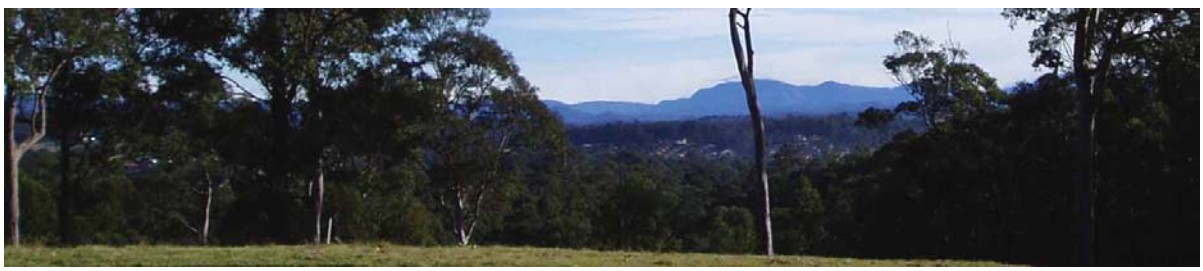
Proposed Subdivision Lot 2 Grandfathers Gully Road, Lilli Pilli, NSW
Aboriginal Archaeological Assessment

A Report to David Brewer
648 The Ridge Road
Malua Bay, NSW.

July 2005



Julie Dibden
New South Wales Archaeology Pty Limited
97 Sugarloaf Cct Palmerston ACT 2913 ph/fax 02 62622241 mob. 0427074901
julie@nswarchaeology.com.au

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1. SUMMARY

1.1 Introduction

New South Wales Archaeology was commissioned by David Brewer in May 2005 to undertake an archaeological assessment of a subdivision proposal at Lilli Pilli, NSW.

The proposal area encompasses Lot 2 Grandfathers Gully Road, Lilli Pilli. The property measures ca. 10 hectares in size and is triangular in shape, bounded by Grandfathers Gully Road to the west and with adjoining private properties abutting the south and northeast boundaries.

It is proposed to subdivide the land into 13 residential lots.

1.2 The Archaeological Study

An archaeological investigation for Aboriginal archaeological sites within the proposal area has been conducted by Andrew Pearce, New South Wales Archaeology Pty Ltd, and Robert Jessop representing Mogo Local Aboriginal Land Council. Fieldwork was conducted on 15th July 2005.

The study has sought to identify and record any Aboriginal archaeological sites which may be present in the proposal area, to assess the archaeological potential of the landform elements present and to formulate management recommendations based on the results of background research, a field survey and site significance assessment.

The New South Wales National Parks and Wildlife Service (now incorporated in the Department of Environment and Conservation) has prepared a draft document which provides a series of guidelines regarding the assessment and management of Aboriginal cultural heritage in New South Wales. This report has been prepared in accordance with those draft guidelines (NSW NPWS 1997). Additionally the study has been conducted in accordance with the Interim Guidelines for Aboriginal Community Consultation - Requirements for Applicants (DEC 2004).

1.3 Previously Recorded Sites

A search of the New South Wales Department of Environment and Conservation Aboriginal Heritage Information Management System (AHIMS) has been undertaken (AHIMS #13268). There are no recorded sites listed on AHIMS as present in the study area. However, ten previously recorded sites are listed as being present in the broader local area.

1.4 Results

The proposal area was subject to a comprehensive field survey. No Aboriginal objects (as defined under the *National Parks and Wildlife Act* 1974 as amended) such as stone artefacts or shell midden were recorded. The survey result is assessed to be an accurate reflection of the archaeological status of the area. It is assessed that the proposal area is of low archaeological sensitivity and potential.

1.5 Statutory Context

Sections 84 and 90 of the *National Parks and Wildlife Act 1974* (as amended) provide statutory protection for any physical/material evidence of Aboriginal occupation of NSW and places of cultural significance to the Aboriginal community.

The implementation of the Aboriginal heritage provisions of the Act is the responsibility of the NSW Department of Environment and Conservation. It is an offence to damage, deface or destroy an 'Aboriginal object' *irrespective of its nature or significance* without the prior consent of the Director-General of the NSW DEC.

The Act defines an Aboriginal 'object' as

> 'Any deposit, object or material evidence (not being a handicraft for sale) relating to indigenous and non-European habitation of the area that comprises New South Wales, being habitation

before or concurrent with the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains'.

1.6 Conclusions

The field survey encompassed the entire proposal area and can therefore be considered to have been comprehensive. The proposal area was found to be generally disturbed as the result of prior clearance, logging, slashing, grading, the construction a house, pool, sheds and associated structures and the creation of sealed and unsealed vehicle tracks.

The proposal area is assessed to be of low archaeological sensitivity in accordance with the predictive model of site location applicable to the study area, a consideration of prior disturbance and the results of the study. It is concluded that the proposed activity has very low potential to cause impacts to any Aboriginal archaeological sites of high archaeological significance.

1.7 Recommendations

It is recommended that (see Section 10 for a full listing of recommendations):

- There are no archaeological constraints to the proposal. No Aboriginal objects have been recorded on the proposal area.

Acknowledgements

Gratitude is extended to the following people for their assistance in this project:
David Brewer, Proponent
Robert Jessop, Mogo Local Aboriginal Land Council

Figure 1 The study area (1:100,000 topographic map Batemans Bay Sheet 8926 1st ed.)

2. INTRODUCTION

New South Wales Archaeology was commissioned by David Brewer in May 2005 to undertake an archaeological assessment of a subdivision proposal of Lot 2 Grandfathers Gully Road, Lilli Pilli, NSW.

The proposal encompasses a triangular shaped block measuring ca. 10 hectares in area, bounded by Grandfathers Gully Road to the west and adjoining private properties to the south and northeast.

The property is situated about 9 kilometres south of Batemans Bay, some 400 metres west of Circuit Beach, and overlies the Wagonga Beds geological formation believed to be of Cambrian origin (Ulladulla Geological Series Sheet S1 56-13). The site encompasses an area which formerly consisted of coastal forest. The land has subsequently been comprehensively cleared but now contains some areas of seral regrowth.

It is proposed to subdivide the land into 13 residential lots.

This Aboriginal archaeological assessment has been undertaken for the purposes of identifying whether or not any Aboriginal sites are present in the proposal area.

The archaeological assessment has been conducted in partnership with the Mogo Local Aboriginal Land Council.

In accordance with the NSW Department of Environment and Conservation (formally NPWS) guidelines for archaeological survey reporting this report aims to document (NPWS 1997):

- the subdivision proposal;
- the potential impact of the proposed subdivision construction on any Aboriginal archaeological sites which may be present within the area;
- the participation of the Aboriginal community in the archaeological assessment;
- the methodology implemented during the study;
- the environmental setting of the study area in order to establish background parameters;
- a review of archaeological and relevant literature, heritage listings on the NSW Department of Environment and Conservation Aboriginal Heritage Information Management System;
- any Aboriginal archaeological sites known to exist within the study area;
- a synthesis of local and regional archaeology;
- a predictive model of site location for the study area;
- the field survey strategy and results;
- the archaeological sensitivity of the study area and the potential impact of the development on the known and potential archaeological heritage; and
- a series of recommendations based on the results of the investigation.

This archaeological investigation has been conducted by Andrew Pearce, New South Wales Archaeology Pty Ltd, and Robert Jessop representing Mogo Local Aboriginal Land Council. Fieldwork was conducted on 15th July 2005. This report has been written by Julie Dibden and Andrew Pearce.

3. PARTNERSHIP WITH THE ABORIGINAL COMMUNITY

This project has been undertaken in accordance with the NSW DEC Interim Guidelines for Aboriginal Community Consultation - Requirements for Applicants (IGACC) (DEC 2004). The NSW DEC requires proponents to undertake consultation with the Aboriginal community "…as an integral part of the impact assessment" process (NSW DEC 2004).

The NSW DEC manages Aboriginal cultural heritage in NSW in accordance with the National Parks and Wildlife Act 1974. Part 6 of the Act provides protection for Aboriginal objects and Aboriginal Places. When an activity is likely to impact Aboriginal objects or declared Aboriginal Places approval of the Director-General of the NSW DEC under s90 or s87 of the NPW Act is required. The decision as to whether or not to issue s90 or s87 is based on the supply to the DEC by a proponent of adequate information to enable the Director-General to make a decision (NSW DEC 2004).

When administering its approval functions under the NPW Act the NSW DEC requires applicants to have consulted with the Aboriginal community about the Aboriginal cultural heritage values (cultural significance) of Aboriginal objects and places present in the area subject to development (NSW DEC 2004). Accordingly the NSW DEC requires consultation with the Aboriginal community because it recognises the following:

- That Aboriginal heritage has a cultural and archaeological significance and that both should be the subject of assessment to inform its decision process;
- That Aboriginal people are the primary determinants of the significance of their heritage;
- That Aboriginal community involvement should occur early in the assessment process to ensure that their values and concerns can be taken into account and so that their own decision making structures can function;
- That the information arising from consultation allows consideration of Aboriginal community views about significance and impact and allows for management and mitigation measures to be considered in an informed way (NSW DEC 2004).

The community consultation process as outlined in the IGACC document aims to improve the assessment by providing the Aboriginal community with an opportunity to:

- Influence the design of the assessment of cultural and scientific significance;
- Provide relevant information about cultural significance values of objects/places;
- Contribute to the development of cultural heritage management recommendation; and
- Provide comment on draft assessment reports (NSW DEC 2004).

The role of the Aboriginal Community is outlined by the NSW DEC (2004) as follows:

- The Aboriginal community is the primary determinant of the significance of their heritage;
- The Aboriginal community may participate in the process via comment on the assessment methodology, contribution of cultural knowledge; and
- The Aboriginal Community may comment on cultural significance of potential impacts and/or mitigation measures.

In order to fulfil the consultation requirements as outlined in the IGACC document the proponent has followed the following procedure:

1. Notification and Registration of Interests

   The proponent has actively sought to identify stakeholder groups or people wishing to be consulted about the project and has invited them to register their interest.

   Written notification about the project dated 18th May 2005 has been supplied to the following bodies:

   - The Mogo Local Aboriginal Land Council.
   - Eurobodalla Shire Council
   - Native Title Services
   - Department of Environment and Conservation

   Given previous advice (received from Adam Black DAA) the Registrar of Aboriginal Owners was not notified of the project given that the proposal was not situated within a NP which possessed a register of Aboriginal owners.

   In addition an advertisement has been placed in the Batemans Bay Post on 25th May 2005 providing notification of this cultural heritage study.

   The closing date of registration of interest was 8th June 2005.

   No individuals or groups registered an interest in this project.

The study area falls within the boundaries of the Mogo Local Aboriginal Land Council (MLALC). Robert Jessop has represented MLALC in this project.

4. THE DEVELOPMENT PROJECT

The following information describes the nature of the proposal and its potential impact on the landscape and Aboriginal archaeological resource.

4.1 The Proposal

The proponent proposes to subdivide the study area into 13 residential lots.

4.2 Previous Landuse

The proposal area shows evidence of having undergone considerable prior impacts. In addition to original clearance and subsequent logging, further major impacts have been carried out through extensive grading and slashing, mechanical alteration of the land surface with levelling for house, pool and associated structure construction, and the creation of sealed and unsealed vehicle tracks. Three dams have been created on the more level area of lower slopes. The property has been run as a deer farm for a period of some 10 years, between ca. 1980-1990.

4.3 Potential Impact of the Proposal on Aboriginal Sites

The proposal area is a modified and highly disturbed land surface as a result of a previous European land usage. Accordingly, any archaeological sites which may be present in the area are likely to have been disturbed.

Nevertheless, given the nature of the proposed development, it is assessed that the proposal has the potential to cause impacts to any Aboriginal objects which may be present. Disturbance will result from the construction of access thoroughfares and dwellings, and the installation of services such as water, power and sewerage.

However, given that the proposed development is to be conducted over an area which has previously sustained significant levels of disturbance, the subdivision is likely to cause no or negligible impacts upon any previously undisturbed Aboriginal heritage which may be present within the broader area.

5. STUDY METHODOLOGY

This Aboriginal archaeological study has included the following components:

- A NSW DEC Aboriginal Heritage Information Management System site search to determine whether or not previously recorded sites are present on the proposal area and to give consideration to the sites known to be present within the local area.
- A review of local and regional archaeological reports and other relevant documents in order to provide a contextual framework to the study and heritage management process.
- A comprehensive field survey of the study area aimed at recording Aboriginal sites, survey coverage data and assessing the archaeological potential of the various landform elements present.
- Documentation of survey results.
- An analysis of survey results.
- The formulation of management recommendations ensuing from the above.

5.1 Literature Review

Background research has been conducted to determine if known Aboriginal heritage sites are located in the vicinity of the development area and to assist in the formulation of a site type and locational model applicable to the study area.

The following information sources were reviewed for this study:

- NSW DEC Aboriginal Heritage Information Management System
- Relevant archaeological reports held in the NSW DEC Cultural Heritage Unit
- Batemans Bay Sheet 8926 1st ed. 1:100,000 topographic map.
- Mogo 8926-3N 3rd ed. 1:25,000 topographic map

5.2 Field Survey and Methodology

The field survey was carried out on the 15th July 2005. The proposal area was delineated and previous landuse impacts described, by the proponent David Brewer, in the field. Thereafter, field survey entailed a foot survey and can be considered to have been comprehensive. The field survey was designed to encompass as much of the proposal area as practicable and was undertaken by two people.

The survey methodology involved walking transects along the five separate landform units contained within the property, focusing particularly on those areas which afforded ground visibility. This methodology allowed for the systematic inspection of approximately 60% of the study area. Those areas which were not comprehensively traversed or directly inspected were generally obscured with a thick kikuyu grass groundcover, thus affording negligible ground surface exposure. Survey coverage is described in Section 8 of this report.

The field survey was aimed at locating archaeological material (Aboriginal objects as defined under the Act) situated on or in ground surfaces. An assessment was also made of prior land disturbance, survey coverage variables (ground exposure and archaeological visibility) and the potential archaeological sensitivity of the land. All trees assessed to be old enough to possess Aboriginal scarring were examined.

6. LANDSCAPE CONTEXT

A consideration of the landscape is necessary in archaeological work in order to characterise and predict the nature of Aboriginal occupation across the land (NPWS 1997). In Aboriginal society landscape could be both the embodiment of Ancestral Beings and the basis of a social geography and economic and technological endeavour. The various features and elements of the landscape are/were physical and metaphysical places that are known and understood within the context of social and cultural practice.

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

Additionally, geomorphological and humanly activated processes need to be defined as these will influence the degree to which archaeological sites may be visible and/or conserved. Land which is heavily grassed will prevent the detection of archaeological material while land which has suffered disturbance may no longer retain artefacts or stratified deposits. A consideration of such factors is necessary in order to formulate site significance assessment and management recommendations.

The following section provides information in regard to the landscape context of the study area.

6.1 Topography, geology, climate and vegetation

The study area is located about 9 kilometres south of Batemans Bay and some 400 metres west of Circuit Beach, Lilli Pilli. The area is situated on the eastern edge of the coastal hinterland and is comprised of moderate to steep gradient slopes which fall away from minor crests and ridgelines.

A north-south oriented spur crest, which is ca. 100 metres wide at its broadest point, traverses the middle of the proposal area, sloping gently to the north from an elevation of c. 70 m AHD, before falling away sharply short of the northern boundary. Within the property the land drops from this spur crest to the west and east at relatively steep gradients. A first order drainage depression, now dammed, extends from the southwest corner of the property to the northeast, joining an unnamed second order watercourse on the western side of Grandfathers Gully Road. At the time of survey, following a period of heavy rain, this watercourse held a small amount of freshwater in those areas nearer to the study area.

The nearest apparent source of reliable fresh water is believed to lie ca. 1 kilometre to the northwest. The absence of a source of permanent water on or near the proposal area has obvious implications in regard to the nature of Aboriginal land use of the site; occupation is most likely to have been transient and ephemeral rather than a base camp location.

The bedrock geology of the region is formed from the Wagonga Beds geological formation consisting variously of cherts, conglomerate, agglomerate, slate, siltstones, sandstones and phyllite (Ulladulla Geological Series Sheet S1 56-13). The study area itself overlies metamorphosed siltstone which is exposed in most areas where the groundcover is breached. The soil is skeletal across the study area, with the exception of drainage depressions and the lowest slopes where deeper profiles are present. Accompanying the siltstone is an occurrence of vein milky quartz gravel which, because of its irregular structure, is not suitable for the purpose of flaking stone artefacts.

The climate of the area is described as meso-thermal. Precipitation is uniformly distributed throughout the year and summers are long and mild (Kalma and McAlpine 1978).

The proposal area contains a sparse scattering of regrowth Spotted Gum (*Eucalyptus maculata*), Ironbark (*E. paniculata*) and Burrawang (*Macrozamia communis*), with stands of acacia and casuarinas on the western slope and upper reaches of the drainage line. The ground cover is dominated by kikuyu grass.

Figure 2 The topographic context of the study area (Mogo 8926-3N 3rd ed. 1:25,000 topographic map: GDA).

7. ARCHAEOLOGICAL CONTEXT

7.1 Social geography

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

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

During the Last Glacial Maximum at about 24-22,000 years ago, sea levels fell to about 130m below present levels and accordingly, the continent was correspondingly larger. With the cessation of glacial conditions, temperatures rose with a concomitant rise in sea levels. By ca. 6000 BP sea levels had more or less stabilised to their current position. With the changes in climate during the Holocene Aboriginal occupants had to deal not only with reduced landmass, but changing hydrological systems and vegetation; forests again inhabited the grass and shrublands of the Late Glacial Maximum. As Mulvaney and Kamminga (1999: 120) have remarked:

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

Occupation of the NSW south coast dates from at least 20,000 years ago as evidenced by dated sites at Burrill Lake (Lampert 1971), Bass Point (Bowdler 1970) and two sites near Buchan in Victoria; Cloggs Cave (Flood 1980) and New Guinea 2 (Ossa *et al* 1995). The Bulee Brook 2 site in the south coast hinterland ranges, excavated by Boot (1994), provides evidence that occupation of this zone had occurred by at least 18,000 years ago. These known Pleistocene occupation sites are few on the south coast; the majority of recorded sites date from the mid to late Holocene at the time when the sea more or less stabilized to its current level. It is nevertheless reasonable to assume that the Lilli Pilli area was occupied and utilised by Aboriginal people from the late Pleistocene onwards.

A deep understanding of social geography which obtained in the local area is limited given the absence of reliable information. The main sources of information relating to Aboriginal life in south east come from Howitt and Mathews, both of whom obtained information between the years 1880 and 1900. During this time Aboriginal people had adjusted to the new settler economy and accordingly, the information recorded at this time is limited in regard to pre-European social life and geography. In addition, the work of both Howitt and Mathews is complicated further by the nature of their assumptions regarding Aboriginal society; "…they were working with ethnographic models which laid emphasis on a rather limited view of social and cultural life" (Rose 1990: 8). The work of Matthews is regarded as "slight and unreliable" (Flood 1982: 8) and Howitt, who collected information by questionnaires, is often found to be contradictory.

Relying heavily on these early writers, Tindale (1974) defined 'tribal' groups in this area: according to Tindale the study area lies within the country of the Walbanga people. However, Tindale's (1974) modeling was based on an uncritical adoption of the Radcliffe-Brown model of social organization in which the band is perceived as the most important structural feature in Aboriginal social organisation. Tindale's tribal boundaries were largely defined according to what he understood to be language groups (Flood 1980: 107). Tindale's work was conceptualized according to a model of band social organisation in which the 'horde' or clan was considered to be the group which possessed political power and proprietary rights to land (Rumsey 1989: 70). The 'tribes' which Tindale determined to have existed were seen as coterminous with language groups with the implication that these groupings were territorial units.

The assumptions inherent in this conflation of language group with tribe are no longer seen to be relevant, and furthermore the concept of tribe as a territorial group is not regarded as being correct. In Aboriginal society people were multilingual rather than monolingual; therefore conceiving of language groups as bounded social groupings is not appropriate (Rumsey 1989: 74). In the Radcliffe-Brown model the land/language relationship

was seen as indirect: the estate of a tribe was seen as the aggregation of all the clan estates who spoke the same language. This relationship is know viewed to be direct – it is recognised that the importance of land/language relations in Aboriginal society is that particular languages and particular tracts of country were directly linked according to Dreaming activity (Rumsey 1989: 74-75).

Accordingly, while it was previously assumed that tribes or language groups functioned as politically cohesive corporate groups, it is now recognised that linguistic groupings do not structure the Aboriginal social and geographical landscape and that tribal boundaries are not meaningful at either a demographic or political level.

Howitt (1904) defined the Yuin tribal area as extending from Cape Howe in the south to the Shoalhaven River in the north. Howitt recorded information provided to him by Aboriginal people during the 1880's relating to socially sanctioned marriages which extended over a large area from coast to the tablelands. It is generally understood that movement of individuals and small groups occurred between the coast and tablelands and that relationships had the potential for both amity and conflict (Flood 1980; Rose 1990).

While a persons Yuin identity derived from both mother and father more fine grained aspects of identity which are likely to have prevailed include totemic identity and specific relationships to country inherited via birth rights, place of birth and so on (Rose 1990). In addition people would have traveled to and resided in different tracts of country, forging temporary groups of varying personnel and clan composition for the fulfillment of a variety of economic, familial and ceremonial purposes. Certainly archaeological conceptions of social groupings need to consider the multidimensional nature of groups based on clan, gender and age identities which are likely to have been both contemporaneously and generationally fluid.

Wesson (2000) has defined the multi-dimensional aspect of Aboriginal social geography in the region based on habitual place of residence, dominant mode of livelihood and language. The study area is situated within the area named as Kurregal/Kurial or northern fisher people. The Dhurga (Thoorga) language was spoken over a large area extending from Jervis Bay in the north to Wallaga Lake in the south and west to Braidwood (Eades 1976). Wesson (2000) defines a local variant of the Thoorga named Thurumba/Mudthung as spoken in the area in which the proposal area is situated.

European settlement of the far south coast caused immense disruption and change to Aboriginal social and economic life, as well as relationships to country. Nevertheless, in the early days of settlement Aboriginal groups had continued access to some lands and maintained many cultural and social traditions (Chittick & Fox 1997:191).

After the initial encroachment of European occupation Aboriginal people continued to find employment within the new settler economy. On the south coast during the 1800's, Aboriginal people ran their own farms, businesses and contributed significantly to pioneering; they established a valuable place within the new society (Rose 1990: 41). People continued to pursue a rich cultural life, both 'traditional' and introduced, throughout the late 1800s. A timber mill was opened at Batemans Bay by Francis Guy in 1868. The timber trade remained the backbone of local industry throughout the 1800s with steamers carrying milled timber to Sydney twice a week or more. In 1892, the year gold was discovered at Batemans Bay, the population of the township was still only 200, with the same number at Mogo and some 500 at Nelligen.

Rose (1990:42) has argued that the Yuin peoples successful efforts to peacefully accommodate Europeans and to adapt to the new society was systematically destroyed by the Aborigines Protection Board which in 1884 adopted the policy of concentrating Aboriginal people on settlements.

7.2 Previously Recorded Sites

A search of the NSW DEC Aboriginal Heritage Management Information System (AHIMS #13268) was undertaken on 24th June for an area which measures 9 km² situated between eastings 247000-250000 and northings 6036000-6039000.

Ten Aboriginal sites are recorded on AHIMS as being present within the site search area, none of which are situated within the immediate area of the proposed works. The AHIMS register only includes sites which have been reported to NSW NPWS. Accordingly, this search cannot be considered to be an actual or exhaustive inventory of Aboriginal sites situated within the local area. Generally, sites are only recorded during targeted surveys undertaken in either development or research contexts. It can be expected that other sites are present within the local area but that to date they have not been recorded and/or reported to NSW DEC.

Commonly, middens and stone artefact scatters are recorded in the Lilli Pilli area.

The following discussion in Section 7.3 will present a review of previous archaeological work in the region for the purposes of producing a predictive model of site type and location for the study area.

7.3 Archaeology – The local area

Numerous studies have been undertaken, both in an academic and consultancy context, in the broader region of the New South Wales south coast. Consideration of a predictive model of site type and site location within a geographical context relevant to the study area can be made through recourse to these previous studies. From this a contextual and relevant assessment of the archaeological potential of the study area can be formed.

The contemporary consideration by a number of researchers with regard to the nature of Aboriginal occupation on the South Coast prior to European settlement has resulted in conflicting arguments. Perceived higher site densities on the coast compared to forested hinterland contexts have led researchers, until recently, to argue that the coast was the focus of Aboriginal occupation and landuse.

Poiner (1976) proposed semi-nomadic occupation of the coast during summer and nomadic occupation of both the coast and hinterland during winter. However, this model was based on scanty evidence (Hiscock 1982) and an assumption that hinterland sites were few in number, small and widespread (Boot 2002). The strong seasonal focus of Poiner's (1976) model is inappropriate however, given that the mesothermal climate which prevails on the south coast presents only limited seasonal variation (Boot 2002).

Attenbrow (1976) argued that the major determinant of Aboriginal land use would have been the carrying capacity of the land. While Attenbrow (1976) proposed that groups would have utilized the coast and inland at all times of the year she argued that in spring, summer and autumn more people in larger numbers would have occupied the coastal zone practicing a largely marine economy and in winter smaller groups would be spread more evenly across county subsisting on a higher proportion of land animals. She predicted that areas such as coastal margins and inland valleys would have supported larger populations than the mountain slopes or foothills.

The forest-woodland environment contains large numbers of land mammals and plants (Attenbrow 1976). Poiner (1976) and Attenbrow (1976) have argued that both inland and marine resources declined in both range and abundance during winter. Poiner (1976) argued that the sea was the source of the bulk of food resources.

Vallance (1983) argued that a range of subsistence strategies would have been pursued and that these would have varied both within and between seasons and from year to year. This shift away from a seasonal model has been further expanded by Boot (1994) who has predicted that based on the Vallance (1983) model larger archaeological sites could be expected to be situated in areas where large quantities of food are available, either on a single occasion or on a regular basis, with smaller sites located elsewhere reflecting short term occupation or movement between focused occupation sites. Based on work undertaken during his doctoral research Boot (1994) has argued that the hinterland occupation was "widespread and very dense…" during the past 4000 years.

One of the preliminary consultancy projects undertaken on the south coast was conducted by Sullivan and Gibbney (1978) for the CSIRO. The study was aimed at identifying and recording locations containing evidence of Aboriginal and early non-Aboriginal occupation. Two hundred and eleven Aboriginal sites were listed during the survey. Site types recorded include shield and canoe trees, surface campsites, hatchet grinding grooves and stratified deposits including open shell middens and rock shelters (Sullivan and Gibbney 1978: 197).

From this time archaeologists began investigations in the south coast conducted within the context of the environmental impact assessment process.

The most exhaustive body of information relating to the South Coast was undertaken by undergraduate students at the Australian National University. The research focused primarily on the hinterland of the Batemans Bay region between Moruya and Ulladulla. Over 5,000 hours of field survey was undertaken covering over 1,000 kilometres of roads, tracks and exposures. In total, 2270 sites were recorded, 78 percent of which were identified in the hinterland and 22 percent on the coast (Knight 1996).

Treloar (1985) produced the first basic analysis of these recordings asserting that open artefact scatters are generally found on ridge lines and spurs where relatively level ground is available (Treloar 1985). Proximity to permanent water sources was also found to be a factor relating to long term occupation of a site.

More recently Knight (1996) compiled and analysed this archaeological data at a basic level identifying several trends in site type and distribution. Over 55 percent of the sites recorded are located on high points such as ridges or hills, peaks, spurs or saddles. Over 12 percent occur on slopes of which foot and upper slopes are most common. Valley locations comprised 6.4 percent of the total number of sites and 13.5 percent occur within the ocean shoreline, including dunes, cliff tops and headlands. Approximately 7.4 percent of sites were found to occur near estuarine features such as lake shores and river banks.

Knight (1996) also records that almost 90 percent of all sites occur on landform units with a gradient of less than 6 degrees, with 73 percent of the total occurring on gradients of less than 3 degrees. Forty percent of sites are located within 60 m of potable water, with large, complex sites occurring in close proximity to permanent supplies of fresh water in the hinterland.

Artefact scatters are notable for their small size; with over 95 percent of artefact scatters recorded containing less than 50 artefacts. The average number of artefacts found at each site was only 7. The sites are generally confined to the surface with minimal potential for subsurface deposits, with the exception of depositional contexts such as creek beds and river terraces. Larger, more complex sites tend to be located at high linear feature junctions and in close proximity to permanent fresh water. Flakes, flaked pieces and chips dominate the stone artefact assemblages representing approximately 80 percent of artefacts found. Another 14 percent is represented by hammers and anvils with formal tools such as backed blades and scrapers comprising only 5 percent of assemblages. The primary raw materials used are silcrete and volcanics with quartz, chert and quartzite being used less commonly. Knight (1996) notes a clear emphasis upon the use of locally available material in stone artefact manufacture.

A number of studies have been undertaken in the Batemans Bay area within the context of environmental impact assessment.

Hughes (1982) surveyed a 200 x 50 m area proposed for the development of a townhouse complex near Denhams Beach. The development site was located on a headland. On the southern side of the headland a stone artefact scatter and two isolated artefact finds were found. The site consisted of six artefacts made from silcrete, acid volcanic and feldspar porphyry. The two isolated finds included a quartz core and a quartz porphyry acid flake. The excellent visibility available to Hughes (1982) over the survey area led him to assert that these findings were a true reflection of prehistoric Aboriginal land use in the study area. The amount of archaeological material on this headland is considerably less than would be expected when compared with other headlands along the south coast. Hughes (1982) explains this lack of material as the likely product of restricted access to and from the area by the steep cliffs that back the platform around the headland.

Approximately four kilometers southeast of Batemans Bay Hughes (1983) surveyed an area in which Eurobodalla Site Council proposed to construct a 3.5 km road connecting George Bass Drive in the south with Glenella Road in the north. Surface visibility was found to be poor along most of the route due to a dense cover of shrubs, grass and organic litter. However, areas with greatest visibility were those considered most likely to contain sites, such as flat areas along ridges or creek banks. Ridge tops tended to have only a thin veneer of soil and no colluvium which might have buried archaeological materials. Three Potential Archaeological Deposits were identified. One was located on the bank of a creek and two others were noted on ridge tops. However despite good visibility around each of these areas, no archaeological remains were found. An artefact scatter was located on the eastern bank of Short Beach Creek, consisting of three silcrete flakes and one quartz flake. Hughes (1983) considers the identification of only one site in the survey area to support the theory that sites away from the coastline tend to be relatively scarce in number and sparse in contents.

Lance (1988) surveyed an area proposed for subdivision between Vista Avenue and Glenella Road, Batemans Bay, in grazing land and forest south of existing residential areas at Catalina Heights. The development was restricted to the ridges and slopes of this area, with creeks and valleys proposed as parkland. As such, greater attention was paid to the survey of ridge and slope landforms. Visibility was quite variable throughout the survey area, ranging from extremely poor in swampy, grassy areas to between ninety and one hundred percent on vehicle tracks and exposures. Lance recorded one site and two isolated finds. The site, located on a gentle slope beside an ephemeral creek, comprised two artefacts: one made from a porphyry pebble fragment and a broken backed blade made from an unidentified fine siliceous material. One of the isolated finds was a quartz core found in an extensively disturbed area with other fragments of machine fractured quartz. A second isolated find was a fine grained siliceous flaked piece located on a saddle ridge.

Williams (1992) surveyed an area proposed for subdivision by the Liamena Nurseries Pty Ltd at lots 22, 23 and 24, DP 1068, Clyde Road, Batemans Bay. The area is located north of the Clyde River and to the east of Clyde Road at approximately 2 km north of the Princes Highway/Clyde Road intersection. A total of four sites were located with a combined count of twenty four artefacts. Artefact types included cores and unretouched flakes

made from quartz, silcrete, quartzite, chert and volcanics. Several fragments of *Anadara* shell were also identified. The method of survey for this study comprised following existing tracks and a ridgeline which had good visibility and high potential for the identification of archaeological material. Consequently, the identification of all sites along the ridgeline was a product of such a survey strategy.

Officer and Navin (1995) investigated a 2.8 kilometre road route stretching from the Princes Highway at the Ridge Road east along Glenella Road to a section of George Bass Drive, Batehaven. The route included a range of landforms including ridge crests, simple and basal slopes and creek flats. Four artefact scatters and four isolated finds were located in the study. These scatters ranged in size from five to eighteen artefacts and were located predominantly on basal slopes fringing the flats and one scatter was found on a ridge crest saddle. Most of the thirty six artefacts located were quartz flakes and cores, with silcrete and porphyry flakes also found. One backed blade and two retouched flakes made from quartz were also located. Three of the sites found in this survey were salvaged prior to the commencement of roadworks (Officer 1997). Excavation recovered an additional thirty four artefacts not recorded during the first survey, including three microblades and a bipolar core as well as several quartz flakes and flake fragments.

Kuskie (1995) surveyed a thirty nine hectare property proposed for a rural/residential housing subdivision at Lot 8 DP 837396 located at the intersection of the Clyde Road and Princes Highway, North Batemans Bay. Kuskie (1995) recorded three artefact scatters and four isolated finds. The Liamena Sites 1, 3 and 4 consisted of artefact scatters of three, thirteen and two artefacts respectively. Raw materials included quartz, porphyry, silcrete and volcanics with a range of artefact types including flakes, cores and one blade. Sites 2, 5, 6 and 7 were isolated finds of silcrete flakes and a volcanic manuport. Very high levels of ground disturbance caused by heavy machinery and vegetation removal were noted at all sites. Sites were commonly located on simple, gentle basal slopes with two sites found along a ridge line or crest with low gradients. Most sites were noted to have a southerly aspect and to be situated within three hundred meters of potable water. Kuskie (1995) interpreted these findings as conforming to the findings of previous studies in the area.

A 1.2 hectare area proposed for the upgrade of the intersection of Old Malua Bay Road (The Ridge Road) and Burri Road (Ridge Avenue), west of Malua Bay, was surveyed by Navin (1995). The survey area is situated on a hinterland ridge crest and associated slopes at ninety meters above sea level. All ground surface exposures were inspected with forty percent of the survey area estimated to have provided effective survey coverage. One open artefact scatter was located along Ridge Road and included five artefacts made from chert, quartz and silcrete. However the construction and maintenance of existing roads were found to have impacted on substantial portions of the ridge crest. It is likely that prior ground disturbance reduced the potential for recording archaeological sites.

Navin and Officer (1997) surveyed a 130 hectare area along Long Beach, Batemans Bay proposed for subdivision for residential purposes. The locale comprises ridge crests, sides, shoulders, saddles and flat elevated ground adjacent to creek flats and basal slopes. Much of the area had been heavily disturbed by the clearance of original vegetation, logging, army exercises, gravel quarrying and the clearance of ridge crests, slopes and flats for tracks. As such, Navin and Officer (1997) note that such extensive disturbance is likely to have destroyed many surface and subsurface archaeological deposits. Visibility was substantially higher on crests and spurs than on valley floors. Nevertheless, a total of nine artefacts were located distributed as two open scatters and three isolated finds. Artefact types included flakes, a core and a thumbnail scraper. Navin and Officer (1997) note that the results conformed to expected patterns of site type content and distribution for the region. Artefact scatters exhibited low densities and technological diversity, except where they are located within close proximity to major water sources or wetlands.

Approximately seven kilometres south of Batemans Bay Williams (1997) surveyed a ca. four hectare area proposed for subdivision at Lot 5, George Bass Drive near Surf Beach. The area covers a range of topographic areas including spur crest, upper, mid and lower slopes and a drainage line. One small open artefact scatter was recorded on a spur crest and adjacent upper slope. The site was located within 125 m of ephemeral water and 1.5-2 km of permanent water. The site comprised six quartz artifacts all of which were unretouched with no formal types identified. All the artifacts tended to be small with a maximum size of 23 mm recorded. Williams (1997) noted that the identification of sites was significantly hampered by poor surface visibility.

Barber (1998) undertook a survey of an area proposed for a rural/residential subdivision on Lots 363 and 364 DP809776, Long Beach Road. The study area measured approximately fourteen hectares. Barber (1998) identified two open artefact scatters and one isolated find on a ridge crest adjacent to a wetland and a saddle overlooking the wetland. The scatters were low density with twenty artefacts found at one scatter and six at the other. Both assemblages were dominated by quartz and no specific formal tool types were identified. All three sites were found within two hundred and fifty meters of potable water with easy access to both wetland and

land based resources. Barber (1998) comments that visibility was generally poor across the area with graded tracks and eroded surfaces providing the only areas of good visibility. Survey along the edge of the wetland and drainage gully provided very low visibility due to vegetation cover. The most effective survey coverage was over the main ridge and spurs which coincided to those areas which were most highly disturbed. The identification of sites along these areas alone may therefore be a product of visibility and effective survey coverage.

Officer (1998) surveyed the proposed eastern extensions to Ridge Road at Malua Bay. In addition areas for a water reservoir, water main and associated pump station were surveyed as well as road works proposed for Burri Road nearby. In total, a stretch measuring approximately 600 meters in length was surveyed. In addition to relocating one of two previously recorded sites Officer (1998) recorded one artefact scatter comprising three quartz flakes and one rhyolite flake and an isolated find. Both sites were found in areas that had been subject to extensive disturbance primarily from the construction and maintenance of the existing roads. These tracks are noted to traverse those areas of highest archaeological sensitivity such as the ridge crests and gentle slopes where the two sites were identified. Such disturbance is noted to have hindered the ability to identify sites and heavily reduced the possibility of *in situ* archaeological deposit being present.

Kuskie (1998a) investigated five sections of George Bass Drive between Surf Beach and Batehaven. A total of 3.9 km of the George Bass Drive was surveyed, with approximately 2.8 km covering the same ground Hughes (1983) previously surveyed. Kuskie (1998a) was unable to locate any additional sites during his survey, and attributes the lack of sites to a combination of high levels of disturbance and the low archaeological potential of the landforms surveyed in relation to predictive models for the Bateman's Bay coastal hinterland.

Within this same area Kuskie (1998b) surveyed a 4-5% sample of a 100 hectare area of the Surf Beach Waste Management Site. Only one Aboriginal site was identified, comprising a porphyrytic rhyolite flake located in an easement adjacent to George Bass Drive. Kuskie judged the artefact to be an isolated discard event lost during the movement of Aboriginal groups between the hinterland and coastline along the ridgeline (Kuskie 1998b). The low level of Aboriginal evidence identified was seen to reflect low intensity usage of the area in the past as well post European ground disturbance.

Kuskie (1998c) conducted a survey immediately to the southeast of the subject study area, and in a terrain and situation which is closely comparable. Surveying ca. 18 hectares, on ridge and spur crests, moderate to steep slopes, and drainage depressions, no Aboriginal sites were located and the area was found to be of low archaeological potential.

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

Open Artefact Scatters of Stone Artefacts

Open artefact scatters are located either on the surface and/or in subsurface contexts. The raw materials used for artefact manufacture will commonly be silcrete, chert, quartzite, quartz and volcanics.

Within the local area stone artefacts will be widely distributed across the landscape in a virtual continuum, but with significant variations in density in relation to different environmental factors. Artefact density and site complexity will be greater near reliable water.

The detection of artefact scatters depends on ground surface factors and whether or not the potential archaeological bearing soil profile is visible. Prior ground disturbance, vegetation cover and sediment/gravel deposition can act to obscure artefact scatter presence.

Given the environmental context and high degree of prior ground disturbance, it is assessed that archaeological evidence in the form of stone artefacts in the proposal area will be extremely sparse and representative of background scatter generally.

Isolated Finds

Isolated finds are single stone artefact finds. Whether or not the isolated position of the artefact is a true reflection of artefact density rather than a result of low visibility variables, it is considered to be the constituent component of the background scatter present within its particular landform unit.

It is predicted that isolated finds could be located in the proposal area and will be representative of sparse background scatter.

Middens

Middens consist of deposits of shell and sometimes contain stone artefacts, bone and human burials. Middens are a commonly recorded site type in coastal areas.

Middens situated in the area will vary in their species composition which is generally a factor of environmental location. Rock platform species are typically dominate sites situated on headland contexts, while estuarine species are dominant in sites found around estuaries.

Given the distance of the proposal area from either the ocean or estuary this site type is not expected to be recorded.

Potential Archaeological Deposit (PAD)

PAD sites are soil deposits which are assessed as having a likelihood of containing high density sub-surface artefacts. In Australian contexts stone artefacts and other archaeological features are located within soil profiles rather than in deposits created by the erosion of macro archaeological features (i.e. Tells which are formed by the collapse and erosion of buildings).

PAD sites can be actively aggrading landform features, shallow soil profiles on bedrock or the floors of rock shelters. PAD sites may occur in association with a surface scatter of stone artefacts or alternatively show no evidence of archaeological surface material. Potential deposits are usually identified by their context within, or associated with, a landscape feature that was likely to have been occupied.

Given the general assessment of the relatively low archaeological potential of the study area, as well as the skeletal nature of the soil profile across most of the property, any subsurface deposit which might be present is predicted to be of extremely low density.

Grinding Grooves

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

Burials sites

Burial sites have been recorded within the wider region. The potential exists for burials to be present in coastal Holocene sand bodies. This site type is rarely located during field survey. There is however little potential for burials to be present in the study area given the underlying geology and lack of soil cover of any significant depth across the study area.

Rock Shelter Sites

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

Scarred and Carved Trees

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

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

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

Several scarred tree sites are present in the local area. The study area has been extensively cleared and accordingly, while not impossible, this site type is unlikely to have survived and therefore be extant in the study area.

Stone Quarry and Procurement Sites

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

8. SURVEY RESULTS

8.1 Survey Coverage Variables

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

Two main variables were used to measure ground surface visibility during the study; the area of ground exposure encountered and the quality and type of ground visibility (archaeological visibility) within those exposures.

The two visibility variables estimated during the survey are defined as follows:

Average Ground Exposure – a percentage estimate of the total area of ground inspected which contained exposures of bare ground; and

Average Archaeology Visibility – a percentage estimate of the average levels of potential archaeological surface visibility within those exposures of bare ground.

Based on the two visibility variables as defined above, a net estimate (Net Effective Exposure) of the archaeological potential of exposure area within a survey unit has been calculated. The Effective Survey Coverage (ESC) calculation is a percentage estimate of the archaeological potential of the ground surveyed; this calculation is defined and required by the NPWS. The ESC provides an estimate of the proportion of the total study area which provided a net 100% level of ground surface visibility (with archaeological potential).

Survey coverage is described in Table 1 below. Five archaeological terrain units are present in the study area. Their location is shown on Figure 3. The survey area measured ca. 10 hectares. Approximately 6 hectares of the property were subject to comprehensive visual inspection, which was focused on those areas where ground exposure was present. Ground exposure of the area surveyed is estimated to have been ca. 0.27 hectares with 0.1 hectares, or ca. 1000 m² of that area, assessed to have afforded archaeological visibility. Accordingly, effective survey coverage is calculated to have been ca. 1.02% of the total survey area.

Plate 1 Survey Unit 1 looking south.

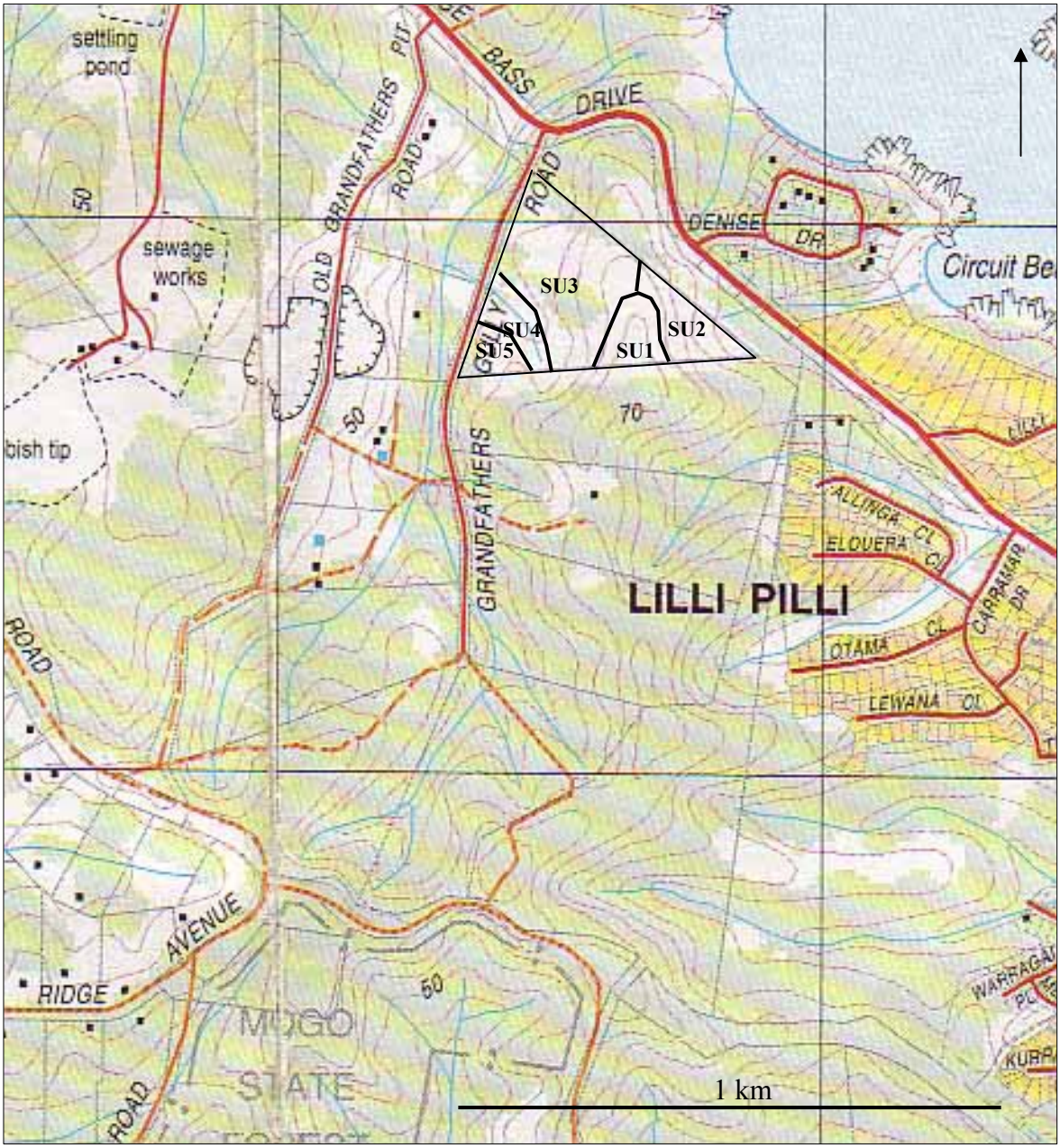

Figure 3 Location of survey units (Mogo 8926-3N 3rd ed. 1:25,000 topographic map: GDA).

Survey Unit	Terrain unit	Exposure type	Survey Unit Area	Area surveyed	Ave. ground exposure	Ave. arch visibility %	Net Effective Exposure	ESC	Artefact recordings	Predicted potential density of undetected artefacts
SU1	Spur crest 2-4º slope to north (Plate 1)	Bare earth; vehicle tracks; graded areas; exposures under trees	1.25 ha	70% 0.875 ha	4% 0.04 ha	40%	0.01 ha	1.12 %	0	Low (grossly disturbed, with existing house, pool, sheds, etc)
SU2	Spur side slope 6-17º slope to 60º (Plate 2)	Bare earth; extensively graded areas; sheet erosion; exposures under trees	1.9 ha	60% 1.14 ha	8% 0.09 ha	40%	0.036 ha	1.92 %	0	Very low (steep and generally grossly disturbed)
SU3	Spur side slope 6 -13º slope to 220º	Bare earth; extensively graded areas; graded vehicle tracks; sheet erosion; exposures under trees	5 ha	60% 3 ha	4% 0.12 ha	40%	0.048 ha	0.96 %	0	Very low (steep and generally grossly disturbed)
SU4	Drainage depression 2-10º slope to 300º (Plate 3)	Bare earth	1.2 ha	50% 0.6 ha	1% 0.006 ha	20%	0.001 ha	0.1 %	0	Very low
SU5	Spur side slope 2-8º slope to 30º	Bare earth; graded areas	0.6 ha	60% 0.36 ha	4% 0.014 ha	40%	0.006 ha	0.96 %	0	Low (generally disturbed)
Total	-	-	9.95 ha	5.975 ha	0.27 ha	-	0.101 ha	1.02 %	0 artefacts	-

Table 1: Survey Coverage Data

8.2 Results

No sites or areas of archaeological potential were recorded during the survey. The proposal area has been found to be highly disturbed as a result of prior European land usages, particularly impacts resulting from clearance and logging, landscape modification associated with building and pool construction, and more recent grading of the ground surface over large areas of the land. Accordingly, the proposal area is assessed to be of low archaeological potential and sensitivity.

8.3 Discussion

No Aboriginal sites were located during this survey.

However, the effective survey coverage achieved during the survey is assessed to have been relatively low. Because the ESC is assessed to have been possibly insufficient for the purposes of fully characterising the nature of the archaeological resource contained within the study area solely by means of surface survey, recourse to the predictive model should be made in order to typify the archaeological nature and sensitivity represented in the landform units surveyed.

The majority of survey units present in the study area are assessed to be of very low archaeological potential based on various factors including steep gradients, prior disturbance, the distance from water and the skeletal soils which are present across the greater part of the property.

Given the absence of a reliable fresh water source in the study area it is predicted that the area was not subject to sustained Aboriginal habitation. Aboriginal habitation sites are expected to be present in closer proximity to permanent watercourses. It is predicted that the land occupied by the study area itself is likely to have been utilised for hunting and gathering forays away from base camps. Such short term events are unlikely to result in the formation of large, high density or complex archaeological sites. It is predicted instead that such land usage would result in low levels of artefactual discard.

The spur crest which bisects the site is predicted to be the most archaeologically sensitive of the five landform units present in the study area given its elevated and relatively level situation. However, its remoteness from a reliable supply of freshwater and the limited resources that would have been present in the area means that the landform would not have been a focal point of occupation in the landscape and it is highly unlikely to have been utilised for long term habitation.

In addition, it should be noted that significant prior disturbance has been enacted not only throughout this survey unit but across the majority of the proposal area, and in so doing compounding the assessment that generally the proposal area is of low archaeological sensitivity.

Accordingly the survey results are assessed to be a reliable indication of the archaeological status of the proposal area. It is considered that the proposed subdivision is unlikely to cause impacts to any Aboriginal objects or archaeological deposits of significance.

Plate 2 Survey Unit 2 looking north west.

Plate 3 Survey Unit 4 looking north

9. STATUTORY INFORMATION

Two pieces of legislation provide the primary basis for Aboriginal heritage management in NSW, the National Parks and Wildlife Act 1974 (NPW Act) and the Environmental Planning and Assessment Act 1979 (EP&A Act) (NPWS 1997).

The Environmental Planning and Assessment Act 1979 (EP&A Act), its regulations, schedules and guidelines provides the context for the requirement for environmental impact assessments to be undertaken during land use planning (NPWS 1997).

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

An 'Aboriginal object' is defined as

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

Under s90 of the NPW Act a person must not knowingly destroy, damage or deface or knowingly cause or permit the destruction, damage or defacement of an Aboriginal object or Aboriginal Place without first obtaining the consent of the Director-General of the NSW DEC. Consents which enable a person to impact an Aboriginal object are issued by the NSW DEC upon review of a s90 application.

Under s87 of the NPW Act a person must not excavate or disturb land for the purposes of discovering an Aboriginal object without first obtaining the consent of the Director-General of the NSW DEC. Permits which enable a person to excavate land for the purposes of determining whether or not an Aboriginal object is present are issued by the NSW DEC upon review of a s87 application.

10. RECOMMENDATIONS

The following recommendations are made on the basis of:

- Legal requirements as set out under the National Parks and Wildlife Act 1974 (as amended) which states that that it is illegal to knowingly destroy, damage or deface or knowingly cause or permit the destruction, damage or defacement of an Aboriginal object or Aboriginal Place in NSW without first obtaining consent of the Director-General of the NSW Department of Environment and Conservation (see Section 9 Statutory Information).

- The results of the investigation as documented in this report.

- An analysis of the survey results.

It is concluded and recommended that:

1. There are no archaeological constraints to the proposal.

2. No Aboriginal objects were recorded during the survey on the proposal area.

   Given the absence of a source of reliable water and the distance of the site from other resource zones it is predicted that the study area would have been utilised for low levels of Aboriginal occupation and that this would result in correspondingly low levels of artefact discard.

   The survey results are assessed to be a reliable indicator of the archaeological status of the study area. Accordingly it is recommended that further investigation in the form of subsurface test excavation is not warranted in respect of the proposal.

3. Copies of this report should be forwarded to:

   Mogo Local Aboriginal Land Council
   c/o Post Office
   Mogo NSW 2536

   Dr Phil Boot
   Archaeologist
   South Branch
   Environment, Protection and Regulation Division
   Department of Environment and Conservation
   PO Box 2115
   Queanbeyan NSW

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MOGO LOCAL ABORIGINAL LAND COUNCIL

Post Office Mogo, NSW 2536
Telephone: (02) 4474 5228
Facsimile: (02) 4474 5219
ABN: 25 184 322 074

17th August 2005

Julie Dibden
97 Sugarloaf Ct
Palmerston ACT 2913

Dear Julie,

The Mogo Local Aboriginal Lands Council accepts the recommendations of Robert Jessop who inspected the site at Grandfathers Gully, Lilli Pilli for David Brewer.

The property was inspected on the 15th of July 2005.

The results of the inspection carried out are as follows:

- There were no Aboriginal cultural heritage relics (eg: shell middens / stone tools / tree scaring) sited.

Should you require further information please don't hesitate to call Mogo Local Aboriginal Land Council.

Yours truly,

Charity Potts

Charity Potts
Treasurer.