting feedback. |
| 23/2/07 | Awabakal Descendents Traditional Owners Aboriginal Corporation | Shane Frost | Posted copy of draft report requesting feedback. |
| 23/2/07 | Guringai Tribal Link Aboriginal Corporation | Tracey-lee Howie | Posted copy of draft report requesting feedback. |
| 22/3/07 | Darkinjung LALC | Roger Sentance | Emailed further request for feedback on draft report, providing feedback form again. |
| 22/3/07 | Awabakal Traditional Owners Aboriginal Corporation | Kerrie Brauer | Emailed further request for feedback on draft report, providing feedback form again. Kerrie replied that she would organise something for us ASAP. |
| 26/3/07 | Bahtabah LALC | Michael Green | Faxed further request for feedback on draft report, providing feedback form again. |

Table A.6 *Stage 3 Aboriginal Comments Received*

| Date | Organisation/group/individual | Contact Name | Details |
|---------|--|-------------------------------------|--|
| 9/3/07 | Guringai Tribal Link Aboriginal Corporation | Tracey-lee Howie and Kevin Robinson | Received two-page report by fax. |
| 22/3/07 | Awabakal Descendents Traditional Owners Aboriginal Corporation | Shane Frost | Received 16-page report by email. |
| 25/5/07 | Awabakal Traditional Owners Aboriginal Corporation | Kerrie Brauer | Received one-page feedback form with comments. |

Annex B

Effective Coverage Tables

Table B.1 Catherine Hill Bay Effective Coverage

| Tran- sect | Landforms | Description | Approx- imate Area (m ²) | Approximate Area surveyed (m ²) | Visibility | Exposure | Effective coverage (m ²) | Sample fraction (%) | Number of artefacts within Study Area |
|---------------|-----------------------|---|--|---|------------|----------|--|------------------------|---|
| T1 | Slope | East of Moonee Colliery | 60000 | 500 | 0.4 | 0.8 | 160 | 0.3 | 0 |
| T2 | Dune | Northern end of Moonee Beach | 1000 | 400 | 0.9 | 0.7 | 252 | 25.2 | 0 |
| T3 | Headland/ platform | Between Moonee and Middle Camp Beaches, west of Desoto Inlet | 60000 | 1200 | 0.7 | 0.6 | 504 | 0.8 | 0 |
| T4 | Ridge | Track from headland to coal preparation plant | 3000 | 600 | 0.9 | 0.8 | 432 | 14.4 | 0 |
| T5 | Ridges | North of coal stockpile | 5000 | 100 | 0.9 | 0.8 | 72 | 1.4 | 0 |
| T6 | Slopes | East, south and west of coal stockpile | 245000 | 3900 | 0.9 | 0.8 | 2808 | 1.1 | 0 |
| T7 | Slope | West of Clarke Street, east of coal tailings | 4000 | 200 | 0.8 | 0.6 | 96 | 2.4 | 0 |
| T8 | Creek/ gully | East and north of coal tailings | 1500 | 300 | 0.8 | 0.7 | 168 | 11.2 | 0 |
| T9 | Ridges | Coal tailings | 248500 | 5000 | 0.9 | 0.7 | 3150 | 1.3 | 0 |
| T10 | Ridge | East of Hale Street | 5000 | 250 | 0.2 | 0.1 | 5 | 1.0 | 0 |
| T11 | Slope | East of Hale Street | 1000 | 400 | 0.1 | 0.1 | 4 | 0.4 | 0 |
| T12 | Beach/ flat | South of Surf Club | 161000 | 600 | 0.1 | 0.2 | 12 | 0.01 | 0 |
| Total | | | 795000 | 13450 | | | 7663 | 0.96 | 0 |

Table B.2 *Gwandalan Effective Coverage*

| Tran-sect | Landforms | Description | Approx-imate Area (m ²) | Approx-imate Area surveyed (m ²) | Visibility | Exposure | Effective coverage (m ²) | Sample fraction (%) | Number of artefacts within Study Area |
|-----------|--------------|--|-------------------------------------|--|------------|----------|--------------------------------------|---------------------|---------------------------------------|
| T1 | Lake shore | Shore of Lake Macquarie | 25000 | 2000 | 0.2 | 0.8 | 320 | 1.3 | 1 (and shell) |
| T2 | Flat | North-eastern part of property | 15000 | 3200 | 0.1 | 0.4 | 1280 | 8.5 | 0 |
| T3 | Creek/ gully | Unnamed creek and tributary | 35000 | 9000 | 0.4 | 0.3 | 1080 | 3.1 | 0 |
| T4 | Slope | Paddock in centre of property | 30000 | 9000 | 0.3 | 0.5 | 2700 | 4.5 | 0 |
| T5 | Ridges | Northern track, near property boundary | 20000 | 2000 | 0.8 | 0.9 | 1440 | 7.2 | 0 |
| T6 | Flat | Western track, near property boundary | 30000 | 3000 | 0.7 | 0.9 | 1890 | 6.3 | 0 |
| T7 | Ridge | North-western part of property | 15000 | 2500 | 0.2 | 0.7 | 350 | 2.3 | 0 |
| T8 | Slope | Between front gate and creek | 23000 | 1000 | 0.4 | 0.2 | 80 | 0.3 | 0 |
| T9 | Slopes | Track to north of property | 50000 | 6000 | 0.1 | 0.6 | 360 | 0.7 | 0 |
| Total | | | 243000 | 37700 | | | 9500 | 3.9 | 1 (and shell) |

Annex C

Additional Site Card Information



Aboriginal Sites Register of NSW

NPWS, PO Box 1967, Hurstville NSW 2220

Standard Site Recording Form

New Recording ☐ Additional

information ☒

| SITE IDENTIFICATION | | | | | |
|---|---|-----------------------------|----------|--------------------------------|--------------------|
| Site name | Diamond Drill Point | | | NPWS Site Number | 45-7-0183 |
| Owner/manager | Rosecorp | | | | |
| Owner Address | 51 Riley Street Woolloomooloo 2011 | | | | |
| LOCATION | | | | | |
| Location | Shore of Lake Macquarie within Rosecorp property off Kanangra Drive, immediately north of Billabourie Road. | | | | |
| How to get to the site | By boat from Lake Macquarie, or by vehicle entering the private property from Kanangra Drive and driving east along private roads to a house and playground area, just beyond which is the shore. | | | | |
| 1:250,000 map name | | | | NPWS map code | |
| AMG Zone | 56 | AMG Easting | 368105 | AMG Northing | 6333116 |
| Method for grid reference | Hand-held GPS | Map scale (if method = map) | 1:25,000 | Map name | Catherine Hill Bay |
| NPWS District | | | | NPWS Zone | Sydney Zone |
| Portion no. | | | | Parish | |
| SITE DESCRIPTION | | | | | |
| Site type(s) | Midden | | | Site type code (NPWS use only) | |
| Description of site and contents CHECKLIST: eg. length, width, depth, height of site, shelter, deposit, structure, element eg. tree scar, grooves in rock. DEPOSIT: colour, texture, estimated depth, stratigraphy, contents-shell, bone, stone, charcoal, density & distribution of these, stone types, artefact types. ART: area of decorated surface, motifs, colours, wet/dry pigment, engraving technique, no. of figures, sizes, patination. BURIALS: number & condition of bone, position, age, sex, associated artefacts. TREES: number, alive, dead, likely age, scar shape, position, size, patterns, axe marks, regrowth. QUARRIES: rock type, debris, recognisable artefacts, percentage quarried | A very disturbed midden, concluded to be an extension of the shell midden recorded in an unnamed bay north of Diamond Drill Point. As it is located on private property it would have been unable to be accessed during the survey which located the Diamond Drill Point midden. This northern extension of the midden comprises predominantly Anadara trapezia shell with some Ostrea angasi. Some of these shells are small and may be the result of reworking by the tides of the Lake, but many are of large, edible size. These shells were found eroding out of two cut sections of the Lake shore, in a black organic soil below brown sandy topsoil. One stone artefact was located, being a small fine-grained silcrete core (measuring 10 mm x 12 mm x 5 mm thick). Some shell is also present in cement in the cut sections of the Lake shore, but it is uncertain whether this shell derives from the midden. Below the cut section on the top of the sandy Lake shore are many recently, naturally deposited non-midden shells, comprising mainly clams, mussel, pipi, scallop and crustacean. | | | | |



Aboriginal Sites Register of NSW

NPWS, PO Box 1967, Hurstville NSW 2220

Standard Site Recording Form

| | |
|--|--|
| | <p>Attach photographs and sketches, eg. plan & section of shelter. Do NOT dig, disturb or damage site or contents.</p> |
|--|--|



Aboriginal Sites Register of NSW

NPWS, PO Box 1967, Hurstville NSW 2220

Standard Site Recording Form

| SITE ENVIRONMENT | | | | | |
|--|---|--------------------------------|--|-----------------------------|----------------------------------|
| Land form | Sand dune | | Aspect | | Slope |
| Mark position of the site | | | | | |
| Local rock type | Conglomerate/chert/quartz/coal | | Land use/effect | Beach/coal washery/colliery | |
| Distance from drinking water | 200 m | | Source | Unnamed first order creek | |
| Resource zone (eg. estuarine, river, forest) | Estuarine | | Vegetation | Grass, eucalypts | |
| Edible plants | | | Faunal resources (include shellfish) | | |
| Other exploitable resources (eg. ochre) | | | | | |
| Are there other sites in the locality | Yes | Are they in the Sites Register | Yes | Other site types include | Middens, stone artefact scatters |
| SITE MANAGEMENT | | | | | |
| Site condition | Disturbed | | | | |
| Management recommendations | | | | | |
| Have artefacts been removed from site | No | | When | | |
| By whom | | | Deposited at | | |
| Consent applied for | <input type="checkbox"/> | | Consent issued | <input type="checkbox"/> | |
| Date of issue | | | Consent number | | |
| SITE INSPECTION AND RECORDING | | | | | |
| Reason for investigation | Survey for proposed residential development by Rosecorp | | | | |
| Were local Aborigines contacted or present for the recording | <input type="checkbox"/> Not contacted <input checked="" type="checkbox"/> Contacted and present <input type="checkbox"/> Contacted but not present | Names and addresses | <p>Kerrie Brauer and Dene Hawken Awabakal Traditional Owners Aboriginal Corporation dene.hawken@bigpond.com klbrauer@bigpond.com</p> <p>Shane Frost, Joshua Frost and James Frost Awabakal Descendents Traditional Owners Aboriginal Corporation awabakal_to@bigpond.com</p> <p>Tracey Howie and Kevin Robinson Guringai Tribal Link Aboriginal Corporation 19 Coolabah Road Wyongah 2259</p> | | |



Aboriginal Sites Register of NSW

NPWS, PO Box 1967, Hurstville NSW 2220

Standard Site Recording Form

| | | | |
|---|--|-----------------------|-------------------|
| Is the site important to local Aborigines | Yes | | |
| Verbal/written reference sources | ERM 2007 "Gwandalan/Catherine Hill Bay Aboriginal Heritage Study". Unpublished report to Asquith & de Witt (for Rosecorp). | ASR report number(s) | C- C- |
| Photographs taken | | No of Photos attached | 2 |
| Site recorded by | Jenna Lamb | Date of recording | 22 December, 2006 |
| Address/institution | Environmental Resources Management (Australia) Pty Ltd Locked Bag 24 Broadway NSW 2007 | | |



Context of extension to 45-7-0183 (facing north west)



Anadara trapezia shell exposed in extension to 45-7-0183



Aboriginal Sites Register of NSW

NPWS, PO Box 1967, Hurstville NSW 2220

Standard Site Recording Form

New Recording ☐ Additional

information ☒

SITE IDENTIFICATION

| | | | |
|---------------|--------------|------------------|-----------|
| Site name | Moonee Beach | NPWS Site Number | 45-7-0216 |
| Owner/manager | | | |
| Owner Address | | | |

LOCATION

| | | | | | |
|---------------------------|--|-----------------------------|---------------|--------------|--------------------|
| Location | Northern end of Moonee Beach on a dune behind the rocky headland, and along a dirt track behind Moonee Beach | | | | |
| How to get to the site | By walking tracks from the eastern end of Montefiore Street in Catherine Hill Bay | | | | |
| 1:250,000 map name | | | NPWS map code | | |
| AMG Zone | 56 | AMG Easting | 372277 | AMG Northing | 6329342 |
| Method for grid reference | Hand-held GPS | Map scale (if method = map) | 1:25,000 | Map name | Catherine Hill Bay |
| NPWS District | | | | NPWS Zone | Sydney Zone |
| Portion no. | | | | Parish | |

SITE DESCRIPTION

| | | | |
|---|--|--------------------------------|--|
| Site type(s) | Midden | Site type code (NPWS use only) | |
| Description of site and contents CHECKLIST: eg. length, width, depth, height of site, shelter, deposit, structure, element eg. tree scar, grooves in rock. DEPOSIT: colour, texture, estimated depth, stratigraphy, contents-shell, bone, stone, charcoal, density & distribution of these, stone types, artefact types. ART: area of decorated surface, motifs, colours, wet/dry pigment, engraving technique, no. of figures, sizes, patination. BURIALS: number & condition of bone, position, age, sex, associated artefacts. TREES: number, alive, dead, likely age, scar shape, position, size, patterns, axe marks, regrowth. QUARRIES: rock type, debris, recognisable artefacts, percentage quarried | <p>A number of exposures of this site were recorded during a survey in 2006. Midden material was located on a sand dune behind the rocky headland, immediately to the north of a tidal inlet (third order creek). Midden shell and stone tools were observed in soil exposures at the highest point of the dune either side of the third order creek. Much of this midden was hidden by dense Bitou bush growth but it seems to extend only within the sand of the dune, in a disturbed context in darker black organic soil. Shells include predominantly Anadara trapezia, turban shells and triton shells. A number of stone artefacts and a turban shell were noted eroding from a small rocky (conglomerate), sandy hillock cliff, with naturally occurring chert and quartz, approximately 10 m north of the tidal inlet and approximately 50 m from the beach. Disturbance was evident in the form of rubbish and the remains of a campfire. A small quantity of red ochre was also observed eroding out of the adjacent hillock. The stone artefacts observed here were a chert decortication flake (70 mm x 50 mm), a silcrete distal flake (40 mm x 32 mm) and a silcrete flake (50 mm x 20 mm). The western extent of the midden material was noted at 372321E and 6329346N and the eastern extent was seen at 372230E and 6329290N.</p> <p>A scatter of stone artefacts was also observed along a dirt track behind Moonee Beach from 372082E and 6329135N to the forking of the track at 372159E and 6329053N. The scatter was observed to begin at a sign for Munmorah State Recreation Area and occurred in the disturbed context of the walking/vehicle track, on a gentle north facing slope, with exposures of coal and introduced stones, gravel and small shell fragments. Artefacts included: indurated mudstone flake (20 mm x 20 mm); two silcrete flakes (20 mm x 10 mm); tuff flake (25 mm x 20 mm); silcrete flake (30 mm x 30 mm); tuff flake (20 mm x 15 mm); silcrete proximal flake (40 mm x 30 mm); silcrete flake (20 mm x 15 mm); silcrete flake (30 mm x 20 mm); silcrete core (50 mm x 40 mm x 20 mm); tuff flaked piece (15 mm x 15 mm); broken silcrete core (30 mm x 40 mm x 30 mm); silcrete flake (30 mm x 20 mm); tuff flake (25 mm x 20 mm); tuff flake (15 mm x 10 mm).</p> | | |

Version: June 1998

Data entered by:

Date entered:



Aboriginal Sites Register of NSW

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Standard Site Recording Form

Attach photographs and sketches, eg. plan & section of shelter.
Do NOT dig, disturb or damage site or contents.



Aboriginal Sites Register of NSW

NPWS, PO Box 1967, Hurstville NSW 2220

Standard Site Recording Form

| SITE ENVIRONMENT | | | | | |
|--|---|--------------------------------|--|-----------------------------|----------------------------------|
| Land form | Sand dune | | Aspect | | Slope |
| Mark position of the site | | | | | |
| Local rock type | Conglomerate/chert/quartz/coal | | Land use/effect | Beach/coal washery/colliery | |
| Distance from drinking water | 10 m | | Source | Third order tidal inlet | |
| Resource zone (eg. estuarine, river, forest) | Beach | | Vegetation | Bitou bush | |
| Edible plants | | | Faunal resources (include shellfish) | | |
| Other exploitable resources (eg. ochre) | | | | | |
| Are there other sites in the locality | Yes | Are they in the Sites Register | Yes | Other site types include | Middens, stone artefact scatters |
| SITE MANAGEMENT | | | | | |
| Site condition | Disturbed | | | | |
| Management recommendations | | | | | |
| Have artefacts been removed from site | No | | When | | |
| By whom | | | Deposited at | | |
| Consent applied for | <input type="checkbox"/> | | Consent issued | <input type="checkbox"/> | |
| Date of issue | | | Consent number | | |
| SITE INSPECTION AND RECORDING | | | | | |
| Reason for investigation | Survey for proposed employment/commercial development by Rosecorp | | | | |
| Were local Aborigines contacted or present for the recording | <input type="checkbox"/> Not contacted <input checked="" type="checkbox"/> Contacted and present <input type="checkbox"/> Contacted but not present | Names and addresses | <p>Kerrie Brauer and Dene Hawken Awabakal Traditional Owners Aboriginal Corporation dene.hawken@bigpond.com klbrauer@bigpond.com</p> <p>Shane Frost, Joshua Frost and James Frost Awabakal Descendents Traditional Owners Aboriginal Corporation awabakal_to@bigpond.com</p> <p>Tracey Howie and Kevin Robinson Guringai Tribal Link Aboriginal Corporation 19 Coolabah Road Wyongah 2259</p> <p>Noel Drake and Cliff Grav Bahtabah LALC PO Box 3018 Blacksmiths 2281</p> | | |



Aboriginal Sites Register of NSW

NPWS, PO Box 1967, Hurstville NSW 2220

Standard Site Recording Form

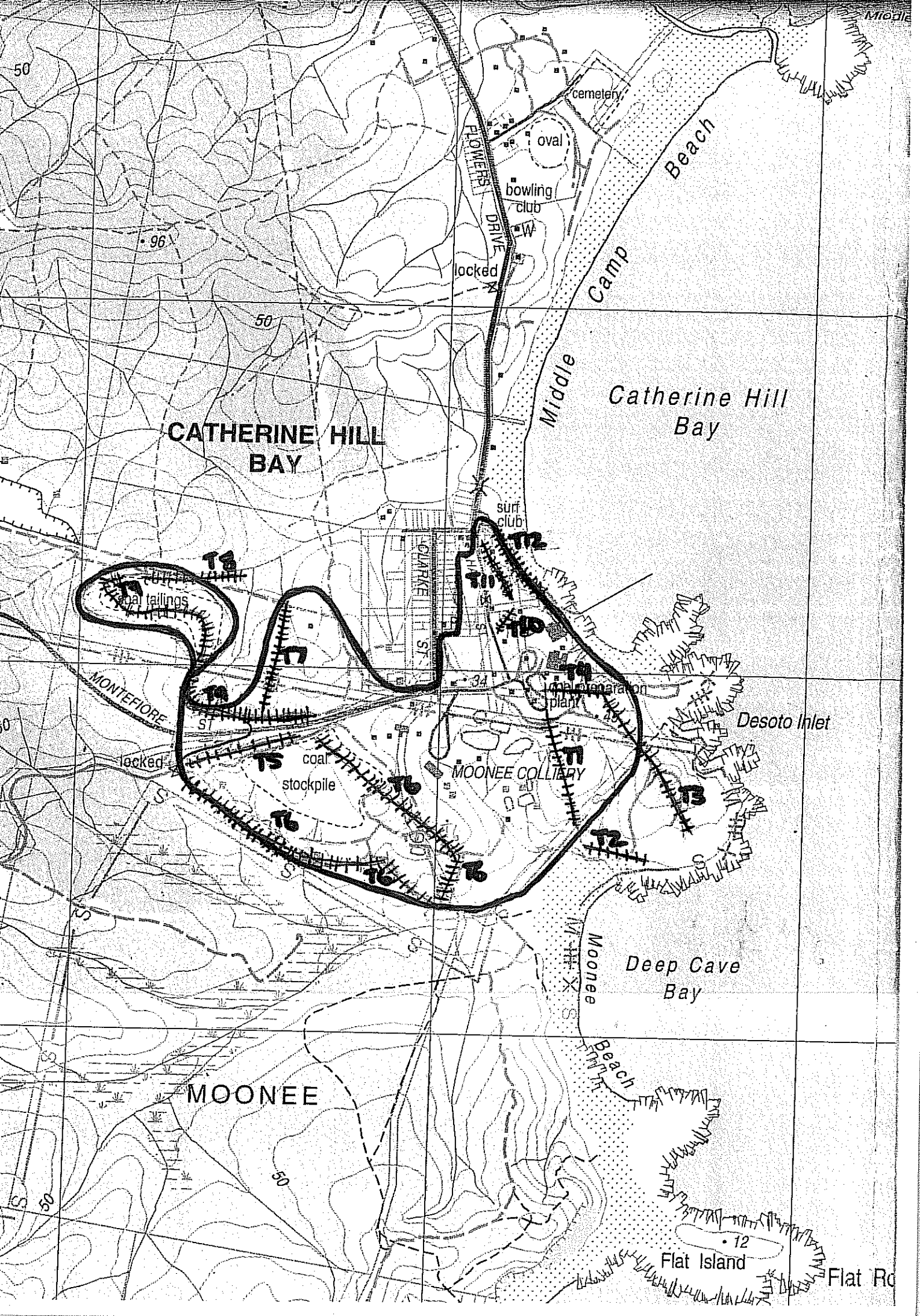
| | | | |
|---|--|-----------------------|-------------------|
| | | | |
| Is the site important to local Aborigines | Yes | | |
| Verbal/written reference sources | ERM 2007 "Gwandalan/Catherine Hill Bay Aboriginal Heritage Study". Unpublished report to Asquith & de Witt (for Rosecorp). | ASR report number(s) | C- C- |
| Photographs taken | Yes | No of Photos attached | 1 |
| Site recorded by | Jenna Lamb | Date of recording | 21 December, 2006 |
| Address/institution | Environmental Resources Management (Australia) Pty Ltd Locked Bag 24 Broadway NSW 2007 | | |

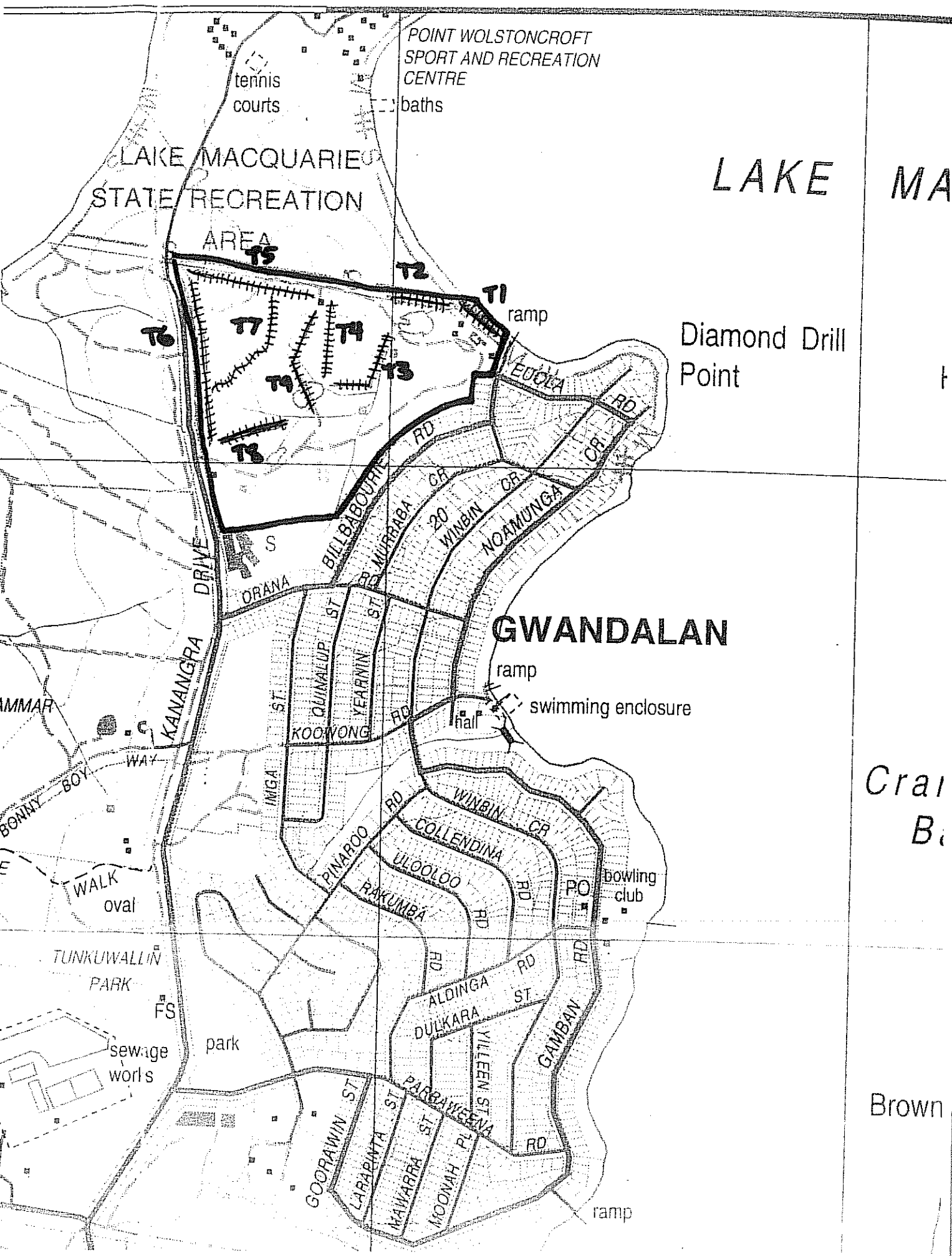


Context of stone artefacts behind Moonee Beach, at northern end of track (facing east)

Annex D

Map Of Survey Transects





Annex E

Feedback From Aboriginal Parties

ABORIGINAL HERITAGE ASSESSMENT, SITE SURVEY AND FIELD INSPECTION REPORT.

IN RELATION TO THE PROPOSED RESEDENTIAL AND
COMMERCIAL DEVELOPMENT FOR THE
CATHERINE HILL BAY & GWANDALAN AREA.

BY

SHANE FROST

FOR

**AWABAKAL DESCENDANTS TRADITIONAL OWNERS
ABORIGINAL CORPORATION**



MARCH 2007

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Recommendations

Summary

Report to **Environmental Resources Management Australia (ERM)** Regarding the Existence of Any Evidence of Aboriginal Cultural Heritage or Habitation within or close to the proximity of the Proposed Residential and Commercial development located at Catherine Hill Bay & Gwandalan.

Acknowledgements

In regard to this matter I would like to acknowledge firstly my father, Mick Frost snr. who is the oldest living Awabakal Man and for the Knowledge that has been passed onto me regarding the significant Cultural Heritage of my People the Awabakal and secondly, I acknowledge my Ancestors who under extenuating circumstances were able to survive the oppression and change to their lifestyles and yet still pass on knowledge that had been passed down for generations.

I also take the time to acknowledge the efforts taken by the Rev. L. E. Threlkeld who showed compassion towards my people and for his tireless efforts to record many of the facets of life pertaining to the Awabakal people.

Brief History of Awabakal Tribal Area Pre European Contact

The Awabakal People lived an idyllic lifestyle. They were hunter gatherers living from the land and waters. They lived in clan (family) groups which were part of a larger tribal group. They depended on the availability of the food sources that made up their particular diet, this ranged from a wide variety of animals, fish, birds and plant species such as Kangaroo, Emus, Bandicoots, Porcupine, Dingo, Lizards, Black Swan, Water hen, Parrots, and many types of Fish and Crustaceans that would be caught in the creeks, waterholes, lagoons and tributaries within the Awabakal tribal area that feed into Lake Macquarie, Hunter River and the Ocean.

The Awabakal also used the natural resources that were available to them such as caves, used simply for the purpose of shelter, these would also be used to house the artwork of ochre and charcoal that would reveal and teach that certain foods were in the area or to convey significant spiritual aspects and lore to men, women & children of the tribe. Bark obtained from trees was used to make a temporary dwelling and also used to make canoes and shields. There are certain rock formations and areas of land and water that make up significant places and contribute to the spiritual aspect of life and cultural Lore. Weapons and tools were made from the rocks, timber and natural resources found within the environment, all of these aspects culminated in the necessity for the Awabakal to maintain a balance and equilibrium within the environment for the purpose of maintaining the status quo of the tribe.

Post European Contact Period

Awabakal people are resilient and even though their history has been a time of hardship and almost annihilation of a people group, Awabakal people have survived and are still currently living in the traditional tribal area of their forefathers. These are the descendants of two particular Awabakal people. The Traditional Awabakal people only make up a small proportion of the Aboriginal people of the area. The Traditional Awabakal people have recently been making their presence known in their Traditional Lands due to a number of factors and are therefore embarking on a new phase of awareness and recognition for the Traditional Owners to once again be responsible for the Aboriginal Cultural Heritage of their Traditional Lands.

Recorded Cultural Heritage Sites (AHIMS)

The map found on page 21 of ERM's draft report reveals several sites close to the Catherine Hill Bay and Gwandalan areas where the residential and commercial developments by Rosecorp are proposed. With these sites already recorded we must therefore conclude that there is a very real possibility that if given the right conditions and more time to survey particular areas there would be a greater number of sites recorded within these areas. Due to many years of neglect and desecration of our sites and many factors, a great number of our sites have been destroyed and we Aboriginal people as a result of this, have lost valuable information about our culture and people that if protected could have been here for many more generations.

What we are saying is that just because it is not marked on a map it doesn't mean that nothing is there; it just means that it hasn't been found or if it has it has been removed or destroyed or it is a spiritual aspect of the area.

Invitation by ERM to participate in the Aboriginal Heritage Assessment.

The Awabakal Descendants Traditional Owners Aboriginal Corporation was contacted in regard to an Aboriginal archaeological sites and Cultural Heritage survey to be undertaken by Environmental Resources Management Australia on behalf of Rosecorp.

This Aboriginal archaeological survey was to be undertaken in the area of the eastern side of Kanangra Drive at Gwandalan and the northern and southern sides of Montefiore Street at Catherine Hill Bay.

An assessment was undertaken at the request of Rosecorp to assess the area for any archaeological and cultural evidence of Aboriginal occupation and use that may be revealed through the presence of artefacts or signs pertaining to these areas being a place of Aboriginal significance.

On the 20th Dec 2006 as requested by ERM a representative of our organisation was present at the commencement of the Aboriginal Heritage Assessment and sites survey along with representatives of the Awabakal Traditional Owners Aboriginal Corporation the Guringai Tribal Link Aboriginal Corporation and Bahtabah LALC and continued until the completion of the survey on the 21st Dec 2006.

Locations were inspected and assessed for artefacts or other archaeological evidence that would indicate Aboriginal presence. The methodology was that we walk designated areas such as vehicle and walking tracks, creek lines, ridge lines and spurs located within the proposed development areas. All sites were inspected and assessed with a view to any visible signs of Aboriginal archaeological evidence with my emphasis on '**visible signs**'. If areas are devoid of any visible signs this would not be a valid reason to assume that there is no evidence of Aboriginal artefacts, occupation or

Cultural Heritage due to the fact that there has been in most of the areas surveyed impact from European settlement indicating disturbance due to mining, logging and other endeavours by colonial and more recent industrial pursuits and also that only the areas that were devoid of undergrowth (leaving out substantial areas that were very dense with ground cover) were traversed. This would indicate that these areas of highly dense ground cover could well conceal archaeological evidence of Aboriginal occupation, rendering the visual aspect of the survey unreliable where no evidence or very little evidence was found.

We must remind ourselves that this area has been inhabited by Aboriginal People for thousands of years and there wouldn't be any of this area that hasn't been traversed, occupied or used in some way by our people in times past.

Areas of Significance

Catherine Hill Bay

At T2 a Midden/Artefact site which is also close to a red ochre site was located along a creek that flows out onto the northern edge of Moonee Beach. It is a site that is of particular significance to us as Aboriginal people.



Fig.1 View of Artefacts from T2



Fig.2 Another view of same Artefacts

This area, as all of the study area, would have been used by our people for the pursuit of the normality's of everyday life, but given its close proximity to the proposed development it should in our view be given priority and considered of high importance due to the detrimental effects that urbanisation (proposed development and increase in pedestrian traffic due to the location of the development) can have on an area that is a sensitive and vulnerable site when exposed to a higher level of visitation which can be expected in this case because of this proposed development.

This site on T2 is as stated in the draft report by ERM, "The extent of these three midden exposures in this sandy foredune as being approximately 40 metres from the boundary of the development/study area" (page 28, ERM Catherine Hill Bay Aboriginal Heritage Assessment February 2007)

This in turn shows that if situated just 40 metres from this development the subsequent impacts that this could have on this significant midden and artifact site could be quite detrimental and not in the interest of securing the longevity of this site in question and others close by for future generations.

Another concern with this particular site is that even though we did push our way into the dense undergrowth we could not for certain ascertain the extent of the midden or dune because we were unable to see the majority of the ground because of the thick coverage of undergrowth. With this in mind we have to conclude that this midden area is in reality an unknown quantity and because it is an unknown we should err on the side of caution in regard to future impacts.

As already stated in the draft report by ERM that "Accordingly, it is estimated that approximately 1% of the Catherine Hill Bay study area and 4 % of the Gwandalan study area was sampled during the survey". (page 23, ERM Catherine Hill Bay Aboriginal Heritage Assessment February 2007)

According to the figures quoted above of 1% sample coverage of the study area this then should be of some concern to us all knowing that these areas outside and possibly inside the study area have not been given due consideration or exploration that should be afforded to them in regard to more Aboriginal archaeological evidence that could be destroyed or lost because of the impact of development without taking into account all possible avenues to protect the integrity of these sites.



Fig.3 Artefacts close by T2



Fig.4 More Artefacts found close to T2



Fig.5 Artefacts found close to the T2 area.

Figs 1-2 were found in the midden area of T2 along with some shell material.

Fig.3-5 were found among other artifacts scattered in close proximity to the T2 site on a dirt track behind Moonee Beach from 372082E and 6329135N to 372159E and 6329053N showing that this area is significant for Aboriginal occupation and if subsequent surveys were to be conducted in the area with the view that if there was more visibility then it would be expected that more archaeological evidence would be shown to exist.

Gwandalan

An area that was discovered to be of greater significance in regard to Aboriginal archaeological evidence was found on the shore of Lake Macquarie within the study area in the form of a midden and one silcrete artifact. Due to this and other information that has been passed down to us from our ancestors about the area that confirms other very significant sites within this and surrounding areas it is considered to be highly significant to our culture as Aboriginal people. As was discussed earlier there is no reason to suggest that because there is no visible signs of Aboriginal archaeological evidence found within the proposed development area, that it does not exist!! There are oral and spiritual connections that need to be considered.

See Fig.6-8 for examples of midden and silcrete artefact found in the Gwandalan study area.



Fig.6 Midden at Gwandalan



Fig.7 Close up of shell found in midden



Fig.8 The silcrete artifact found within the confines of the midden

Flora and Fauna of the Area

There can be found many of the animals and plants that were utilised by our people within the study area. These could be elaborated on but can be generalised to indicate that many species of the flora and fauna found within the study area were used as food, medicine, tools and weapons. These cannot be excluded from the study because these, just as all other aspects connected to daily Aboriginal life and existence depended upon these resources. The two days spent in the location of the development areas revealed a splendid variety of bush foods, medicines etc.

Considering the Information Collated

On observance of the information gathered it should be noted that if according to that information there is a chance of destruction/desecration or impact within or around any sites that contain Aboriginal archaeological evidence then as we have discussed it would be better to err on the side of caution rather than disregard and negate the findings of this report and the comments and recommendations made by the Aboriginal stakeholders in regard to their cultural heritage and knowledge.

As stated previously in this report just because there is not visible evidence it does not give anyone the right to assume that nothing exists. There is also the spiritual aspect to consider in regard to this area. With Aboriginal people we not only have a physical connection to our country but a spiritual connection. This is a major part of our culture and is very real to all Aboriginal people. Much is dependant for Aboriginal people upon the oral tradition and for some of us this has been kept alive through the passing down from generation to generation of the stories from our traditional country. This aspect of tradition will not be elaborated on here for reasons that are considered culturally sensitive.

Not far to the north of this site there are recorded sites of burials, they were found when a certain area was cleared and digging work started for development to go ahead, people had been given the information that there were burials there but the information was discarded and not heeded and work went ahead, subsequently the graves were desecrated in response to the action taken and this could have been avoided if people had taken notice of the information given at the time. Could this also be the case here within the dunes that back onto or are found within the proposed development area? Who would assume responsibility if a site was desecrated?

To the west of this area (Catherine Hill Bay) and Gwandalan there was a site that for generations had been used as a corroboree ground, and great numbers of people gathered for important ceremonies. Noted in the area of the proposed development (Catherine Hill Bay) there is an area of red ochre which could have served as a point to gather the red ochre for the painting of instruments/tools and weapons along with the painting of bodies. This is also a significant area that cannot be excluded from this report.

Recommendations

- The need for an obligation by the developer for ongoing protection to be afforded the areas of concern such as the midden/artefact and red ochre sites that have been identified along T2 and surrounding area that already have been found or are within close proximity or within the boundary of the development site along with any other sites that are found and an undertaking and all responsibility taken by them and all associates whether they be contractors or employees that no Aboriginal sites are to be desecrated/destroyed or tampered with in any way and that all precautions are to be taken

during construction not to impact/destroy or damage any site that contains Aboriginal archaeological material or evidence. Further to this obligation by the developer they would be required to notify all the Aboriginal stakeholder groups if any Aboriginal archaeological evidence of any kind was subsequently uncovered or found.

- Further ongoing consultation with all Aboriginal Stakeholder groups in all aspects of this proposal. This is paramount in regard to the ongoing cultural significance and many thousands of year's occupation by the Aboriginal People along with the physical and spiritual connection to our land. In the event of the realization of this proposal it is a fact that this would cause a dislocation for us and the result would greatly disadvantage the Traditional Owners concerning all aspects of cultural heritage within and outside of the assessment survey area.
- The protection of all artifacts is paramount and the need for the Aboriginal Traditional Owners to protect what connects us to our ancestors both in the physical and spiritual would necessitate us to have final say in the event of the relocation of any known artifacts, or further discoveries, associated with our people, where made during any site works for the duration of the development.
- Taking into account that all of our Tribal Country is culturally significant to the Aboriginal Traditional Owners, that in the event of the development going ahead, all information from any documentation, surveys and oral histories is to be addressed and all areas that have particular cultural significance e.g.

'sites of physical/spiritual cultural importance and those that represent the dreaming through stories that have been passed on about these sites' to be deemed culturally significant sites of great importance and to be set aside and preserved because of the ongoing cultural relevance to the Aboriginal Traditional Owners of the area.

- The developer in cooperation with the Aboriginal Traditional Owners to design and place interpretive signage in specified areas so as to give recognition to the Aboriginal Traditional owners of the area.

Summary

Although two days were spent surveying the assessment areas and the expected key areas were surveyed to the extent that is possible in this period of time and taking into account that other surveys have been conducted in the area previously, it can still be assumed that not all culturally significant sites or artifacts can be expected to be located in such a short period of time, given the many thousands of years of occupation by our people.

It must also be taken into account the reluctance to share information by certain members of the Awabakal Descendants Traditional Owners Aboriginal Corporation of which can be expected would not be forthcoming in regard to some aspects of the cultural significance of the assessment areas and the connection of it to the surrounding areas. It should be acknowledged also that because of the sensitive nature and strict traditional cultural customs and practices preventing this information from being passed on in this assessment, it should not be disregarded in relation to this assessment. It is believed by

our people that those who shouldn't be privy to this cultural knowledge have no rights or entitlements to it.

Aboriginal Heritage Report
For
Environmental Resources Management
Gwandalan

Introduction:

Guringai Tribal Link Aboriginal Corporation, was contacted by Environmental Resources Management in regards to the proposed development of a property in Gwandalan.

Methodology:

The survey was conducted on foot by Jenna Lamb- Environmental Resources Management (ERM) Tracey Howie and Kevin Robinson - Guringai Tribal Link Aboriginal Corporation, Kerrie Bruer- Awaba Corporation and Shane Frost - Awabakal Corporation. The Survey began along the shoreline and continued in cross sections over the entire property.

Aim:

The aim of the survey was to determine the presence of any Scar trees, any Aboriginal artefacts/relics and areas of Cultural Significance with the potential of previous occupation.

Survey Findings:

A heavily disturbed middens site was located on the fore shore in front of the existing main dwelling. This has been disturbed with the constuction of the boat harbour and the leveling of the property fronage. Evidence of the middens disturbance was located through out the property. Several alterations to the natural landscape on the northern end of the property and minor alterations have been made to the centre and front-age of the property. (Facing the road)

Recommendations:

Due to the discovery of the disturbed middens site on the foreshore, and the scattering of the middens over the property, the Guringai Mob recommend that Section 87 (NPWS Act 1974) be performed on the area of the middens site and along the bottom of the elevated area above the original creek line running through the present cattle paddock as discussed with Jenna Lamb on site.

Should any Aboriginal artefacts/relics be recovered in this process, the Guringai People recommend that they be held in a keeping place or reburied in an area designated by GTLAC, Awaba Corp and Awabakal Corps.

This report was prepared and written by Tracey-lee Howie, Chairperson and Female Cultural and Heritage Officer and Kevin Robinson, Secretary and Male Cultural & Heritasege Officer for Guringai Tribal Link Aboriginal Corporation. Should you have any queries regarding this matter, please don't hesitate to contact me on (02) 4392 8743 mobile: 0404 182 049 email: guringai@kooee.com.au.

Aboriginal Heritage Report
For
Environmental Resources Management
Catherine Hill Bay

Introduction:

Guringai Tribal Link Aboriginal Corporation(GTLAC), was contacted by Environmental Resources Management (ERM) in regards to the proposed development for this area.

Methodology

The survey was conducted on foot. Those present were: Jenna Lamb- ERM, Tracey Howie & Kevin Robinson- GTLAC, Kerrie Bruer- Awaba Corporation, Shane Frost- Awabakal Corporation and two Representatives from Battabah Local Aboriginal Land Council(BLALC). The survey commenced along the shore line, followed by transacts throughout the property.

Aim:

The aim of the survey was to determine the presence of any Scar trees, any Aboriginal artefacts/relics being present and all areas of Cultural significance with potential of previous occupation.

Survey Findings:

Many stone artefacts were identified within the survey area. Due to undetailed maps, we were unable to determine whether these artefacts were within the impact zone, or part of a previously registered Aboriginal Site. We urge this issue to be investigated further to determine if these artefacts are part of the registered site or not before any conclusions formed. (Including Section 87)

Recommendations:

Due to the discovery of the stone artefacts, the Guringai People recommend that a Section 87(NPWS Act 1974) be performed along the route starting from the eastern point of the property, facing the shore line, and continuing along cross transacts of the property to ensure any Aboriginal artefacts/relics or burials can be respectfully removed before development of the area commences.

Should any Aboriginal artefacts/relics be recovered in this process, the Guringai People recommend that they be held in a keeping place or reburied in an area designated by GTLAC, Awaba Corporation and the Awabakal Corporation.

This report was prepared and written by Tracey-lee Howie, Chairperson and Female Cultural and Heritage Officer for Guringai Tribal Link Aboriginal Corporation, and Kevin Robinson, Secretary and Male Cultural & Heritage officer. Should you have any queries regarding this matter, please don't hesitate to contact us on (02) 4392 8743 mobile: 0404 182 049 email: guringai@kooee.com.au. - Tracey or (02) 4397 4175 mobile: 0408 733 820 email: kjr@binternet.com.au for Kevin.

Fax to:
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ABORIGINAL COMMUNITY COMMENTS

This form is designed to make providing feedback easier and is not obligatory. Should you wish to provide feedback in another form, you are encouraged to do so or if you wish to use this form, please complete, sign and return to ERM on the fax number listed above or at Locked Bag 24, Broadway NSW 2007.


I, Kerrie Brauer _____ (please insert your name)

of Awabakal Traditional Owners Aboriginal Corporation (please insert the name of your group)

agree with the recommendations in the survey report provided by ERM for the Aboriginal Heritage Assessment at Catherine Hill Bay and Gwandalan.

AND/OR

would like to make the following comments about the Aboriginal significance assessment and/or recommendations provided by ERM for the Aboriginal Cultural Heritage Assessment at Catherine Hill Bay and Gwandalan: Clearly there is enough evidence to indicate the presents of the Awabakal People at the Catherine Hill Bay and the Gwandalan areas. There is however a concern with the level of investigation for extensive site identification, as well as the local community response to the development at Catherine Hill Bay specifically. Furthermore, we still hold to the general consciences of further investigation regarding the size of the Midden site at Gwandalan. Finally the methodology and archaeological assessment evaluated by ERM appears comprehensive.

Signed: _____ 

Date: 25/5/07_

Position within organization: _____ Secretary / Public Officer _____

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