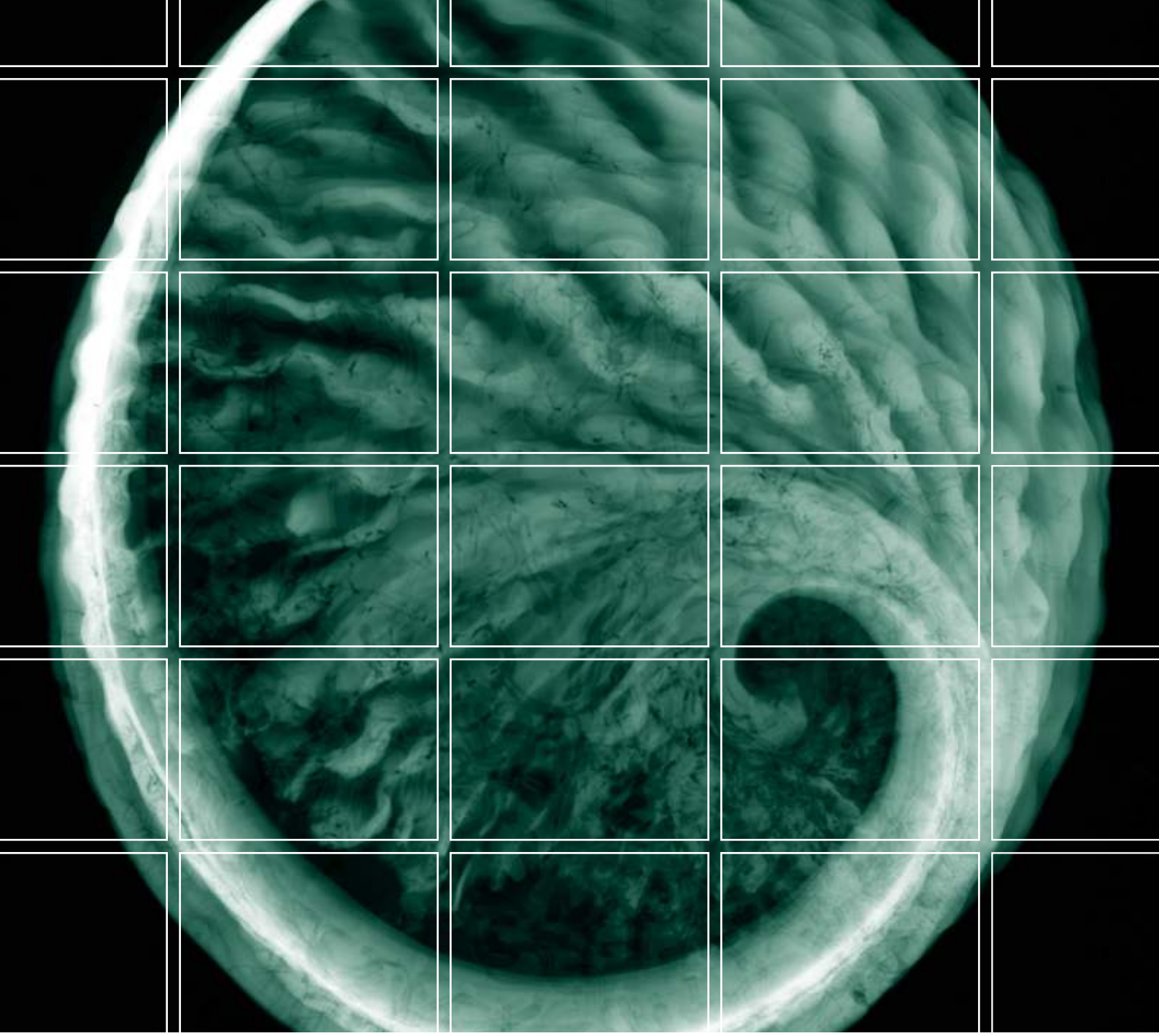

Seascape Grove, Belle O'Connor Street, South West Rocks

Aboriginal Heritage Assessment

WB and ME Walls

May 2007

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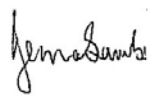
Signed:	
Date:	*22 May, 2007*
Approved by:	*Christine Allen*
Position:	Project Director
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Date:	*22 May, 2007*

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FINAL REPORT

WB and ME Walls

Seascape Grove, Belle O'Connor Street, South West Rocks
Aboriginal Heritage Assessment

May 2007

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1 INTRODUCTION

Environmental Resources Management Australia (ERM) was commissioned by WB and ME Walls to prepare an Aboriginal heritage assessment under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act) for a proposed residential subdivision of 'Seascape Grove' on Belle O'Connor Street, South West Rocks (the study area). This assessment follows advice from the Director-General of the Department of Planning (DoP).

This report presents the results of archaeological survey conducted in 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 determine whether predictive modelling indicates potential heritage issues on the study area;
- 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 any Aboriginal heritage values.

1.2 STUDY AREA AND PROJECT BACKGROUND

The study area comprises approximately 30 ha on Lot 21 DP 1071657, Belle O'Connor Street, approximately 2 km south of the town centre of South West Rocks on the mid-north coast of New South Wales (refer to *Figure 1* in the EAR [ERM 2006a]). Situated approximately 2 km directly south of the nearest coastline (Trial Bay), the study area cannot be seen from locations close to the beach or from coastal foreshore areas. The study area is part of the existing rural property 'Waldel Park', which also contains Lot 22 DP 1071657.

The proposed development is a 108 lot residential subdivision to be constructed in four stages (Precincts A-D) (refer to *Figure 2* in the EAR). Subdivision on Lot 22 is not proposed, however bushfire access, stormwater controls and some minor filling is proposed, to form the boundary of the developed area. Specifically, the application for project approval includes:

- 108 residential lots with a minimum size of 680 m^2 and an average of 739 m^2, to be constructed over four stages (precincts);
- approximately 2 ha of open space in a reserve dedicated to on-site stormwater treatment and detention, with some areas for passive recreation.
- a public road network with access to Belle O'Connor Street, which allows for potential development to the east;
- a bushfire access perimeter road immediately east of the residential lots and contained within a right-of-way on Lot 22;
- creation of a Stormwater Quality System including a basin in the north of the study area and grassed swale in an easement on Lot 22, along the periphery of the subdivision;
- construction works related to providing physical infrastructure and services;
- a secondary unsealed access road to Arakoon Road for use during construction and to provide emergency bushfire access to the study area; and
- incorporation of water sensitive urban design measures and landscaping of public space in streets and parks.

The precincts would be developed in alphabetical order as indicated in *Table 1.1* and illustrated in *Figure 2* of the EAR.

Table 1.1 Staging of Construction, Seascape Grove Stage 1(b)

Precinct	Number of New Allotments
A	25 including 1 Stormwater/Open Space Reserve
B	31 including 1 Open Space Reserve
C	35
D	19
Total 108 Dwelling Allotments + 2 reserves	

1.3 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 the archaeological survey.

Chapter 5 provides an assessment of the construction impact on Aboriginal heritage in the study area.

Chapter 6 lists legislation guiding Aboriginal heritage management.

Chapter 7 includes Aboriginal heritage management recommendations.

1.4 PROJECT TEAM

Jenna Lamb (ERM Archaeologist) conducted the heritage field survey, authored the report, and took all photographs. Neville Baker (ERM Heritage Team Leader) and Christine Allen (ERM Senior Planning Consultant) completed technical reviews of the report.

2 BACKGROUND

The purpose of this chapter is to provide contextual information for use in developing a predictive model of site location for the study area.

2.1 ENVIRONMENTAL CONTEXT

2.1.1 Terrain

The study area is located in mid-north coast New South Wales, specifically the Macleay Coast. There is a complex pattern of ridges and valleys in this area, and coastal beach, dune and lagoon barrier systems reach their maximum development at Myall Lakes (Morgan 2001). The regional landscape is dominated by relatively flat coastal and riverine plains of the Macleay Valley, grading to the steep slopes of the Great Dividing Range to the west. The Macleay River meanders through coastal lowlands as it approaches the river mouth near South West Rocks. The coastline is dominated by prominent headlands, long sandy beaches and dunal wetlands. Several ranges of hills occur along the coastline. Prominent landscape features include Smoky Cape Range (consisting of several steep hills adjacent to the coastline), low-lying areas of the Saltwater Lagoon/Creek catchment, and the Macleay River floodplain to the west.

The study area itself is undulating, sloping down from the west and south, to a flood prone flat at the east of the study area. Artefacts are unlikely to remain in context on the slopes but if present, will have washed down the slopes towards the flat. Further, it is unlikely that past Aboriginal people would have camped with any frequency in the study area, due to the flood prone nature of the eastern part, and the sloping nature of the remainder of the study area. Any Aboriginal use of the study area is likely to have been in the form of occasional movement through the area on the way to different environmental foci. This indicates that any archaeological evidence will be sparse and scattered (such as isolated finds; see *Table 2.1* for a description of site types), if present at all, and is unlikely to make a contribution to archaeological knowledge in the South West Rocks area.

2.1.2 Drainage

South West Rocks is a coastal town located near the mouth of the Macleay River. The commercial centre of South West Rocks is located adjacent to Trial Bay, the Macleay River floodplain and the coastal swampland of the Saltwater Lagoon/Creek catchment.

Table 2.1 Aboriginal Archaeological Site Types

Site types	Definition
Stone artefact scatters	Stone artefact scatter 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.
Isolated finds	Sites consisting of only one identified stone artefact, isolated from any other artefacts or archaeological evidence. They are generally indicative of sporadic past Aboriginal use of an area.
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.
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.

Spencers Creek, which flows into the Macleay River (approximately 3 km west of the study area), is located approximately 750 m south west of the study area, and the coast is located approximately 2 km to the north. These distances are remote enough that there is no environmental focus which would have made the study area a useful place for past Aboriginal people to camp.

The study area drains to the north east, where the flat land is subject to inundation. This flood prone area would not have been a favourable place for past Aboriginal people to camp. An isolated, intermittent stream is located approximately 100 m to the east, and swampy land is located approximately 500 m to the south east and 1 km to the north east. Swamps provide both water and food resources, but given the distance of the study area from these swamps, it is unlikely that the best use of these resources would have been made by Aboriginal camping within the study area.

2.1.3 Land Use and Disturbance

The study area is currently subject to rural land use. An existing dwelling and ancillary buildings, including caretaker's residence, are located to the north west of the proposed development area. Two water supply reservoirs are located in separate allotments (Lot 1 DP 560726 and Lot 1 DP 645213) on the ridgeline to the south of the study area.

The study area is adjacent to the South West Rocks Golf Course (to the northwest), an existing residential subdivision ('Oceanside Estate', to the west) and rural and rural residential land to the south, east and northeast. The study area is located to the south and east of a number of new roads, including Belle O'Connor Street, Burrawong Drive and Rosedale Avenue, in South West Rocks. 'The Rocks' shopping centre is located approximately 250 metres southwest of the study area. Spencers Creek passes approximately 1 km to the south west of the study area. Hat Head National Park, which includes wetlands, is located to the south. In short, the existing land use in the locality is predominantly low density residential development surrounded by significant areas of habitat protection. Relatively minor areas of light industrial, commercial and recreation are present.

The study area has been disturbed by rural residential uses. The study area has been extensively ploughed, and used as a pineapple plantation, in the last forty years (Andrew Tulloch pers. comm. 15 May 2007). The property is presently used for grazing of livestock including cattle and horses.

A large pile of soil from construction of an adjacent housing development was present in the study area during the site visit. This pile was useful in determining soil types and subsurface material in the immediate vicinity of the study area. A dam was present in the west of the study area

While much of the study area was covered with grass during the site visit, there were a number of areas throughout the site which had been subject to erosion and had exposed the ground surface. Patches of vehicle tracks remain in the study area, notably in the north west and north east. An area used for burning vegetative debris has exposed some of the ground, and vehicles used in transporting such debris had torn up parts of the ground, in this area. In the east of the study area, the land is subject to inundation. Parts of the ground surface had been exposed in this area, and some soil had clearly been introduced to attempt to fill some of the inundated areas (see *Photograph 2.1*).

In summary, the entire study area appears to have been subject to some form of ground disturbance as a result of rural residential land use over a period of time, the extent of which varies across the study area. The implications of this disturbance limits the potential for heritage to be found in the study area, as any items are likely to have been destroyed or displaced over the period. However, the disturbance of the topsoil in a number of places within the study area, the eroded exposures and the nature of the slopes, suggest that any Aboriginal sites or artefacts are likely to have been exposed at some stage, and may be found during the survey if they are present.

Photograph 2.1 Example of introduced soil (orange in colour) in north east of site

2.1.4 Geology

The Macleay Coast has extremely complex faulted terrain where the New England Fold belt over-thrusts the Sydney Basin. The main rocks present are Silurian and Devonian slates, quartzites and acid volcanics, Carboniferous mudstones and lithic sandstones, and less deformed Permian shales and sandstones, as well as Quaternary coastal sands (Morgan 2001). The study area itself has a number of individual stone outcrops which appear to be coarse conglomerate with large quartz inclusions (see *Photograph 2.2*). Such coarse-grained stone is generally unsuitable for stone artefact manufacture and engravings. Some small pieces of unmodified chert and quartz were noted on the property, but these appear to occur sporadically in the gravels of the region. The outcrops are not of a nature suitable for shelter sites, and no creeklines are present in the study area. Therefore, axe grinding grooves, engravings, stone quarry sites and shelter sites are not expected to occur in the study area.

The soils on the Macleay Coast include red brown structured loams on basalt, deep siliceous sands and very well developed podsols in dunes (particularly the older high dunes), and organic sands in estuaries (Morgan 2001). The study area itself showed brown loamy clay topsoil overlying orange clay, with large quartz inclusions (as seen in the conglomerate stone noted in the study area). The pile of soil dumped from excavation during previous nearby construction exhibited this type of soil in addition to gravels and fragments of shale, conglomerate, quartz and chert. This type of soil is not conducive to retaining artefacts, in stratified deposits or otherwise.

Photograph 2.2 Stone outcrops seen in the study area

2.1.5 Flora And Fauna

Macleay Coast vegetation consists of wet sclerophyll forest with white mahogany, small-fruited grey gum, Sydney blue gum, blackbutt, tallowwood and brush box, with white gum, blackbutt, forest red gum and grey box on dry open flats, and a coastal complex of banksia, paperbark, smooth-barked apple, and blackbutt with numerous shrubs and areas of heath and swamp on dunes, and mangroves in estuaries (Morgan 2001).

Native vegetation in the study area is characterised by tall eucalypt forest in areas not subject to historical clearing for rural residential purposes, and grass cover over much of the area. The presence of some mature trees allows for the possibility of scarred or carved trees being located in the study area. The visibility was reduced to some extent by the grass.

2.1.6 Implications For Archaeology

The environmental context outlined above has a number of implications for archaeology in the study area. Firstly, the presence of mature trees makes it possible that scarred or carved trees will be located. Secondly, the lack of suitable stone outcrops denotes that quarries, axe grinding grooves and stone engraving/art sites will not be found in the study area. Thirdly, the topography of the study area and the lack of permanent water sources in close proximity to the study area indicate that isolated finds are the site type most likely to occur in the study area. While the disturbance that has occurred throughout the study area limits the potential for intact sites to be present, it also makes it likely that any sites that are present will be evident to some extent in the disturbed topsoil.

2.1.7 Regional Aboriginal Archaeological Context

NSW Department of Environment and Climate Change (DECC, formerly Department of Environment and Conservation) library was visited to understand archaeological sites in the broader region. This review was targeted to those reports relevant to the study area. 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.

From this review, it is noted that most archaeological sites located in the South West Rocks area are middens. Middens in estuarine contexts, which includes the study area, are mostly composed of cockle (*Anadara trapezia*) and oyster (*Saccostrea commercialis*), whereas coastal marine middens are dominated by the open shore (beach) species pipi (*Donax deltoides*) (Collins 1995). Sites comprised solely of stone artefacts are rarely found in the South West Rocks area, with most stone artefacts found in the context of shell middens (Collins 1995). The dominant raw materials for these artefacts are local volcanic stone, sandstone, quartz, mudstone, chert and basalt, with artefact types including flakes and flaking debitage as well as backed blades (Appleton 1998; Collins 1995; Collins & Griffin 1993).

In 1991, Davies (in Kuskie 1993:8) conducted an archaeological investigation of a fibre optic cable to be installed between Newcastle and Brisbane. She predicted that, based on previous archaeological and ethnographical research, Aboriginal consultation and landform information, sites are most likely to occur on elevated ground or immediately next to watercourses in river and floodplain units. In hilly/undulating terrain sites are most likely to occur next to watercourses or on level ground along ridges (ridge crests, saddles and spurs). In the coastal zone of NSW, in which the study area is located, middens are likely to occur in foredunes and parts of backdunes adjacent to wetlands. In estuaries and in the coastal floodplain, middens are likely to occur on elevated ground adjacent to watercourses or wetlands.

Table 2.2 Review of Relevant Archaeological Reports from the DECC Database

Author of Report	Distance from study area	Type of development/report	Locality	Sites Recorded
Collins (2004)	Adjacent to the north	Local Environmental Study for proposed residential subdivision.	Lots 509 and 19 on DP850963, Lot 52 on DP831284 and Lot 84 on DP792945, Phillip Drive, South West Rocks.	None.
Appleton (1998)	200 m west	Aboriginal heritage assessment of proposed shopping centre.	Lot 231 on DP754396, Gregory Street.	None.
Enviro-sciences (1993)	200 m west	Aboriginal heritage assessment of proposed fibre optic cable between Clybucca and South West Rocks.	Between Clybucca and South West Rocks townships.	None.
Collins & Griffin (1993)	500 m south west	Archaeological assessment and ground penetrating radar testing for burials of proposed Aboriginal cemetery site.	Spencerville.	Five exposures of midden shell and stone artefacts within 2000 m² area; no burials.
ERM (2006b)	700 m south	Aboriginal heritage assessment of proposed residential subdivision.	Corner of Gregory and Arakoon Roads, South West Rocks.	None.

Author of Report	Distance from study area	Type of development/report	Locality	Sites Recorded
Collins (1995)	2.5 km north west.	Aboriginal heritage assessment and midden conservation of proposed Waterview Heights Estate housing subdivision.	Waterview Heights Estate, Lot 596 on DP807665, South West Rocks.	12 shell middens (Dodds sites 1-12).
Coleman (1979)	4 km south east	Excavation of two middens.	Smoke Cape.	Smoky Cape sites 1 and 2, predominant shell found was pipi, cartrut, warrener and chiton.
Kuskie (1993)	10 km south west	Archaeological survey of proposed fibre optic cable between Clybucca Creek and Coffs Harbour.	Between crossing of Clybucca Creek and McAndrews Drain, and Coffs Harbour.	None between Clybucca Creek and Eungai.
Mills (1997)	10 km south west	Archaeological survey of proposed trans-mission line between Kempsey and Coffs Harbour.	Between Kempsey and Coffs Harbour, including Clybucca.	None in the Clybucca area.

2.1.8 Local Aboriginal Archaeology

A search of the Aboriginal Heritage Information Management System (AHIMS) Aboriginal Sites Database at DEC within a 10 km x 10 km area centred on the study area was undertaken on 14 May 2007. The search identified 101 recorded sites (*Figure 2.1*), which comprised 88 middens (four of which are associated with burials, one associated with a stone artefact scatter, one associated with a burial and a stone artefact scatter, and one associated with a burial and an Aboriginal resource/gathering site), four burials, three stone artefact scatters, two natural mythological (ritual) sites, one Aboriginal resource/gathering site, one bora/ceremonial site and carved tree, one contact mission and one carved tree. Midden exposures cluster along the coast and along Spencers Creek (which passes approximately 1 km to the south west of the study area). The closest site to the study area is a midden located approximately 500 m to the south west, and a burial and midden located slightly further away.

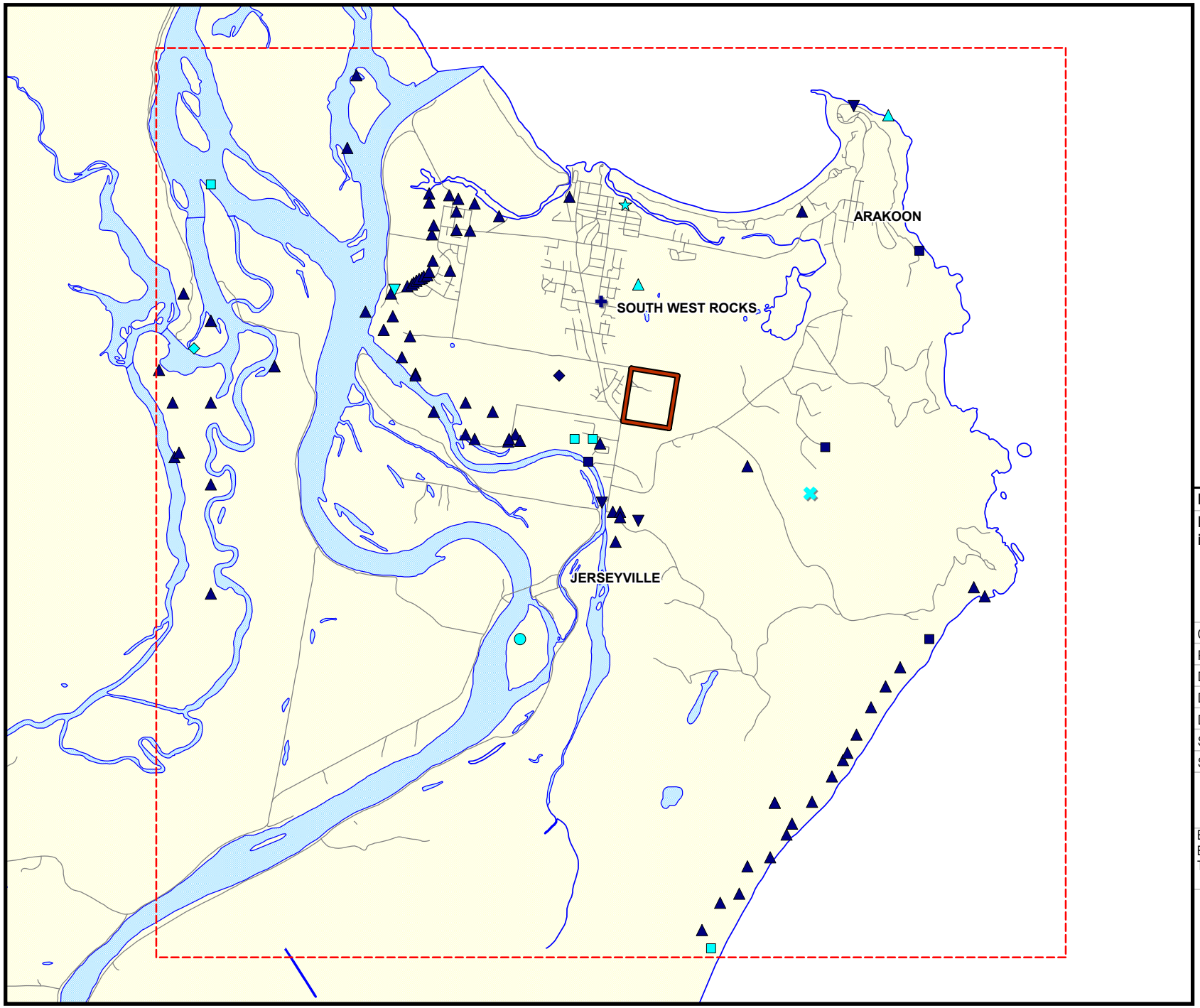
2.1.9 Implications For The Study Area – Predictive Model Of Site Location

Collins (2004) states that sites in the South West Rocks area "display a very strong association with well-drained ground, particularly foredunes and footslopes/natural rises bordering estuarine channels and swamps". Given the distance of the study area from estuarine channels (such as Spencers Creek 750 m away) and swamps (500 m to 1 km away), and the lack of well-drained ground, particularly in the north east of the study area, it is unlikely that sites will be located in the study area. Further, the distance of the study area from the above-mentioned environmental foci makes it unlikely that the best use of these environmental resources would have been made by Aboriginal camping within the study area. As such, isolated finds (resulting from sporadic visitation or travel through the area) are the site type most likely to occur in the study area. The presence of mature, native trees within the study area makes it possible that scarred or carved trees will be located.

Middens are not expected to be found in the study area, given the lack of nearby resources and sandy soil. The lack of suitable stone outcrops indicates that quarries, axe grinding grooves and stone engraving/art sites will not occur in the study area.

While the disturbance that has occurred throughout the study area limits the potential for intact sites to be present, it also makes it likely that any sites that are present will be evident to some extent in the disturbed topsoil.

Stone arrangements, bora grounds and earth circles are unlikely to be found in the study area because of its cleared and disturbed nature. Collins and Griffin (1993:3) assert that burials are usually located in soft easy-to-dig sediments like sand and have been found in midden sites, but they are also usually fairly shallow. The sloping and flood prone nature of the study area makes it unlikely that burials will have occurred.



Legend

- Aboriginal Resource/Gathering
- Aboriginal Resource/Gathering, Burials, Midden
- Bora/Ceremonial, Carved Tree
- Burials
- Burials, Midden
- Burials, Midden, Stone Artefact Scatter
- Carved Tree
- Contact, Mission
- Midden
- Natural Mythological (Ritual)
- Stone Artefact Scatter
- Stone Artefact Scatter, Midden
- Site Boundary
- Search Extent

Figure 2.1

Location of Registered AHIMS Sites in Relation to the Study Area

Client:	WB & WE Walls	
Project:	Seascape Grove	
Drawing No:	0043974_GIS01	
Date:	17.05.2007	Drawing Size: A4
Drawn By:	DH	Reviewed By: -
Source:	-	
Scale:	Refer to Scale Bar	

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3 METHODOLOGY

3.1 CONSULTATION

Aboriginal consultation is required for any assessment of Aboriginal heritage. The DECC 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, then 21 days for registered Aboriginal parties to respond to a proposed assessment methodology, and then allows 10 days for groups to review a draft report and comment on the results and management recommendations made.

This assessment is for part of an ongoing development that began prior to the introduction of the guideline. Nevertheless, the consultation process has involved the Kempsey Local Aboriginal Land Council (KLALC).

An inspection of the site was undertaken by representatives of KLALC on 13 August 2004. A letter report dated 17 August 2004 was produced by KLALC (see *Annex A*). This reported that no artefacts were observed on the ground surface. KLALC recommended that two of their site officers be present when the soil is disturbed, particularly the first 15cm of topsoil.

3.2 SITE SURVEY AND RECORDING

Field survey of the proposed development area was completed on 15 May 2007 by ERM archaeologist Jenna Lamb. Tracks across the study area and erosion scours were all inspected, as were the areas currently used for rural activities. Each of the different landforms identified in the study area were covered in the survey, namely slopes, ridges/spurs, flats and gullies. Survey focussed particularly on areas of visibility and trees. Photographic recording was made of the area.

3.2.1 Fieldwork Constraints And Opportunities

The survey was limited by the vegetation cover that was present over parts of the study area. Nevertheless, ground visibility was adequate, and it is estimated that over 6% of the study area was sampled during the survey (see *Annex B* for Effective Coverage Table). Erosion occurred predominantly on the vehicle tracks, and the occasional patches of exposed ground surface in the study area mainly occurred in these areas of erosion, and in the inundation area. In light of these constraints, the survey focused particularly on the patches of visible ground and the trees; 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 study area was traversed on foot.

3.2.2 Transect Sampling

In order to survey a sample of each landform across the study area and make best use of the areas of exposure available, the study area was surveyed in sixteen transects, as follows:

- Transect 1 (T1) traversed a slope across the western boundary of the study area;
- T2 traversed the dam in the western part of the study area;
- T3 traversed a ridge/spur from the dam east of to the large stand of trees in the centre south of the study area;
- T4 traversed a slope through the large stand of trees to the southern boundary of the study area;
- T5 traversed a ridge within the large stand of trees;
- T6 traversed a slope along the south east boundary of the study area;
- T7 traversed a gully between the south east and eastern boundaries;
- T8 traversed a slope on the southern side of the soil pile;
- T9 traversed a toe slope on the eastern side of the soil pile;
- T10 traversed a slope along the southern part of the eastern boundary;
- T11 traversed a flat along the northern part of the eastern boundary;

- T12 traversed a flat in the northeastern paddock of the study area;
- T13 traversed a flat from the eastern boundary across the inundation area;
- T14 traversed a slope along a fence beside the existing construction lots;
- T15 traversed a slope along a track to the soil pile; and
- T16 traversed a slope between the northern end of the track and the dam.

4 *RESULTS*

No Aboriginal sites were located within the boundaries of the study area. Some eucalypt trees in this area were of moderate size, but none appeared to bear Aboriginal scarring from the pre-contact and contact period.

Surface evidence can sometimes be an unreliable guide to subsurface archaeological content where soil surface is bare and eroded. However, the eroded exposures in the study area provided a "window" into the topsoil archaeological content.

Clearing and ploughing activities had disturbed the topsoil to the extent that evidence of any large Aboriginal sites should have been exposed. The absence of artefacts from these eroded and extensive exposures can be regarded as an indication of the archaeological paucity of the study area (also reflected in the results of the previous assessment by KLALC), and thus a lack of Aboriginal archaeological research potential. Further, the soil pile resulting from excavation during previous nearby construction was inspected for evidence of Aboriginal heritage material or soils that would be likely to retain artefacts. No such material or soil was present throughout this pile, however.

The adequate ground surface visibility, the disturbance that has occurred, and the lack of artefacts located during the survey, all indicate that there is minimal to no potential for undetected Aboriginal heritage material to be located in the study area.

An assessment of the impact on Aboriginal heritage in the study area is provided in the following chapter.

5 *IMPACT ASSESSMENT*

No impact to Aboriginal heritage is predicted. A reasonable assessment of archaeological potential, based on the known archaeology of the South West Rocks area, the surface evidence and the previous disturbance to the area, suggests that there is only minimal potential for sparse undetected subsurface Aboriginal heritage material. Thus, no direct or ancillary impacts to archaeological material are predicted.

6 RELEVANT LEGISLATION

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.

6.1 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 is the statutory authority for the protection of Aboriginal objects and places within NSW, with the Director-General of that department the consent authority.

6.2 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 NSW NPWS provide 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* and *Heritage Act 1977* are not required. In those instances management of heritage sites must follow the statement of commitments included in the Part 3A development approval.

State Environmental Planning Policy No 71 Section 8 (l) and (n) (measures to protect the cultural places, values, customs, beliefs and traditional knowledge of Aboriginals, and the conservation and preservation of items of heritage, archaeological or historic significance) have been considered in this assessment. As no Aboriginal heritage sites or issues have been identified relating to the study area, no protection, conservation or preservation measures are required.

6.3 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.

7 RECOMMENDATIONS

7.1 ABORIGINAL HERITAGE RECOMMENDATIONS

The following recommendations are made in light of the findings of the field survey, consultation with KLALC, and the relevant legislation protecting Aboriginal heritage in NSW, taking into account the Part 3A nature of the proposed development.

As no Aboriginal sites were found on the property during the field survey, and the study area is assessed as having minimal potential for subsurface heritage material, no further Aboriginal heritage work is required on archaeological grounds. There is no reasonable prospect of artefacts occurring or being identified through monitoring.

The KLALC has requested that two of their site officers be present when soil is disturbed, particularly for the first 15 cm.

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Annex A

Report from Kempsey Local Aboriginal Land Council

KEMPSEY ABORIGINAL LOCAL LAND COUNCIL

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Phone (02) 6562 8688
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KEMPSEY LOCAL ABORIGINAL LAND COUNCIL

Mr A Tullock
ERM Project
P.O. Box 2579
Port Macquaire NSW. 2444.

17th August 2004.

Dear Mr A Tullock,

On Friday the 13th August 2004, two Sites Officers were engaged by ERM to search Lot 2 DP 645213 and Lot 1 DP 246579 for W.B & M.E Wall at Waldel Park Belle O'Connor street South West Rocks.

FINDINGS.

No finding of Artifacts were found on top of the Properties. Indene scrub made visual hard. But also these properties have been ploughed of the years and trees have been removed.

RECOMMENDATIONS.

When any soil is turned the Kempsey Local Aboriginal Land Council needs to be notified so that two of our Officers are available on site at all time especially for the first 6inches of the soil unless there is a recorded sites.

Yours Faithfully

H Smith

Harold Smith
Chairperson

Annex B

Effective Coverage Table

Table B.1 Effective Coverage

Transect	Landform	Description	Area (m²)	Area surveyed (m²)	Visibility	Exposure	Effective coverage (m²)	Sample fraction (%)	Number of artefacts
T1	Mid slope	Across slope at west of study area	2000	500	0.8	0.05	20	1	0
T2	Dam	Western part of study area	900	600	0.9	0.4	216	24	0
T3	Ridge/spur	East of dam up to large stand of trees	250	250	0.8	0.2	40	16	0
T4	Slope	Through large stand of trees to southern boundary	2000	500	0.7	0.1	35	1.8	0
T5	Ridge	Within large stand of trees	560	400	0.7	0.1	28	5	0
T6	Slope	Along south east boundary	1050	350	0.9	0.3	94.5	9	0
T7	Gully	Between south east and east boundary	2000	250	0	0	0	0	0
T8	Slope	Southern side of soil pile	150	50	0.6	0.3	9	6	0
T9	Toe slope	Eastern side of soil pile	150	100	0 .95	0.8	76	51	0
T10	Slope	Southern part of eastern boundary	1600	400	0.2	0.05	4	0.3	0

Transect	Landform	Description	Area (m²)	Area surveyed (m²)	Visibility	Exposure	Effective coverage (m²)	Sample fraction (%)	Number of artefacts
T11	Flat	Northern part of eastern boundary	700	250	0.9	0.3	67.5	10	0
T12	Flat	Northeastern paddock	400	160	0.4	0.1	6.4	1.6	0
T13	Flat	From eastern boundary across inundation area	300	140	0.95	0.5	66.5	22	0
T14	Slope	Along fence beside existing construction lots	1050	350	0.6	0.1	21	2	0
T15	Slope	Along track to soil pile	600	300	0.95	0.95	271	45	0
T16	Slope	Between northern end of track and dam	2000	700	0.7	0.05	24.5	1.2	0
Total			**15710**	**5300**			**979.4**	**6.2**	**0**

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