

2 *BACKGROUND*

The purpose of this chapter is to provide contextual information to 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 study area itself is relatively level, with a slight fall to the south and west.

2.1.2 *Drainage*

The study area is relatively level, with a slight fall to the south and west, draining to the road. Spencers Creek runs within 120 m of the study area, at which point it is a major creek approximately 50 m in width. This creek joins the Macleay River about 4 km downstream, to the north west. The study area is thus in an estuarine environment, in the tidal context of Spencers Creek. There is an unnamed first-order creek, a tributary of Spencers Creek, approximately 150 m south of the study area, and a swamp beginning at the eastern end of this tributary which extends further to the east and north east. Swamps provide both water and food resources and the proximity of the study area to this swamp may have made it a useful place for Aboriginal people to frequent.

2.1.3 *Disturbance*

The study area has been disturbed by rural residential uses. An existing dwelling and ancillary structure have disturbed the north portion of the study area.

During the site visit, modern garbage from the last fifty years such as golf balls, styrofoam, rusted household appliances, glass and ceramic fragments and beer bottles were identified across the study area, particularly in the eastern portion. These have now been removed.

While much of the site was covered with grass there were some areas within the middle and southern sections of the site that have been affected by the removal of the weeds (lantana). The top soil of this section was moderately disturbed, but appears to be the original soil.

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. The disturbance/turning of the top soil across much of the study area suggests that any Aboriginal sites or artefacts, including shell middens, 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 disturbance caused by weed removal

2.1.4 Land Use

The study area, Lot 2 DP 581117, is located on the north east corner of the intersection of Gregory Street and Arakoon Road, South West Rocks. It has frontage to Arakoon Road, Gregory Street and Cooper Street and a total area of approximately 4.8 hectares. Cooper Street is an unsealed road that serves the study area and rural properties to the east. Existing residential subdivision in the South West Rocks township is located west of the study area, on the west side of Gregory Street. Spencers Creek passes approximately 150 m to the west of the study area. Rural and rural residential properties are located to the north and north-east, and Hat Head National Park, which includes wetlands, is located to the south. Arakoon Road separates the study area from Hat Head National Park. Land to the north is zoned but not yet developed for residential development. It is understood that applications for development of the properties to the north have been lodged with DoP and Kempsey Shire Council. There is no rural zoned land adjacent to the study area.

The study area is also in proximity to a number of community and commercial services and facilities, including 'The Rocks' shopping centre which is approximately 650 m to the north. Past land use in the study area itself has been predominantly pastoral. The study area currently comprises mostly cleared land, a house and a horse paddock.

2.1.5 *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 stone outcrops which appear to be quartz based conglomerate. The presence of these outcrops indicates a possibility that engravings, grinding grooves or quarry sites may be located in the study area.

The soils on the Macleay Coast include red brown structured loams on basalt, deep siliceous sands and very well developed podzols in dunes (particularly the older high dunes), and organic sands in estuaries (Morgan 2001). The study area itself showed brown and grey sandy/silty soils.

2.1.6 *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 mature trees (open forest), with an understorey (including grass) disturbed by rural residential uses, including horse grazing. The presence of these mature trees (mainly Eucalypt) allows for the possibility of scarred trees being located in the study area. The visibility was reduced to some extent by the grass and understorey cover. Due to disturbance by land use practices, during the site visit the vegetation of the study area had exotic weeds, including lantana near the house (see *Photograph 2.2*), which have now been cleared.

2.1.7

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 trees will be located (site types being defined in *Table 2.1*). Secondly, the presence of stone outcrops denotes that quarries, axe grinding grooves and stone engraving/art sites may be found in the study area. Thirdly, the presence of two drainage lines within 1.5 km of the study area allows for the existence of open sites (*Table 2.1*). 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 top soil.



Photograph 2.2 Lantana near house on Lot 2

2.1.8

Regional Aboriginal Archaeological Context

A brief literature survey of the NSW NPWS (now DEC) library was made to understand archaeological site location patterning in the area. This survey was not an exhaustive research effort into the entire Macleay Coast. Key word searches were used to find reports for the locality 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.

2.1.9

Local Aboriginal Archaeology

A search of the Aboriginal Heritage Information Management System (AHIMS) Aboriginal Sites Database at DEC within 3.5 km radius surrounding the study area was undertaken on 20 February 2006. The search identified 70 recorded sites (*Figure 2.1*), which comprised 61 middens (two of which are associated with burials, one associated with an open site, and one associated with a burial and open site), three burials, two open sites, one bora/ceremonial site and scarred tree, one natural mythological (ritual) site, one contact mission and one scarred tree. Midden exposures cluster along Spencers Creek (which passes approximately 150 m to the west of the study area) and have been found in close proximity to the study area, with two of the midden exposures (22-4-0017 and 22-4-0019, which have the same geographic coordinates) appearing to be within the study area. It must be noted however that the translation of the AHIMS database's geographic coordinates from imperial to AMG may have resulted in some inaccuracy with these new coordinates. The individually recorded open sites and three of the burials (2 being associated with middens) were found within roughly a 500 m radius of the study area.

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

Site types	Definition
Stone artefact scatter sites	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.
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.

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

Author of Report	Distance from study area	Type of development/report	Locality	Sites Recorded
Collins & Griffin (1993)	200 m north 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 m ² area; no burials.
Appleton (1998)	650 m north west	Aboriginal heritage assessment of proposed shopping centre.	Lot 231 on DP754396, Gregory Street.	None.
Collins (2004)	1 km 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.
Collins (1995)	3 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).
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 transmission line between Kempsey and Coffs Harbour.	Between Kempsey and Coffs Harbour, including Clybucca.	None in the Clybucca area.

2.1.10

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 [such as Spencers Creek] and swamps”. Given the proximity of the study area to Spencers Creek and to recorded Aboriginal heritage sites, and the possibility of two midden exposures located within the study area, it is likely that additional Aboriginal heritage sites may be found within the study area.

Based on background research, middens are the type of site most likely to be found in the study area, and may be found in any part of the study area in its sandy ground. Cockle and oyster shell, and possibly some pipi, are likely to be the components of these. Some bone faunal remains and stone tools, made of local volcanic stone, sandstone, quartz, mudstone, chert and basalt, may also be found associated with them.

The presence of stone outcrops indicates a possibility that engravings, grinding grooves or quarries will occur in the study area. The presence of mature, native trees within the study area means that scarred and carved trees are also possible.

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. Therefore the cleared nature of the study area with its disturbed topsoil indicates that any burials that may be present are likely to have been brought to the surface along with midden shell. It is possible that burials may be located in the study area, but there is no greater sensitivity for burials being sited within the study area than for any other place in South West Rocks which is characterised by sandy ground.

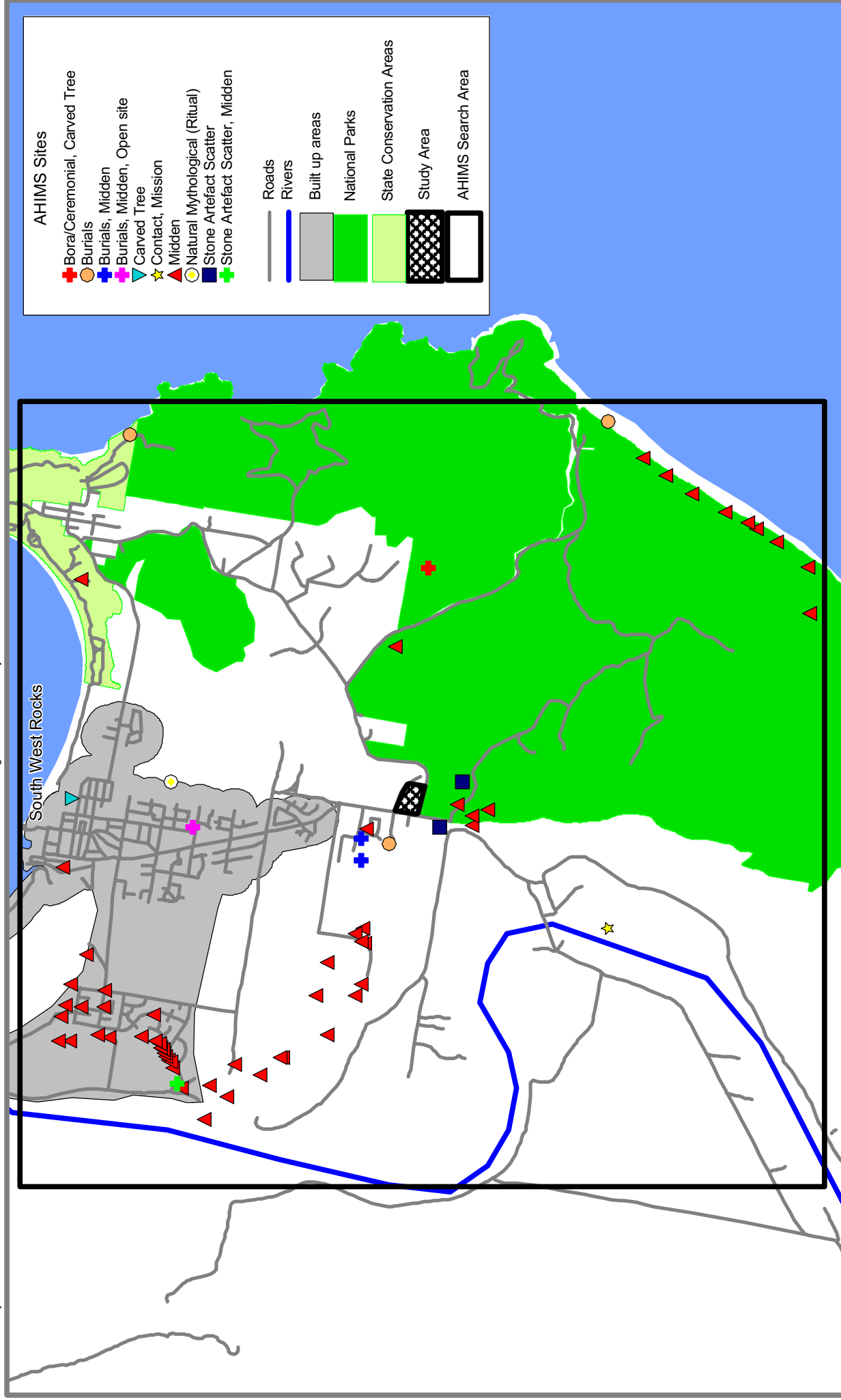


Figure 2.1

Location of recorded Aboriginal heritage sites in relation to the study area.

3.1

CONSULTATION

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

The consultation for the proposed subdivision of the study area has been carried out in light of the DEC guidelines, taking into account the Part 3A nature of the works.

Letters requesting advice on Aboriginal organisations to consult and any known heritage issues to be taken into consideration in the area were faxed on 5 April 2006 to:

- NSW Department of Environment & Conservation (DEC);
- Registrar, Aboriginal Land Rights Act 1983 (NSW);
- Kempsey Shire Council; and
- Kempsey Local Aboriginal Land Council.

A local press advertisement (“notice of Aboriginal consultation”) requesting Aboriginal individuals and groups interested in being consulted on this project to write to ERM, was run in the Macleay Argus newspaper on 7 April 2006. While no responses were received to this advertisement, initial consultation with a number of organisations including DEC and Kempsey Shire Council identified a number of groups to be contacted. These groups were:

- Baryulgil Square Co-operative Society Ltd;
- Benelongs Haven Limited;
- Burabi Aboriginal Corporation;

- Burra:Waj:Ad;
- Collum Collum Aboriginal Corporation;
- Cultural Respect and Communication Consultants;
- Dunghutti Aboriginal Elders Tribal Council;
- Dunghutti Elders Aboriginal Corporation;
- Figtree Aboriginal Corporation;
- Garby Elders;
- Gunbular Julipi Elders Council Aboriginal Corporation;
- Gumbaynggirr Nation;
- Gumbila Julipi Elders;
- Gumbaynggirr Warrior Elders of the Nambucca River;
- Guri Wa-Ngundagar Aboriginal Corporation;
- Kempsey Local Aboriginal Land Council;
- Miimi Mother Aboriginal Corporation;
- Mudjay Elders;
- Mulla Ngullingah Aboriginal Corporation;
- Ngurrala Aboriginal Corporation;
- Nulla Nulla Boongutti Aboriginal Corporation;
- Wutuma Keeping Place Aboriginal Corporation; and
- Yarrawarra Aboriginal Corporation.

These groups were therefore contacted about whether they wished to be consulted on this project. In addition, each group was asked to identify any further individuals or groups who would be interested in being consulted regarding this project. One response has been received to date, a phone call from Dunghutti Elders Aboriginal Corporation registering their interest in this project; however this phone call was received approximately seven weeks after fieldwork had been undertaken. No further groups or individuals have so far been identified through this process. Details of the Aboriginal consultation are provided in *Annex A*.

Further, a search of the National Native Title Tribunal was carried out on 26 April 2006. One active claimant application and one approved claimant application was found for the Kempsey LGA, these being at Kempsey (the town being approximately 35 km from South West Rocks) and Crescent Head (about 45 km away). Native Title is extinguished in all land that is freehold or was freehold in the past. As the study area is freehold land, it may not be claimed by Native Title applicants, but such claims in the area are useful for identifying Traditional Owner groups, regardless of land tenure.

Fieldwork for the assessment was undertaken on 20 April 2006. ERM attempted to contact Kempsey Local Aboriginal Land Council and invite them to provide one community representative to participate in the survey of the study area, and to comment on Aboriginal heritage issues, but were unable to get into contact with anyone from this organisation.

Details of the Aboriginal consultation regarding the heritage assessment are provided in *Annex A*. A reasonable effort was made to consult with all stakeholder groups.

A copy of this report in draft final form was sent to the two Aboriginal groups identified as being interested in the project (Kempsey Local Aboriginal Land Council and Dunghutti Elders Aboriginal Corporation) on 30 August 2006, so that they would have the opportunity to comment on its content and recommendations. No written comments were received from either of these groups. Verbal feedback was received from Dunghutti Elders Aboriginal Corporation on 25 September 2006 (see *Annex A*).

Field survey of the entire proposed development area was completed on 20 April 2006 by one ERM archaeologist (Jenna Lamb). The Kempsey LALC was invited to provide a representative for fieldwork but none were available.

The site inspection was confined to the area within the fenced boundary of the study area (including the cleared area and the fenced horse paddock). Tracks across the study area and erosion scours were all inspected, as were the areas currently used for pastoral and residential activities. Each of the different landforms identified in the study area were covered in the survey, namely gentle slopes and flats. Survey focussed particularly on areas of visibility, trees and any surface stone that may contain art or engraving. Photographic recording was made of the area.

No Aboriginal sites were located within the boundaries of the study area.

4.1

FIELDWORK CONSTRAINTS AND OPPORTUNITIES

The survey was limited by the grass cover that was present over parts of the study area. It is estimated that approximately 82% of the study area had no ground visibility (see *Annex B* for the Effective Coverage Table), with covering grass being mostly around 5 cm in height. Erosion from clearing activities was mostly present in the centre and southern parts of the study area. The occasional patches of exposed ground surface over the property occurred in these areas of erosion. In light of these constraints, the survey focused particularly on the occasional patches of visible ground, the trees, and any surface stone. Some surface stone (appearing to be a medium-grained quartz based conglomerate) was located within the study area, as were some mature native trees (but none showing evidence of Aboriginal scarring or carving). The majority of the study area has been previously disturbed (see *Section 2.1.3*).

4.2

DISCUSSION

No Aboriginal sites were found within the study area. The two midden exposures purported to occur within the study area (according to AHIMS records) were not located. Older site cards within the archives of DEC (AHIMS) were originally annotated with imperial map coordinates derived from "inch to a mile" maps. With computerisation of the site records in the late 1980s those imperial coordinates were converted to metric AMG coordinates by use of a computer calculation. Experience has shown that in many cases this conversion of coordinates by computer calculation resulted in inaccurate new coordinates. 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. Further, the clearing activities had disturbed the topsoil to the extent that evidence of any large Aboriginal sites should have been exposed. The absence of artefacts (including shells) from these eroded and extensive exposures can be regarded as an indication of the archaeological paucity of the study area.

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

Subdivision works including the construction of pipelines, and subsequent works including the development of houses, would have the impact of disturbing or destroying any Aboriginal artefacts that exist below the surface over those parts of the study area proposed to be developed (see *Figure 1.2*). A reasonable assessment of archaeological potential based on the surface evidence suggests that there is unlikely to be any undetected subsurface Aboriginal heritage material, and hence no impact to Aboriginal heritage is predicted.

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 Aboriginal/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

All Aboriginal objects within the state of New South Wales are protected under Part 6, and particularly Section 90, of the NSW *National Parks and Wildlife Act 1974*. The DEC is the responsible authority, with the Director-General of that department the consent authority.

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 of the DEC, 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.

However, this project is being assessed under Part 3A of the *Environmental Planning and Assessment Act 1979* (see *Section 8.2*) and therefore Section 87 permits to investigate/collect and S90 consents to destroy sites are not applicable to the project.

6.1.1 *Heritage Act 1977 (NSW)*

The *Heritage Act 1977* protects the natural and cultural history of NSW with emphasis on non-Aboriginal cultural heritage through protection provisions and the establishment of a Heritage Council.

While Aboriginal heritage sites and objects are protected principally by the *NPW Act 1974*, if an Aboriginal site, object or place is of great significance it can be protected by a heritage order issued by the Minister on the advice of the Heritage Council.

The *Heritage Act 1977* provides blanket protection for subsurface relics and for heritage items of state significance listed on the State Heritage Register. The Act defers to local planning instruments under the *Environmental Planning & Assessment Act 1979* for the protection of items of local significance ('items of the environmental heritage'), and therefore, as this project is being assessed under Part 3A of this Act (see *Section 8.2*), the Heritage Act does not apply.

6.1.2 *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 Aboriginal and non-Aboriginal heritage. Various planning instruments prepared under the Act identify permissible land use and development constraints.

The NSW Department of Environment and Conservation provides guidelines for Aboriginal heritage assessment, including those conducted under the EP&A Act. Guidelines for Aboriginal heritage assessment under Part 3A of the EP&A Act refer to the existing DEC Guidelines (NPWS 1997) for both heritage assessment and Aboriginal consultation (DEC 2004).

6.2 *ABORIGINAL AND TORRES STRAIT ISLANDER HERITAGE PROTECTION ACT 1984*

The Commonwealth *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.

*7.1**ABORIGINAL HERITAGE RECOMMENDATIONS*

The following recommendations are made in light of the findings of the field survey 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.

REFERENCES

Appleton J (1998) **The Archaeological Investigation of Lot 231, DP 754396, Gregory Street, South West Rocks, Mid North Coast, NSW** Consultancy report to Blyth, Hadlow & Associates and Schipp & Partners.

Collins J P (1995) **Archaeological Investigation and Midden Site Conservation at Proposed Waterview Heights Estate, South West Rocks** Consultancy report to Randale Pty Ltd.

Collins J (2004) **Local Environmental Study, Phillip Drive, South West Rocks, NSW Mid-North Coast: Aboriginal Heritage Assessment** Consultancy report to Connell Wagner.

Collins J P and Griffin S (1993) **Archaeological and Ground Probing Radar Investigation of a Proposed Aboriginal Cemetery Site at Spencerville, Mid-North Coastal NSW** Consultancy report to Kempsey Shire Council.

Department of Environment and Conservation (DEC) (2004) **Interim Community Consultation Requirements for Applicants.**

Environmental Resources Management Australia Pty Ltd (ERM) (2004) **Gap Analysis - Archaeology, History and Landscape: Upper Hunter Valley Aboriginal Heritage Baseline Study** Consultancy report to the Upper Hunter Aboriginal Heritage Trust.

Kuskie P J (1993) **Further Archaeological Investigations of the Proposed Route of Optus Communications' Fibre Optic Cable between Clybucca Creek and Coffs Harbour, NSW** Consultancy report to Optus Communications Pty Ltd.

Mills R (1997) **An Archaeological Survey for the Proposed Coffs Harbour to Kempsey 132 kV Transmission Line** Consultancy report to International Environmental Consultants Pty Ltd and Transgrid.

Morgan G (2001) **Delineation and Description of the Eastern Environmental Subregions (Provinces) in New South Wales Study** NSW NPWS: Hurstville.

National Parks and Wildlife Services (NPWS) 1997 **Aboriginal Cultural Heritage: Standards and Guidelines Kit.**

Annex A

Aboriginal Consultation Log

Table A.1 *Outgoing Communications*

Date	Organisation/group/individual	Contact Name	Details
5/04/06	Kempsey LALC	Harold Smith/ Tracey Edwards N/A	Faxed a request for a list of groups to be consulted for this project.
5/04/06	Macleay Argus		Faxed a proof for a notice of Aboriginal consultation, which appeared in Friday 7 April edition of the newspaper.
5/04/06	DEC	Brendan Diacono	Emailed request for a list of groups to be consulted for this project.
5/04/06	Register of Aboriginal Owners	Adam Black	Faxed request for a list of groups to be consulted for this project.
5/04/06	Kempsey Shire Council	N/A	Faxed request for a list of groups to be consulted for this project.
7/04/06	Kempsey LALC	Harold Smith	Phone call to see whether available for fieldwork. No answer and no answering service to leave message on.
10/04/06	Kempsey LALC	Harold Smith	Phone call to see whether available for fieldwork. No answer and no answering service to leave message on.
11/04/06	Kempsey LALC	Harold Smith	Phone call to see whether available for fieldwork. No answer and no answering service to leave message on.
12/04/06	Kempsey LALC	Harold Smith	Phone call to see whether available for fieldwork. No answer and no answering service to leave message on.
20/04/06	Kempsey LALC	Harold Smith	Phone call to see whether available for fieldwork. No answer and no answering service to leave message on.
24/04/06	Kempsey LALC	Harold Smith	Phone call to see whether knew contact details of Figtree Aboriginal Corporation. No answer and no answering service to leave message on.
26/04/06	National Native Title Tribunal	N/A	Searched for Native Title claims in Kempsey LGA with one claim active since 2001 at Kempsey, being the Dunghutti People, and one claim approved at Crescent Head for the Dunghutti People.
26/04/06	Dunghutti Elders Aboriginal Corporation	N/A	Letter requesting a list of groups to be consulted for this project.
26/04/06	Baryulgil Square Co-operative Society Ltd	N/A	Letter requesting a list of groups to be consulted for this project.
26/04/06	Benelongs Haven Limited	N/A	Letter requesting a list of groups to be consulted for this project.
26/04/06	Burabi Aboriginal Corporation	N/A	Letter requesting a list of groups to be consulted for this project.

Date	Organisation/group/individual	Contact Name	Details
26/04/06	Burra:Waj:Ad	N/A	Letter requesting a list of groups to be consulted for this project.
26/04/06	Collum Collum Aboriginal Corporation	N/A	Letter requesting a list of groups to be consulted for this project.
26/04/06	Cultural Respect and Communication Consultants	N/A	Letter requesting a list of groups to be consulted for this project.
26/04/06	Dunghutti Aboriginal Elders Tribal Council	N/A	Letter requesting a list of groups to be consulted for this project.
26/04/06	Garby Elders	N/A	Letter requesting a list of groups to be consulted for this project.
26/04/06	Gunbular Julipi Elders Council Aboriginal Corporation	N/A	Letter requesting a list of groups to be consulted for this project.
26/04/06	Gumbaynggirr Warrior Elders of the Nambucca River	N/A	Letter requesting a list of groups to be consulted for this project.
26/04/06	Guri Wa-Ngundagar Aboriginal Corporation	N/A	Letter requesting a list of groups to be consulted for this project.
26/04/06	Miimi Mother Aboriginal Corporation	N/A	Letter requesting a list of groups to be consulted for this project.
26/04/06	Mudjay Elders	N/A	Letter requesting a list of groups to be consulted for this project.
26/04/06	Mulla Ngullingah Aboriginal Corporation	N/A	Letter requesting a list of groups to be consulted for this project.
26/04/06	Ngurrula Aboriginal Corporation	N/A	Letter requesting a list of groups to be consulted for this project.
26/04/06	Nulla Nulla Boongutti Aboriginal Corporation	N/A	Letter requesting a list of groups to be consulted for this project.
26/04/06	Stuarts Island Local Aboriginal Land Council	N/A	Letter requesting a list of groups to be consulted for this project.
26/04/06	Wutuma Keeping Place Aboriginal Corporation	N/A	Letter requesting a list of groups to be consulted for this project.
26/04/06	Yarrahappinni Aboriginal Corporation	N/A	Letter requesting a list of groups to be consulted for this project.
26/04/06	Yarrawarra Aboriginal Corporation	N/A	Letter requesting a list of groups to be consulted for this project.
14/06/06	Dunghutti Elders Aboriginal Corporation	Mary-Lou Buck	Phone call explaining that fieldwork had already been undertaken but that we could send her a copy of the draft report. Left message.
30/08/06	Kempsey LALC	Harold Smith	Copy of draft report sent with letter asking for comments.
30/08/06	Dunghutti Elders Aboriginal Corporation	Mary-Lou Buck	Copy of draft report sent with letter asking for comments.
19/09/06	Kempsey LALC	Harold Smith	Phone call to check whether report was received and if they had any comments. No answer and no answering machine to leave message on.
19/09/06	Dunghutti Elders Aboriginal Corporation	Mary-Lou Buck	Phone call to check whether report was received and if they had any comments. Left message. Tried three different numbers but still no contact.
20/09/06	Kempsey LALC	Harold Smith	Phone call to check whether report was received and if they had any

Date	Organisation/group/individual	Contact Name	Details
20/09/06	Kempsey LALC	Harold Smith	<p>comments. Answered by organisation not Kempsey LALC. Gave me the number they had for them.</p> <p>Phone call to check whether report was received and if they had any comments. Number had been disconnected.</p>
20/09/06	Dunghutti Elders Aboriginal Corporation	Mary-Lou Buck	<p>Tried again to ring and check whether report was received and if they had any comments. Went immediately to answering service on which I had previously left a message. Tried three different numbers but still no contact.</p>
21/09/06	Dunghutti Elders Aboriginal Corporation	Mary-Lou Buck	<p>Phone call asking whether she had received a copy of the draft report. She said that she couldn't recall receiving one and asked if I could email her a copy. I agreed and she gave me her email address.</p>
21/09/06	Dunghutti Elders Aboriginal Corporation	Mary-Lou Buck	<p>Email of copy of draft report asking for comments.</p>
22/09/06	Dunghutti Elders Aboriginal Corporation	Mary-Lou Buck	<p>Tried to ring and see if she had received the report. No answer on mobile or land line; answered by Corporation on another land line, but Mary-Lou was not there and no one had seen her in a while.</p>
25/09/06	Dunghutti Elders Aboriginal Corporation	Mary-Lou Buck	<p>Rang to see if she had received the report and had any comments. She said she was not happy with the assessment as she didn't believe that the Corporation had been involved properly and she wouldn't sign off on the report. She said that the Corporation had an agreement with the Kempsey LALC about being involved in any development proposals in the area and she didn't think that they had been adequately informed about what was happening in the area. I said that I had received her phone call seven weeks after the fieldwork had taken place and had called her back to let her know this and to say that I could send her a draft report on the assessment. I said that I had attempted many times to contact Kempsey LALC, and the Dunghutti Elders Aboriginal Corporation (following their phone call), but had had difficulty getting in contact with anyone. She said that they were organisations with</p>

Date	Organisation/group/individual	Contact Name	Details
			small offices and part-time workers and there was more than one way to contact them. She said she would send me an email with their issues, as she had outlined them to me, in the next couple of days, but that they would not be signing off on the report.

Table A.2 Incoming Communications

Date	Organisation/group/individual	Contact Name	Details
5/04/06	Register of Aboriginal Owners	Megan Mebberson	Fax received with search results for the Register of Aboriginal Owners: no Registered Aboriginal Owners. Suggested I speak to Kempsey LALC.
11/04/06	Kempsey Shire Council	A. P. Blue	Suggested contact Kempsey LALC, Dunghutti Elders Aboriginal Corporation and Figtree Aboriginal Corporation of South West Rocks (contact details of the latter not available to Council); suggested the LALC would have the correct contact details).
18/04/06	DEC	Claire Everett	Letter with list of groups who might be interested in consulting on the project: Baryulgil Square Co-operative Society Ltd, Benelongs Haven Limited, Burabi Aboriginal Corporation, Burra:Waj:Ad, Collum Collum Aboriginal Corporation, Cultural Respect and Communication Consultants, Dunghutti Aboriginal Elders Tribal Council, Garby Elders, Gumbula Julipi Elders Council Aboriginal Corporation, Gumbaynggirr Nation, Gumbila Julipi Elders, Gumbaynggirr Warrior Elders of the Nambucca River, Guri Wa-Ngundagar Aboriginal Corporation, Miimi Mother Aboriginal Corporation, Mudjay Elders, Mulla Ngullingah Aboriginal Corporation, Ngurrula Aboriginal Corporation, Nulla Nulla Boongutti Aboriginal Corporation, Wutuma Keeping Place Aboriginal Corporation, Yarrawarra Aboriginal Corporation.
8/06/06	Dunghutti Elders Aboriginal Corporation	Mary-Lou Buck	Phone message requesting to be involved in the assessment.

Annex B

Effective Coverage Table

Table B.1 *Effective Coverage*

Survey Unit	Landform	Description	Area (m ²)	Area surveyed (m ²)	Visibility	Exposure	Effective coverage (m ²)	Sample fraction (%)	Number of artefacts
1	Mid slope	At east of study area	9000	9000	0.5	0.3	1350	15	0
2	Lower slope	Southern part of study area centre	22500	22500	0.8	0.4	7200	32	0
3	Lower slope	Northern part of study area centre (including house and associated structures)	7500	7500	0	0	0	0	0
4	Flat	Southern part of study area west	7500	7500	0.2	0.1	150	2	0
5	Flat	Northern part of study area west (horse paddock)	2500	2500	0.1	0.1	25	1	0
<i>Total</i>			49000	49000			8725	17.8061	0

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