

4.0 INDIGENOUS CONSULTATION

As stated in Sub-section 1.1, consultation with the local Aboriginal community with regard to Aboriginal heritage issues associated with the proposed development was a requirement of this study. The Department of Environment and Conservation (NSW) Interim Community Consultation Requirements were implemented for this project.

4.2 Consultation Details

On the 17th January, 2007, written notification of the proposed archaeological assessment of the study area was forwarded to the Coffs Harbour and District Local Aboriginal Land Council (LALC), Registrar of Aboriginal Owners, Native Title Services, Coffs Harbour City Council and DEC (NSW). As a result of information provided by DEC letters were also forwarded to Gunbular Julipi Elders Council Aboriginal Corporation, Gumbila Julipi Elders, Mudjay elders, Garby Elders and Yarrowarra Aboriginal Corporation. On the 19th January, 2007, an advertisement was inserted in the Coffs Coast Advocate.

Two registrations of interest were received before the closing date (5th February, 2007) from:

1. Coffs Harbour and District LALC; and
2. Gumbalar Julipi Elders.

Both groups were recognised as stakeholders for this study and were provided with a letter outlining the proposed methodology for the cultural and archaeological assessment. The proposed methodology for undertaking the assessment was:

1. Undertaking a field survey of the study area. It was proposed that survey strategy will involve foot transects across the property with additional transects being walked in areas considered to have archaeological potential;
2. The recording (GPS coordinates; site type; site contents; etc) of identified cultural and / or archaeological material / sites within the property;
3. Consultation with the Coffs Harbour and District LALC and Gumbalar Julipi Elders in relation to cultural sites, places and associations;
4. The identification of all possible impacts to any identified cultural and / or archaeological sites / places; and
5. Identifying acceptable mitigation measures.

The letter outlining the methodology was forwarded on the 5th February, 2007 and written comments were required by the 1st March, 2007.

The methodology was verbally approved by the Registered Stakeholders and the survey organised for Friday 16th March, 2007. Mark Flanders (Coffs Harbour and District LALC) and Kenny Craig (Gumbalar Julipi Elders) were present during the survey of the study area.

5.0 INDIGENOUS CULTURAL CONTEXT

This Section provides a brief outline of the settlement patterns (Sub-section 5.1), social interactions (Sub-section 5.2), economy (Sub-section 5.3) and material culture (Sub-section 5.4) of the Indigenous people whose traditional land did and still does cover the present study area. Post-contact history is briefly outlined in Sub-section 5.7. The information summarised below does not necessarily relate specifically to the study area rather encompasses the broader region.

The purpose of this Section is to outline the intensity of land use activities and the items that may now form part of the archaeological record for this area. This information has relevance for the significance assessment of individual sites and places.

5.1 Settlement Patterns

There has been considerable debate in relation to the extent of movement between northern New South Wales coastal and inland Aboriginal groups. McBryde (1976) argued that there was large-scale relocation of people on a seasonal basis, with summers spent on the coast fishing and collecting shellfish and winters spent hunting in the hinterland. Observations by non-indigenous people in the mid-nineteenth century support this position. For example, Oakes (1842:65) commented that aboriginal people from the Macleay River Valley traversed “the coast during the season favourable for fishing, and the interior during the hunting season”. Similarly Hodgkinson (1845:26) stated that the Macleay River aborigines had little contact with groups to the north in the Nambucca Valley but had “a widespread and persuasive tradition of contact with the tablelands” to the west. There was also a “set time” for the Nymboida Aborigines to go to the coast for mullet (see Rich 1989a). MacFarlane (cited in Ryan 1964:156) stated that “up river Blacks occasionally made winter month visits to the coast in the vicinity of Red Rock where they spent their time quietly till the spring denoted that return to the old haunts was desirable”. Additionally, Holder (1984:20) notes that the groups from the area of Bucca Creek – Nana Glen spent the winter months on the coast around Moonee, returning to Bucca Creek – Nana Glen in the summer.

In contrast, Coleman (1978, 1982) and Belshaw (1978) suggested that coastal populations were semi-sedentary, living in villages or base camps and being dependent on estuarine and littoral resources throughout the year. Captain Perry, who anchored off the mouth of the Clarence River in 1839, recorded Aboriginal huts in a ‘village’ at the head of the estuary where they had ‘considerable command of fishing’. In 1882 in the Ballina area, Rous reported seeing huts 30 feet long and six feet high.

Godwin (1991) has reviewed the question of the relations between coastal and New England Tableland groups. He concluded that although Tableland groups did interact moderately with sub-coastal groups on the eastern margins of the Tableland (the eastern falls area), they did not interact with groups based on the coastline. This pattern of coastal/inland interaction appears to have been different to the south of the study area. Brayshaw (1986:41) has noted that the Birpai along with the Worimi to the south had economic, social and religious links with inland groups of the Hunter Valley.

It would seem therefore, that groups along the coastal strip had a range of settlement options involving both seasonal and short term movement. Dawson (cited in Ryan 1964:155) notes that Aboriginal camps were apparently relocated on a regular basis (approximately monthly) to allow the resting of favoured sites and to take advantage of different foodstuffs. Ryan (1964) states that the huts in 'villages' were generally semi-circular bark huts and lean-tos, whereas the shelters built in temporary camps were not substantial. For example, MacFarlane (cited in Ryan 1964:156) notes that:

...their camps merely low lean-to or an arched projection of bark supported on slender brushwood rods or twigs, just sufficient to accommodate a few occupants from the rigours of the weather. The roofing was generally the light outer bark of the small leafed tea-tree, quite rain proof and texture akin to delicate paper. It also served for the camp flooring and was immune from damp.

5.2 Social Interactions

The present study area is within the bounds of the Gumbaingirr speaking people (see Tindale 1974). As is the case in Australia generally, inter-group social gatherings were a feature of Aboriginal life in this region. Coleman (1982) has reviewed the ethnohistorical literature and concluded that movements of large groups of people within the coastal region were made in order to attend social gatherings, rather than to mainly take up residence in another location.

5.3 Economy

The Aboriginal groups in this region lived in an environment where "they were able to exploit, within a comparatively small area, a coastal and estuarine or riverine environment, bordered by sub-tropical rainforest, swamps and lightly timbered country. This environmental diversity resulted in a very favourable food supply, which was plentiful, varied and dependable" (Sullivan 1978:104).

Marine and freshwater fish and shellfish, reptiles, mammals, birds and plant food provided a diverse diet. For example, plant species included the rhizomes of bracken (*Pteridium esculentum*) and the roots of the Gynea Lily (*Doryanthes excelsa*), Milkmaids (*Burchardia umbellata*) and Yams (*Dioscorea transversa*).

The fruit of many species of plants were eaten including Fig (*Ficus* spp.), Native Guava (*Eupomatia laurina*), Pigeon Berry (*Monotoca elliptica*), Rough Tree Fern (*Cyathea australis*), Apple-berry (*Billardiera scandens*), Lance Leaf Geebung (*Persoonia lanceolata*), Lillipilli (*Acmena smithii*), wild grapes (*Vitis hyperglauca*) and wild cherries (*Excarpua cupressiformis*). The nuts of the Moreton Bay Chestnut (*Castanospermum australe*), were also eaten.

Animal species exploited included possum, koala, bandicoot, pademelon, wallaby, kangaroo, flying fox, turkey, snake, lizard, echidna and turtle. Birds, fish and many varieties of shellfish were also part of the diet. Shellfish species gathered included cockle (*Anadara trapezia*), club whelk (*Pyrazus ebeninus*), rock oyster (*Crassostrea commercialis*), mud oyster (*Ostrea angasi*), hairy mussel (*Trichomya hirsuta*) and pipi (*Plebidonax deltoides*).

5.4 Material Culture

Material culture for the northeastern region of New South Wales is generally similar (see McBryde 1978). This similarity is manifested in the characteristic unbarbed spears and wooden shields (McBryde 1978:178). Sullivan (1978:107) notes that “no barbed, pronged, or bone or shell tipped spears were used for fishing in this area though they were quite common elsewhere on the east coast”. Other items included many artefacts made of wood or bark obtained from various trees. For example, shields were made from the wood of the Ironbark or Mangrove (*Avicennia officinalis*) trees and tea tree bark (*Melaleuca quinquenervia*) was used for the construction of huts. The bark from the Native Hibiscus was used to make cord for the manufacture of fishing lines and nets.

Cordage was also used for tying up the ends of canoes. Canoes were generally made from a sheet of stringy bark which was gathered and bound at the ends and had thwarts jammed across the centre to hold the bark apart. Maintenance tools included stone adzes and chisels, abrasive stones, bone awls and sharpened shell knives and scrapers. Boomerangs, clubs, spearthrowers and hafted axes were also manufactured. Vines were used to assist in climbing trees to capture possums or collect honey. The vine was used to support the climber and, if necessary, an axe was used to cut footholds.

The technology used to manufacture most of the above mentioned material culture items were based on stone. That is, artefacts made from stone were used to manufacture and maintain items of wood and other vegetable products as well as bone and shell artefacts. In some areas shell was also used to manufacture items of material culture. Stone would generally be procured from outcrops of suitable lithic material. Once procured the stone was manufactured into a variety of implements used for piercing (points), cutting (sharp flakes or knives), scraping, drilling, chiselling (adzes), gouging and chopping (axes). Sandstone was the preferred material for the making of milling and grinding equipment.. All these kinds of implements were largely required for the manufacture of a variety of wooden artefacts such as spears, shields, boomerangs, digging sticks, clubs and various ornaments. Bone needles and awls were also made with stone implements. Stone axes were used to chop out bark from trees for a range of items and to gain access to resources. Ground-edge stone axes were generally manufactured from river pebbles. These pebbles were ground into shape on sandstone boulders which were generally situated in the bed of a watercourse as water is necessary for the grinding process.

5.5 Population Density

Population estimates for the coastal zone vary between 0.4 and 3 persons per square kilometre (Belshaw 1978; Coleman 1982; Brayshaw, cited in Davies 1991a:15). In the foothills, it is estimated there was only 1 person per 5 square kilometres (Belshaw 1978).

5.6 Implications for the Archaeological Record

As Hall (1996:17) notes:

Given such a range of tasks and activities at a number of levels, it is obvious that people would have left traces pertaining to most of them over much of the landscape; and when the temporal dimension is added, there would be very few localities ...that would not have been visited in the past. However, when one considers the kinds of material used and their preservational qualities, only a few physical traces would be expected to last the ravages of time...Thus, after hundreds of years, apart from localities which were most heavily used and which witnessed the accumulation of material in heaps (such as middens) only stone (in a form ranging from single artefacts to fish traps), some bone (including burials) and shell and fragments of charcoal (from cooking fires) remain distributed across the landscape.

In this article, However, Hall (1996) did not address the possibility of sub-surface material. Also over time, items may be covered as a result of natural processes (see Sub-section 3.4); this is especially applicable in sandy or aggrading environments. Hence, items may not only be distributed across the landscape but also below the present ground surface.

5.7 Post-Contact History

Initial incursion into the study region was generally along the major river systems such as the Tweed, Richmond and Clarence. In 1799, Flinders anchored his vessel at the mouth of the Clarence River and inspected deserted Aboriginal vine and bark huts located on the southern headland. Between 1824 and 1830, escaped convicts from the Moreton Bay Penal Settlement passed through the region on their journey south. A few of these convicts lived with Aborigines in the region for extended periods of time. For example, Richard Craig spent three and a half years (1832 to 1836) with Aborigines in the Clarence River region (Rich 1989a).

Timber was being obtained from the area in the 1840s and by the 1850s it was being taken from the Nambucca and Bellinger Rivers. Cedar was being taken from the area of Coffs Creek in the 1860s. Although there were reports of conflicts during this period, it was with the invasion of pastoralists, who came to take the land and stay, rather than the non-indigenous explorers or early timber getters, that contact became more extensive.

The typical pattern of initial friendly contact followed by Aboriginal population decline through open conflict and diseases was repeated time and time again as the frontier spread across the continent (ATSIC 1990). As settlement spread beyond the government-established areas, random shootings and premeditated massacres of groups of women, children and men were undertaken by squatters in an effort to clear their selections of Aborigines. Sometimes Aboriginal waterholes were poisoned, or Aboriginal people given flour, sugar or damper mixed with arsenic.

As Aboriginal people were dispossessed of their land many became dependant fringe-dwellers around the new settlements. Some were employed as stockmen, domestic servants and shepherds. Within the study region, the Aborigines were of great assistance to the colonisers in mustering bullocks before fences were erected, finding cedar trees, cutting the undergrowth for them and also for clearing undergrowth and vines before a selection was cleared of its trees. They also assisted with hauling timber. Aborigines became skilful in breaking in horses and as

police trackers and were often on the staff at police stations. The women often took on jobs with households. However, wages were not always given for this work (England and Walker 1976: 17, 46).

Other Aborigines were forced into government reserves or church missions, where they had to rely on non-indigenous people for handouts of food and clothing. In the 1870s churches again became interested in the welfare of the Aborigines and set up more missions. In 1882 the Aborigines Protection Board of New South Wales was formed and the first reserves were established. For almost the next 100 years - until the 1960s - Aborigines were increasingly institutionalised and their rights restricted by legislation (ATSIC 1990).

In 1909, the *New South Wales Aborigines Protection Act* was passed (ATSIC 1990). The Board established by this Act owned all the improvements on reserves, had the power to move Aboriginal people out of towns, appoint police as local guardians for reserves and to control all aspects of the lives of Aboriginal people living on reserves. Amendments to the Act in 1915 and 1918 allowed the Board to remove children from their parents for training, and to force “half-castes” to leave the reserves. These actions led to a considerable loss of traditional knowledge from being passed on between generations, and the break up of families. The practice of traditional lifestyles, including language and religion, were actively discouraged or prohibited. From the 1920s, the official government policy changed from blanket ‘protectionism’ to forced assimilation for ‘part-Aborigines’ and in 1940 this assimilation policy was extended to all Aborigines. An implication of this policy was the eventual closure of all reserves. However, the Commonwealth policy of ‘self-determination’ for Aboriginal people was presented in 1972.

In 1983, the *Aboriginal Land Rights Act* was passed in New South Wales. This Act recognises that the State of New South Wales was traditionally owned and occupied by Aboriginal peoples and acknowledges the vital importance of land in Aboriginal culture. Under this Act, a system of Land Councils - at State, regional and local levels - were set up. The Act provided for the annual payment of 7.5% of gross State Land Tax revenue in a fund until 1998. Half of this fund was set aside as capital to finance Aboriginal development in future years, with the balance meeting the costs of land council administration and land purchases.

Aboriginal culture in New South Wales is thus being revitalised. An important issue is the management and protection of Aboriginal sites and heritage items. Land Councils and other organisations (e.g. Aboriginal Corporations) provide advice to the National Parks and Wildlife Service, museums and consulting archaeologists on community wishes on these matters.

In the case of the northern coast of New South Wales, Byrne (1986) notes that many of the mission communities were able to maintain close links with their former lands. Many of the older initiated people kept alive the traditions associated with sacred places and the communities have maintained a unique attitude to the land which is possibly more spiritual than economic. The impact of non-indigenous settlement has been marked, but despite the assimilationist policies of past Governments, Indigenous people have not lost their Aboriginality. There is a demonstrable continuity of Aboriginal culture, and it has adapted rather than perished (see Godwin and Creamer 1984).

5.7.1 Implications for the Cultural and Archaeological Record

With the invasion of the area by non-indigenous people, the traditional lifeways of the local Aborigines were severely disrupted and this change is reflected in the archaeological record. The most obvious effect is a change in Aboriginal demographic patterns and as a result site distribution and frequency. Although some Aboriginal site types may have persisted into the post-invasion period (e.g. occupational camps), they generally ceased to be formed. Seasonal movements also ceased and fringe camps were established.

In the initial phase of this period non-traditional items were incorporated into subsistence activities. For example, steel axes replaced the traditional stone axe, and glass and electricity insulators were sometimes flaked to obtain sharp cutting implements. Hence, the archaeological record may reflect the use of such non-traditional items.

A variety of non-traditional sites from the post-invasion period can be of particular cultural heritage significance to Aboriginal people – in particular, places such as missions, reserves, massacre sites, fringe camps and places of work.

Another implication for the cultural and archaeological record is the destruction of sites that occurred after non-indigenous settlement.

6.0 HISTORICAL CONTEXT

A brief outline of the non-indigenous history of the study area is provided so that an understanding of prior impacts on the landscape can be understood.

6.1 The Study Area

The history of the region surrounding Coffs Harbour, which includes the present study area, has been presented in England and Walker (1976) and extracts are offered here. Cedar-cutters quickly began to expand beyond Port Macquarie, one of the early penal settlements established in 1821. Typically they travelled up rivers and their tributaries, using the river as transportation. By 1839, they had entered the valley of the Macleay River and set up a village at Kempsey; and also the Clarence River had been explored as far as a ship could travel upstream. In 1841, cedar-cutters established themselves in along the Bellinger River, and cedar from this area soon flooded the Sydney market.

Pastoralists soon joined in the expansion of the New South Wales colony, and by the mid-1840s, Pastoral Districts were declared as far north as Wide Bay in Queensland. By 1861, the district surveyors at Kempsey and Grafton had been instructed to examine the small streams north of the Bellinger River and to reserve sites for future towns or other uses before the Robertson Land Act came into operation. This Act permitted selectors to take up any unreserved land. They set aside areas as Sawtell (then Bongil Bongil), Boambee and Coffs Harbour. The Bellinger Valley was opened to selection in 1863. Owing to the lack of a river, Coffs Harbour was overlooked for some time, with selection by farmers not taking place until around 1879.

In the early 1880s, there were attempts to establish sugar cane as a crop in the Coffs Harbour district. For example, at Korora, James Small cut out the local supplies of cedar and pine, and as he had much softwood brush on his land, he decided to plant sugar cane. A number of sugar-crushing mills, horse-powered or later stream-driven, were constructed in the district. Cane growing, however, was eventually abandoned because the soils were not deep enough to allow the roots to expand, and the mills were handicapped by the lack of transport to refineries in Sydney. The last sugar was exported from the district in 1898.

In 1886 Hermann Rieck purchased for eighty one pounds 81 acres which incorporated the present study area. Rieck introduced the Fiji variety of bananas into the area in the 1870s and hence it is most likely that bananas were grown on his land (and possibly the present study area). Riecks Point at the northern end of Campbells Beach is most likely named after Hermann Rieck and may have marked the northern extent of the 81 acre property.

In the early years, cedar, gold and agricultural products were the foundations of the area's economy. Settlers found that bananas grew well and by the late 1960s, the banana industry reached its peak when NSW produced 80% of Australia's bananas. Bananas also brought to the Coffs Coast a substantial number of Indian migrants from Queensland who had originally come to Australia from the Punjab. These were the ancestors of Woolgoolba's now substantial Sikh community.

It is most likely that the study area was used for farming until the 1970s. The configuration of the lot originally purchased by Rieck changed through time as parts of the land were annexed for roads, water pipeline, sewer pipeline and easements

including electricity and access. Former owners include John Boyle Hill (“Gentleman”), Norman John Hill, Edith Lucy Simpson, John Oswald Noble (“farmer”), Myrtle Phoebe Downton, Cyril John Lewis Fileman (“farmer”) and Cecil Mary Fileman. In 1976 the northwestern portion abutting the Pacific Highway was sold to Lawrence Alfred Josephs (Real Estate Agent) and Gladys Mary Josephs. In 1983 a portion of the study area was owned by George Murray Mitchell and Sonia Mitchell (joint tenants, Motel Proprietor). An undated aerial shows what could be holiday huts or caravans on the southern, beachfront section of the block where the swimming pool and tennis courts are currently located (see **Figure 4**). This aerial may relate to the period when the Mitchell’s owned a portion of the study area. Tourism had been important in the area from around 1884 when Bonville Reserve (now Sawtell) attracted tourists. As early as Christmas 1912, some 300 holiday makers gathered at the reserve.

Aetna Properties Ltd and S.W. Woods Holdings purchased the Mitchell’s land in 1985 and the Pelican Beach Resort was constructed on the site in 1986. The construction involved excavation of portions of the site to accommodate the buildings (see Sub-section 8.2).

The construction of the Pelican Beach Resort as well as other tourist complexes along the narrow coastal corridor firmly established the tourism industry in the area.



6.2 Summary of Implications for the Indigenous Archaeological Record

The non-indigenous land use activities (land clearance, pastoral activities, establishment of structures; installation of infrastructure, etc) would have altered the physical environment. These activities have implications for the survival of the Indigenous archaeological record. In particular, activities that disturb the ground surface are liable to disturb, or where soil removal is undertaken, obliterate sites lying on, or within the ground. Other site types, such as scarred trees, would have been under direct impact by timber-cutting and scrub clearance activities.

7.0 INDIGENOUS ARCHAEOLOGICAL CONTEXT

The aim of this section is to provide a general understanding regarding Aboriginal archaeological site potential within the study area. Sub-section 7.1 provides a broad outline of the results of archaeological research at a regional level. Sub-section 7.2 reviews archaeological consultancies undertaken in the vicinity of the study area. Sub-section 7.3 discusses previously recorded or reported sites in the vicinity of the study area. The purpose of presenting the data is to provide a comprehensive background so that sound predictions regarding the archaeological potential of the study area can be formulated.

7.1 Archaeological Research in the Study Region

Although Aboriginal occupation of Australia is dated to around 60,000 years ago, the oldest dated site in the region (northern New South Wales/southern Queensland) dates to at least 22,000 years (Neal and Stock 1986). There is also a relatively good archaeological record for the past 6,000 years.

Current theory holds that, as Pleistocene glacial ice melted and the seas rose, coastal people were forced to adjust to the changing landscape (Hall and Hiscock 1988). Seas reached their present levels sometime around 6,000 years ago. Through time regionally isolated settlement-subsistence systems and associated socio-political entities developed (McNiven 1991). Some groups fissioned and may have annexed territory from groups further west of the coast. By about 2,500 years ago, the region was populated by numerous named groups with diverging languages, similar to those recorded historically. These diverse groups were far from isolated entities and a great deal of social interaction (trade, marriage and other ceremonies) took place during the year. Thus, rather than taking the form of a patchwork quilt over the landscape, these different societies were more like a living interwoven mosaic due to extensive social ties through intermarriage and other socially-linking mechanisms (see Davies 2002).

The archaeological record does not contradict the contention, drawn from ethnohistorical observations, that the region had a high population density and that marine and estuarine shellfish and fish made a significant contribution to the diet of its Aboriginal inhabitants. Large numbers of shell middens occur along the coast and the lower reaches of the major river valleys. For example, the large middens at Clybucca on the Lower Macleay River (see Campbell 1969). Aboriginal exploitation of the inland environment behind the coastal plain has also been demonstrated (see Happ and Bowdler 1983; McBryde 1974, 1976). Other archaeological research has also been undertaken in the region (e.g. McBryde 1982; Coleman 1978, 1982) with excavations conducted mainly on the Clarence and Macleay River systems.

Excavations carried out at the Wombah midden on the Clarence River estuary revealed that this site was occupied between 4,000 and 1,000 years ago. Analysis of the excavated material from the Wombah midden reveal an economy based almost totally on shellfish. At this midden only small quantities of fish bone are present. McBryde (1976:52) suggested that, on the basis of the high percentage of shellfish (especially oyster), Wombah midden was probably occupied during the summer.

Seelands rockshelter in the Clarence River Valley (near Grafton) was first occupied some 6,500 years ago (McBryde 1974). The faunal remains excavated from Seelands provide information about Aboriginal subsistence along the Clarence River. The bone remains indicate that forest mammals (rainforest and sclerophyll) such as wallaby, kangaroo, possum, bandicoot and native cat were the main component of the diet with fish, tortoise and freshwater molluscs making a minor contribution (Byrne 1985a).

Dates obtained from another rockshelter excavated at Blaxlands Flat, some 25 kilometres south of Grafton, indicate that initial use of the shelter commenced between 1,030 years ago and 1,280 years ago. This date was obtained from wood and charcoal fragments which were associated with a number of Aboriginal burials located in the shelter (McBryde 1974:144).

In the Macleay River Valley a number of midden sites have been excavated (Campbell 1969; Connah 1975, 1976). All except one date between 1,000 BP (Before Present) and 6,000 BP. At Stuarts Point a large midden has been dated at 9,320 BP. However, as the association of the dated charcoal with definite human artefacts is dubious, this date may not be an accurate indication of when the site was initially occupied (Coleman 1978:52). Besides a dense deposit of mainly oyster (*Saccostrea commercialis*) and cockle (*Anadara trapezia*), this stratified midden also contains hearths, stone artefacts, bone points, fish and animal bones and plant remains.

As a result of analysis of fish species present in the Stuarts Point midden, Coleman (1978) suggested that the site was occupied during the summer. Oysters present in this site may also indicate summer occupation. Analysis of the excavated material from the Woombah midden on the Clarence River reveal an economy based almost totally on shellfish. At this midden, unlike Stuarts Point, only small quantities of fish bone are present. McBryde (1976:52) suggested that, on the basis of the high percentage of shellfish (especially oyster), Woombah midden was probably occupied during the summer. Excavated material from the inland sites (e.g. Seelands) reveals a subsistence pattern based on land mammals. The above analysis is therefore used to support the hypothesis of a seasonal occupation of coastal and hinterland sites. However, as marine shellfish are present at Seelands, the analysis can also be used to support Coleman's (1978) hypothesis that the apparent contact between coastal and inland groups may be a result of trade and/or exchange. However, Coleman (1978) does concede that inland groups may have been invited by coastal groups to procure fish at certain times of the year.

Research has been undertaken by the Yarrawarra Aboriginal Corporation, generally in conjunction with the University of New England, in areas to the north of the present study area. This research has included excavation of Arrawarra Midden 1 (Smith 1998a), Corindi Beach South 1 (Smith 1998b) and Red Rock Recreation Reserve Midden (Murphy 2000). Arrawarra Midden 1 was dated to around 1,300 years ago. This site, which is located in foredunes, contains fishbone, as well as a range of shellfish and land animal remains (Smith 1988a). Greywacke, which is locally available, was the dominant raw material in the artefact assemblage at Corindi Beach South 1. A large range of shellfish species was also present. Smith (1998b:16) suggests that this may reflect "evidence of an opportunistic approach to shellfish gathering and the exploitation of a range of environments".

7.2 Cultural Heritage Surveys in the Region of the Study Area

A number of archaeological surveys / assessments have been conducted in the coastal terrain and the subcoastal areas between Coffs Harbour and Grafton (e.g. Brayshaw 1988; Byrne 1985b, 1988; Comber 1991; Davies 1991a, 1991b, 1998, 2004, 2005a, 2005b, 2006; Davies and Stewart-Zerba 1993; Djekic 1979; Godwin 1982, 1984a, 1984b, 1987; Hall and Lomax 1993; Kinhill n.d.; Kuskie 1993; McBryde 1967; Navin 1990, 1991; Navin and Cundy 1990; Navin and Officer 1990; Piper 1980; Rich 1989a, 1989b, 1989c; Starling 1974). However, only cultural heritage surveys that are in relative close proximity to the present study area are outlined below:

- Dallas and Tuck (2004) have undertaken an Aboriginal archaeological assessment of Lot 210 DP1044292, Moonee Beach. This lot is to the north of the present study area. One stone artefact scatter comprising four stone artefacts and two manuports was located on the saddle of a low spur. The artefacts were of greywacke and the manuports were river pebbles.
- Three previous archaeological studies have been undertaken within a property to the east of the Pacific Highway on the northern side of Split Solitary Road at Sapphire Beach (to the north of the present study area). The first study was an archaeological survey undertaken by Dallas and Tuck (2003). As a result of the survey, two open camp sites (MSB1 and MSB2) and two isolated artefacts (ISF1 and ISF2) were identified. MSB1 (#22-1-0169), MSB2 (#22-1-0168) and ISF2 (#22-1-0166) were considered to be associated with potential archaeological deposits (PADs) (Dallas and Tuck 2003:58). Based on the study by Dallas and Tuck (2003), further archaeological work, comprising sub-surface testing of identified PAD areas, was undertaken by Davies Heritage Consultants and Site Officers from the Coffs Harbour and District LALC (Davies 2004). The results of the test excavations confirmed that sub-surface archaeological material was present within the property including an additional PAD area (#22-1-0194). The archaeological material is generally within the A soil horizon generally near the interface with the B horizon and typically to a depth of around 20cm. So the proposed development of the property could proceed, a Section 90 Consent Permit was obtained from the Department of Environment and Conservation (NSW) and salvage excavation has been undertaken within the PAD areas (Davies 2005a, 2006).
- Appleton (1995) undertook an archaeological investigation of the site of a proposed subdivision at Emerald Beach to the northeast of the present study. No artefactual material was observed but Appleton re-recorded the midden on Diggers Point.
- Brayshaw and Byrne (1993) undertook an assessment of the archaeology of Look At Me Known Headland which is located to the north of the present study area. Archaeological inspection of the headland revealed that artefacts were occurring within the topsoil and also within the underlying sandy clayey silt. The impression gained from a preliminary analysis of artefacts suggest that they constituted part of a previously existing site complex centered on the destroyed Moonee Beach site (#22-1-19). This site was described as 'an implement-bearing midden horizon' covering an area of around six hectares at the north end of Moonee Beach. The site was situated between the foredunes and a high back

dune formation. McBryde (1967, 1972) described the artefacts from this sites as belonging to a 'pebble tool industry':

These include complete pebble chopper implements, among which...the side-chopper seems dominant, large core, broken blocks of roughly worked stone, and flakes, which suggests that there was extensive use of the site for stone working.

McBryde collected around 1.75 tons of artefacts from the Moonee Beach site indicating a density of roughly 100-1,000 artefacts/m². The highest density of stone artefacts on the headland was around 2/m². A "significant collection of artefacts from the area" (Brayshaw and Byrne 1993:9) of the Moonee Beach site is held by Mr Ben Holder. Only four artefacts however were collected from the Headland including two pebble flakes, a pebble with abrasion at one end and negative scars at the other and a side-flaked pebble chopper. There were also two stones 20-30cm long with no clear signs of being artefactual. Although the archaeological material located on the Headland was not assessed as being of significance, the Headland itself is regarded as a sacred site (Brayshaw and Byrne 1993:12).

- Collins (2002) undertook an Aboriginal heritage assessment of the upgrade of a section of the Pacific Highway between Sapphire and Woolgoolga (to the north of the present study area). Collins (2002) discusses several sites, including site #22-1-138. This site is located just north of the spur currently occupied by the Coffs Harbour Gun Club. Collins (2002:52) notes that "during the mid-1880s a tribal fight and a corroboree were reportedly held on coastal flats inland of Look-At-Me-Know Headland. The site is located on the crest and northern upper slope of a low east-tending spur which has been cut by the Pacific Highway. The terminal end of the spur is occupied by the Coffs Harbour Gun Club and is flanked by poorly drained coastal flats (Collins 2002:47). Artefacts located at this site include flakes, flaked pieces, cores and a scraper manufactured from a variety of lithic material including chert, quartzite, greywacke, quartz and siltstone.
- Macdonald and Collins (1999) have undertaken a cultural heritage assessment of a ten metre wide reclaimed water pipeline corridor extending west from the western boundary of the Pacific Highway road reserve from Coffs Harbour to Bucca Road and the eastern road reserve boundary from Bucca Road to the northern limit of the Coffs Harbour City LGA near Corindi. As a result of the assessment a total of six open campsites, three isolated stone artefacts and three shell middens were recorded. One of these sites (#22-1-0142) is an isolated greywacke flake located at the base of a three metre high road cutting and directly beside the Pacific Highway pavement to the south of the present study area (see Sub-section 7.3).
- Collins (pers.comm. 2005) notes that after completing the archaeological survey of the reclaimed water pipeline corridor, the alignment north of Hunter Close to Bucca Road was moved from the western to the eastern side of the Pacific Highway and Site Officers from the Coffs Harbour and District LALC inspected the new alignment. Two sites (#22-1-0192 and #22-1-0193) comprising a stone artefact scatters and an isolated stone artefact were recorded (see Sub-section 7.3). Subsequently a Section 90 Consent to Destroy Permit (#1986) was issued for these two sites.
- Godwin (1984b) undertook an archaeological survey of a block of land on the eastern side of the Pacific Highway at Korora Bay (now the Pacific Bay Resort) to the south of the present study area. Three isolated stone artefacts were located

during this survey. Two of the artefacts were located on lower slopes adjacent to a swamp.

- Collins (1996) undertook an archaeological survey for a residential development to the immediate south of Godwin's (1984) survey area. Two disturbed open campsites were recorded in the area, one on elevated terrain and the other on the crest of a knoll. A retouched unifacial pebble artefact was also found on the upper slope of the knoll.

7.3 Recorded and Known Indigenous Cultural Sites within and in the Vicinity of the Study Area

A search of the New South Wales National Parks and Wildlife Service's Aboriginal Sites Register database (AHIMS) has shown that no sites are recorded specifically within the study area. However, background research has revealed there are at least nine sites recorded in the vicinity (see **Figure 5**):

1. #22-1-0166 – stone artefact scatter located to the north of the present study area;
2. #22-1-0167 – isolated stone artefact located to the north of the present study area;
3. #22-1-0168 – stone artefact scatter located to the north of the present study area;
4. #22-1-0169 – stone artefact scatter located to the north of the present study area;
5. #22-1-0194 – stone artefact scatter located to the north of the present study area;
6. #22-1-0193 - stone artefact scatter located to the north of the present study area;
7. #22-1-0142 - isolated artefact located to the south of the present study area;
8. #22-1-0008 - mythological site located on the coastline to the south of the present study area;
9. #22-1-0002 - mythological site comprising a rock outcrop on the coast to the south of the present study area;
10. #22-1-0125 – natural mythological (ritual) site located to the south of the present study area;
11. Three isolated stone artefacts recorded at Korora Bay (Godwin 1984) to the south of the present study area;
12. Two open campsites recorded by Collins (1996) at Korora Bay to the south of the present study area;
13. #22-1-0084 – an open camp site located to the south of the present study area; and
14. #22-1-0016 – natural mythological site located to the south of the present study area.



Figure 5. Location of Previously Recorded Sites.

7.4 Summary of Archaeological Context

From the above overview of archaeological context, it has been ascertained that archaeological sites have been recorded in the vicinity of the study area. It is important to note, however, that the location of the recorded sites most likely reflect areas where archaeological surveys have been undertaken.

Based on the results of various archaeological surveys in the area, inferences may be made regarding site location patterns. It would seem sites are generally distributed along ridges and spurs and adjacent to river / creek channels or swamps and there is a potential that such sites may have a sub-surface component. Sites have also been located in sand masses (see Sub-section 10.2.1).

As a result of prior land use activities (see sub-section 8.2), ground surface disturbance throughout the majority of the present study area would place constraints on the presence of *in situ* archaeological material.

It is therefore considered that archaeological knowledge regarding possible site types, the contents of these sites and potential areas for site location in areas of similar environment to the present study area, has been outlined. Based on information contained within this Section, a predictive model of site location for the study area can be proposed (see Sub-section 10.2.1)

8.0 DESCRIPTION OF THE STUDY AREA

The study area, which is approximately 41,503m², is located north of Coffs Harbour between Korora and Sapphire. The land is located to the east of the Pacific Highway, between the Pacific Ocean (Campbells Beach) and the Highway within a highly developed corridor of coastal land north of Coffs Harbour.

8.1 Environment and Resources of the Study Area

The following sections outline the topography, geology, vegetation, and fauna patterns within the study area. These aspects of the environment are indicators for archaeologically sensitive areas. For example, the archaeological implications for these related factors include:

➤ **Topography**

This factor relates specifically to access and available camping locations.

➤ **Geology and Soils**

An understanding of the geology of the region provides information related to the types of lithic materials available for exploitation by Aboriginal people. Soils are derived from the underlying geology or from fluvial or alluvial processes that have the potential to conceal or expose sites. In areas where a deep soil profile is present the potential for stratified archaeological sites is greater. Soils can also influence vegetation patterns.

➤ **Vegetation**

The type of vegetation communities present in the region relate directly to the types of plant species available for exploitation and indirectly to the faunal species supported by the available plant species.

➤ **Fauna**

The type of faunal species present relates to various factors including vegetation type and water availability. Additionally, terrain types (e.g. open coast, estuarine, valleys, ranges, etc) also affect the presence/absence of particular species.

All these factors affected the types of exploitation strategies employed by Aboriginal people and hence the formation of the archaeological record. Additionally, these factors also affect the survival and present detectability of sites (see Sub-section 10.1).

8.1.1 Topography

The topography of the study area generally comprises a depression between two east-west tending ridgelines. The southern ridgeline is more pronounced and extends to form a rocky headland at the southern end of Campbells Beach. The elevations along this ridgeline are to around 40m a.s.l. (above sea level) at point to the immediate east of the Pacific Highway. The northern headland, which has elevations to around 20m a.s.l. terminates to the west of Campbells Beach. The terminal end of the northern ridgeline forms a relatively steep scarp. The Pacific Highway, which is located along the western boundary of the study area, is at around 28m a.s.l. The terrain slopes down from the Highway to be around 10m a.s.l. in the central portion of the study area. The eastern portion of the study area is below 10m a.s.l. rising marginally to around 4m a.s.l. adjacent to Campbells Beach where a dune is located to the immediate west of this beach (see **Figure 4**). A swale is located to the immediate west of this dune.

➤ **Archaeological Implications**

The main element within the above mentioned topographic areas that may have been utilised by Aboriginal people is the dune and swale (see sub-section 10.2.1). Evidence of the use of different topographic features would be in the form of one or more of the potentially occurring archaeological site types (see Sub-section 9.1). Although not always evident from the archaeological record, cultural factors may have affected the placement of camps within the study area.

8.1.2 Geology

The geology of the western portion of the study area is comprised of Carboniferous-Lower Permian deposits of the Coramba Beds comprising minor siltstone, siliceous siltstone, mudstone, metabasalt, chert and jasper, rare calcareous siltstone and felsic volcanics. The eastern portion is comprised of Quaternary coastal sand dunes (Dorrigo-Coffs and Grafton 1:250,000 Geological Series Maps).

➤ **Archaeological Implications**

The Coramba Beds in the western portion of the study area include lithic raw material suitable for the manufacture of stone artefacts (e.g. volcanics, siltstone, mudstone, chert and jasper). It is possible that such material was present on the ground surface and may have been available from cobbles if present at the terminal end of the southern ridgeline. Local geology is related to the occurrence and distribution of specific site types such as quarries, grinding grooves and engravings (see Sub-section 9.1).

8.1.3 Soils

Development of the soils in the broader study area appears to be closely related to the geological substrate. The Coramba Beds generally decomposed to form grey sandy clay soils. The Quaternary deposits in the eastern section of the study area are generally composed of sands.

➤ **Archaeological Implications**

In the study area sections within an aggrading landform and deep soil profile have the potential to contain sub-surface archaeological deposits that may be stratified. Due to the regular deposition of sediments in these areas, however, detectability of such deposits is often constrained. In areas with skeletal soils (i.e. with a shallow soil

profile and high dispersion rate - e.g. areas along ridge lines and on steep slopes) site detectability is enhanced. However, these erosive processes also have the potential to modify or disturb the internal structure of sites (e.g. stone artefact scatters). Only a few site types are not affected by these processes (e.g. scarred trees).

8.1.4 Vegetation

The majority of vegetation within the study area has been modified as a result of prior land use activities. There is, however, an area of remnant littoral rainforest located primarily along the base of the steep slope of the terminal end of the northern ridgeline. This area is currently within a 7(a) Environmental Protection Zone.

➤ **Archaeological Implications**

Many of the vegetation types that were once present in the study area would have provided a wide variety of resources for exploitation (e.g. food and material culture items). For example, the bark from some trees may have been removed for containers or shields and holes may have been made in trees to gain access to bee hives and possums. The physical indicator of these exploitation strategies would be the presence of scarred trees. Unless located within the Environmental Protection Zone, this site type would not now be present within the study area.

8.1.5 Fauna

As mentioned above (Sub-section 8.1), the appearance and distribution of fauna within an area relates to factors such as vegetation communities, water availability and terrain types. It is considered that prior to non-indigenous settlement the study area would have contained diverse and abundant faunal species. Species present may have included mammals (e.g. kangaroo, wallaby, possum, dingo), reptiles (e.g. lizards, snakes) and birds. Numerous species would also have been available from the adjacent beach and ocean. Non-indigenous settlement and associated activities have disrupted the area's original terrestrial faunal communities.

➤ **Archaeological Implications**

All the faunal species mentioned above were utilised by Aboriginal people and archaeological indicators of this exploitation may be present in the form of bone and shell remains which are most likely to occur within stratified or sub-surface archaeological deposits.

8.2 Prior Land Use

As noted in Sub-section 6.1, Pelican Beach Resort was constructed on this site in 1986. Prior to this date the site was subjected to farming, banana growing and tourist development activities. The site currently contains the following items (see **Figure 6**):

➤ **Resort Building**

The existing development comprises a part three and part four storey resort building containing 114 hotel suites and conference facilities.

The building was constructed in 1986 and is mainly located on the lower part of the site with the upper levels stepping up and excavated into the slope.

The building is concrete and of steel frame construction with a low pitched tile roof. Part of the building contains a glass covered atrium between the changes of level. The building has a distinctive 'dog bone' shape. External steel framed balconies with curved steel roofs are located on the outside of the structure.



Figure 6. Items within the Study Area

➤ **Recreational Facilities**

The following recreational facilities are present within the study area:

Swimming pool;
Shaded children's pool;
Children's playgrounds;
Indoor gym, sauna and spa;
Tennis courts (3);
Volleyball court;
Mini golf;
Cricket pitch and
Games room.

➤ **Former Restaurant (Seafood Mama's)**

This former restaurant building fronts the Pacific Highway in the north western corner of the site. This building is also a concrete and steel frame construction with a gable

on hip tile roof rising to a glass-sided feature along the crest of the gable (see **Plate 1**). This structure was built in 1984.



Plate 1. Seafood Mama's Restaurant Building

8.3 Summary Implications

It is considered that, given the environment and resources (primarily flora and fauna) available, the terrain within the study area would have been exploited by Aboriginal people. The exploitation strategies would have left visible markers in the landscape (i.e. specific site types - see Sub-section 9.1). However, the detection and survival of such visible markers is often conditional upon natural (e.g. sheet wash, erosion, deposition) and cultural processes (e.g. non-indigenous land use) (see Sub-section 8.2). As a result of prior land use activities, it is unlikely that any surface archaeological material located would be *in situ*. However, such material may be present in undisturbed sections of the eastern portion of the study area.

9.0 THE POTENTIAL INDIGENOUS ARCHAEOLOGICAL AND CULTURAL RECORD

Although Aboriginal people may have exploited all parts of the terrain present within the study area, their activities will only be reflected in the **archaeological** record if there are physical remains. However, many sites of significance to Aboriginal people do not contain such remains (cultural sites). In the following Sub-sections and based on information provided in the previous sections of this report, the most likely archaeological (Sub-section 9.1) and cultural (Sub-Section 9.2) site types that may be found within or immediately adjacent to the study area are discussed. The notion of Cultural Landscape is discussed in Sub-section 9.3.

9.1 Archaeological Site Types

As a result of the extensive disturbance that has occurred throughout the study area, the potential for most site types to be present has been considerably reduced. However, there are potentially at least five archaeological site types that may be located within the study area. The likely distribution of these site types within the study area is discussed in Sub-section 10.2.1.

➤ **Stone Artefact Scatters**

Stone Artefact Scatters are the remains of activity sites and contain evidence of Aboriginal activities such as the manufacture of stone artefacts. These sites may represent periods of variable duration and may reflect a variety of activities. Due to the resilient nature of stone material, Stone Artefact Scatters are also the most common archaeological site type.

Aboriginal people fractured fine-grained isotropic rocks to produce sharp cutting and scraping instruments. The raw material and form of stone tool artefacts can be quite varied, although fine-grained isotropic rocks, such as quartz, chert and silcrete, were preferred where sharp cutting and scraping edges were required. Crystalline volcanic rocks such as basalt, or pebbles of raw material such as argillite or greywacke, were flaked and then ground to form hatchet-heads for a variety of chopping and cutting tasks. The results of such activities as well as stone artefacts themselves, occur as scatters of modified stone (e.g. cores, flakes, flaked pieces, hammerstones, and anvils). Owing to site frequency and artefact density, Stone Artefact Scatters provide valuable information relating to past Aboriginal settlement and culture.

Stone Artefact Scatters often indicate the remains of occupational camp sites where other associated organic material has decayed, but they can also reflect the results of a specific activity (e.g. stone knapping site or food processing site). Sometimes Stone Artefact Scatters are recorded as Knapping Sites where only that specific activity is present. Knapping Sites and Stone Artefact Scatters, along with other site types such as hearths (fireplaces), shell middens, burials, shelters, etc., are often called Site Complexes.

Stone Artefact Scatters have been found in various locations, although the majority tend to be located on reasonably level ground. Higher density artefact scatters will generally be located closer to permanent water, whereas lower density and

background scatters may be found some distance from permanent water. It should be noted, however, that there are often important exceptions to this general trend. Scatters of stone artefacts can be found in varying concentrations either in open terrain, or in rockshelter settings. The designation "site" is most commonly applied to high-density concentrations of archaeological material, whilst the surrounding intermittent, low-density material is referred to as "background scatter". This "background scatter" often occurs in the form of isolated artefacts. Researchers often assume that all significant cultural information occurs within high density concentrations of artefacts and areas of low artefact density or isolated items (background scatter) are of no value. A more accurate approach is to view the archaeological record as a more or less continuous artefact distribution of variable density across the landscape (see Dancey 1981; Dunnell and Dancey 1983:272; Dunnell 1992:34).

Stone artefact scatters have been recorded in the region of the study area (see Sub-sections 7.2 and 7.3).

➤ **Shell Middens**

In essence, Shell Middens are prehistoric food refuse heaps. They are deposits of shells of marine or freshwater molluscs that formed part of the Aboriginal diet. Midden sites can range considerably in size from large mounds to small, superficial scatters of shell. Middens may also contain the bones of terrestrial animals exploited for food as well as artefacts of stone, bone or shell (Bell 1986:28). These sites can occur close in inland lakes, swamps or rivers. Burials are sometimes located in middens (Bell 1986:30).

Although this site type has not been recorded specifically within the study area, as shellfish species were available from the coastline to the east, the likelihood that this site type may be located within the study area should not be totally dismissed.

➤ **Scarred Trees**

Trees are scarred as a result of the removal of bark for the manufacture of material culture items such as shields, water containers, canoes and roofing for shelters (Bell 1986:32; Sullivan 1984). Scars may also result from the extrication by Aborigines of possums or honey from trees, and may be in the form of toeholds in the trunk or larger branches. Scarred trees are common in riverine areas.

There are also non-cultural reasons that a tree can be scarred (e.g. lightning strike, fire, branch throw and machinery damage). However, a number of criteria can be used to distinguish culturally derived scarring. Such criteria include (see Aboriginal Heritage Unit n.d.):

- maturity of tree, particularly for pre-contact scarring
- generally regularly shaped, elongated, oval scar
- the termination of the scar before the ground level
- the exposed heartwood does not exhibit major irregularities
- there is no evidence that a branch was present at the top of the scar
- axe marks should be present at the top or base of the scar. The axe marks may be either from stone axes or metal axes (post-contact site).

These criteria hold best for scars originating from the production of shields, water containers, canoes and roofing for shelters. However, scars that were made for toeholds are generally much smaller and less regular. Also, the above criteria does not take into account that regrowth around the scar not only has the potential to conceal outline cuts but also conceal the original shape of the scar. Differential regrowth may also result in a shape that is not regular.

Scarred trees have not been recorded in the broader area (see Sub-section 7.2). As a result of vegetation clearance within the majority of the study area, there is only a low potential that this site type may be present. If present this site type may be restricted to the area of remnant littoral rainforest.

➤ **Burials**

Generally, burials are found close to areas where occupation was concentrated, though individual burials can occur almost anywhere. The majority of burials occurs where soft sediments are available (e.g. alluvial flats adjacent to watercourses, sand dunes, etc.) and in caves or rock shelters (Bell 1986:30).

Along the coastline burials are often located within sand masses. It is considered that the potential for this site type to be present within the dune along the eastern boundary of the study area should not be dismissed.

➤ **Contact and Post-Contact Period Sites**

Aboriginal settlement patterns and lifestyles changed significantly as non-indigenous people moved into local areas. Destruction of major portions of the natural landscape forced Aboriginal groups into a dependent relationship with the non-indigenous settlers. Locations where violent and non-violent contact occurred, fringe encampments which began to develop after contact and places of work (e.g. pastoral stations), are often remembered by Aboriginal people living today (Goulding 1993). Because of the close and personal historic contact Aborigines may have with these camps and locations, they regard them as significant and part of their history to be documented and, in some cases, preserved. While some of these sites still have visible remains, other sites often have no physical alterations to the landscape (e.g. massacre sites). Although there is often no documentation in relation to some of these sites, sometimes records do exist (e.g. station records, diaries, newspaper articles, etc.). Additionally, consultation with local and Indigenous informants assists in the identification of such sites.

Although this site type has not been identified within the study area during background research, consultation with the Indigenous representatives during the survey may reveal the location of this site type if present within the study area.

9.2 Cultural Site Types

The following site types generally do not have physical indicators of their presence:

➤ **Mythological Sites and Places of Significance to Aboriginal People**

Mythological Sites usually involve no alteration to the natural landscape. As such they are archaeologically invisible and can only be identified with the aid of Aboriginal consultants. Such sites hold particular cultural significance to Aboriginal people.

Despite assumptions to the contrary, there exists a vital knowledge of 'sites of significance' amongst Aboriginal people. The Aboriginal Sites of Significance Survey conducted in New South Wales during the 1970s resulted in the recording of over 500 sites of Aboriginal significance. A large proportion of these were mythological or ceremonial sites (Godwin and Creamer 1984). A case study by Godwin and Creamer (1984) yielded numerous places of significance to Aboriginal people which were classified under a number of categories as follows:

Good Food Places

These were places from which good supplies of fish, yams, birds' eggs, and so on, can be obtained.

Recent Camping Places

These consisted of two kinds. First were those associated with the location of Aboriginal missions and reserves in the area over the past 100 years. Second were those associated with getting away from town, and these often served as base camps for food-gathering activities.

Dangerous Places

These were identified as being where there had been a manifestation of a spirit, or where such manifestation might occur. Usually it involved a person being physically harassed by a spirit.

Mythological Sites

These were identified by the presence of a feature central to a myth or that is explained by a myth. Mountains, rocks, swamps, and other natural places may be mythological places.

Ancestral Camping Places

These were usually identified by spirit harassment.

Two places of cultural significance have been recorded in the vicinity of the study area (see sub-section 7.3). Through consultation with the Indigenous representatives present during the survey, other examples of this site type (e.g. ceremonial grounds) may be identified.

9.3 Cultural Landscape

Although all the above mentioned site types are described in isolation of each other the pattern of distribution of such sites in the landscape should be viewed as providing information regarding the cultural landscape. That is, sites do not occur in isolation from other sites but are linked by various overlapping and interconnected relationships. Aboriginal people also managed the landscape in various ways (e.g. firing, deliberate plantings, fish traps, etc.) for resource utilisation. Thus, to Aboriginal people the landscape is part of the cultural heritage. As Ross (1996:9) notes:

Generally speaking, Aboriginal people view landscapes differently from non-Aboriginal people. To most Aboriginal people a landscape is an entity in its own right. And it is more than the land alone, as the concept incorporates relationships between place and people, both in a spiritual sense and from the perspective of the resources which the landscape supplies. Although different components of the landscape may be recognised and named, the whole is more than the sum of its parts.