

AN ABORIGINAL HERITAGE SURVEY FOR THE ALBANY RING ROAD, STAGES 2 & 3, WESTERN AUSTRALIA.

A report prepared for GHD on behalf of Main Roads.

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EXECUTIVE SUMMARY

The purpose of the study is to undertake the detailed planning for the preferred alignment of the Albany Ring Road to more precisely define its location and layout, and to prepare land protection plans suitable for inclusion of the road in the City of Albany Town Planning Scheme. The ultimate planning design concepts will provide for a dual carriageway and grade separation with the Ring Road / Albany Highway and the Ring Road / Hanrahan Road / Frenchman Bay Road. Main Roads is now seeking whether any sites of significance to Aboriginal people will be impacted upon by this proposed work thereby fulfilling their obligations under the West Australian Aboriginal Heritage Act (1972).

A search of the DIA Sites Register was conducted on the 6th June 2006 by FPT site auto download on an air photo cadastral background on Arc View GIS version 9 (see Appendix 3). The search revealed that no Aboriginal Heritage sites were located within the study area. Two Aboriginal ethnographic sites were located within the vicinity of the project proposal. Site ID 18705 Black Stump is located 1.63 kilometres to the south of Waypoint 7 and Site ID 21837 Creek 3 is located 0.62 kilometres north-east of Waypoint 1 (see map and spreadsheet in Appendix 3 for Waypoint locations and sites in relation to the road corridor).

During the course of community consultations with 9 members of the Albany Aboriginal community several locations along the route of the proposed Albany Ring Road were visited, while the entire corridor was driven by the survey team. As a result of this survey one possible site of significance to one informant was identified to be located within the study area. This possible site is located south of the Lower Denmark Road where the Lower Denmark Road intersects with Frenchman Bay Road. This reported camp site is located within the study area for the Albany Ring Road Stages 2 and 3. The ultimate planning design concept provides for a grade separation of the Ring Road with Hanrahan Road and Frenchman Bay Road that will provide an interchange that is likely to affect the area of this reported site. Due to the lack of consensus with regards to the varsity of this report and the lack of physical evidence to support the claim with regards to the historical use of the area by Aboriginal people, it is unlikely that this area would be seen as a site under Section 5 a, b, c or d of the West Australian Aboriginal Heritage Act (1972). There is no doubt however that if the area is determined as a site by the ACMC or the Registrar of Aboriginal Sites that the informant holds great sentiment with regards to the area as defined under Section 39(2)b of the West Australian Aboriginal Heritage Act (1972). None of the other Aboriginal informants involved in the survey had any knowledge of the reported camping area and recommended that the area should not be recorded as a site under the West Australian Aboriginal Heritage Act (1972).

There were no other issues raised during the survey that may affect the road works as planned.

It is recommended that the road works should proceed as planned.

It is recommended that as none of the other Aboriginal informants involved in the survey had any knowledge of the reported camping area, that Main Roads write to the Registrar and ACMC seeking clarification with regards to the report and its relevance under Section 5 of the West Australian Aboriginal Heritage Act (1972). Should the reported area be determined a site, then Main Roads will need to apply under Section 18 of the West Australian Aboriginal Heritage Act (1972) for consent to use the land that may contain an Aboriginal site. Should a Section 18 be required, then further consultation with the original informant of the site may be necessary in order to clarify their views in regards to any potential disturbance of the area.

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REPORT

An Aboriginal Heritage Survey for the Albany Ring Road, Stages 2 & 3, Albany, Western Australia

ISSUE

The purpose of the study is to undertake the detailed planning for the preferred alignment of the Albany Ring Road to more precisely define its location and layout, and to prepare land protection plans suitable for inclusion of the road in the City of Albany Town Planning Scheme. The ultimate planning design concepts will provide for a dual carriageway and grade separation with the Ring Road / Albany Highway and the Ring Road / Hanrahan Road / Frenchman Bay Road. Main Roads is now seeking whether any sites of significance to Aboriginal people will be impacted upon by this proposed work thereby fulfilling their obligations under the West Australian Aboriginal Heritage Act (1972).

REPORT OBJECTIVES

To report on archival research in order to determine if any previously recorded Aboriginal Heritage sites will be impacted upon by the above project proposal.

To report on consultations held with representatives of the Wagyl Kaip WC98/70 and Southern Noongar WC96/109 Native Title Claim groups as determined by the Albany Heritage Reference Committee in order to determine if any new Aboriginal Heritage sites will be affected by this proposal.

BACKGROUND

On the 8th March 2006, Mr Neil McCarthy from GHD contacted Brad Goode and Associates to conduct an Aboriginal Heritage Survey on the Albany Ring Road Stages 2 and 3. The City of Albany is the major regional centre in the Great Southern Region, which comprises a total of 13 local government areas, covering an area of land about 40,000 square kilometres. Other major centres are the towns of Mt Barker, Katanning and Denmark and all have different physical, social and economic characteristics. The Port of Albany, located within the City of Albany, is the major port, primarily serving the agricultural industries in the Great Southern Region.

Albany is located on the south coast of Western Australia and is about 400km from Perth. The City of Albany currently has a population of about 30,000, which accounts for over 50% of the Great Southern Region's population. It is estimated that the population could reach 40,000 in the next 25 years[1].

Albany is the primary administrative and service centre for the Great Southern Region. Its primary industries are broad acre cropping, wool, plantation timber, horticulture and fishing. The Albany area is well known for its recreational activities, history, and natural features, ensuring a thriving tourism industry. The Port of Albany plays a critical role in the regions economic strength and capability, predominantly exporting grain, woodchips and minerals and importing goods essential for supporting the agriculture industry in the region.

Planning for the Albany Ring Road accessing the Albany Port commenced in 1997. Main Roads managed a planning study in consultation with the then Ministry for Planning, City of Albany, Great Southern Development Commission and the community. This study purpose was to provide an alternative route for heavy vehicles accessing the Albany Port from

surrounding areas and removes the necessity for these vehicles to travel through built up urban areas of the City. The Albany Ring Road Planning Study was completed in 2000 and recommended a preferred route for the future Ring Road comprising a two lane, two-way road with at-grade intersections, that would cater for travel demands associated with:

- Growth in the grain and woodchip industries;
- Continued population growth and urban expansion;
- Increase numbers of tourists;
- Growth in viticulture and winery development.

The Ring Road will provide an alternative to the current route through the city centre. The recommended route is shown in Figure 1.

Chester Pass Road, Albany Highway and South Coast Highway are the primary road freight routes servicing the Port of Albany, and other freight movements in the area. The Albany Ring Road Planning Study concluded that the Chester Pass Road / Hanrahan Road / Princess Royal Drive route should remain as the freight route to the port for areas to the east and northeast of Albany.

The northern link (Red Route – Stage 1) of the Ring Road will provide a link between Albany Highway and Chester Pass Road and plantation timber areas to the east of Albany and the chip mill on Down Road to the North of Albany. This east-west link connects with Chester Pass Road opposite Elizabeth Street, crosses over Wilyung Creek and passes through cleared farmland until it reaches Albany Highway.

The western link (northern portion of the Green Route – Stage 3) between Albany Highway and the Lower Denmark Road will provide a north-south link to enable traffic to access the port, and other areas to the south of the city, avoiding built up areas along the existing route via Albany Highway and Hanrahan Road. The route connects with South Coast Highway and a major roundabout intersection is planned at this location.

The southern link (southern portion of the Green Route – Stage 2) is adjacent to the Lower Denmark Road and the existing rail line to the port. The current plan involves the construction of a new road along the northern side of the rail line and the relocation of about 3km of the rail line. This link connects to Harahan Road which links into Princess Royal Drive to provide access to the port.

The Western Australian Planning Commission Transport Committee (March 2001) considered the study findings and endorsed the 'Red, Green and Cyan" routes of the Albany Ring Road as the preferred route.

Following the endorsement of the preferred route by the Western Australian Planning Commission Transport Committee, in March 2001 the Hon Minister for Planning and Infrastructure resolved to defer a decision on the preferred route and advised that planning for this route should be reviewed in the context of an overall strategic plan for the Region. The Department for Planning and Infrastructure has prepared a Draft Lower Great Southern Regional Strategy (September 2005), which subsequently endorsed the Ring Road alignment.

In October 2004, the State Government announced that it was bringing forward the construction of northern link (Stage 1) of the Ring Road to 2005/06, 12 months ahead of schedule, subject to securing the land and necessary environmental approvals. Construction of this link avoids the need for trucks carting woodchips to the chip mill on Down Road to travel into the Albany City area.

AN ABORIGINAL HERITAGE SURVEY FOR THE ALBANY RING ROAD, STAGES 2 & 3, ALBANY, WESTERN AUSTRALIA.

The Albany Port Access Corridor Review Report (September 2005) concluded that the sustainability of utilising the Chester Pass Road route in the longer term is an issue of community concern. It will be heavily dependent on the land uses adjacent to this route and any uses that attract significant amounts of local traffic will impact on the safety and sustainability of the route.

The only alternative in the longer term would be to utilise the planned Albany Ring Road to access the Port. The Ring Road, while longer than the Chester Pass Road route, will avoid the Albany Highway / Chester Pass Road roundabout.

In consultation with other key stakeholders, Main Roads has developed the "Priority Route Concept" for the Albany Ring Road. The key component of the "Priority Ring Road" concept is the unimpeded movement for freight vehicles utilising the Ring Road to access the Albany Port. This can be achieved through appropriate intersection treatments along the Ring Road that would be designed to allow the users of the Ring Road unimpeded access to the Albany Port. This could be achieved by grade separations and staggered T-Junctions. These road treatments will ensure that the Ring Road will be an efficient alternative route for heavy vehicles and a true strategic freight route to the Port of Albany.

In September 2005, the State Government approved funding for the purchase of land from owners suffering hardship along Stages 2 and 3 of the proposed Ring Road alignment, and to enable detailed planning to be completed.

In November 2005, the Western Australian Planning Commission Transport Commission endorsed the Ring Road to be planned in principle to a dual carriageway standard and designed to allow unimpeded access to the Albany Port.

Main Roads has commissioned Brad Goode and Associates to undertake an Aboriginal Heritage Study for Stages 2 and 3 of the Albany Ring Road to investigate and make recommendations for managing any identified Aboriginal Heritage issues that may be affected by the proposed project in accordance with the requirements of the West Australian Aboriginal Heritage Act (1972).

LOCATION

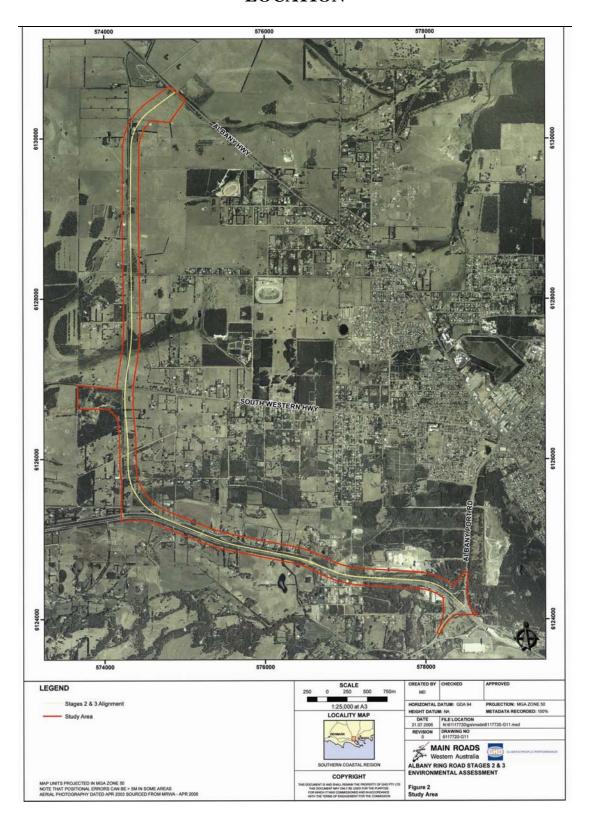


Figure 1. Study Area

ETHNOGRAPHIC & HISTORICAL BACKGROUND

TRADITIONAL NYUNGAR CULTURE

The south-west of Western Australia is considered to form a distinct cultural bloc defined by the distribution of the Nyungar language. Before Nyungar was used as a group or linguistic name the south-west people recognised themselves, their language and culture, as 'Bibbulman' (Bates, 1985). Daisy Bates recorded that the Bibbulman people were the largest homogenous group in Australia. Their land took in everything to the west of a line drawn from Jurien Bay on the west coast to Esperance on the south coast (Bates, 1966). Bates also recorded that, within the Bibbulmun nation, there were more than seventy groups that shared a common language with some local variations. Tindale (1974) identified thirteen 'tribal groups' in the south-west based on socio-linguistic boundaries and minor dialect differences. Browne (1856, cited in LeSouef, 1993) recorded that four tribes occupied the land around the Albany region. These were the Murray, the Weal, the Cockatoo and the Kincannup. Bates (1985) recorded the Aboriginal tribe around Albany were part of the Minung Bibbulmun, and called themselves *Bid-kal* or *Kal-ip-gur*.

The Nyungar or Bibbulmun people of the south-west were a distinct group in that their initiation practices varied markedly from their desert and semi-desert dwelling neighbours. Unlike the desert people, the Nyungars did not practice circumcision or sub-incision, but rather practiced a ritual of nasal septum piercing and scarring of the upper body (Bates, 1985). It is interesting to note that the cultural boundary between the Nyungar people and their neighbours follows the botanical boundary between the South West Province and the arid inland provinces.

"The change from the dense forests of the south west to the low bush of the desert is a gradual one, but botanists use a line that follows the extent of the 175-millimeter winter (May to October) rainfall as a boundary dividing what they call 'the southwest botanical province' from the arid regions to the east and north. Significantly, the major cultural boundary that marks the extent of the Nyungar religious and ritual practices follows this winter rainfall boundary for over 1200 kilometres" (Ferguson, cited in Mulvaney and White, 1987).

Within the Bibbulmun Nyungars, two primary moiety divisions existed, the *Manichmat* or 'fair people of the white cockatoo' and *Wordungmat* or 'dark people of the crow', which were the basis of marriage between a further four class subdivision (Bates, 1985). Bates describes the only lawful marriage between the groups to be "the cross-cousin marriage of paternal aunts' children to the maternal uncles' children", and states that the four clan groups and relationships, under different names, are "identical in every tribe in Western Australia, east, north, south and southwest..." (1966:24-25). The Aboriginal people of the west coast followed a matrilineal system of descent whereas those of the south coast 'below Augusta and the Donnelly River' observed patrilineal descent (Bates, 1985). Nyungar people were often observed to marry outside of their immediate vicinity, and it seems likely that this served to reinforce alliances with neighbouring tribes. Inherent in the marriage relationship was a reciprocity, which transferred rights and privileges between groups (Le Souef, 1993).

Each socio-linguistic group, sometimes referred to as the 'tribe', consisted of a number of smaller groups, which were made up of around 12 to 30 persons, related men, their wives and children, and at times, visiting relatives from other groups. These subgroups could be described as a family, a band or a horde. For every subgroup there was a tract of land with which they most closely identified themselves with. An individual or a group's land was called their *Kalla* or fireplace (Moore, 1884). This referred to an area of land which was used by the group and over which the members of the group exercised the greatest rights to its

resources. It was also the area for which the group would act as custodians. Other groups would also have some rights of access and use gained through marriage (LeSouef, 1993).

Nyungars recognise two forms of socially organised relationships to the land, a spiritual association and an economic one. Stanner (1965) used the terms 'estate' and 'range' to distinguish these two different associations. He wrote that the 'range' was that land in which the group 'ordinarily hunted and foraged to maintain life', whereas the 'estate' refers to the spiritual country and which may be 'owned' by either an individual, the group, or part of the group. The relationship to 'estate' is mostly religious, however there is also an economic benefit. The estate can be considered the country or home of a group. It is sometimes referred to as the 'Dreaming place' and as such includes all religious sites, myths and rituals that occur on or about that land. In this way 'estate' forms part of the Aboriginal ties to Dreaming and place (Stanner, 1965).

"There is a clear relationship between the individual and the land, which is expressed in a number of ways. There is a direct link between the mythic heroes and spirits of the dreaming and the land. Relationships with these beings, which are transmitted through birth, descent and marriage (to a lesser extent), are a reciprocal arrangement of rights and obligations and they are vital for claiming rights to the land" (Silberbauer, 1994).

The link between the individual and the land comes from the conception site, where the animating spirit enters the mother and thus there is a direct connection between the land, spirit and the identity of the individual (Machin, 1996). The spiritual ties with the land strengthened economic rights and land usage involved both ritual and social connections (McDonald *et al.*, 1994).

Land use or ownership in traditional Aboriginal Australia is based on a religious view of the world and the position of people in it. This religious view is most often referred to as the Dreaming. The Dreaming is an ideological and philosophical basis for a close emotional connection between Aboriginals and their land (Machin, 1996). The Dreaming refers to a distant past when the world had yet to be fully created. Dreamtime stories refer to mythic beings that roamed the Earth creating plant and animal species. During the struggles of these mythic beings many landforms such as hills and rivers were created. The landscape bears testimony to the struggles of creation and is studded with sacred sites recalling the Dreamtime. These sites are owned by or belong to either one or more groups, and so such sites have a shared significance amongst the local population. The shared spiritual significance of these sites had a function of bringing together different groups. Another function of these shared sites is that knowledge of the local myths created rights of use to the land (Silberbauer, 1994). Custodianship of land through knowledge of dreamtime sites and their associated myths is transmitted through birth, descent and marriage (to a lesser extent), and this knowledge is vital for claiming rights to the land (Silberbauer, 1994). In 1830, Captain C Barker recorded a mythic story of a great flood, in which the sea rose and covered all the land about Albany and far inland, and Mt. Manypeaks and Mt. Lindsay became tiny islands where all the animals and people took refuge from the great flood (Barker, 1830).

The Nyungar people recognised six seasons or times of year: *Maggoro*, the winter months of June and July; *Jilba*, early spring from August through September; *Kambarang*, late spring from October to November; *Birok*, the summer months of December and January; *Burnuru*, the late summer season during February and March; and the annum is completed by *Wangarang*, the autumn months of April and May (Berndt, 1979). Each of these periods coincided with a seasonal abundance of particular foods. The seasonal abundance of foods also determined the patterns of movement of the Nyungar people. River mouths, estuaries, swamps and lakes would have provided a range of foods. Both Bates (1985) and Meagher

(1974) have described the traditional foods of the Nyungar people, and also their methods of procurement.

The Nyungar people of the south-west had to cover themselves against the cold winters and for this they wore a cloak buka constructed of three or more female kangaroo skins sewn together with sinew or rush and worn with the fur side innermost (Berndt, 1979). String headbands made from spun possum fur were worn by the men and decorated with emu or cockatoo feathers (Tilbrook, 1983). Two types of kangaroo skin bags were used by the women: the *goto* was for general purposes, and another, the *gundir*, was used for carrying babies. The men often carried a type of hammer or axe called a kadjo which consisted of a stone head blunt on one end and sharpened at the other fixed to a short stout stick (Berndt, 1974) The kadjo was carried in a belt of spun possum fur (Tilbrook, 1983). The digging stick used by the women in this area was called a wonna, the wonna was made from the peppermint tree Agonis flexuosa, a coastal native that is found only in the south-west, and was a common trade item of the Nyungar people (Tilbrook, 1983). The men carried two types of spear and a throwing board (Tilbrook, 1983). The gidji-garbel was a light spear made from the swamp wattle mungurn with a point made by scraping and then firing to create a hard tip. The gidjigarbel was commonly used for spearing fish (Grey, 1840, cited in Berndt, 1979). The gidjiborryl was also made of swamp wattle mungurn but was much larger, being up to ten foot long and one inch in diameter. It was originally set with quartz in the tip and which shortly after settlement was often tipped with glass (Bates, 1985). The Nyungar people also constructed huts mia mia made of various plant materials, which included, bark, rushes and leaves, particularly the fronds of the blackboy *Xanthorrhoea preisseii*. A typical construction consisted of a series of poles placed in a semi circle with a further frame of light branches woven or criss-crossed to form a base upon which a variety of materials could be added to form the roof and walls (Tilbrook, 1983). Few archaeological records of Nyungar material culture remain, with the exception of bone and stone artefacts, as the Nyungar relied largely on implements that were derived from non-durable natural materials such as bark, wood and skins (O'Connor, et al., 1995).

FIRST EUROPEAN CONTACTS

Prior to settlement in Western Australia, both the Dutch and the French, as well as sealers and whalers of mixed nationalities, had already landed and made contact with the local Aboriginals. From early in the 16th century, the Dutch had been sailing north along the Western Australian coast en route to the Dutch East Indies, and ships were often forced close to the coast by the prevailing south-westerly winds (Cresswell, 1989). Many who realised their proximity to the coast too late came to grief there. The early reports by the Dutch described the coast as a bleak and desolate place. Apart from a few expeditions to try and rescue shipwrecked sailors, the Dutch showed little interest in Australia (McDonald *et al.*, 1994).

Whalers and sealers made contact with the Aboriginal people when they visited the coast to take on water. The sailors were also interested in the local females, and this interest was discovered by the first settlers to the Augusta region when the local Aboriginal group used the English word 'woman' when referring to females (Shann, 1926). Two further items point to considerable pre-colonisation contact with whalers. Firstly, in 1827, Major Lockyer of the Albany garrison reported incidents of Aboriginal women being found on Michaelmas island, kidnapped and then abandoned by the sealers (Le Souef 1993). Secondly, when the first French and British expeditions of the late 17th and early 18th centuries did contact local Aborigines, they reported that while the men were approachable and friendly, they kept their women and children hidden or some distance away (Colwell, 1970).

In 1791, Captain George Vancouver visited King George Sound in the vessels *Discovery* and *Chatham*. The ships stayed in the sound for two weeks and although they found fish traps and huts around the harbour area, they did not make contact with the Aborigines (Vancouver,

1798). In 1801, Matthew Flinders visited King George Sound where he also stayed for one month. During this period Flinders reported that relations with the Aboriginals were relaxed and his sailors found it possible to trade with them. Flinders relates an anecdote that does much to describe relations between the local people and the visiting sailors:

"Our friends the natives, continued to visit us; and the old man, with several others being at the tents this morning, I ordered the party of Marines on shore, to be exercised in their presence. The red coats and white crossed belts were greatly admired, having some resemblance to their own manner of ornamenting themselves; and the drum, but particularly the fife, excited their astonishment; but when they saw these beautiful red and white men with their bright muskets, drawn up in a line, they absolutely screamed with delight... Before firing the Indians were made acquainted with what was going to take place; so that the vollies did not excite much terror.... The women were, however, kept out of sight with seeming jealousy; and the men appeared to suspect the same conduct in us, after they had satisfied themselves that the most beardless of those they saw at the tents were of the same sex with the rest. The belief that there must be women in the ship, induced two of them to comply with our persuasion of getting into the boat, one morning, to go on board, but their courage failing, they desired to be relanded; and made signs that the ship must go on shore to them" (Colwell, 1970:79).

In 1803, Nicolas Baudin stayed at the sound with the ships *Le Geographe* and *Le Naturaliste*. Baudin, along with the naturalist Francois Peron, discovered fish traps, kangaroo traps, huts and other evidence of occupation but failed to meet with any Aboriginal people (Baudin translated by Cornell, 1974). Other ships stopped in King George Sound over the next two decades and most had some contact with the local Aborigines.

SETTLEMENT AND SOCIAL DISRUPTION

The first 'settlement' in Western Australia was the establishment of a garrison of soldiers at King George Sound on Christmas day in 1826, by Major Edmond Lockyer (Le Souef, 1993). The surgeon Isaac Scott Nind was attached to the garrison and it is largely through his records of life in and around the outpost that knowledge about the Albany Nyungars has been preserved (Stephens 1962). Originally known as Fredrickstown, Albany was the centre of the Western Australian colony until 1831, when the running of the settlement was transferred to the Swan River colony and the name officially changed to Albany (Le Souef, 1993). The Swan River colony was founded in 1829.

Initially, relations between the Aboriginals and the settlers were friendly, the Nyungar people showed the settlers to water sources and the Europeans shared game shot while being guided by the Nyungar men (Shann, 1926). Berndt (1979) interestingly suggests that the Aboriginals believed that the first European settlers, because of their light skin colour, were souls of the dead (*djanga*) returned from *Kurannup*, the home of the Bibbulmun dead located beyond the western sea. He describes:

"...the *kanya* (soul of the newly dead) going first to the tabu-ed *moojarr* or *moodurt* tree (*Nuytsia floribunda* or Christmas tree), where it rested on its way to Kurannup...here, their old skins were discarded and they appeared 'white'" (1979:86).

The early settlers used many of the tracks created by the Nyungar people to explore the land and eventually, many of the tracks became roads, some of which still follow similar alignments. Not only do the original paths used by the Nyungar people often coincide with existing road alignments, but they often link areas of traditional importance which are now the locations of town sites (Collard, 1994). The first settlers and members of the Albany garrison used Aboriginal guides to explore the region and find suitable grazing and

agricultural land. The guide Mokare is well recorded in the Albany region history (Le Souef 1993). Mokare was an Aboriginal of the King George Sound area who was well known to early European visitors and assisted several of the early explorers in their travels through the hinterland.

The first settlers in Albany found that although cattle seemed to survive well, sheep were subject to unexpectedly high losses. Sir Richard Spencer lost 226 sheep from a flock of 292 in just ten months. The settlers blamed the deaths on 'coastal disease', which may have actually been unsuitable feed. Seeking better pasture for their sheep the settlers went looking for more suitable land. Sir Richard Spencer took his remaining sheep west towards the Hay River to the land which Mokare had assisted Barker in exploring. The Hay River region shown to Barker proved to be good for sheep and rapid settlement followed Spencer's initial success (Glover 1979). There are some historical records of Aboriginal people spearing stock. In 1838 a bull, two oxen and possibly three cows were speared on the upper Hay River (Glover, 1979). There are also records of Aboriginal people working on farms and assisting the early settlers in many ways (Glover, 1979).

As early as 1833 saw the beginning of a new lifestyle and means of survival for the Nyungar people. The practice of the early settlers to pay the local Aboriginals with food, tea and tobacco was a major disruption to traditional life. Often small payments of flour or sugar would be given in exchange for services such as firewood collecting or bringing water. This source of ready food attracted the Aborigines into fringe dwelling camps and while they maintained their diet with bush foods and hunting they became increasingly dependent on the European foods. This dependency increased as the settlers cleared more land and further encroached on the Aborigines means of survival. This relationship between the settlers and the local tribes spelt the beginning of the end for the Aborigines 'fully traditional economies' (Moore, 1989).

At the Strawberry Hill Farm in Albany in 1833, records reveal that Nyungar people were employed in clearing the land for 1lb (about 500g) of flour and 2oz (about 55g) of suet for 'a forenoons work' (Spencer 1833 in Logan 1998). In 1836, Nyungar labour was again used to clear a road between Strawberry Hill and Middelton beach, however on this occasion they were paid money rather than food (Logan 1998).

Disease wrought havoc on the Aboriginal population that had little or no resistance to many diseases that were common throughout Europe and much of the rest of the world. Much of this destruction may have taken place some years prior to settlement, various diseases having possibly already been spread by visiting ships (Moore, 1989). Population decline occurred rapidly following European contact. In 1791, the Aboriginal population of King George Sound was estimated at 60- 70 people of all ages. By 1827, there were around 50-60 people, by 1837 about 50, and by 1850 around 20-30 remained (Le Souef, 1993). The measles epidemic of the 1880's caused a significant decline in the south-west Aboriginal population (Cresswell, 1989). Bates (1985:51) recorded (c. 1914) that:

"The Stirling Ranges were (also) the inheritance of a local group, of whom I could find but two members living. The Albany district Minung Bibbulmun are all dead. Nenbinyan of Two People Bay district (Yilbering – Two People Bay) was the last member of this group. He died at Katanning in 1911. Wandinyilmernong (Tommy King) of Kingilyilling (Albany) died at Albany about 1903, and Wabbinyet of Warrangain (Gledhow and Denmark district) died about 1909".

The hardships facing the Aboriginal people steadily increased as their mode of life clashed with European notions of farming. Some settlers complained about Aboriginal hunting and fishing practices. This caused the government to introduce legislation that impacted

adversely on the Aboriginal people. Following a number of attacks on stock blamed on Aboriginal's dogs, the Dog Act (1885) was introduced.

"...any Aboriginal who had more than one dog, had to have a licence to keep them under the terms of the 1885 Amendment to the Dog Act.... Attempts to enforce this particular regulation were deeply resented by Aborigines because of the cost of a licence, together with the fact that they depended on the dogs to hunt meat and that they had always kept a number of dogs for this purpose." (Tilbrook, 1983).

In 1861 Arthur Trimmer, the Sub Guardian of Natives at Albany, wrote to the Colonial Secretary requesting strychnine to poison dogs. One month later he reported that nearly two hundred dogs had been killed but that he had allowed 'the natives....to keep a few good dogs....to help them hunt' (Logan 1998). Fish traps were traditionally very important to the Nyungars, providing a means of feeding many people and were often the reason Nyungars visited certain locations to take advantage of seasonal runs of fish. The settlers destroyed many fish traps in an effort to discourage the Aboriginal people from coming onto land which was being farmed or otherwise occupied by the settlers. The weir type fish traps built by the Nyungar people were also sometimes a hazard to navigation and destroyed because of this. In 1899 the government passed a law prohibiting the building or use of fish traps which caused a further blow to the Nyungar economy (Tilbrook, 1983).

In 1898, John Forrest wrote a circular to the Aborigines department stating that the 'care and protection' of aborigines had now 'devolved on the government', and that, although the government and its bureaucracies must provide help to aged and sick aborigines, it will be given 'with due regard given to the practice of strict economy'. In the same circular to the department Forrest takes care to point out that 'no able bodied natives who can provide for their own maintenance should receive rations' (Battye Library Busselton Court House records. ACC # 594).

Nyungar people adapted to the new conditions as best they could, they obtained mostly short term seasonal work as stock workers, domestic help, farm labouring, and as forestry workers (McDonald et al., 1994). Fringe camps occurred on the outskirts of towns as aboriginal people followed 'runs' from one area of seasonal employment to another. Many aboriginal people lived in the bush between jobs living off of whatever game or bush tucker was seasonally abundant (Tilbrook 1983). Those Aborigines who were working as farm labour and domestic help found that competition for employment increased suddenly with the influx of people attracted to Western Australia during the gold rushes of the 1880's and 90's (Tilbrook, 1983).

In 1905, the Aborigines Act was introduced by parliament to allow the Chief Protector to remove people from their tribal lands and place them into camps such as the Moore River mission, Carrolup near Collie and the Gnowangerup Mission. The Aborigines Act (1905) meant that the government was able to control nearly every aspect of their lives, their employment, their travels, their consumption of alcohol and even their sexual relations. In short they were treated 'like children needing parental guidance' (Laurie, 1994).

Further inequity saw the Aboriginal unemployed receive a lower sustenance rate than the white unemployed during the Depression of the 1930's. In rural regions many Nyungar people became involved in farm work, often camping more or less permanently on Europeans farms and working as a family team. Nyungar people were often employed to clear the land they had used to live on for the benefit of the European farmers, an irony not lost on many of the Nyungar people who were forced to take this sort of employment (Noel Coyne Per Comm). Living more or less permanently in fringe camps, seeking out seasonal employment and supplementing their diet with game, fish and some bush tucker was a lifestyle which predominated for many Aboriginal people until late into the sixties (McDonald et al., 1994).

ARCHIVAL RESEARCH

Archival research involved an examination of the Department of Indigenous Affairs (DIA) Sites Register, a review of any relevant site files, and a review of any unpublished ethnographic reports that relate to the Albany area.

SITES REGISTER SEARCH

A search of the DIA Sites Register was conducted on the 6th June 2006 by FPT site auto download on an air photo cadastral background on Arc View GIS version 9 (see Appendix 3). The search revealed that no Aboriginal Heritage sites were located within the study area. Two Aboriginal ethnographic sites were located within the vicinity of the project proposal. Site ID 18705 Black Stump is located 1.63 kilometres to the south of Waypoint 7 and Site ID 21837 Creek 3 is located 0.62 kilometres north-east of Waypoint 1 (see map and spreadsheet in Appendix 3 for Waypoint locations and sites in relation to the road corridor).

The name, type and indicative location of the Aboriginal Ethnographic sites are shown in table 1.

SITE ID.	Status	Access	Restriction	Name		cation Zone 50)*	Site Type
					East	North	
18705	P	О	N	Black Stump	574706mE	6124321mN	Burial
21837	P	O	N	Creek 3	575788mE	6131146mN	Myth

Table 1. Summary of Aboriginal Heritage Sites located within the proposed works area.

REVIEW OF RELEVANT SITE FILES

Site ID 18705 – Black Stump

The Black Stump Site ID 18705 is a burial site reported by George Walmsley in 2001. It is located at the intersection of Robinson and Gledhow Roads, Gledhow is marked by a large stump. The bones are indicative of two burials, a man and a woman aged between 25 and 50 years. They appeared to have been in the ground for approximately 50 years. The Black Stump burial site is located 1.63 kilometres to the south of Waypoint 7 and will not be affected by the project proposal (see Map - Appendix 3).

Site ID 21837 - Creek 3

Creek 3 Site ID 21837 was identified by Paul Greenfeld in 2005. The creek is the Parker Brook, a tributary of Wilyung Brook which is in turn a tributary of the King River. The King River and associated tributaries are associated with the *Marchenant* – the water snake (Waugal). The King River and associated mythology are reported in Goode et al 2005 *Kinjarling* – *The Place of Rain* (a report prepared for the city of Albany and the Department of Indigenous Affairs). The site is located 0.62 kilometres north-east of Waypoint 1 and will not be affected by the project proposal (see Map - Appendix 3).

^{*} Please note: Coordinates are indicative locations that represent the centre of sites as shown on maps produced by the DIA – they may not necessarily represent the true centre of all sites.

REVIEW OF RELEVANT ETHNOGRAPHIC REPORTS

Goode, B. and Greenfeld P. 2005. Ethnographic Survey of the Albany Ring Road (Stage 1), Chester Pass Road to Albany Highway, Western Australia. Prepared for Gutteridge Haskins & Davey (GHD) upon behalf of Main Roads Department, Albany

This report was conducted in 2005 on behalf of GHD by Brad Goode and Associates regarding the Albany Ring Road (Stage 1). During this report for Main Roads and for work being conducted for the City of Albany concurrently, the Willyung Hill, Willyung Creek, Parker Brook and Warrenup Brook which is a tributary of the King River, inclusive of the King River were identified as places of mythological significance to the local Menange people. As a result of this, Main Roads wished to build a culvert crossing at each of the three creeks and it would be required for Main Roads to submit notice under Section 18 of the Aboriginal Heritage Act (1972) for consent to use the land that may contain an Aboriginal site. It was finally recommended that as the Aboriginal community were in complete support of the proposal, that Main Roads be given ministerial consent to conduct the above stated works. Should consent be given it was requested by the Aboriginal community, that Main Roads employ two Aboriginal community monitors during any disturbance carried out to the Creeks 1-3 and the southern end of Willyung Hill. It was also recommended that Main Roads avoid disturbing several old Melaleuca trees situated just northeast of Creek 1.

Halpern Glick Maunsell Pty Ltd (1998). *Albany Ring Road Planning Study, Stage 1 Route Selection Report.* Prepared for Main Roads Western Australia by Halpern Glick Maunsell.

Main Roads Western Australia commissioned the Albany Ring Road Planning Study to identify and investigate alternative routes for heavy vehicles going to and from the port of Albany. R O'Connor and T Hart prepared an ethnographic survey of the proposed route options in October 1998. A search of the ethnographic database revealed no previous records of Aboriginal sites within the project area. Consultation with Aboriginal Elders revealed that the project area is clear of significant Aboriginal sites. An archaeological survey of the Albany Ring Road Proposed Routes was also prepared by Quartermaine Consultants in October 1998. No Previously recorded sites were located within the project area. A field survey also concluded there was no evidence of archaeological sites in the project area.

Halpern Glick Maunsell (2000). *Albany Ring Road Study Five Mile Creek Option – Stage 2 Investigation*. Prepared for Main Roads Western Australia by Halpern Glick Maunsell.

R. O'Connor and T. Hart also conducted an ethnographic survey of the Five Mile Creek Option in February 2000 and did not locate any significant sites within the alignment corridor. Archaeological investigations of the Five Mile Creek Option were prepared by Quartermaine Consultants in February 2000 and did not locate any archaeological sites within the survey corridor.

O'Connor, R. et. al 1998. Report on an Ethnographic Study of the Proposed Albany Ring Road Routes. Prepared for Halpern Glick Maunsell.

A previous ethnographic survey was conducted over the proposed Albany Ring Road by O'Connor. This survey conducted by O'Connor identified that there were concerns over disturbance to the Willyung Creek where the proposed roadwork cross this watercourse near Elizabeth Street. As a result of these concerns the Aboriginal people requested that the above creek identified was not interfered with and that Main Roads build a bridge for the crossing and that where clearing was done, an Aboriginal man was employed to monitor the works.

OUTCOMES OF ARCHIVAL RESEARCH

No previously recorded Aboriginal Heritage Sites are located within the proposed route of the Albany Ring Road Stages 2 and 3.

One site of mythological significance Site ID 21837 was recorded in 2005 by Goode and Greenfeld within the project area for Stage One of the Albany Ring Road project. The site is a part of a larger site complex and is associated with the *Marchenant* a water serpent (Waugal). Community support for the use of the site under Section 18 of the Aboriginal Heritage Act (1972) was given. Part of the site is the Parker Brook which is located in Stage One of the project area. This site is located 0.62 kilometres north-east of Waypoint 1 (see Map in Appendix 3) and will not be affected by the project proposal for Stages 2 and 3 of the Albany Ring Road.

Site ID 18705 Black Stump which is a burial site containing the remains of at least two people is located in an area that has been indicated likely to contain other possible burials. This site is located 1.63 kilometres to the south of Waypoint 7 and will not be affected by the project proposal for Stages 2 and 3 of the Albany Ring Road. (see Map - Appendix 3).

IDENTIFICATION OF SPOKESPEOPLE

THE RIGHT TO SPEAK ON HERITAGE ISSUES

Various authors have discussed the contemporary problem of who in the Aboriginal Community has the authority to speak on heritage issues within an area. O'Connor et al. (1989:51) suggest that when this question is posed to people in Aboriginal Australia, answers are usually framed by such terms as 'the traditional owners', i.e., those people who are defined by place of birth i.e. descent. Meyers presents a broader and more contemporary view of 'ownership' based upon descent and association:

"An estate, commonly a sacred site, has a number of individuals who may identify with it and control it. They constitute a group solely in relationship to this estate. Identification refers to a whole set of relationships a person can claim or assert between himself or herself and a place. Because of this multiplicity of claims, land holding groups take essentially the form of bilateral, descending kindred. Membership as a recognised owner is widely extended" (cited in Machin, 1993:22).

Meyers then goes on to further clarify the current perception of 'ownership' when he states:

"....such rights exist only when they are accepted by others. The movement of the political process follows a graduated series of links or claims of increasing substantiality, from mere identification and residual interest in a place to actual control of its sacred association. The possession of such rights as recognised by others, called 'holding' (kanyininpa) a country, is the product of negotiation" (Ibid.).

While the notion of descent is clearly an important criterion within Meyers analysis, it must be seen in terms of the contemporary Nyungar situation. Nyungar tradition in the south west has been seriously eroded since colonisation, lines of descent have been broken, and previously forbidden and mixed marriages have interconnected many Nyungar groups who would not have traditionally had a close association (Ibid.). Consequently, in contemporary times the criteria of historical 'association' seems to be important in regards to the 'right to speak' on heritage issues within an area:

"Traditional subsistence no longer sufficed to support Aboriginals so they combined this with menial work on farms and over time new relationships to land developed. As a consequence, the more recent history associated with their involvement with European agriculture and labour patterns is often more relevant than the pre-contact mode of attachment to an old way of life and the roots of the identity as original owners of the land. Biographical associations are often tied to post-settlement labour patterns and identification. These can predominate. This is part of a dynamic process of ethnicity, identity and tradition" (Machin, 1995:11).

O'Connor, et al. (1989) identified several criteria for determining contemporary community spokes people. A spokesperson must have a long-term association with an area, usually as a young person, and had extensive contact with a member or members of the 'pivotal generation of the culture transmitters'; those people whom, as children themselves, had contact with people who could pass on their traditional knowledge. A spokesperson must also demonstrate knowledge of the region's natural resources, its hunting, fishing and camping grounds, its local water sources, and the flora. This is important because a person without this knowledge is unlikely to be seen by their fellow Nyungars as truly being from that country, despite having been born or lived in that area. In some cases, people from outside a specific region have established themselves by political activism. They are accepted by their fellow Nyungar because they may have participated in mainstream white pursuits, such as advanced

education, or legal and political careers, that have empowered them within the broader community. As such, these people are a valuable resource to the local Aboriginal

Community. The people consulted in this survey fulfil at least one of these criteria.

NATIVE TITLE CLAIMS OVER THE SURVEY AREA

Currently, there are two registered Native Title applications that overlays the project area lodged with the Register of Native Title Claims and the Schedule of Applications held by the Commonwealth Native Title Tribunal. The Schedule of Applications includes registered applications, unregistered applications, and applications still undergoing the registration test.

Southern Noongar WC 96/109

Applicants:

Mr. Aden Eades, Mr. Allan Bolton, Mr. Cedric Roberts, Mr. Dallas Coyne, Mr. Glen Colbung, Ms. Joyce Winsley and Ms. Rita Dempster.

Wagyl Kaip WC 98/70

Applicants: Mr. Allan Bolton, Mr. Cedric Roberts, Mr. Glen Colbung, Mr. Ken Colbung, Mr. Kevin Miller, Mr. Mark Smith, Mr. Sam Miller, Ms. Hazel Brown, Ms. Marlene Ware, Ms. Mingli Wanjurri-Nungala, Ms. Rita Dempster and Ms. Rose Pickett.

SELECTION OF SPOKESPEOPLE FOR THIS SURVEY

The selection of spokespeople was based on advice given from the Albany Heritage Reference Committee who represents members of the Southern Noongar WC96/109 and Wagyl Kaip 98/70 Native Title Claimant groups with regards to heritage issues in the region. As a result of this pre-consultation process, the following Aboriginal people were selected to participate in the survey:

Mr Stanley James Loo was born at the Gnowangerup Mission to Mrs Margaret Loo (nee Wells) and Mr Donald Loo. Mr Stanley Loo went to school in Albany before leaving the school to hold a number of positions on farms. At present Mr Loo works on CDEP as the Senior Gardener at the Albany Aboriginal Corporation. Mr Loo is a member of the Wagyl Kaip Native Title Claim group and was chosen to represent the Loo family in consultation with the Albany Heritage Reference Committee.

Mrs Averil Dean (nee Williams) was born in Gnowangerup to Len Williams and Elsie Haywood and claims direct traditional descent to the Menang of the Great Southern Region from Eddie Womber Williams. The Williams family does not have traditional ties to Albany but have a strong historical association to the area having lived at the Mt Melville Reserve when they first moved to Albany, until housing became available in the broader community. Mrs Averil Dean went to school in Tambellup and Perth, before leaving school to become an enrolled nurse. Mrs Dean worked in the Aboriginal Visitors Scheme in Prisons and is a former member of the Aboriginal Cultural Material Committee. Mrs Averil Dean is a member of the Wom-ber Native Title Claim group (unregistered), a member of the Albany Aboriginal Corporation. Mrs Dean was selected as a representative of the Williams family in this survey, in consultation with the Albany Heritage Reference Committee.

Ms Lynette Knapp claims to be a direct descendant of the Menang people from Albany. Ms Knapp's father was Alfred Knapp who was born in Albany and Grandfather was Johnny Knapp who was born at the Thomas River at Cape Arid and worked in Ravensthorpe on the construction of the Hotel. Ms Knapp's father and grandfather spent many years working along the entire south coast from Esperance to Albany doing farm work. Ms Knapp's father and grandfather passed on traditional and historical cultural knowledge to Lynette Knapp about their lives and the lives of traditional people in the Great Southern region. Ms Knapp is a member of the Wagyl Kaip Native Title claim and was selected as a representative of the Knapp family, in consultation with the Albany Heritage Reference Committee.

Mrs Shirley Williams (nee Colbung) was born in Mt Barker and went to school in Mt Barker and Albany. Mrs Shirley Williams married Mr Sam Williams, and came to live in Albany 25 years ago. Mrs Williams has worked in the Aboriginal Visitors Scheme at the local prison. Mrs Williams was selected as a representative of the Colbung family in this survey, in consultation with the Albany Heritage Reference Committee.

Mr Bill Woods was born in Gnowangerup and went to school in Gnowangerup and Mt Barker. Mr Bill Woods is the son of Sarah James and Jack Woods of Jerramungup, who were both born in Jerramungup. Mr Bill Woods has worked in various agricultural occupations throughout the Great Southern region but has spent a large amount of time as a shearer in the Jerramungup Shire. Mr Woods and his family have regularly spent summers camping and holidaying in Bremer Bay when working for various farmers in the district. Mr Woods is a member of the Wagyl Kaip Native Title Claim group and was selected to participate in this survey by the Albany Heritage Reference Committee to represent the Woods family.

Mrs Vernice Gillies (nee Coyne) claims direct traditional decent from the Menang people, east of Albany. Mrs Vernice Gillies parents were Jessie Wandagee and Sydney Charles Coyne who was born in Bordon, to Edward James Coyne and Mary Anne Woods from Bremer Bay. Mrs Vernice Gillies was born in Albany before embarking on a career in community welfare working in various regions of the state before returning to Albany where she married and raised a family. Mrs Vernice Gillies is currently an Aboriginal Liaison Officer at the City of Albany and formerly a DIA Regional Officer. Mrs Gillies is a member of the Wagyl Kaip Native Title Claim group and was chosen as a representative of the Coyne family in this survey in consultation with the Albany Heritage Reference Committee.

Mr Ray Wynne was born in Gnowangerup and went to school in Tambellup and Narrogin. Upon leaving school Mr Wynne worked throughout the Great Southern as a truck driver, farm labourer and a shearer. Mr Wynne moved to Albany with his family in the early 1960's and has lived there ever since. Mr Wynne is a member of the Albany Aboriginal Corporation and Wagyl Kaip Native Title Claim group and claims a historical association with the Albany area and traditional ties with Ongerup and Jerramungup. Mr Wynne was selected as a representative of the Wynne family in this survey, in consultation with the Albany Heritage Reference Committee.

Mrs Eliza Woods (nee Eades) was born in Katanning and later attended school in Albany and Borden. Mrs Woods has worked around the great southern region and has been a director of community development with the Southern Aboriginal Corporation for 23 Years. Mrs Woods is part of the Southern Noongar Native Title Claim and is a member of the Gnarjl Aboriginal Corporation representing the Eades family. Mrs Eliza Woods cultural association with the project area claims ancestral ties to the traditional people of the great southern region and Bremmer Bay area. Mrs Woods was selected as a representative of the Eades family in this survey, in consultation with the Albany Heritage Reference Committee.

Mr Kelvin Penny was born at and went to school in Narrogin before moving to Albany as a young man with his family. Mr Penny has worked as a farm labourer and shearer throughout the lower Great Southern Region, particularly in the Katanning District. Since retiring from agricultural industries, Mr Penny has concentrated on his career as a visual artist, having had several successful exhibitions in Albany and Katanning. Mr Penny is a member of the Wagyl Kaip Native Title claimant group and was chosen to represent the Penny family by the Albany Heritage Reference Committee for this survey.

COMMUNITY CONSULTATION

AIMS

- To establish contact with Aboriginal people who retain traditional or current knowledge pertaining to the region.
- To determine if there are any sites of significance as defined by Section 5 of the West Australian Aboriginal Heritage Act (1972) within the proposed works area.
- To generate consensual recommendations from the Aboriginal community representatives in regards to any Section 18 requests and to record management strategies for identified ethnographic and archaeological sites.

METHOD

The Aboriginal informants chosen for the survey were briefed on the nature of the proposed project prior to participating in a site inspection. Aerial photographs of the survey area and plans showing the proposed route of the Albany Ring Road were used to give the informants an understanding of the proposed works. Reasons for the construction of the Albany Ring Road is to allow access by heavy haulage vehicles to the port of Albany while avoiding the built up areas and routes presently in use.

Throughout the survey all of the Aboriginal informants were encouraged to talk about any Aboriginal Heritage issues they may have regarding the project and were asked if they knew of any Aboriginal sites or issues that may be affected by the proposed Albany Ring Road project. During the site inspection the group visited seven locations on or adjacent to the route of the proposed Albany Ring Road.

COMMUNITY CONSULTATION PROCESS

On the 10th of June 2006 the consulting Anthropologist Brad Goode and Archaeologist Mr Paul Greenfeld met with members of the Albany Heritage Reference Group representing the Wagyl Kaip and Southern Noongar Native Title Claim Group at the Albany Aboriginal Corporation to be briefed on the survey. The Aboriginal representatives were Mr Stan Loo, Mrs Avril Dean, Mrs Lynette Knapp, Mrs Shirley Williams, Mr Bill Woods, Mrs Vernice Gillies, Mr Ray Wynn, Mr Kelvin Penny and Mrs Eliza Woods. The group were briefed on the proposed Albany Ring Road project and shown maps and areal photographs of the road route and survey area. Detailed plans of areas requiring major earthworks or realignments were also available and were referred to during the survey. Mr Paul Greenfeld also briefed the group on the results of the archaeological survey; he told the group they had been able to achieve full pedestrian coverage of the survey area but had not located any archaeological sites or material.

Following the survey briefing the group proceeded to inspect the survey area and view the proposed Albany Ring Road route. The entire survey corridor was driven, with the group stopping at some selected waypoints only to view areas of interests. Other waypoints were not visited because there were no issues to discuss. The first location visited was the corner of Albany Highway and Henderson Road stopping at co-ordinate 574797mE & 6130667mN (Waypoint 2 – 574877mE and 6130567mN). At this location it was possible to view the construction of Stage 1 of the Albany Ring Road to the north-east of Albany Highway. The route of the proposed Albany Ring Road – Stage Three - could be viewed from this location and the group were able to see the proposed alignment through the nearby paddocks. No sites were identified at this location and no other issues were raised.



Figure 2. Members of the AHR group viewing the plans at the intersection of the Albany Highway and Henderson Road, view to the south-west.

The group then proceeded to the second stop, the intersection of the proposed Albany Ring Road and Lancaster Road stopping at co-ordinate 574300mE & 6128260mN (Waypoint 4 – 574310mE and 6128307mN). This location allows a view of the proposed ring road alignment and is near the centre of the Stage Three section of the proposed Albany Ring Road. The group discussed the need to clear native vegetation in this location. The group accepted the clearing was necessary and did not raise any other issues. No sites of Aboriginal significance were identified by any members of the group at this location.



Figure 3. Members of the AHR group inspecting plans at Lancaster Road. View to the south.



Figure 4. View from Lancaster Road to the south along the proposed Albany Ring Road alignment.

The group then proceeded to the third stop at the intersection of Lowanna Drive and the proposed Albany Ring Road stopping at co-ordinate 574231mE & 6126015mN (Waypoint 6 – 574291mE and 6126064mN). Mrs Knapp voiced a concern regarding the use of culverts over any watercourses. She said the culverts should always be large enough to maintain the flow of water across the land. Mrs Gillies said that the watercourses in the vicinity had already been converted to drains and were not significant as sites to Aboriginal people. The group did not identify any sites of significance to Aboriginal people at this location.

The group then proceeded to the intersection of the Lower Denmark Road and Gledhow Road South stopping at co-ordinate 574828mE & 6125053mN (Waypoint 7 – 574666mE and 6125270mN). The group was informed along this section of the corridor that the existing freight railway would be relocated from its current position, with the Ring Road being developed to the north of the relocated freight railway line. It was also advised that a section of the existing Old Elleker Road would form a service road for adjacent properties to the north and Lower Denmark Road will be relocated slightly southwards to service the southern properties. The group did not identify any sites of significance to Aboriginal people at this location and no other issues were raised. The group then requested a visit to the Black Stump Site ID 18705 (see review of site files) which is located nearby.

After visiting the Black Stump the group then stopped on the Lower Denmark Road in the car park of Paul's Pet Foods (557146mE & 6124469mN). This is located near the centre of the Albany Ring Road – Stage Two. The group did not identify any sites of significance to Aboriginal people at this location and no other issues were raised.

The group then proceeded to the intersection of the Lower Denmark Road and Frenchman's Bay Road and stopped at co-ordinate 579321mE & 6123645mN (Waypoint 9 – 578511mE and 6124125mN). Mrs Lynette Knapp said that a camp area was located on the south west side of the Lower Denmark Road. The camping area is bordered by Frenchman Bay Road to the south and by a hill and Peppermint tree woodland to the west. The site extent is described as the triangle of land formed by the intersection of the Lower Denmark Road and Frenchman Bay Road, the triangle is completed by creating a right angle from the Lower Denmark Road

at location 578303mE & 6124208mN which encloses the triangle between that point and Frenchman Bay Road. A large peppermint tree adjacent to Frenchman Bay Road delineates the southern extent of the site. Mrs Knapp said that her grandfather Johnny Knapp had told her about the place as a camping area. He had told her that Aboriginal people camped there in mia mias in traditional times and had continued to camp there until the late 1890's. Jack Burn, Nail Can and Dicky Bumblefoot were occupants of the camp she could name. The camp was associated with the Lake Weelara camps. This reported camp site is located within the study area for the Albany Ring Road Stage 2 and 3. The ultimate planning design concept provides for a grade separation of the Ring Road with Hanrahan Road and Frenchman Bay Road that will affect this site. None of the other Aboriginal informants involved in the survey had any knowledge of the reported camping area and recommended that the area should not be recorded as a site under the West Australian Aboriginal Heritage Act (1972).



Figure 5. Mrs Lynette Knapp at the reported camp site, south of the Lower Denmark Road and the intersect of Frenchman Bay Road, view looking to the south.

The group then proceeded to the last place they wished to stop which was at a scenic lookout located north of the Lower Denmark Road and Hanrahan Road intersect where we stopped at co-ordinate 579321mE & 6123645mN with the nearest Waypoint being Waypoint 10 (578851mE and 6123879mN). This is near the end of the Albany Ring Road – Stage Two where a large interchange is planned. No sites were identified prior to this area.

At this location the entire survey area was discussed in detail and it was confirmed by the Aboriginal community that no sites of significance would be affected by the road works as planned, excepting for a reported camping area identified by Lynette Knapp which is located south of the Lower Denmark Road, where the Lower Denmark Road intersects with Frenchman Bay Road.

The consensus of the group with regards to this reported area was that all the rest of the group had no knowledge of the areas Aboriginal significance that the area should not be recorded as a site under the West Australian Aboriginal Heritage Act (1972).



Figure 6. Showing the centre of the reported camp area near the earthmoving machine, view to the east.

Due to the lack of consensus with regards to the significance of the area reported by Lynette Knapp, it is advisable that at present for Main Roads to treat this area as a site and to seek clarification from the Registrar of Aboriginal Sites and the ACMC as to whether this reported area would be defined as a site under Section 5a, b, c or d of the West Australian Aboriginal Heritage Act (1972).

It is the author's view that there is likely to be insufficient information with regards to the report of this area as a site as the information given does not meet the requirements of Sections 5b, c or d of the 'Act'. As there was no cultural material identified in the area during the archaeology the area would also fail to reach the requirements of Section 5a of the 'Act'. Should Main Roads need to impact the area, then it is recommended that Main Roads seek clarification of the areas status by making application under Section 18 of the West Australian Aboriginal Heritage Act (1972) for consent to use the land that may contain a site. Should the Registrar or ACMC determine the area to be a site under the 'Act' then further consultation would be required with the informant in order to document her views and the views of the community with the requirement to disturb the area.

COMMUNITY CONSULTATION OUTCOMES

Members of the Albany Heritage Reference group visited several different locations along the route of the proposed Albany Ring Road Stages 2 and 3. No sites of significance to Aboriginal people were located within the survey corridor and no cultural issues were identified, excepting for a reported camping area identified by Lynette Knapp which is located south of the Lower Denmark Road, where the Lower Denmark Road intersects with Frenchman Bay Road.

This reported camp site is located within the study area for the Albany Ring Road Stage 2 and 3. The ultimate planning design concept provides for a grade separation of the Ring Road with Hanrahan Road and Frenchman Bay Road that will affect this site. None of the other Aboriginal informants involved in the survey had any knowledge of the reported camping

area and recommended that the area should not be recorded as a site under the West Australian Aboriginal Heritage Act (1972).

There were no other issues raised during the survey that may affect the road works as planned.

SUMMARY AND RECOMMENDATIONS

During the course of community consultations with 9 members of the Albany Aboriginal community several locations along the route of the proposed Albany Ring Road were visited, while the entire corridor was driven by the survey team. As a result of this survey one possible site of significance to one informant was identified to be located within the study area. This possible site is located south of the Lower Denmark Road where the Lower Denmark Road intersects with Frenchman Bay Road. This reported camp site is located within the study area for the Albany Ring Road Stages 2 and 3. The ultimate planning design concept provides for a grade separation of the Ring Road with Hanrahan Road and Frenchman Bay Road that will provide an interchange that is likely to affect the area of this reported site. Due to the lack of consensus with regards to the varsity of this report and the lack of physical evidence to support the claim with regards to the historical use of the area by Aboriginal people, it is unlikely that this area would be seen as a site under Section 5 a, b, c or d of the West Australian Aboriginal Heritage Act (1972). There is no doubt however that if the area is determined as a site by the ACMC or the Registrar of Aboriginal Sites that the informant holds great sentiment with regards to the area as defined under Section 39(2)b of the West Australian Aboriginal Heritage Act (1972). None of the other Aboriginal informants involved in the survey had any knowledge of the reported camping area and recommended that the area should not be recorded as a site under the West Australian Aboriginal Heritage Act (1972).

There were no other issues raised during the survey that may affect the road works as planned.

It is recommended that the road works should proceed as planned.

It is recommended that as none of the other Aboriginal informants involved in the survey had any knowledge of the reported camping area, that Main Roads write to the Registrar and ACMC seeking clarification with regards to the report and its relevance under Section 5 of the West Australian Aboriginal Heritage Act (1972). Should the reported area be determined a site, then Main Roads will need to apply under Section 18 of the West Australian Aboriginal Heritage Act (1972) for consent to use the land that may contain an Aboriginal site. Should a Section 18 be required, then further consultation with the original informant of the site may be necessary in order to clarify their views in regards to any potential disturbance of the area.

BIBLIOGRAPHY

- Barker, C. 1830. *Journal of Captain C. Barker*. Unpublished manuscript, January 18, 1830 March 26, 1831. Battye Library: Perth.
- Bates, D. 1966. The Passing of the Aborigines. John Murray: London.
- Bates, D. 1985. *The Native Tribes of Western Australia*. I. White (Ed.). National Library of Australia. Canberra.
- Berndt, R.M. 1979. *Aborigines of the South West*. In: Berndt, R. M. and Berndt, C. H. (Eds). Aborigines of the West: Their Past & Their Present. University of Western Australia Press: Perth.
- Busselton Court House Records, Acc# 594: Battye Library, Perth.
- Collard, L. 1994. A Nyungar interpretation of Ellensbrook and Wonnerup Homesteads. Edith Cowan University: Mt Lawley.
- Colwell, M. 1970. The Voyages of Matthew Flinders. Hamlyn: London.
- Cornell, C.A. 1974. The Journal of Post Captain Nicholas Baudin, Commander in Chief of the Corvettes Geographe and Naturaliste: Assigned by order of the Government to a Voyage of Discovery. Libraries Board of South Australia, Adelaide.
- Cresswell, G. J. 1989. *The Light of Leeuwin: The Augusta-Margaret River Shire History*. The Augusta-Margaret River Shire History Group: Margaret River.
- Ferguson, W. 1987. *In Australians to 1788*. Ed D.J. Mulvaney & J. Peter White. Published by Fairfax, Syme and Weldon, Broadway NSW.
- Glover, R. 1979. Plantagenet A History of the Shire of Plantagenet Western Australia University of Western Australia.
- Goode, B. and Greenfeld P. 2005. Ethnographic Survey of the Albany Ring Road (Stage 1), Chester Pass Road to Albany Highway, Western Australia. Prepared for Gutteridge Haskins & Davey (GHD) upon behalf of Main Roads Department, Albany
- Halpern Glick Maunsell Pty Ltd (1998). *Albany Ring Road Planning Study, Stage 1 Route Selection Report*. Prepared for Main Roads Western Australia by Halpern Glick Maunsell, July 1998.
- Halpern Glick Maunsell (2000). *Albany Ring Road Study Five Mile Creek Option Stage* 2 *Investigation*. Prepared for Main Roads Western Australia by Halpern Glick Maunsell, March 2000.
- Laurie, M. 1994. A History of the Cranbrook Shire. Cranbrook Shire Council.
- Le Souef, S. 1993. The Aborigines of King George Sound at the Time of Early European Contact: An Ethnohistorical Study of Social Organisation and Territoriality. In: de Garis, B.K. (Ed.). Portraits of the Southwest: Aborigines, Women and the Environment. University of Western Australia Press, Perth.

- Logan, R. The Mining of the Albany Region and Their Links with Barmup (Strawberry Hill and the Old Farm) since 1827. Draft Copy 31 May 1998.
- Machin, B. 1993. *Ethnographic Survey: Dunsborough Pipeline*. An unpublished report prepared for the Western Australian Water Authority.
- Machin, B. 1995. Ethnographic Survey: Jangardup Project. Unpublished report.
- Machin, B. 1996. *Ethnographic Report: Aboriginal Heritage Survey Albany Lake Grace Road Amelup Section SLK 83.5 to SLK 87.0.* Unpublished report for the Main Roads Department, Perth.
- McDonald, Hales and Associates. 1994. Aboriginal Heritage in the Southern Forest Region South-West, Western Australia. Unpublished report to the Heritage Commission, Perth.
- Meagher, S. J. 1974. The Food Resources of the Aborigines of the Southwest of Western Australia. Records of the Western Australian Museum, 3:14-65.
- Moore, G.F. 1884. Diary of Ten Years of Eventful Life of an Early Settler in Western Australia. M. Walbrook: London.
- Moore, P. 1989. *Ethnographic Survey Near Beenup*. Unpublished report to Lewis Environmental Consultants. Centre for Pre-history, University of Western Australia: Perth.
- Nind, I, S. 1832. *Description of the Natives of King George's Sound.* Journal of the Royal Historical Society of London. Vol. 1
- O'Connor, R., Quartermaine, G. and Bodney, C. 1989. Report on an Investigation into Aboriginal Significance of Wetlands and Rivers in the Perth-Bunbury Region. Western Australian Water Resources Council, Perth.
- O'Connor, R., Quartermaine, G. and Yates, A. 1995. An Investigation into the Aboriginal Significance of Wetlands and Rivers in the Busselton-Walpole Region. Water and Rivers Commission: Perth. Report WRT2.
- O'Connor, R. 1998. Report on an Ethnographic Study of the Proposed Albany Ring Road Routes. Prepared for Halpern Glick Maunsell, October 1998.
- Shann, E. O. G. 1926. Cattle Chosen. Westminster Press: London.
- Silberbauer, G. B. 1994. *A Sense of Place*. In: Burch, E.S.J and Ellena, L.J. Eds. Key Issues in Hunter-Gatherer Research. Oxford: Berg
- Stanner, W. 1965. Aboriginal Territorial Organisation: Estate, Range, Domain and Regime. Oceania, 33(1).
- Stephens, R. 1962. Nakina, Mokare, Waiter Three Black Brothers of the King George's Sound Tribe of Aborigines. Early Days, The Western Australian Historical Society. Vol. 6
- Tindale, N. B., 1974. *Aboriginal Tribes in Australia.* University of California Press, Berkley, U.S.A.

AN ABORIGINAL HERITAGE SURVEY FOR THE ALBANY RING ROAD, STAGES 2 & 3, ALBANY, WESTERN AUSTRALIA.

- Tilbrook, L. 1983. *Nyungar Tradition: Glimpses of Aborigines of South-Western Australia* 1829-1914. University of Western Australia Press: Perth.
- Vancouver, G. 1798. A Voyage of Discovery to the North Pacific Ocean and Round the World, Performed in the Years 1790, 1791, 1792, 1793, 1794 and 1795 in the Discovery, Sloop of War and Armed Tender, Chatham, Under the Command of Captain George Vancouver. John Stockdale: London.

APPENDIX 1. SITES REGISTER SEARCH

Aboriginal Heritage Inquiry System



Register of Aboriginal Sites

Search Criteria

Site 18705

Disclaimer

Aboriginal sites exist that are not recorded on the Register of Aboriginal Sites, and some registered sites may no longer exist. Consultation with Aboriginal communities is on-going to identify additional sites. The AHA protects all Aboriginal sites in Western Australia whether or not they are registered.

Copyright

Copyright in the information contained herein is and shall remain the property of the State of Western Australia. All rights reserved. This includes, but is not limited to, information from the Register of Aboriginal Sites established and maintained under the Aboriginal Heritage Act 1972 (AHA).

Legend

ıracy	Accuracy is shown as a code in brackets following the site coordinates.	The spatial information recorded in the site file is deemed to be reliable, due to methods of capture.	[Unreliable] The spatial information recorded in the site file is deemed to be unreliable due to errors of spatial data capture and/or quality of spatial information reported.
Coordinate Accuracy	Accuracy is show	[Reliable] T	[Unreliable] d
tus	Interim register	Permanent register	Stored data
Status	_	a .	S
SS	C Closed	O Open	V Vulnerable
Access	ပ	0	>
estriction	N No restriction	Male access only	Female access
Restr	z	Σ	ш

Spatial Accuracy

Index coordinates are indicative locations and may not necessarily represent the centre of sites, especially for sites with an access code "closed" or "vulnerable". Map coordinates (Lat/Long) and (Easting/Northing) are based on the GDA 94 datum. The Easting / Northing map grid can be across one or more zones. The zone is indicated for each Easting on the map, i.e. '5000000:250' means Easting=5000000, Zone=50

Aboriginal Heritage Inquiry System



Register of Aboriginal Sites

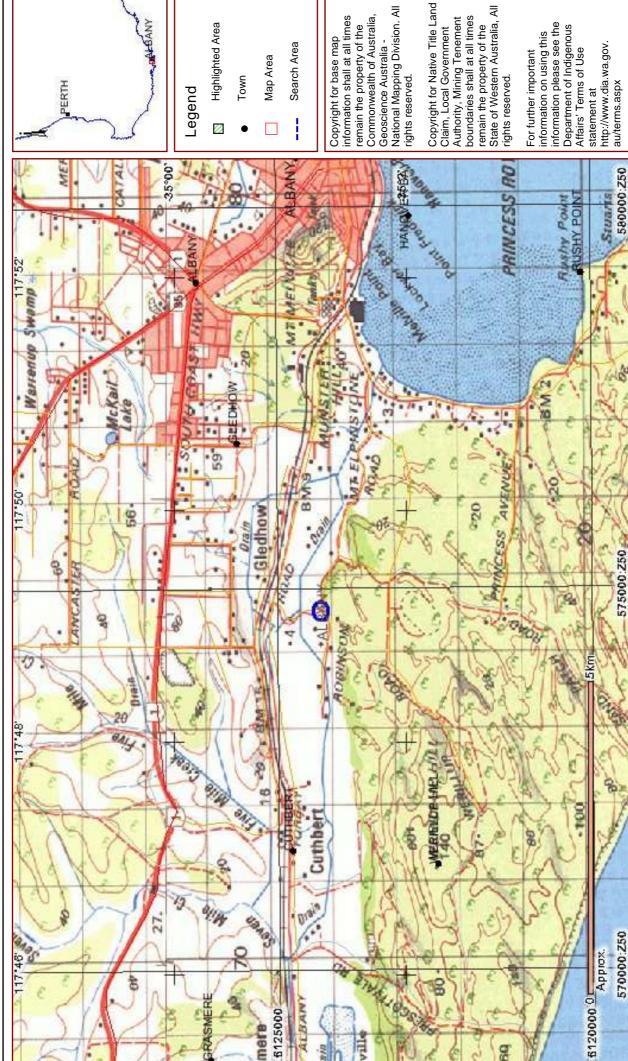
Site No.		
Coordinates	574706mE	6124321mN
Informants		
Additional Info		
Site Type	Skeletal	material/Burial
on Site Name	Black Stump	
Restriction S	Z	
Access	0	
Status	Ъ	
Site ID	18705	

Zone 50 [Reliable]

Aboriginal Heritage Inquiry System

Register of Aboriginal Sites





APPENDIX 2. LETTERS OF ADVICE FROM THE WAGYL KAIP AND SOUTHERN NOONGAR NATIVE TITLE CLAIMANT GROUPS

Brad Goode Consulting Anthropologist Heritage Assessments 79 Naturaliste Terrace DUNSBOROUGH WA 6281 Phone: (08) 9755 3716

Fax: (08) 9756 7660

E-mail: bradnlee@westnet.com.au

ABN: 40 803 184 260

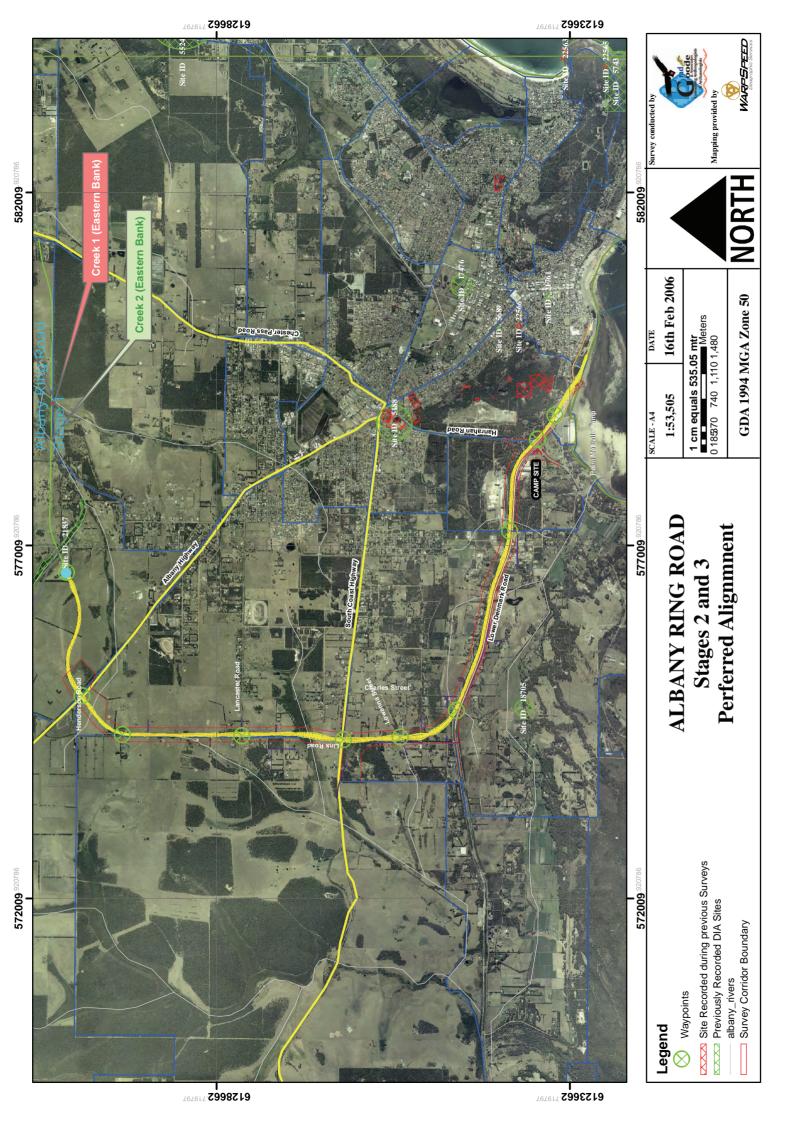
10th June 2006

We the undersigned have been consulted by Brad Goode for GHD on behalf of Main Roads for works on the Albany Ring Road, Stages 2 & 3. We understand the nature and extent of the works described and the need for clearances to be given under section 18 of the West Australian Aboriginal Heritage Act (1972), for sites that have been identified to be affected by the proposal. We would like to make the following recommendations

Wagyl Kaip WC98/70 and Southern Noongar WC96/109 Native Title Claimant Groups.

Name	Date	Signature
Stan Loo	10.6.2006	Stanly: L
Averil Dean	10.6.2006	Go J. can
Lynette Knapp	10.6.2006	VISC CER
Shirley Williams (Colbung)	10.6.2006	In We
Bill Woods	10.6.2006	bellow hivor
Venice Gillies	10.6.2006	Myke,
Ray Wynne	10.6.2006	Red WI O
Eliza Woods (Eades)	10.6.2006	Elizabeth Ivecels
Kelvin Penny	10.6.2006	Willin Penny
	30001/300	

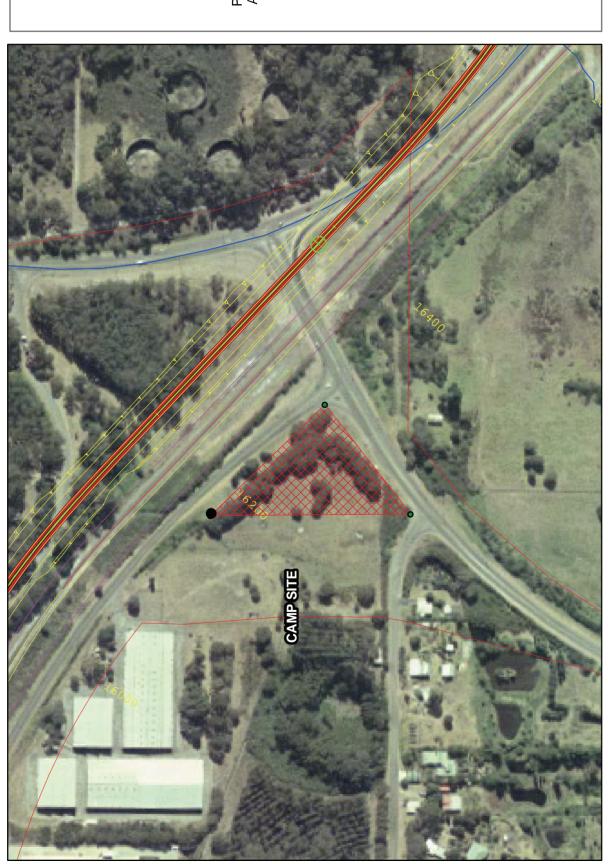
APPENDIX 3. MAPS OF THE PROJECT AREA



WAYPOINT CO-ORDINATES AND DESCRIPTION

FID	ld		Χ	Υ	Description		
NORTH 1	NORTH TO SOUTH ROUTE						
	7	1	576625	6130784	Start North End		
	6	2	574877.4	6130567	Crosses Albany Highway		
	5	3	574326.1	6129993	Leaves Link road to the EAST		
	4	4	574310.9	6128307	Corner or Lancaster and Link Road		
	3	5	574256.7	6126867	Intersection Link Road and South Coast Highway		
	9	6	574291.6	6126064	Crosses Lowanna Road		
	2	7	574666.4	6125270	Leaves Denmark Road		
	1	8	577209.5	6124517	Intersection Roundhay Road and Lower Denmark Road		
	0	9	578511.2	6124125	Intersection Hanrahan Road and Lower Denmark Road		
	8	10	578851.2	6123879	End near Harbour		

APPENDIX 4. MAP OF REPORTED ABORIGINAL CAMP SITE



Camp Site

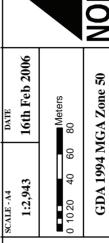
MGA Coordinates (Zone 50) Way Points

578387mE 6124120mN 578302mE 6124053mN 578303mE 6124208mN

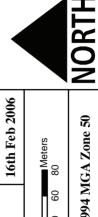
Camp Extent

Perimeter = 386.84 Metres Area = 6637.12 Sq Metres





•		NORT
DATE 16th Feb 2006	■ Meters 80	3DA 1994 MGA Zone 50
	40 60	94 M
3-A4 :2,943		A 19
E-A4:	8	1 5



Survey Corridor Boundary Waypoints

Ring Road Route

Camp_Site_1

Legend

REPORT ON THE ARCHAEOLOGICAL SURVEY OF THE PROPOSED ROUTE OF THE ALBANY RING ROAD (STAGES 2-3), WESTERN AUSTRALIA



(Cover Photo): Looking north at area of proposed deviation of Albany Ring Road (Stage 3), from George Street to Old Elleker Road.

Prepared by

Paul Greenfeld (BA Hons, Grad Dip, MAACAI)

On behalf of

GHD Pty Ltd for Main Roads, Western Australia

June 2006

EXECUTIVE SUMMARY

This report provides details on the archaeological survey of the proposed route for the Albany Ring Road (Stages 2 & 3). The archaeological survey was carried out on 9 June 2006 by Mr Paul Greenfeld for Brad Goode and Associates. Mr Graeme Simpson, a representative of the Albany Aboriginal Heritage Reference Group (AAHRG) accompanied the archaeologist during the survey.

It is the authors understanding that Main Roads propose to construct Stages 2 & 3 of the Albany Ring Road. Stages 2 & 3 will continue from Stage 1 that runs between Chester Pass Road and the Albany Highway (see Goode and Greenfeld 2005b).

Albany Ring Road Stages 2 and 3 begin at the intersection of the Albany Highway and Henderson Road. The Ring Road then follows the existing Link Road alignment, then moves to the east of George Street to enable this road to be retained for local access. From here, the Ring Road alignment would be developed on the northern side of the relocated freight railway line (4km). The existing freight railway line is relocated from its current position between George Street to 300m west of Frenchman Bay Road. This relocation will provide adequate clearance between the Ring Road and CSBP Site. A section of the existing Old Elleker Road will form a service road for adjacent properties to the north and Lower Denmark Road will be relocated slightly southwards to service the southern properties.

The field survey was carried out on 9 June 2006 using a site identification methodology. This methodology allows Aboriginal sites to be located and recorded in detail in accordance with the requirements of the West Australian Aboriginal Heritage Act (1972).

The proposed route of the Ring Road follows existing roads for the majority of its course and lies within ground that has been heavily disturbed, which consequently holds a low potential for the location of cultural material such as stone artefacts or seed grinding implements.

As no archaeological sites or cultural material were located during the course of the archaeological survey it is as opinion of the author and Aboriginal representative present that Main Roads should be permitted to construct Stages 2 & 3 of the Albany Ring Road without further reference to the West Aboriginal Heritage Act (1972).

INTRODUCTION

This report provides details on the archaeological survey of the proposed route for the Albany Ring Road (Stages 2 & 3). The archaeological survey was carried out on 9 June 2006 by Mr Paul Greenfeld for Brad Goode and Associates. Mr Graeme Simpson representative of the Albany Aboriginal Heritage Reference Group (AAHRG) accompanied the archaeologist during the survey.

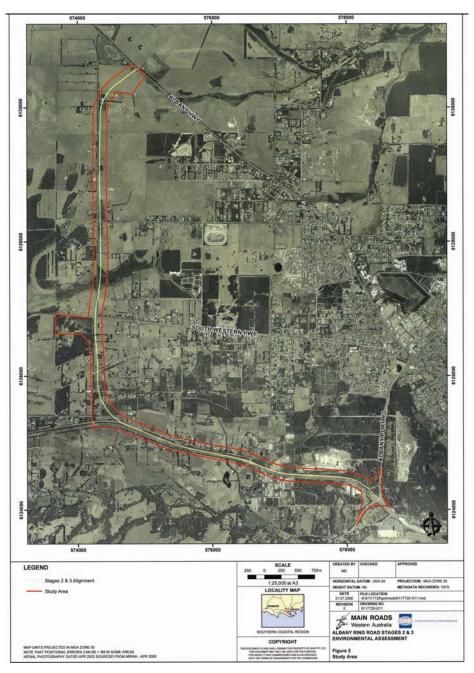


Figure 7: Plan of proposed Study Area for the Albany Ring Road (Stages 2 & 3).

It is the authors understanding that Main Roads propose to construct Stages 2 & 3 of the Albany Ring Road. Stages 2 & 3 will continue from Stage 1 that runs between Chester Pass Road and the Albany Highway (see Goode and Greenfeld 2005b).

Albany Ring Road Stages 2 and 3 begin at the intersection of the Albany Highway and Henderson Road. The Ring Road then follows the existing Link Road alignment, then moves to the east of George Street to enable this road to be retained for local access. From here, the Ring Road alignment would be developed on the northern side of the relocated freight railway line (4km). The existing freight railway line is relocated from its current position between George Street to 300m west of Frenchman Bay Road. This relocation will provide adequate clearance between the Ring Road and CSBP Site. A section of the existing Old Elleker Road will form a service road for adjacent properties to the north and Lower Denmark Road will be

The archaeological survey was carried out on 9 June 2006 using a site identification methodology. This methodology allows Aboriginal sites to be located and recorded in detail in accordance with the requirements of West Australian Aboriginal Heritage Act (1972).

relocated slightly southwards to service the southern properties.

A 100% coverage of the proposed Ring Road was carried out using evenly spaced pedestrian transects. Twice along the proposed route, the Ring Road deviated slightly off existing roads into private property or remnant bushland. These areas were inspected where possible. As the majority of areas examined showed signs of having been heavily disturbed in the past it is suggested that any areas not examined during the course of the archaeological survey hold a very low likelihood of containing any cultural material.

BACKGROUND

LOCATION

Albany is located 400 kilometres south of Perth. It is located on the southern coast and enjoys a Mediterranean climate. The major industries of the area include tourism, farming (both grains and livestock), fishing, viticulture, and timber planting and harvesting.

It was the first place settled in Western Australia and still retains many of its early buildings and streetscapes.

ENVIRONMENTAL BACKGROUND

Climate

The climate of Albany Shire is classified as warm Mediterranean. While well watered the rainfall decreases from 1200mm in the southwest of the shire to 500mm in the northeast with precipitation falling in winter (Beard 1990). The average temperature in January is 25.8°C and in August 15.5°C. The prevailing winds in winter are from the Southern Ocean, increasing the viability of the inland to the coast during winter storms.

Geology

The geology falls into two biogeographical regions, the Southern Jarrah Forest and the Western Esperance Plains (Ecologia 2005). Southern Jarrah Forest comprises Archaean granite of the Yilgarn Block. The topography is composed of duri-crusted plateau on the Yilgarn Block surfaced with ironstone gravels, dissected towards the east with hard setting loamy soils (Beard 1990). In the eastern sector, the Western Esperance Plains, where the Southdown Magnetite mine is located the geology and topography changes to Eocene sediments with outcrops of granite and quartzite's with gently undulating terrain of low relief with sand overlying clay.

Vegetation

Albany Shire, though small in area, is diverse and complex. In the Eyre Botanical District scrub heath and mallee heath on sand plain dominate. The vegetation of the <u>Cape Riche System</u> which lies east of East Kalgan System consists of large patches of jarrah marri woodland with small swampy depressions on the plain.

In the Darling Botanical District jarrah forest on ironstone gravels and marri-wandoo woodlands on loamy soils are present. The <u>Albany System</u> extends from Wilson Inlet to Oyster Harbour and from South Coast Highway to Millbrook Road. It forms a plain with southern and eastern draining streams in flat valleys relieved by several granite domes. Uplands soils are poor and leached with *Casuarina fraserana* on deep sands or mixed with *Eucalyptus staeri* on a laterite subsurface.

Landform

The town of Albany is positioned on the shores of two protected harbours of King George Sound. The coast either side of the harbours is rugged with narrow beaches backed by steep limestone or granite cliffs. Sand dunes form beyond the cliff and extend up to 6 km. Along the coast there are numerous bays and inlets.

The hinterland is an undulating plain of low relief rising gently to 200m and levelling off near Mt Barker. Some 75kms north of Albany Stirling Ranges rises to 1000m and extends east west for 60kms. Halfway between these features is the Porongurup Range which is 15kms long east west and rises to 600m. To the west lie two isolated peaks, Mt Barrow and Mt Barker, rising 480m and 400m respectively. Other granite hills are Mt Manypeaks on the east coast of Albany which rises to 500m and west of Manypeaks on the coast are smaller hills, Mt Gardner, Mt Taylor, Mt Mason, Mt Martin, Mt Clarence and Mt Melville, the last two mentioned framing Albany. Excepting Mt Gardner, all hills are less than 200m high. Inland there are several other low hills, The Sisters and Willyung Hill.

The main drainage system is the Kalgan River with headwaters west of the Stirling Ranges which flows into Oyster Harbour. The other major river system is Hay River, flowing along a steep narrow valley into Wilson's Inlet. Minor rivers are Marbellup Brook, Sleeman, King and Waychinicup Rivers. In the remainder of the area there is poor drainage resulting in numerous lakes and swamps. East of Kalgan River is Kalgan Plains that is flat, extensive and swampy. Similarly there are swamps between Hay and Kalgan Rivers. Behind the sand dunes along the coast there are numerous lakes and swamps (Ferguson 1985).

SUMMARY OF CONSULTANCY REPORTS AND RESEARCH

Consultancy studies in the Albany Shire that have been previously undertaken in the region, the majority of which are held at DIA, are described below as the results are indicative of the site potential and archaeological signature of the region. These reports cover the complete spectrum of different zones covered by the proposed Ring Road (Stages 2-3).

1. Aboriginal Heritage in the Southern Forest Region South-West, Western Australia. (1994) McDonald Hales & Associates.

The objective of this study was to collect historic and contemporary information on Aboriginal sites in the area, develop a generalised predictive site location model of Aboriginal site location, liaise with Aboriginal communities and undertake an ethnographic and archaeological survey. The area is bounded by Vasse Highway to the west, northern edge of Manjimup Shire and Albany Highway to the east.

A total of 81 sites were recorded in the study area with the majority being artefact scatters (28 or 34.6%), followed by grinding patches (12 or 14.8%). Of similar numbers are artefact

AN ABORIGINAL HERITAGE SURVEY FOR THE ALBANY RING ROAD, STAGES 2 & 3, ALBANY, WESTERN AUSTRALIA.

scatter with other component, 8 or 9.9%, "other" 7 or 8.6%, structure, 6 or 7.4%, burial, 4 or 4.9% and artefact scatter with quarry, 4 or 4.9%.

There are two each or 2.5% of artefact scatters with midden, fishtrap, scarred tree and one or 1.2% each of artefact scatter and burial, artefact scatter structure and ceremonial component, artefact scatter quarry and other, ceremonial, engraving and structure and other.

The majority of these sites are located near the coastline. Six of these sites have been dated and range from mid-late Holocene to the ethnographic present.

These sites represent Aboriginal lifeways. Medium-low density artefact scatters represent ephemeral activity or task specific events. Large complex high density scatters near water sources indicate longer term occupation by large groups.

Special purpose sites are fishtraps indicating a specific resource. Grinding patches represent base camps and suggest the presence of women and family groups. Grinding is associated with food processing, grinding ochre and resin or to sharpen wooden implements. On the other hand grinding patches on the coast may have been utilised for berley to assist spear fishing which is a male hunting task.

2. Report on an archaeological survey for Aboriginal sites Kulikup to Kojonup and Mount Barker to Albany Sections of the Telecom Optic Fibre Cable Route. (1995). G. Ouatermaine.

The relevant section of the proposed route follows the main highway from Mt Barker to Albany, generally some 10m within private property or railway reserve. The survey corridor was 50m wide. The methodology consisted of driving the entire route with inspections at regular intervals and predictive areas. The area was disturbed by agricultural activities, borrow pits, road and rail activities and pasture. No sites were located as a result of the narrow and disturbed project area.

3. Aboriginal Heritage Investigation of the Proposed Albany Ring Road Alignment Corridors. (2000). Halpern Glick Maunsell.

The project area included alternate heavy vehicle routes to and from the Port of Albany and up to 5kms west of Albany Highway. All options were surveyed including a red coded route between Albany Highway and Chester Pass Road, a proposed purple and green route and Five Mile Creek route. The survey corridor on all colour coded routes was 100m wide. The routes comprised mostly cleared farmland with pasture. No sites were located.

4. Site Identification Survey under the Aboriginal Heritage Act (1972) of the proposed Down Road West Industrial Project in Albany, WA. (2000) R. Parker. & D. Lantzke.

The project area is located 14kms north of Albany and west of Albany Highway and has been cleared and grazed since colonization. The survey methodology consisted of foot and vehicle traverses on 10% of cleared land and 50% of remnant vegetation. One previously registered site, S02368, was not found and is either located outside the project area or has been destroyed. No sites were located.

ARCHAEOLOGICAL THEORY

A considerable amount of research has been conducted in the southwest corner of Western Australia (see Dortch 1977, Hallam 1986, Ferguson 1985, Pearce 1982) and as a consequence the archaeological patterning of the region is well developed.

Ethnographic and archaeological surveys on the Swan Coastal Plain have confirmed the concentration of Aboriginal occupation around wetlands, swamps, rivers and estuaries (O'Connor et al 1995). This pattern was originally proposed by Hallam (1986) on the coastal plain around Perth and further enforced by subsequent research. An anomaly to this archaeological patterning, however, was suggested by Veth & Moore (1989), after an extensive survey of Scott Coastal Plain which failed to locate any archaeological material, suggesting a very low occupation density for the low-lying swampy plain.

A variety of ethnohistorical sources describe the activities of Aboriginal people on the coastal plain, their subsistence techniques and semi-permanent camps about wetlands during summer. Several sources have noted that people dispersed in winter to hunt in the forested uplands, yet there is scant information pertaining to this part of the subsistence cycle. On the basis of ethnohistorical evidence, Hallam (1979) has proposed that the forest was little exploited and the less dense woodland further inland was targeted by Aboriginal groups.

An alternative model has been proposed by Anderson (1984) and Pearce (1982) based on studies carried out in jarrah forests where they propose that the resources of the forest were widely exploited by highly mobile hunting groups but these groups did not establish large camp sites. Both recorded numerous small artefact scatters, comprised predominantly of quartz tools and debitage. In the South Canning Forest Anderson estimated a density of 1.7 sites per square kilometre while Pearce found a density of 1 site per square kilometre in Collie. Anderson also noted the particular problems concerning low visibility and poor access inherent in the survey of forests.

Excavations were undertaken in jarrah forests by Pearce (1982) and Anderson (1984) where datable organic material was recovered. A sandy site on the edge of a swamp at Collie established occupation at 5810 ± 330 BP in the deepest part of the forest; a cave at Boddington yielded a date of 3230 ± 170 BP (Pearce 1982); while Anderson recovered a date of 1280 ± 80 BP at North Dandalup.

The earliest evidence for prehistoric occupation of the South-West of Australia is an alluvial terrace site at Upper Swan, located 25 km north-east of Perth and dated at 38,000 B.P. years (Pearce and Barbetti, 1981). Two other sites in the south-west have also yielded Pleistocene dates, Devil's Lair near Margaret River and Helena River. The length of occupation at the limestone cave at Devil's Lair ranges from 47,000 years B.P. to 6,500 years B.P. while Helena River yields an early date of 29,000 B.P. years from the basal level as well as a mid-Holocene date of 4,000 B.P closer to the surface (Dortch 1977, 2002, Schwede 1990). In addition, Dortch (1975) located a Silcrete quarry and manufacturing site on the Darling Plateau at Northcliffe. His excavations revealed extensive use of geometric microliths from prior to 6,000 B.P. until 3,000 B.P.

Lilley (1993) surveyed the coastal plain and forest uplands around Margaret River but failed to find any archaeological material in the forest and few sites on the coastal plain. He concludes that the faint archaeological signature of the region is the result of low population densities caused by a relatively impoverished resource base, particularly in jarrah forests. He considers that the technical problems inherent in the region of low site survival rates, poor access and low surface visibility, while contributing factors in site surveys, nevertheless do not affect the outcome of an actual scarcity of archaeological sites in the area.

Ferguson (1985) produced an occupation model for the far southwest predicting extensive use of uplands during earlier times of cooler, drier climate and less dense forest. With increased rainfall and subsequent increase in forest density during the early Holocene, Ferguson proposed sparser occupation in the forest uplands and increased occupation of the coastal plain and interior woodlands.

Research into occupation patterns on the coastal plain, woodland and jarrah forest of the Perth region can be transposed in the lower south-west because of the similar environmental and geomorphic features. A large data base on site locations and assemblages exists as a result of a systematic study of the Swan Coastal Plain undertaken by Hallam (1986) in the 1970s and early 1980s. Hallam's objective was to explain the changing occupation patterns of prehistoric Aboriginal populations. Using numbers and types of sites within ecological zones as a means of comparison, Hallam describes the patterning and nature of archaeological assemblages from the littoral zone, through the coastal sand plain to the foothills and Darling Scarp.

Hallam concludes that Aboriginal occupation was focused around lakes and swamps of the Bassendean Sands and Pinjarra Plains and these occupation sites double numerically in the last few hundred years before European contact. A broad chronology was developed based on the presence of certain indicators within the assemblage. The presence of fossiliferous chert indicates the Early Phase, backed pieces and flat adzes the Middle Phase, quartz chips the Late Phase and glass or ceramic, the Final Phase. Schwede (1990), in a more recent analysis of quartz debitage, finds these chronological markers problematic, in particular, the Late Phase and concludes that all phases were rich in quartz assemblages.

From previous research, a predictive model of site type and location is projected for the southwest. There is a high probability that any sites located will be scatters of less than 10 artefacts and manufactured from quartz. These sites will occur adjacent to a water source and be situated on or near tracks or cleared areas. It is necessary, however, to take into account the high level of disturbance caused by intensive farming by European colonists in the C19th and C20th which may have largely obliterated or camouflaged archaeological sites.

REGIONAL STUDY

The most comprehensive archaeological work in the Albany region was undertaken by Ferguson in a PhD thesis. A précis of relevant points to this study have been extracted.

A Mid-Holocene Depopulation of the Australian Southwest 1985 by W Ferguson.
 PhD thesis

Ferguson's regional area takes in the majority of the shire and more up to Stirling Ranges but omitting the far eastern sector of the City of Albany. His objective was to elaborate on Hallam's (1975) ethnohistoric model of Aboriginal foraging in the southwest and their effect on the environment and Wyrwoll's (1979) model of changes in the environment. His hypothesis is that during the terminal Pleistocene and early Holocene the extreme southwest corner was progressively abandoned and that from 6,000 to 4,000BP the entire region was depopulated. This was as a result of a dramatic increase in rainfall whish caused the spreading of forested areas and decline in open woodland habitats.

Ferguson examines the ethnohistoric literature in the southwest region to understand the foraging pattern. He summarises that Aborigines ignored an economic potential of rivers and estuaries by not using watercraft or swimming. No fish hooks or nets were used but shallow estuaries and rivers were fished with spears and fish traps of stone & wood. Oysters on the rocky coastline were ignored. The Nyungar were primarily involved in the land but not the dense forest. The woodlands which surround and weave through the forest were the focus.

Movements of Nyungars while random were centred on a focal point in circumscribed areas and along established routes. Over time these routes became well worn tracks. These tracks followed corridors of easy movement along riverbanks or through mountain passes which connected camp sites, resource areas and fresh water sources. Camps were moved after several days for social and hygiene reasons. The pattern of constant movement, short durations and dispersed camps suggests the archaeological signature will be sparse and widely scattered. Prime campsites where tracks dissect or a focal resource point will have

AN ABORIGINAL HERITAGE SURVEY FOR THE ALBANY RING ROAD, STAGES 2 & 3, ALBANY, WESTERN AUSTRALIA.

experienced disturbance from frequent usage in the general area. If the campsite coincides with a quarry and reduction area a dense artefact scatter would have collected over time.

The distribution of forest has not been stable over time. Changes in climate have caused expansion and contraction of forest boundaries. This suggests that in the late Pleistocene arid phase large numbers of artefacts as a result of camping may be within the forest area while during the Mid Holocene wet phase areas frequented at contact may not have been utilised.

Using the ethnohistory of Albany region Ferguson produced a model of the estate and range of an Aboriginal family in 1826 called Mokare's Domain Model. From this model a survey methodology using systematic and purposive transects was adopted to sample diverse vegetation zones within topographic transport nodes of Mokare's domain. A major hindrance in the survey was the lack of archaeological visibility. The area concerns either forest with thick leaf litter or farmland with matted grasses. Thus 80% - 90% of the total land surface is obscured. In the systematic survey some 1693kms x 100m width was traversed by vehicle and pedestrian transects along roadways because of increased visibility.

The predictive survey concentrated on fords in the rivers and passes in the hills, in particular where ethnohistoric tracks intersected. The result was that some 186 sites were located using both methodologies. Test excavations were undertaken at seven ethnohistoric track sites with extensive excavation at Kalgan Hall and Moorillup Pool.

Three of five sites excavated, Kalgan Hall, Moorillup Pool and Waychinicup River show drops in artefact numbers during the mid Holocene suggesting a decline of human activity in Mokare's Domain. At Kalgan Hall, Moorillup Pool and Waychinicup River, the artefacts exhibit a sequence from late Pleistocene and over the entire Holocene. Kambellup Pool was frequented from 4000BP onwards and Moingup Spring was restricted to the last millennium.

Kalgan Hall is an example from a forest zone and Moorillup Pool and Waychinicup River are located in present day open woodland. Thus the timing of depopulation occurred before 10,000BP in the current forest around Kalgan Hall and later around 7,000-8,000BP in current woodland at Moorillup Pool and Waychinicup River. At all sites depopulation ended at 3,000-4,000BP. This was a rapid repopulation movement that coincided with a change in stone tool technology.

Ferguson's model of Nyungar society is a highly mobile one using diverse and scattered resources resulting in a land use pattern of weak archaeological signals. He supports Hallam's model that the ethnographic Nyungar frequented the forested areas of the region far less than open woodland areas and that this is not a recent adaptation. Site density was found to be 1 1/2 times higher in open vegetation systems than forests.

SITE SIGNIFICANCE

The significance of an archaeological site is determined by its ability to address regional and site-specific research questions and by its representativeness (Bowdler 1984). Significance is a mutable quality, changing as more sites are recorded, research questions are answered or new research directions arise. Broad research questions that sites in the Southwest may address include:

- a) the antiquity of colonisation of the southwest zone;
- b) social and technological changes that may have occurred in the mid-Holocene;
- c) specific patterns of occupation in regional zones; and
- d) dating of industrial sequences in the region.

SURVEY METHODOLOGY

The archaeological survey was undertaken by Paul Greenfeld and assisted by Graeme Simpson. The field survey was conducted using a site identification methodology. This methodology allows for Aboriginal sites to be located and recorded in detail in accordance with the requirements of the West Australian Aboriginal Heritage Act (1972).

Very close to a 100% coverage of the proposed Ring Road was carried out using evenly spaced pedestrian transects. Twice along the proposed route, the Ring Road deviated slightly off existing roads into private property or remnant bushland. These areas were inspected where possible. As the majority of areas examined showed signs of having been heavily disturbed in the past it is suggested that any areas not examined during the course of the archaeological survey hold a very low likelihood of containing any cultural material.

ARCHIVAL RESEARCH

An electronic search of the Aboriginal Sites Register listed no Aboriginal sites as being registered within or affecting upon the proposed route of the Ring Road.

ABORIGINAL PARTICIPATION

Mr Graeme Simpson a local Noongar man assisted in the archaeological survey. Last year Graeme participated in a heritage course run by DIA in Albany and has since been involved in several heritage surveys.

RESULTS

The archaeological survey was undertaken by Mr Paul Greenfeld and assisted by Mr Graeme Simpson. The field survey was carried out on 9 June 2006 using a site identification methodology. This methodology allows Aboriginal sites to be located and recorded in detail in accordance with the requirements of the West Australian Aboriginal Heritage Act (1972).



Figure 8: Looking south along Link Road towards South West Highway and its intersection with George Street, Albany Ring Road (Stages 2 & 3).

Albany Ring Road Stages 2 and 3 begin at the intersection of the Albany Highway and Henderson Road. The Ring Road then follows the existing Link Road alignment, then moves to the east of George Street to enable this road to be retained for local access. From here, the Ring Road alignment would be developed on the northern side of the relocated freight railway line (4km). The existing freight railway line is relocated from its current position between George Street to 300m west of Frenchman Bay Road. This relocation will provide adequate clearance between the Ring Road and CSBP Site. A section of the existing Old Elleker Road will form a service road for adjacent properties to the north and Lower Denmark Road will be relocated slightly southwards to service the southern properties.

Description/Waypoint No	GPS Easting (Zone 50)	GPS Northing (GDA 94)
Intersection of Albany Highway and Henderson Road (start)	574877	6130567
Intersection Henderson and Link Road	574320	6130620
Intersection of Link Road and South Western Highway	574256	6126867
Intersection of George Street and Old Elleker Road	574222	6125323
End of Old Elleker Road (close to Roundhay Road)	577210	6124517
Intersection of Lower Denmark Road and Frenchman's Bay Road (end)	578851	6123879

Table 2: Details of coordinates (GDA 94) for Albany Ring Road (Stages 2 & 3).

The proposed route of the Ring Road follows existing roads for the majority of its course and lies within ground that has been heavily disturbed, which consequently holds a low potential for the location of cultural material such as stone artefacts or seed grinding implements.

A 100% coverage of the proposed Ring Road was carried out using evenly spaced pedestrian transects. Twice along the proposed route, the Ring Road deviated slightly off existing roads into private property or remnant bushland. These areas were inspected where possible. As the majority of areas examined showed signs of having been heavily disturbed in the past it is suggested that any areas not examined during the course of the archaeological survey hold a very low likelihood of containing any cultural material.

No archaeological sites or cultural material were located during the course of the archaeological survey.

DISCUSSION & RECOMMENDATIONS

The proposed route of Stages 2 & 3 of the Ring Road does not lie close to any of the local rivers with the land being mostly covered by shallow clay soils with numerous outcroppings of gravel. There did not appear to be any sources or outcrops of rock suitable for flaking.

Given the above, it is the opinion of the author that the proposed route would have not been a favourable camping or living area for Aboriginal people in the past.

CONCLUSION

The proposed route of the Ring Road follows existing roads for the majority of its course and lies within ground that has been heavily disturbed, which consequently holds a low potential for the location of cultural material such as stone artefacts or seed grinding implements.

As no archaeological sites or cultural material were located during the course of the archaeological survey it is as opinion of the author and Aboriginal representative present that Main Roads should be permitted to construct Stages 2 & 3 of the Albany Ring Road without further reference to the West Aboriginal Heritage Act (1972).

REFERENCES CITED

- Anderson, J. 1984. Between Plateau and Plain, Occasional Papers in Prehistory 4.

 Department of Prehistory, Research School of Pacific Studies, Australian National University, Canberra.
- Archer, M. Crawford, I.M. Merrilees, D. 1980. *Incisions, Breakages and Charring, Some Probably Man-Made, in Fossil Bones from Mammoth Cave, Western Australia*. Alcheringa 4: 115-131.
- Balme, J. (et al) 1978. Late Quaternary Mammal Remains Spanning About 30,000 Years From Excavations at Devil's Lair, Western Australia. Journal of the Royal Society of Western Australia 60 (2):33-65.
- Bavin, L. 1993. The Dunsborough Pipeline Aboriginal Archaeological Site Survey Along the Pipeline Route and Tank Site, November 1993.
- Beard, J.S. 1981. *Vegetation Survey of Western Australia*. Notes to the 1:1,000,000 Vegetation Sheet 7 Swan. UWA Press, Nedlands, WA.
- Berndt, R. M. and Berndt, C. H. (Eds). 1979. Aborigines of the West: Their Past & Their Present. University of Western Australia Press: Perth.
- Bird, C.F.M. 1985. *Prehistoric Lithic Resource Utilisation: A Case Study from the Southwest of Western Australia*. Unpublished PhD thesis from the University of Western Australia, Perth.
- Bird, C.F.M. and Beeck, C. 1988. *Traditional Plant Foods in the Southwest of Western Australia: The Evidence from Salvage Ethnography*. In: Meehan, B. and Jones, R. (Eds.). Archaeology with Ethnography: An Australian Perspective. School of Pacific Studies, Australian National University: Canberra.
- Bowdler, S. 1984. *Archaeological Significance as a Mutable Quality*. In S Sullivan & S. Bowdler (eds) Site Survey and Significance Assessment in Australian Archaeology. R.S.P.S., A.N.U. Canberra: 1-9.
- Bowler, J.M. 1983. Southern Australia: Hydrologic evidence 7-2KYA. CLIMANZ, RSPacS, ANU.
- Brown, S. 1980. Oyster Harbour Fishtraps. Prepared for DAS.
- Cockbain, A.E. 1968. The Stratigraphy of the Plantagenet Group, Western Australia. Geological Survey of Western Australia Annual Report 1967: 62.
- Corsini, S.J. 1999. Archaeological Survey Report of Kilcarnup at Burnside (Special Rural) Subdivision, Margaret River, WA, October 1999.
- Dortch C. 1975 Geometric Microliths From a Dated Archaeological Deposit Near Northcliffe, Western Australia. Journal of the Royal Society of Western Australia. 54 103-13
- Dortch C.E. 1977. Early and Late Stone Industrial Phases in Western Australia in Wright R.V.S. (ed) Stone Tools as Cultural Markers A.I.A.S. Canberra: 104-132

- Dortch, C.E. 1984. Devil's Lair A Study in Prehistory. Western Australian Museum, Perth.
- Dortch, C.E. 1987. Assessment of the Effects of Proposed Development on Aboriginal Sites in the Jerramungup Coastal District, February 1987.
- Dortch, C.E. 1998. Archaeological Survey Report Aboriginal Sites in the Area Apportioned under the Moses Rock and Quininup Falls Concept Development Plan, Leeuwin-Naturaliste National Park, WA, September 1998.
- Dortch, C.E. & Dortch, J. 1996. Review of Devil's Lair Artefact Classification and Radiocarbon Chronology. Australian Archaeology 43: 28-31.
- Dortch, J. 1994. *Pleistocene Hearths at Tunnel Cave, South-western Australia*. Australian Archaeology 38: 45-46.
- Dortch, J. 1995. Report of an Archaeological Excavation at the Dunsborough 2 Site, Busselton Shire, Western Australia, January 1995.
- Dortch, J. 1996. Late Pleistocene and Recent Aboriginal Occupation of Tunnel Cave and Witchcliffe Rock Shelter, South-western Australia, Australian Aboriginal Studies 1996 (2):51-60.
- Dortch, J. 1998a. Archaeological Inspection of Disturbance from Trench Digging at the Seymour Road/Caves Road site, S02856, April-May 1998.
- Dortch, J. 1998b. Survey for Archaeological Sites along Caves Road (Carters Road to Dunsborough), Leeuwin-Naturaliste Region, Western Australia, November 1998.
- Dortch, J. 1999. Survey for Archaeological Sites along Fisher Road (Kudardup to Molloy Island), Leeuwin-Naturaliste Region, Western Australia, January 1999.
- Dortch, J. 2000. Survey for Archaeological Sites on a Potential Lime-Sand Quarry Lease, Reserve 30656, Boranup, November 2000.
- Dortch C.E. 2002 Modelling past Aboriginal hunter-gatherer socio-economic and territorial organisation in Western Australia's lower South-west. Archaeology in Oceania 37:1: 1-22.
- Ferguson, W.C. 1980. Fossiliferous Chert in South-western Australia after the Holocene Transgression: A Behavioural Analysis. The Artefact 5: 155-169.
- Ferguson, W.C. 1985. *A Mid-Holocene Depopulation of the Australian southwest*. Unpublished PhD thesis, Australian National University, Canberra.
- Goode, B. 1998. Report on Aboriginal Heritage Issues Site S02856 Caves Road, Dunsborough, (August) 1998.
- Goode, B. 1999a. Ethnographic Survey of the Proposed Special Rural Subdivision 'Burnside at Kilcarnup' Sussex Locations 121, 264, 287, and 407 Shire of Augusta Margaret River, Western Australia, September 1999.
- Goode, B. 1999b. Gracetown Development Investigations Stage One: Preliminary Aboriginal Heritage Survey, October 1999.

- Goode & Watson Heritage Consultants. 1999. Report on Aboriginal Heritage Issues Caves Road, Dunsborough to Margaret River, Pan No. 8227, March 1999.
- Goode, B. and Greenfeld, P. 2005. Report on the Archaeological Survey of (20) housing lots within the Nullaki Wilderness and Garden of Eden Estates, west of Albany, South Western Australia.
- Goode, B. and Greenfeld, P. 2005b. Ethnographic Survey of the Albany Ring Road (Stage 1), Chester Pass Road to Albany Highway, Western Australia, January 2005.
- Greenfeld, P. 2005. Report on the Archaeological Survey of (20) Housing Lots within the Nullaki Wilderness and Garden of Eden Estates, west of Albany, South Western Australia.
- Greenfeld, P. 2006. Report on the Archaeological Survey of Housing Lots 109 & 126 Within the Nullaki Wilderness Estate, West of Albany, South Western Australia.
- Green Skills Inc. 2001. *Jewel of the Rainbow Coast, Wilson Inlet, Denmark, WA*. Advance Press, Perth.
- Hallam, S.J. 1979. Fire and Hearth A Study of Aboriginal Usage and European Usurpation in South-Western Australia. Australian Institute of Aboriginal Studies, Canberra.
- Hallam S.J. 1986. *Prehistoric Aboriginal Populations on the Swan Coastal Plain, Western Australia*. Final Report on the Project: Australian Research Grants Scheme.
- Hallam, S.J. 1987. Coastal Does Not Equal Littoral. Australian Archaeology 25: 10-29.
- Lilley, I. 1993. Recent Research in South-Western Western Australia: A Summary of Recent Findings. Australian Archaeology 36: 34-41.
- McArthur, W.M. 1991. Reference Soils of South-Western Australia. Department of Agriculture, Perth.
- McCarthy, F.D. 1976. *Australian Aboriginal Stone Implements*. Australian Museum Trust, Sydney.
- McDonald Hales and Associates. 1992. Southern Forest Project A Predictive Model of Site Location, September 1992.
- McDonald Hales and Associates. 1993a. A Report on the Aboriginal Heritage Survey of Smiths Beach Development, Busselton, WA. Report prepared for Allan Tingay and Associates.
- McDonald Hales and Associates. 1993b. A Report on the Aboriginal Heritage Survey of Busselton By-pass, Busselton, WA.
- McDonald Hales and Associates. 1998a. Report of an Aboriginal Heritage Survey Naturaliste Heights Estate, Dunsborough, February 1998.
- McDonald Hales and Associates. 1998b. Addendum to the Report of an Aboriginal Heritage Survey Naturaliste Heights Estate, Dunsborough, February 1998.

- McDonald Hales and Associates. 1998c. Report of an Aboriginal Heritage Survey Sussex Location 972, Horseford Road and Location 412 and Lot 1 of Location 336, Burnside Road, Margaret River, Western Australia, March 1998.
- McDonald Hales and Associates. 2000. Report of an Aboriginal Heritage Survey of the Proposed Margaret River East Bypass, November 2000.
- O'Connor R., Quartermaine G. & Bodney C. 1989. Report on an Investigation Into Aboriginal Significance of Wetlands and Rivers in the Perth-Bunbury Region. Western Australian Water Resources Council, Perth.
- Pearce, R.H. 1978. Changes in Artefact Assemblages During the Last 8000 Years at Walyunga, Western Australia. Journal of the Royal Society of Western Australia 61: 1-10.
- Pearce, R.H. 1982. Archaeological Sites in the Jarrah Forest at South-Western Australia. Australian Archaeology No. 14, 18-24
- Pearce R.H. & Barbetti M. 1981. A 38,000 Year Old Archaeological Site at Upper Swan, Western Australia. Archaeology in Oceania. 16:173-178
- Schwede, M. 1990. *Quartz, The Multifaceted Stone: A Regional Prehistory of the Helena River Valley on the Swan Coastal Plain of South-Western Australia.* Unpublished PhD thesis, University of Western Australia. Nedlands.
- Strawbridge, L. and Rumley, H. 1994. An Archaeological and Ethnographic Survey for a Proposed Fishing Boat Harbour at Fishery Beach, Bremer Bay, September 1994.
- Thom, B. and Chappell, G.J. 1975. *Holocene Sea Levels Relative to Australia*. Search 6(3): 90-93.
- Veth P. & Moore P. 1989 Report on an Archaeological and Ethnographic Survey Near Beenup, Augusta, W.A. Prepared for Lewis Environmental Consultants.
- Western Infrastructure. 2001. Margaret River (East) Ring Road Planning Study Section 18 Application, July 2001.
- White, J.P and O'Connell, J.F. 1982. A Prehistory of Australia, New Guinea and Sahul. Academic Press, Sydney.