

Clearing permit application (EP23-108(04)—005)

Portion Lot 5011 Davis Road, Forest Grove

Attachment 7

Aboriginal heritage survey





**A REPORT ON AN ABORIGINAL HERITAGE
SURVEY OF SUSSEX LOCATIONS 5011 AND
LOT 5012, DAVIS ROAD, WITCHCLIFFE,
WESTERN AUSTRALIA**

*A report prepared for the Shire of Augusta Margaret
River.*

**By Mr Brad Goode
Consulting Anthropologist
79 Naturaliste Terrace
DUNSBOROUGH WA 6281
bradnlee@westnet.com.au**

**Mrs Jacqueline Harris
Consulting Archaeologist
26 Camelia Street
North Perth WA 6006
jac234@bigpond.net.au**

Report submitted January 2011 to:

Mr Greg Simpson
Manager of Environmental Health Services
Shire of Augusta Margaret River
PO Box 61
MARGARET RIVER, WA, 6285

The Registrar
Department of Indigenous Affairs
PO Box 7770
Cloisters Square
PERTH WA 6000



**H
E
R
I
T
A
G
E
S
U
R
V
E
Y**

79 Naturaliste Terrace
Dunsborough WA 6281
Email:- bradnlee@westnet.com.au
Phone:- 97553716

EXECUTIVE SUMMARY

The Shire of Augusta Margaret River is proposing to expand their waste management facility within Sussex Location 5011 (Reserve 43808) and Sussex Location 5012 (Reserve 22987) which is located at Davis Road in Witchcliffe.

Specifically the Shire of Augusta Margaret River is seeking approval to clear approximately 1.2 hectares of vegetation on the northwest corner of Sussex Location 5011 for the construction of a new processing plant (for recycling waste) and to construct a waste water treatment plant to service an adjacent subdivision. The Shire is also seeking approval to extend its landfill disposal operations within the eastern portion of Sussex Location 5011 and for possible future expansions of waste disposal operations within an adjoining land parcel Sussex location 5012.

A search of the Department of Indigenous Affairs (DIA) Aboriginal Sites Register was conducted on the 10th November 2010 in order to determine if there are any previously recorded ethnographic Aboriginal Heritage sites located within the development areas.

As a result of this search there are **no** previously recorded ethnographic Aboriginal Heritage sites located within the proposed development area (see Appendix 1, Aboriginal sites register extract).

As a result of consultations held with members of the South West Boojarah WC06/04 and Harris Family WC96/041 Native Title Claim groups, **no** ethnographic sites of significance as defined by section 5 of the West Australian Aboriginal Heritage Act (1972) were identified to be located within Sussex locations 5011 and 5012.

Due to concerns expressed during the survey for the landfill site to potentially leach pollutants into ground water and local creeks, both Native Title Claim groups have requested that the results from the ground water monitoring and the environmental reports should be sent to each claim group annually for comment.

No other issues were identified during the survey and as such the Shire of Augusta Margaret River should proceed.

As a result of the above survey the following recommendations can be made;

It is recommended that as no sites of ethnographic significance as defined by Section 5 of the West Australian Aboriginal Heritage Act (1972) were identified to be located within the project area that the project can progress as planned.

It is recommended that the Shire of Augusta Margaret River take into consideration the requests of the Aboriginal community to provide copies of annual water monitoring and environmental reports to each Native Title claim group.

CONTENTS

EXECUTIVE SUMMARY	1
ISSUE	4
REPORT OBJECTIVES	4
BACKGROUND	4
LOCATION	5
ETHNOGRAPHIC & HISTORICAL BACKGROUND	6
TRADITIONAL NYUNGAR CULTURE	6
SETTLEMENT AND SOCIAL DISRUPTION	7
ARCHIVAL RESEARCH	13
SITES REGISTER SEARCH.....	13
REVIEW OF RELEVANT SITE FILES.....	13
REVIEW OF RELEVANT ETHNOGRAPHIC REPORTS.....	13
OUTCOMES OF ARCHIVAL RESEARCH	15
IDENTIFICATION OF SPOKESPEOPLE	16
THE RIGHT TO SPEAK ON HERITAGE ISSUES.....	16
NATIVE TITLE CLAIMS OVER THE SURVEY AREA.....	17
SELECTION OF SPOKESPEOPLE FOR THIS SURVEY.....	17
COMMUNITY CONSULTATION	20
AIMS	20
METHOD	20
COMMUNITY CONSULTATION PROCESS	20
COMMUNITY CONSULTATION OUTCOMES	23
RECOMMENDATIONS	24
BIBLIOGRAPHY	25
A REPORT ON AN ARCHAEOLOGICAL SURVEY OF SUSSEX LOCATIONS 5011 AND 5012, DAVIS ROAD, WITCHCLIFFE, WESTERN AUSTRALIA	28
EXECUTIVE SUMMARY	29
INTRODUCTION	31
PURPOSE OF HERITAGE SURVEY REPORT	31
STUDY AREA	31
ENVIRONMENT	31
Climate.....	31
Geology & Topography	31
Vegetation.....	32
ARCHAEOLOGICAL RESEARCH	32
DESKTOP STUDY	32
REVIEW OF HERITAGE SURVEY REPORTS	32
ARCHAEOLOGICAL CONTEXT	34
SITE SIGNIFICANCE	35
SURVEY METHODOLOGY	35
Lot 5011 Reserve 43808	36
Lot 5012 Reserve 22987	36

SURVEY AREA.....	36
FIELD SURVEY RESULTS.....	36
POTENTIAL EFFECTS.....	37
CONCLUSIONS	37
DISCUSSION.....	37
RECOMMENDATIONS.....	38
BIBLIOGRAPHY	39
APPENDIX 1. SITES REGISTER SEARCH.....	41
APPENDIX 2. LETTERS OF ADVICE	42
APPENDIX 3. MAPS OF THE PROJECT AREA.....	44

LIST OF FIGURES

FIGURE 1: LOCATION OF THE PROJECT AREA	5
FIGURE 2: THE SOUTHWEST BOOJARAH WC 06/004 NATIVE TITLE CLAIM GROUP DISCUSSING THE PROJECT PLANS WITH THE CONSULTANTS FROM BRAD GOODE & ASSOCIATES PTY LTD. VIEW TO THE SOUTHWEST, PHOTO TAKEN FROM THE 1.2 HECTARE CLEARING ZONE WITHIN SUSSEX LOCATION 5011.....	20
FIGURE 3: MR GREG SIMPSON FROM THE SHIRE OF AUGUSTA MARGARET RIVER AND THE CONSULTANTS EXPLAINING TO THE SOUTHWEST BOOJARAH WC 06/004 NATIVE TITLE CLAIM GROUP THE PROPOSED EXPANSION TO THE LANDFILL SITE EAST WITHIN SUSSEX LOCATION 5011. VIEW TO THE EAST.	21
FIGURE 4: MR GREG SIMPSON BRIEFING THE HARRIS FAMILY WC 96/041 NATIVE TITLE CLAIM GROUP, WITH REGARDS TO THE PROPOSED CLEARING FOR RECYCLING SHEDS AND A WATER TREATMENT PLANT WITHIN THE NORTHWEST CORNER OF SUSSEX LOCATION 5011. VIEW TO THE WEST.....	22
FIGURE 5: MR COLIN (FLOYD) IRVINE (BRAD GOODE & ASSOCIATES), MR GREG SIMPSON (AUGUSTA MARGARET RIVER SHIRE), MR MARK BLURTON, MRS NAOMI DOWNEY, MRS MINNIE VAN LEEUWIN, MR KEITH HARRIS, MRS DOROTHY BLURTON AND MR BRAD GOODE, AT THE CURRENT LANDFILL SITE WITHIN SUSSEX LOCATION 5011. VIEW TO THE EAST WHERE THE LANDFILL EXPANSION IS PROPOSED.....	23

REPORT

A Report on an Aboriginal Heritage Survey of Sussex Locations 5011 and Lot 5012, Davis Road, Witchcliffe, Western Australia.

ISSUE

The Shire of Augusta Margaret River ('the proponent') is proposing to expand their waste management facility within Sussex Location 5011 (Reserve 43808) and Sussex Location 5012 (Reserve 22987) at Davis Road in Witchcliffe. The proponent wishes to determine whether any sites of significance to Nyungar people will be affected by this proposed work thereby fulfilling their obligations under the West Australian Aboriginal Heritage Act (1972) [AHA].

REPORT OBJECTIVES

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

To report on consultations held with representatives of the South West Boojarah WC06/004 and Harris Family WC96/041 Native Title Claim groups in order to determine if any new Aboriginal Heritage sites will be affected by this proposal.

BACKGROUND

On the 30th September 2010, Mr Greg Simpson, Manager of Environmental Services from the Shire of Augusta Margaret River, made contact with Brad Goode & Associates ('the consultants') and requested that they conduct 'A Site identification Aboriginal Heritage Survey' for the proposed expansion of their waste facility at Davis Road in Witchcliffe.

Specifically the Shire of Augusta Margaret River is seeking approval to clear approximately 1.2 hectares of vegetation on the northwest corner of Sussex Location 5011 for the construction of a new processing plant for recycling waste and a water treatment plant to service an adjacent subdivision. The Shire is also seeking approval to extend its landfill disposal operations within the eastern portion of Sussex Location 5011 and for possible future expansions of waste disposal operations within an adjoining land parcel Sussex location 5012.

As a result of the above brief, Ms Jacqueline Harris (archaeologist) and Mr Wayne Webb (traditional owner) conducted an archaeological inspection of the proposed project area on the 17th November 2010.

An ethnographic survey was also conducted on the 13th and 15th December 2010, by Mr Brad Goode (anthropologist), Mr Colin (Floyd) Irvine (ethnographer) and Mrs Angela Tarbotton with members of the South West Boojarah WC 06/004 and Harris Family WC 96/041 Native Title Claim groups.

LOCATION

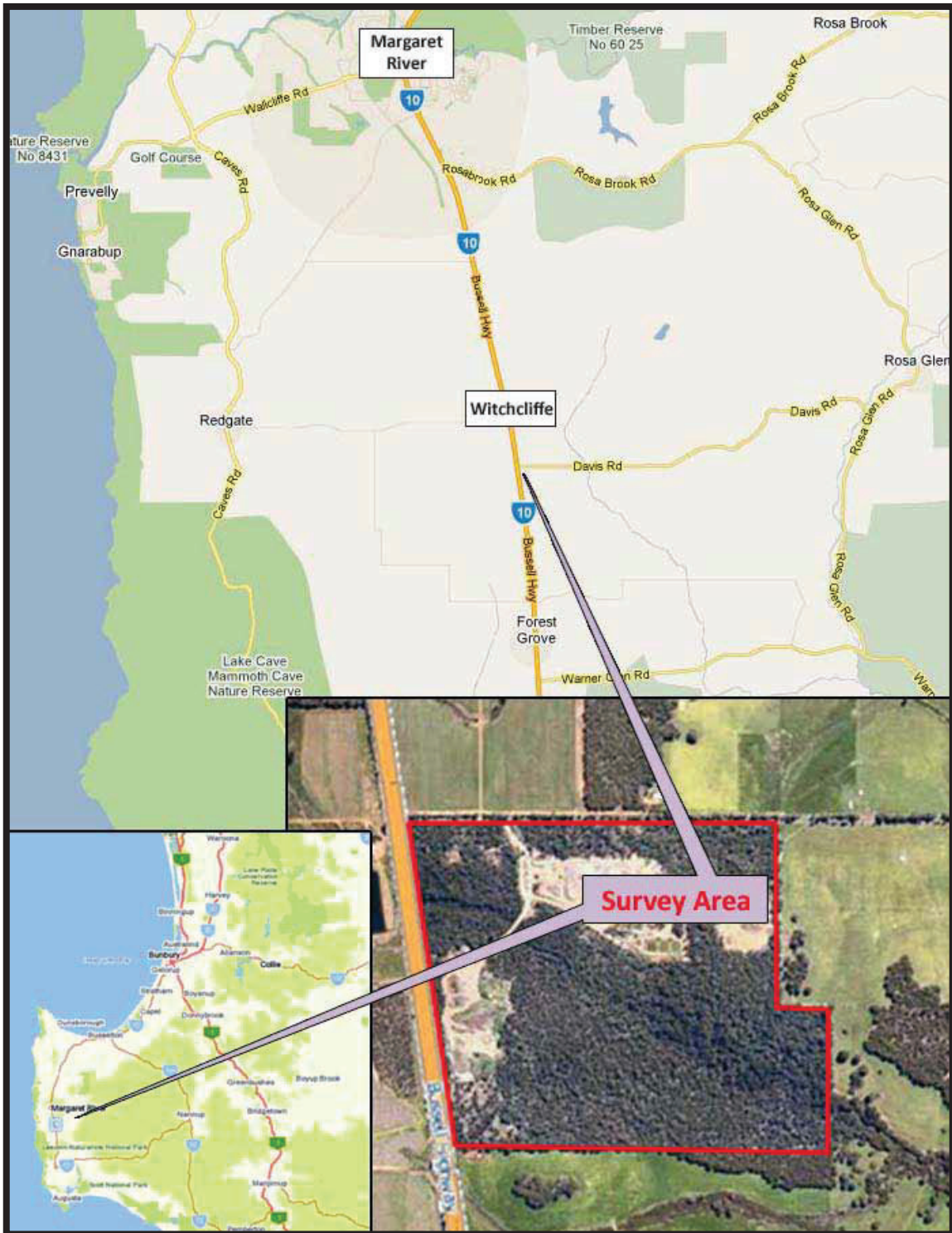


Figure 1: Location of the Project Area

ETHNOGRAPHIC & HISTORICAL BACKGROUND

TRADITIONAL NYUNGAR CULTURE

The southwest 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 southwest people recognised themselves, their language and culture, as ‘Bibbulmun’ (Bates, 1985). Daisy Bates writes that the Bibbulmun 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 mentions that over seventy groups that shared a common language and some local variations occupied the Bibbulmun area.

“All coastal *Bibbulmun* were *Waddarn-di* – sea people, and called them, and were called by their inland neighbours, *Waddarn-di Bibbulmun*. The inland tribes were distinguished by the character of the country they occupied. They were either *Bilgur* (river people, beel or bil-river), *Darbalung* (estuary people), or *Buyun-gur* (hill people – buya-rock, stone, hill), but all were *Bibbulmun* [*Nyungar*]” (Bates 1985:47).

Tindale (1974) identified thirteen ‘tribal groups’ in the south-west based on socio-linguistic boundaries and minor dialect differences. He describes the *Wardandi Bibbulmun* territory as encompassing the coast from *Koombanup* (Bunbury) to *Talanup* (Augusta) following the Blackwood River inland to Nannup. The Nyungar people of the Capes region used the name *Wardandi* to describe themselves. They maintained a number of paths between the Vasse/Wonnerup area in the north and Augusta to the south, and as far as Nannup to the east that followed the coast and the Blackwood River.

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 ciatricision of the upper body (Bates, 1985). The people who followed these socio-religious practices have been described by Berndt and Berndt (1979), as being of the ‘Old Australian Tradition’.

Within the Bibbulmun, 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 subdivisions: *Tondarup*, *Didarruk* and *Ballaruk*, *Nagarnook* (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” (Bates 1966:24-25).

Each socio-linguistic group, sometimes referred to as the ‘tribe’, consisted of a number of smaller groups. Each of these smaller groups was 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 the group used 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 of. Other groups would also have some rights of access and use gained through marriage.

“Ownership rights to land were held by groups of people linked through common descent; there was definite ownership of land in both social and personal ways. As well as belonging to a local descent group by birth, each individual simultaneously belonged to an economic or food gathering group.” (Le Souef, 1993)

There are two forms of socially organised relationships to the land, a spiritual association and an economic one. Stanner (1965) uses the terms 'estate' and 'range' to distinguish these two different associations, he writes that the 'range' was that land in which the group 'ordinarily hunted and foraged to maintain life'. The 'estate' refers to the spiritual country and which may be 'owned' by either an individual, by the group or by 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, 1994:124).

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.*, 1995). 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 Aborigines 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.

"Rights are recognized through active social relations, a process symbolized through the possession of knowledge. That is, knowledge is only gained through participation in social relations and rights to the land are reliant on the possession of relevant religious knowledge". (Machin, 1996:11)

Traditionally, the Bibbulmun Nyungar people recognized six different seasons in the year. Each of these seasons coincided with a particular seasonal abundance of a wide variety of food resources. Fish traps such as the well documented Barragup Fish Trap were used to catch large migrations of estuarine and river fish. These fish traps were so efficient at providing food that they formed the basis of regular meetings between neighbouring groups and were a focus of cultural activities (Contos *et al* 1998, Bates 1985). Spears *Gidji-garbel* & *Gidgie-borryl*, axes *Kadjo* and digging sticks *Wonna*, were used to hunt and procure food (Berndt 1979, Tilbrook 1983). Trees known to contain bird's nests or possum hollows or to have hives with native honey in them had notches cut into their trunks to facilitate climbing. The Bibbulmun Nyungars had an extensive knowledge of plants for both food and medicinal uses (Bird & Beeck 1988, Meagher 1974).

SETTLEMENT AND SOCIAL DISRUPTION

Prior to settlement in Western Australia, the Dutch and the French, as well as sealers and whalers of mixed nationalities, had already landed and made contact with the local Aborigines. From the beginning of the 17th 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. Many who realized 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 some expeditions to try and rescue shipwrecked sailors, the Dutch showed little interest in Australia (McDonald et al., 1995).

The Dutch flute *Elburgh* is reported to have recorded the first brief description of the Aborigines near Cape Leeuwin in 1659:

“An armed party sighted three Nyungar Aborigines wearing kangaroo skin cloaks. At the sight of the European sailors, the tribesmen ran off into the bush leaving behind spears and small axes” (Creswell, 1989).

Contacts were also made by the whalers and sealers who 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-colonization contact with whalers, the first being that in 1827, Major Lockyer of the Albany garrison ‘reported incidents of Aboriginal women being found on offshore islands, kidnapped and then abandoned by the sealers’. 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).

The first ‘settlement’ in Western Australia was the establishment of a garrison of soldiers at King George Sound in 1827. In 1829 the Swan River colony was founded and the settlement of Augusta took place in 1830. Initially relations between the Aborigines 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). On the 1st of May 1830, the schooner *Emily Taylor* dropped anchor in Flinders Bay close by what is now Augusta. On board were the first settlers who were to create the town of Augusta, the Molloy, Bussell and Turner families and their servants, Dr Green, Sgt Guerin and a detachment of soldiers (Pickering 1929; Turner 1956). Horses, cattle, machinery, merchandise and general stores of every description were rafted ashore through the surf. Turner (1956) recounts:

“While these strange operations were being enacted, natives lurked curiously in the background, watching every movement; it was something entirely new to them. The natives were timid and shy, but to cover this they ‘simulated rage,’ gesticulated and jabbered at the intrusion on their domain; but the settlers advanced, calling ‘*abba abba*’ and some of the few aborigine words they had already learned, and by offering a few trinkets and with friendly signs they soon established peace, and some natives led them to a ‘soak’, no doubt the spring so often referred to later” (Turner, 1956:89).

Berndt (1979) suggests that the Aborigines believed that the first European settlers, because of their light skin colour, were souls of the dead (*djanga*) returned from *Koorannup*, 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 Koorannup...here, their old skins were discarded and they appeared ‘white’” (Berndt, 1979:86).

Many of the tracks created by the Nyungar people were used by the early settlers to explore the land and eventually to create the basis for roads upon these tracks, many of which still follow similar alignments. Not only do the original paths used by the Nyungar people often coincide with existing road alignments but often link traditional areas of importance which are now the

location of town sites (Collard, 1994). Augusta, Busselton and Bunbury, formally known as *Talanup*, *Yoonberup* and *Koombanup* by the Nyungar people, were important regional areas providing good hunting and food gathering opportunities. The settlers in Augusta employed the local Nyungars as guides and trackers and used the Nyungar paths through the bush to reach the Vasse district (Jennings, 1983).

In November of 1833, Georgina Molloy wrote to a friend in England that the Aborigines in Augusta were 'fond' of the settlers, and that the settlers and Aborigines lived "on the most peaceful terms". In the same letter, which took four months to complete, she writes of "being troubled with natives who, though amiable, required watching in case of theft" (Pickering, 1929:47). Whilst relations between the settlers and the Aborigines began amiable, pilfering of food and implements soon tested this. Early in 1834, an incident occurred in which a group of around 30 Aborigines attempted to intimidate Mrs. Molloy and Fanny Bussell whilst Captain Molloy and other male members of the settlement were absent. The Aborigines attempted to take a tablecloth and some potatoes before Mrs. Molloy's servant Dawson (the only male present) produced a pistol and a rifle that scared the aborigines off. From the Molloy house the Aborigines went to Miss Bussell's house from where they took three salt sellers. The Aborigines valued glass (*dillilah*) for pointing their spears. When the theft was discovered the settlers had the garrison of soldiers apprehend the Aborigines. There was an exchange in which the soldiers either threatened to shoot or to bayonet the women or woman responsible (the two accounts from Mrs. Molloy and Miss Bussell vary in detail). The salt sellers were recovered without any actual violence-taking place, yet it marked a significant worsening of relations between the Aborigines and the settlers (Pickering, 1929; letter of Fanny Bussell dated 16/2/1834). Georgina Molloy wrote of the incident:

"I am sure if Dawson had not been present, Mrs. Dawson and I and the poor children would have been murdered or otherwise injured, for it seemed that mans full intention to prevent me leaving my own premises. It gave me a great fright" (Pickering, 1929).

In 1837, three Nyungar men were killed as a reprisal for the theft of a heifer, in the same year a house belonging to the Turner family in Augusta was burnt to the ground and the Government store was raided (Jennings, 1983). As the settlers expanded their farming operations and took up more and more land, the pressure on the Nyungar people increased as the two lifestyles met. Cattle were speared and settlers attacked. Reprisals led to resentment and conflict replaced the early good will. On June 28, 1837, Lennox Bussell wrote a letter to Captain Molloy in Augusta describing the killing of three Nyungar men as a reprisal for the Aboriginal people taking a heifer (Jennings, 1983). On July 9, he wrote again to Captain Molloy about the reprisals.

"...I do not view the present daring outrage (The *taking of the heifer*) as a mere breach of the law but as an act of open hostility and defiance... we have inflicted upon the offenders the only adequate punishment in our power... Let us first convince them of their inferiority and then extend to them our protection and it will be gratefully accepted, otherwise with the vanity inherent in a savage, they will fling back the proffered gift and considering every act of forbearance a confession of weakness and inability, will cause in their final subjection which sooner or later must be effected, a sacrifice of life on both sides double or treble to what would have befallen if severer measures had been adopted from the first" (Letter to Captain Molloy from Lennox Bussell, dated July 9, 1837, cited in Jennings, 1983).

As the settlers demand for labour increased, Aboriginal people were employed as farm labour and domestic help in exchange for goods such as flour, sugar and tobacco. The Aborigines became increasingly dependent on these European food supplements and, whilst still practicing some aspects of their traditional economies, the traditional lifestyle of the Nyungar people may have ended as early as the 1860's (Berndt and Berndt, 1979). This relationship between the settlers and the local tribes spelt the beginning of the end for the Aborigines 'fully traditional economies' (Moore, 1989).

Hamelin Bay became a port for ships loading timber cut in the Karridale area in 1875 when Willie Eldridge was granted a fourteen year lease to cut timber in a 75000 acre area around Augusta-Hamelin. There were no facilities to load the ships and the timber was towed into the water by oxen and then loaded onto lighters (sailing barges) to be loaded on the ships. After losing one ship and cargo, and unable to find either markets or financial backing, Eldridge was forced to admit defeat. He was, however, responsible for erecting buildings, building roads and establishing Hamelin Bay as a shipping harbour and base for a business (Creswell 1989). Maurice Cole Davies followed Eldridge in expanding the timber industry in the region. M C Davies took over Eldridge's expired lease in 1878 and in 1881 had laid a rail line linking Boranup and Hamelin Bay, in 1882 construction began on a 1800 foot long jetty at Hamelin Bay. Many miles of rail line were laid linking mills to Hamelin Bay, which rapidly became a thriving port. In 1885 Hamelin Bay was a 'considerable township'. Around 1895 the Cape Leeuwin lighthouse was commissioned and completed in 1896. One person known to have worked on the lighthouse was Joe Hill who was an expirée (a convict who had served his time) employed to drive a bullock team carting stone (Creswell 1989). Mr Joe Hill is a European ancestor of several Busselton Nyungar families. M C Davies successfully tendered for the construction of the original Alexandra Bridge was 400 feet (122 meters) long and seventeen spans wide. The original bridge was located a short distance upstream from the present bridge and much of its structure survived until 1982 when a summer flood destroyed it. Its location has been a popular picnic and bream fishing spot for many years (Creswell 1989). As a shipping port and timber town, Karridale and Port Hamelin lasted around 35 years. By 1910, most of the best timber in the area has been removed and the mill at Karridale has closed. With the mill closed, Karridale almost disappeared overnight (Creswell 1989). As work on the timber mill finished, the Nyungar people who worked there moved with the industry to other locations. Busselton and the Geopraphe Bay area also provided other employment opportunities.

"In all likelihood the Aboriginal population of the area was attracted to the towns, timber camps and homesteads between the 1860's and 1880's, although as suggested above, a certain degree of mobility may have been maintained with Aboriginal people travelling as itinerant seasonal labourers. Mervyn Longbottom, a long time resident at Darradup, recalled that about the turn of the century there were still Aboriginal groups moving about that area, using traditional foods and camping places. Although they still had some traditional tools, they had European clothes and no longer wore skin cloaks. He also recalled that two hundred or so Aboriginal people would annually pass across the Darradup ford en-route to visit a 'king' at Karridale." (Hallam 1979; in Gibbs, 1989)

Witchcliffe is located 9km south of Margaret River along the Bussell Highway. The town was thought to be named after the nearby Witchcliffe Cave which was recorded in 1900. However it is also thought that the name came from the Bussell family, who had also named their nearby property 'Wallcliffe House'.

In 1922 due to the group settlement scheme the townsite was established and the following year the Adelaide Timber Company and WA Jarrah Forrest Ltd established the Witchcliffe sawmill. In 1924 the government railway line was officially extended to Witchcliffe to help service the Sawmill. Originally the town was to be named *Newralingup* (now known as Forest Grove) but instead it was given the name Narawary. However the Post Office had already been named Witchcliffe so it was renamed in 1925 and the following year the town was gazetted (Web-site Margaret River Vista, History of Witchcliffe 2008).

Aborigines were seen throughout Western Australia as a convenient source of labour which required little, if any, payment for work, even though the early settlers often relied on the extra labour the Aborigines were able to provide to establish European farming techniques. During the course of a parliamentary debate in 1883, John Forrest stated that, 'Colonization would go

on with very slow strides if we had no natives to assist us' (Goddard and Stannage 1984). In 1898, John Forrest wrote a circular to the Aborigines department stating the 'care and protection' of Aborigines had now 'developed on the Government' and that, while the Government and its bureaucracies must provide help to aged and sick Aborigines, it was to be given 'with due regard given to the practice of strict economy'. In the same circular, 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).

Missionary work had begun as early as 1840, and in 1841 the Reverend George King went 'amongst the blacks and collected eighteen children' aged between five and ten. It was his belief that the children could be 'civilized' only if they were kept away from 'the dark influences of the wandering tribe' (Barley 1984). The missionaries took children from their parents and interfered with traditional marriage arrangements in order to remove their 'converts' from the influences of traditional Aboriginal culture.

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. Fish traps such as those at Wonnerup and Augusta were traditionally very important to the Nyungars, providing a means to feed large numbers of people. The fish traps were often the reason Nyungars visited certain locations, to take advantage of seasonal runs of fish, which provided enough food to enable large ceremonial gatherings. The settlers destroyed many fish traps in an effort to discourage 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 considerable blow to the traditional Nyungar economy (Tilbrook, 1983).

During the late 1800's and early 1900's, the Government passed a series of Acts which increasingly eroded the Aboriginal people's civil liberties. The Industrial Schools Act (1874) empowered managers of Aboriginal Missions to keep Aboriginal children to the age of 21 and place them as domestic servants or apprentices without their parent's permission. The Aborigines Protection Act (1886) introduced controls over Aboriginal employment. In 1889, the Constitution Act was introduced, it specified that 5000 pounds or 1% of the annual colonial gross revenue, whichever was greater, was to be used to provide for the Aborigines. The Aborigines Act (1897) repealed the Constitution Act (1889) and transferred control of Aboriginal affairs to the West Australian Government, which acted through the Aborigines Department, formed in the same year. Following the Roth Royal Commission in 1904, in which Roth described the Western Australian Police's treatment of Aborigines as 'most brutal and outrageous' and described the conditions experienced by many Aborigines as 'resembling cruelties committed in the Dark Ages', the Aborigines Act (1905) was introduced (Haebich 1988). The Aborigines Act (1905) allowed the Government to remove Aboriginal people to live in mission camps such as Roelands and Carrolup, and to control many aspects of their lives including marriage and employment. Other hardships for the Aboriginal population included the Dog Act (1885), which forced Aborigines to license their dogs or risk their destruction. As the Nyungar people used the dogs to aid in hunting and providing for themselves, the Dog Act (1885) represented a blow to their means of survival. Nyungar people adapted to the new conditions as best they could, obtaining mostly short term seasonal work as stock workers, domestic help, farm labourers and foresters (Haebich 1988).

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, surviving on 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 1890's (Tilbrook, 1983).

Further inequity saw the Aboriginal unemployed receive a lower sustenance rate than the white unemployed during the Depression of the 1930's. 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 the Aboriginal people late into the 1960's (McDonald, Hales & Associates, 1995). In 1965, when two Busselton Nyungar families were moved from 'miserable primitive humpies' to government housing, the newspaper article which reported the move stated that, "although the men were hard and conscientious workers, they had never been able to secure *permanent* employment" (West Australian 29/4/1965). Many of the southwest's Nyungar people have lived in fringe camps at some time during their life, creating a living for themselves doing seasonal work and often supplementing their diet with fresh caught fish from the ocean.

ARCHIVAL RESEARCH

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

SITES REGISTER SEARCH

A search of the DIA Aboriginal Sites Register was conducted on the 10th November 2010 in order to determine if there are any previously recorded ethnographic Aboriginal Heritage sites located within the development area.

As a result of this search there are **no** previously recorded ethnographic Aboriginal Heritage sites were located within the proposed development area (see Appendix 1, Aboriginal sites register extract).

REVIEW OF RELEVANT SITE FILES

As there are **no** previously recorded ethnographic Aboriginal Heritage Sites located within the proposed development area, there are **no** site files to review.

REVIEW OF RELEVANT ETHNOGRAPHIC REPORTS

Australian Interactive Consultants 2007, *A Heritage Survey Report of Location 2183 and Lot 2, Redgate Road, Witchcliffe, Western Australia*, Report prepared for RPS Bowman Bishaw Gorham.

This survey was conducted in 2007 in Witchcliffe for the proposed development of Location 2183 and Lot 2 Redgate Road into a residential estate. As a result of the survey, no archaeological sites were identified within the project area however one ethnographic site was identified and reported. The site reported was an unnamed creek running through the northern portion of the project area. The creek was identified as a tributary of the Boodjidup Brook and was requested to be reported as a mythological site under sections 5b of the West Australian Aboriginal Heritage Act (1972) and to not be disturbed by the development. It was further requested that once the development was completed that the Brook be rehabilitated with local native vegetation. Small surface pieces of red and white ochre, flora species used by traditional Nyungars for spears, rope and medicinal plants and the activities of echidnas and kangaroos within the brooks riparian zone were also highlighted as significant in terms of customary use of resources. An area of emu plums located in the eastern portion of the project area were also identified as ethnographically significant and requested not to be disturbed. No further issues were raised and it was recommended that the project proceed as planned. This report relates to an adjacent property to the north and does not have any implications with regards to the current project.

Goode et al. 2003, *Report on South West Yarragadee-Blackwood Groundwater Area Aboriginal Cultural Values Survey*, Prepared for the Department of Environment, Waters and Rivers Commission, Bunbury WA

This report documents consultations with the South West Boojarah Native Title Claim group with regards to the values that they attach to all water resources within their Native Title Claim area. This report puts forward Aboriginal community view that water is of pivotal significance from both a religious and domestic perspective. In this report the South West Boojarah group argues that all watercourses that are hydrologically connected are of the same spiritual essence and therefore should be considered by heritage management professionals as a single site with regards to the Aboriginal Heritage Act (1972). The Margaret River and its tributaries were identified as such a site by this claim group. This report informs the current proponent that any

water courses within Sussex Locations 5011 & 5012 are likely to be identified in this manner and as such provision should be made for a protective zone to be established between water courses and infrastructure.

Goode, B 2004, *An Aboriginal Heritage Survey of Proposed Lot 667, Riverslea Estate, Margaret River, and Western Australia*, Prepared for Koltasz Smith & Partners on behalf (Lester Group Pty Ltd.) of the Greendene Development Corporation.

This report was commissioned by Koltasz Smith & Partners, town planners and project managers, on behalf of Lester Group Pty Ltd with regards to the construction of a sewerage pumping station to service the Riverslea Estate and other associated housing estates in the area. The results of this survey identified the Darch Brook a tributary of the Margaret River to be a component of Site ID 4495 'Margaret River'. The Darch Brook and its associated ephemeral creeks and wetlands were considered by the Aboriginal community to be of the same spiritual essence as the Margaret River and therefore as the same site. As a result of this survey the community requested that the Lester Group Pty Ltd relocate the proposed sewerage pumping station away from the wetlands that associate with the Darch Brook. After some conflict over the issue it was resolved that a four meter Buffer was given to be just adequate protection between the pumping station and the edge of the affected wetland adjacent and within lot 667. This report comments on issues north of Witchcliffe that do not affect our current subdivision, however it must be noted that any waste treatment facilities built within the current subdivision should not be located near watercourses in order to avoid conflict with the Nyungar community.

Goode, B 2006, *An Aboriginal Heritage Survey for the Margaret River Water Supply Upgrade, Western Australia*, A report prepared for the Water Corporation

This report was commissioned by the Water Corporation for a proposed upgrade to the Margaret River Town Water Supply. It was reported that the Margaret River Site ID 4495 was located to the north and adjacent to the proposed project; however a number its tributaries including the Darch Brook would be intersected by the proposed pipeline and therefore will be affected by the Water Corporations proposal. The Aboriginal community were prepared to support a Section 18 request with their preferred method of crossing being to run the pipe within existing concrete structures crossing tributaries of the Margaret River and the Darch Brook. Trenching water courses blocking their flow was not seen by the Nyungar community as culturally appropriate.

As an addition of this report, Mr Brad Goode and Mr Paul Greenfeld on behalf of the sites custodian Mr Wayne Webb recorded additional information in regards to Site ID 4494 Rosa Brook Road (Margaret River Lore Ground). This information was reported to the DIA in a restricted format.

McDonald Hales & Associates 2000, *Report of an Aboriginal Heritage Survey of the Proposed Margaret River East Bypass*, Prepared for SMEC Australia upon behalf of Main Roads WA

In May 2000 McDonald & Hales conducted an Aboriginal Heritage Survey for the Margaret River East Bypass. The results of this survey identified that the Margaret River Site ID 4495 would be impacted upon and that Site ID 4494 Rosa Brook Road could not be accurately located from the information held at the DIA. This survey also mentioned that an unnamed creek that crossed Darch Road was reported by the Aboriginal consultants to have cultural significance, in that it was an Aboriginal run of customary use. This riparian zone was reported to contain an abundance of foods and other resources. As a result of this report if it was recommended that it would be necessary for any works to affect this creek then the works, should be monitored by an Archaeologist and Aboriginal community members.

The report of this creek is likely to be the Darch Brook or Wild Dog Gully. No mention was made in McDonalds report of this creek having any mythological associations, however it was noted by the Aboriginal consultants that it was a drainage feature of the Margaret River and thus of the same significance. Site ID 4494 Rosa Brook Road could not be located during fieldwork. The Aboriginal consultants who participated in this survey had no knowledge of this site in this survey. The site was described in the 1989 report as a meeting place for tribal groups, a battleground or a corroboree ground. No other spatial information is known, thus the DIA have formally placed a 10km protection buffered extent over the site which is located somewhere along Rosa Brook Road. The site has since been re-recorded by Goode and Greenfeld in 2006 and the DIA have now revised this extent and placed a 1km protection zone around the site.

OUTCOMES OF ARCHIVAL RESEARCH

Archival research has revealed that there are **no** previously recorded ethnographic Aboriginal Heritage sites located within the proposed development area (see appendix 1, Aboriginal sites register extract).

Previous research conducted within the region has revealed that watercourses are associated with the dreamtime 'being' known as the *Waugal*. The *Waugal* has been described as the local variant of the rainbow serpent (See Radcliffe- Brown 1926). The Rainbow Serpent is deemed to be responsible for the creation and protection of all water ways.

Nyungar people have previously advised that as traditional custodians of the land that they have a 'jural responsibility' (see Goode 2005) to protect waterways, failure to uphold this responsibility is believed to bring sickness upon the Nyungar if they fail in this responsibility.

As a watercourse bisects lots 5011 and 5012 and runs southeast to the Blackwood River (Site ID 4043), issues that relate to this Nyungar sense of jural responsibility to protect waterways may be encountered during this survey if any direct and or indirect effects from the development proposal affect this creek.

It is recommended that the proponents do not directly affect this watercourse with development activities and that no run off from the landfill site is contained so as not to pollute the creek system or ground water.

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' (*Kanyirninpa*) a country, is the product of negotiation" (Ibid.).

While the notion of descent is clearly an important criterion within Meyer's 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' seem 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 and one unregistered application 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.

- **South West Boojarah WC 06/004**

Applicants:

Mr William Webb, Mr Donald Hayward, Mr Bertram Williams, Mr William Thompson, Ms Margaret Culbung, Ms Barbara Corbett-Councillor Stammner, Ms Wendy Williams.

- **Harris Family WC 96/041**

Applicants:

Mrs Minnie Van Leeuwin

- **Single Noongar Claim (Area 2) WC03/7 (awaiting registration)**

Applicants:

Anthony Bennell, Alan Blurton, Alan Bolton, Martha Borinelli, Robert Bropho, Glen Colbung, Ken Colbung, Donald Collard, Clarrie Collard-Ugle, Albert Corunna, Shawn Councillor, Dallas Coyne, Dianna Coyne, Margaret Colbung, Edith De Giambattista, Rita Dempster, Aden Eades, Trevor Eades, Doolan-Leisha Eattes, Essard Flowers, Greg Garlett, John Garlett, Ted Hart, George Hayden, Reg Hayden, John Hayden, Val Headland, Eric Hayward, Jack Hill, Oswald Humphries, Robert Isaacs, Allan Jones, James Khan, Justin Kickett, Eric Krakouer, Barry McGuire, Wally McGuire, Winnie McHenry, Peter Michael, Theodore Michael, Samuel Miller, Diane Mippy, Fred Mogridge, Harry Narkle, Doug Nelson, Joe Northover, Clive Parfitt, John Pell, Kathleen Penny, Carol Petterson, Fred Pickett, Rosemary Pickett, Phillip Prosser, Robert Riley, Lomas Roberts, Bill Reidy, Mal Ryder, Ruby Ryder, Charlie Shaw, Iris Slater, Barbara Stammner-Corbett, Harry Thorne, Angus Wallam, Charmaine Walley, Joseph Walley, Richard Walley, Trevor Walley, William Warrell, William Webb, Beryl Weston, Bertram Williams, Gerald Williams, Richard Wilkes, Mervyn Winmar, Andrew Woodley, Humphrey Woods, Dianne Yappo, Reg Yarran, Saul Yarran, Myrtle Yarran.

SELECTION OF SPOKESPEOPLE FOR THIS SURVEY

The selection of spokespeople for this survey was based on advice given from South West Aboriginal Land and Sea Council (SWALSC), Mr Kevin Fitzgerald and South West Boojarah working party member Mr Jack Hill. Advice was also sought from Mrs Minnie Van Leeuwin, applicant for the Harris family Native Title Claim Group.

The consultants own previous experience in conducting Heritage surveys in the region for more than a decade has also greatly aided the selection of knowledgeable and appropriate spokespeople who represent those with both traditional and historical interests within the area.

As a result of this pre-consultation process, the following Aboriginal people were selected to participate in the survey:

South West Boojarah WC06/4 Native Title Claim group

Mrs Vilma Webb is a former applicant of the South West Boojarah Native Title Claim group. Mrs Webb is a member of the Bibbulmun Mia Aboriginal Corporation of Busselton. Mrs Vilma Webb is also involved in teaching Nyungar language, history and culture to primary and high school students and TAFE colleges throughout the region. Mrs Webb and her family run the Wardan Aboriginal Cultural Centre at Wyadup. Mrs Webb has lived in the area most of her life and has a wide knowledge of both traditional and more recent historical usage of the region.

Mr Phillip Prosser is a working party member at SWALSC and a former applicant to the South West Boojarah Native Title Claim and president of the Aboriginal Veterans Affairs Association. Mr Prosser was born in Busselton and grew up at Ryan's Mill in Cowaramup with his parents, Arthur and Gladys Prosser. Mr Prosser's parents are descendents of the Sambo's. Mr Prosser's Grandmother Eva Frances Wattling (who died at 82 years of age) was said to be the last of the traditional people in the area and had initiation scars on her shoulders and chest. Mr Prosser was taken from his parents by police officers in 1944 and was schooled at Roelands Mission. Mr Prosser was selected to participate in this survey as a traditional Elder from the region.

Mr Jack Hill is a working party member at SWALSC and former applicant to the South West Boojarah Native Title Claim. Mr Hill was born in Manjimup. Mr Hill is the son of Les (born in Busselton) and Gloria Hill and the grandson of Edward and Mary Hill (nee Isaacs) who were born in Karridale and Busselton. Mr Hill is a member of the Gnuraren Aboriginal Corporation of Busselton, the Lake Jasper Juvenile Justice Project and also sits on the executive committee of SWALSC. Mr Hill has held a number of government positions throughout his life in the Ministry of Justice, Family and Children's Services, the Australian Bureau of Statistics. Mr Jack Hill was selected to participate in this survey as a working party member of the South West Boojarah 2 Native Title Claim group.

Ms Gloria Hill was born in North Fremantle to her mother Ms Ellen Hill. Ms Ellen Hill's parents were Ms Mary Isaacs and Mr Ted Hill from Busselton. Ms Gloria Hill was 'stolen' and raised at the Mt Magnet Mission called 'Tardun'. Upon leaving the mission Ms Hill then returned to her family in Busselton at the age of 15 and lived in a shack on Keith Rose' farm at Mary brook. Ms Hill worked for Mrs Brockman at Newtown Park and also has raised her three children in Busselton. Ms Hill was nominated to participate in this survey by her mother Ms Ellen Hill, a recognized Elder of the region.

Mr William (Bill) Webb is the eldest son of Mrs Vilma Webb and is an applicant to the South West Boojarah Native Title Claim group. Mr Webb has the same genealogical connection to the area as his mother. Mr Webb runs a cultural heritage tourism business at Wyadup near Yallingup called the Wardan Aboriginal Cultural Centre, which focuses upon educating tourists about local Nyungar culture. Mr Webb is an active participant at the working party of the South West Boojarah Native Title group at SWALSC and was identified to participate in this survey as an applicant to the claim.

Harris Family WC96/041 Native Title Claim group

Mrs Minnie Van Leeuwin (nee Harris) was born in Busselton to parents Ms Edith Anderson (1898) and Mr Tim Harris Junior (1896) who was born at Cattle Chosen which was the original Bussell farm on the *Vasse* at settlement. Tim Harris parents were Timothy Harris Snr (1840) and Caroline Mullane (1852). Tim Harris parents were Ebenezer Harris and *Nulangood* (apical ancestor) a traditional Nyungar recorded at Busselton at settlement. Caroline Mullane's mother was *Yeats* a traditional Nyungar born in Busselton in 1830. Mrs Van Leeuwin and her family consider that they speak for the country west of Capel to Margaret River area. Mrs Van Leeuwin is the primary applicant for the Harris Family Native Title Claim.

Ms Carrie Harris was born in Margaret River and is a sister to Mrs Minnie Van Leeuwin. Ms Carrie Harris worked for the Department of Community Services in Perth, Katherine and Alice Springs before returning to live in Perth. Ms Carrie Harris shares the same ancestral ties to the region as Mrs Van Leeuwin.

Mrs Dorothy Blurton (nee Harris) was born in Busselton to parents Ms Edith Anderson and Mr Tim Harris and is the sister of Mr Norman Harris (late), Ms Carrie Harris and Mrs Minnie Van Leeuwin. Mrs Blurton currently lives in Busselton.

Mr Keith Harris was born in Busselton. His mother was a sister to Mrs Minnie Van Leeuwin, Ms Carrie Harris and Mrs Dorothy Blurton and he therefore shares the same family lineage and connections to the area. Mr Harris has lived and worked in the Busselton area his entire life. Mr Harris is a member of the Harris Family Native Title Claim group and was selected to participate in this survey by the consultant and Mrs Van Leeuwin as a traditional Busselton Nyungar man.

Mr Mark Blurton was born in Perth to Mrs Dorothy Blurton (nee Harris) and Mr Fred Blurton. Mr Blurton's grandparents on his mother's side were Mr Tim Harris who was born at Cattle Chosen in the 1890's and Ms Edith Anderson. Mr Blurton attended primary and high school in Busselton and has worked in various labouring jobs during his working career. Mr Blurton is a member of the Harris Family Native Title Claim group and was selected to participate in this survey by the consultant and Mrs Van Leeuwin as a traditional Busselton Nyungar man.

Ms Naomi Downey is a granddaughter of Mrs Minnie Van Leeuwin and therefore has the same cultural association to the area. Ms Downey was selected by her grandmother to attend the survey as a representative of the Harris families Native Title Claim group.

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 project area.
- To record any ethnographic information provided about identified sites.
- 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 informants selected to participate in this survey were contacted by phone and onsite meetings were arranged. The informants travelled to the survey area with the consultants where they were briefed with the aid of a large aerial photograph with the development plan overlaid. The informants then made a pedestrian inspection of the clearing site and then were driven to accessible sections of the land fill area where an inspection was conducted from the vehicles. At these locations further discussions were conducted as to the effect that this work would have on the cultural values of the site and in particular hydrological issues. Responses from the informants were recorded in a notebook; photos were taken and location information recorded on a GPS.

COMMUNITY CONSULTATION PROCESS

On the 13th December 2010, Mr Brad Goode (anthropologist), Mr Colin (Floyd) Irvine and Mrs Angela Tarbotton travelled to the Davis Road waste treatment facility with members of the South West Boojarah WC06/004 Native Title Claim group Mr Philip Prosser, Mr Jack Hill, Ms Gloria Hill, Mrs Vilma Webb and Mr Bill Webb.



Figure 2: The Southwest Boojarah WC 06/004 Native Title Claim group discussing the project plans with the consultants from Brad Goode & Associates Pty Ltd. View to the southwest, photo taken from the 1.2 hectare clearing zone within Sussex location 5011.

Upon arrival the survey team were briefed by the anthropologist with regards to the development proposal. Mr Goode with the aid project plans advised the group that the Shire of Augusta Margaret River wished to construct a shed to house recycling facilities and a shed to house a waste water treatment plant. This infrastructure was proposed to be located on the northwest corner of Sussex Location 5011. Mr Goode further advised that the Shire also proposed to expand the current landfill site to the east and to expand the inert waste landfill area. Future plans may also require some expansion into Sussex Location 5012 (see Appendix 3, plan of the waste facilities).

Mr Goode then advised that resulting from an archaeological inspection of Sussex location 5011 & 5012 that no cultural material had been located within the proposed development sites.

After this initial briefing Mr Greg Simpson (Manager of Environmental Health) from the Shire of Augusta Margaret River arrived and further orientated the group to the development proposal and then accompanied several members of the group on a pedestrian inspection of the area proposed for clearing for the proposed recycling shed and waste water treatment plan.

Mr Simpson then drove the survey team into the currently operating waste facility to a high vantage point from where the extent of the landfill expansion could be viewed.



Figure 3: Mr Greg Simpson from the Shire of Augusta Margaret River and the consultants explaining to the Southwest Boojarah WC 06/004 Native Title Claim group the proposed expansion to the landfill site east within Sussex location 5011. View to the east.

Here the anthropologist asked the survey team to make comment upon this proposal and to identify if this work will affect any ethnographic sites of significance as defined by section 5 of the West Australian Aboriginal Heritage Act (1972).

During this inspection Mr Bill Webb as spokesperson from the group advised that they were concerned that native vegetation would be cleared to expand waste disposal facilities and that run off from the site would pollute the groundwater and a creek that bisected both lots, and flows southeast to the Blackwood River. Mr Webb explained that the Blackwood River (Site ID 4043) was significant to Nyungar people and that they were concerned that the waste facility would indirectly affect this site.

Mr Simpson stated that the land for this waste treatment facility had been selected and a refuse site constructed many years prior to the development of more stringent environmental guidelines now used to assess such places being used for landfill sites.

Mr Simpson acknowledged that under current environmental standards that a more appropriate site would be chosen for this facility and that clearing of native vegetation would have not been necessary. Mr Simpson said that the Shire had now a considerable investment in utilising this site and that as the Shire lacked a suitable replacement area they had no alternative but to proceed with the expansion. Mr Simpson said that it was the Shire's intent to recycle as much waste as possible and to reduce the amount of material used for landfill.

Mr Simpson stated that in order for the expansion to progress strict environmental regulation were now in place to minimise the effects to the environment. Mr Simpson said that the area selected for the shed expansion was small and where most of the bush had been previously damaged. Mr Simpson said that the Shire would offset this loss of habitat by rehabilitating other areas within the Shire, such as old gravel pits. Mr Simpson stated that the Shire would construct a number of monitoring bores where the ground water would be monitored for pollutants, containment buds had been constructed and a 50m clearing offset was proposed for the creek line.

The group stated that they were satisfied with this explanation and advised that they would like to be regularly (annually) advised of the results from the ground water monitoring and would like to be able to examine the environmental reports in detail. The group advised that there were **no sites** of significance within Sussex Location 5011 & 5012.

Mr Bill Webb advised that the environmental reports and groundwater monitoring results should be sent to the South West Boojarah working party at SWALSC annually. If pollutants were found to be leaching towards the watercourse then action to remediate this should be immediately taken to protect the Blackwood River.



Figure 4: Mr Greg Simpson briefing the Harris Family WC 96/041 Native Title Claim group, with regards to the proposed clearing for recycling sheds and a water treatment plant within the northwest corner of Sussex location 5011. View to the west.

On the 15th December 2010, Mr Brad Goode (anthropologist), Mr Colin (Floyd) Irvine and Mrs Angela Tarbotton met members of the Harris Family WC 96/041 Native Title claim group, Mrs Minnie Van Leeuwin, Ms Carrie Harris, Mr Keith Harris, Mr Mark Blurton, Mrs Dorothy Blurton and Mrs Naomi Downey on site at the Davis Road waste treatment facility.

The group was briefed by the anthropologist and Mr Greg Simpson as was the previous group. The survey team then conducted a vehicle inspection of the development areas and then were asked to comment upon the project proposed and to identify if this work will affect any ethnographic sites of significance as defined by section 5 of the West Australian Aboriginal Heritage Act (1972).



Figure 5: Mr Colin (Floyd) Irvine (Brad Goode & Associates), Mr Greg Simpson (Augusta Margaret River Shire), Mr Mark Blurton, Mrs Naomi Downey, Mrs Minnie Van Leeuwin, Mr Keith Harris, Mrs Dorothy Blurton and Mr Brad Goode, at the current landfill site within Sussex location 5011. View to the east where the landfill expansion is proposed.

Mrs Minnie Van Leeuwin as spokesperson for the group stated that to the best of their knowledge there were **no** Aboriginal heritage sites in the development areas. The group advised that as long as the issue that relates to the potential to pollute the ground water and the Blackwood River was addressed that the proposal should proceed.

COMMUNITY CONSULTATION OUTCOMES

As a result of consultations held with members of the South West Boojarah WC06/04 and Harris Family WC96/041 Native Title Claim **no** ethnographic sites of significance as defined by section 5 of the West Australian Aboriginal Heritage Act (1972) were identified to be located within Sussex locations 5011 & 5012.

As a result of the consultations both Native Title Claim groups advised that the results from the ground water monitoring and the environmental reports should be sent out annually for comment.

No other issues were identified during the survey and as such the Shire of Augusta Margaret River should proceed.

RECOMMENDATIONS

It is recommended that as no sites of ethnographic significance as defined by Section 5 of the West Australian Aboriginal Heritage Act (1972) were identified to be located within the project area that the project can progress as planned.

It is recommended that Shire of Augusta Margaret River take into consideration the requests of the Aboriginal community to provide copies of annual water monitoring and environmental reports to each Native Title claim group.

BIBLIOGRAPHY

- Australian Interactive Consultants 2007, *A Heritage Survey Report of Location 2183 and Lot 2, Redgate Road, Witchcliffe, Western Australia*, Report prepared for RPS Bowman Bishaw Gorham.
- Barley, S 1984, *Out of Step: The Failure of the Early Protestant Missions*, In: Reece, B and Stannage, T (Eds.), *European – Aboriginal Relations in Western Australian History*, Department of History, University of Western Australia, Nedlands.
- 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 & Berndt, C H (Eds.) 1979, *Aborigines of the West - Their Past and Present*, University of Western Australia Press: Perth.
- Bird, C F M & Beeck, C 1988, *Traditional Plant Foods in the Southwest of Western Australia: The Evidence from Salvage Ethnography*, In: Meehan, B & Jones, R (Eds.), *Archaeology with Ethnography: An Australian perspective - School of Pacific Studies*, Australian National University: Canberra.
- 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.
- Contos, N, Kearing, T A, Collard, L, & Palmer, D 1998, *Pinjarra Massacre Site Research and Development Project: Report for Stage 1*, Murray Districts Aboriginal Association.
- Cresswell, G J 1989, *The Light of Leeuwin: The Augusta-Margaret River Shire History*, The Augusta-Margaret River Shire history group: Margaret River.
- Gibbs, M D 1989, *A Report on the Aboriginal Ethnohistory of the Scott River Region, Southwest Western Australia*, A report held at the Battye Library, W.A. aslib50069748b.
- Goddard, E & Stannage, T 1984, *John Forrest and the Aborigines*, In: Reece, B & Stannage, T (Eds.), *European – Aboriginal Relations in Western Australian History*, Department of History, University of Western Australia: Nedlands.
- Goode *et al.* 2003, *Report on South West Yarragadee-Blackwood Groundwater Area Aboriginal Cultural Values Survey*, Prepared for the Department of Environment, Waters and Rivers Commission, Bunbury WA
- Goode, B 2004, *An Aboriginal Heritage Survey of Proposed Lot 667, Riverslea Estate, Margaret River, and Western Australia*, Prepared for Koltasz Smith & Partners on behalf (Lester Group Pty Ltd.) of the Greendene Development Corporation.
- Goode, B 2005, *An Aboriginal Heritage Survey for the Dumbleyung Separate Inlet, Dumbleyung in Western Australia*, Prepared for WML Consultants on behalf of the Water Corporation.
- Goode, B 2006, *An Aboriginal Heritage Survey for the Margaret River Water Supply Upgrade, Western Australia*, A report prepared for the Water Corporation

- Haebich, A 1988, *For Their Own Good: Aborigines and Government in the South West of Western Australia 1900 – 1940*, University of Western Australia Press: Nedlands.
- Hallam, S J 1979, *Fire and Hearth*, Australian Institute of Aboriginal Studies: Canberra.
- Jennings, R J 1983, *Busselton “...outstation on the Vasse” 1830-1850*, The Shire of Busselton: Busselton.
- 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.
- 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 for Cable Sands (W.A.) Pty Ltd: Perth.
- 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 1995, *Warren-Blackwood Regional Planning Study: Report of an Aboriginal Heritage and Planning Guidelines Sub-Study*, Unpublished report prepared for the Department of Planning and Urban Development, Perth, by McDonald, Hales and Associates.
- McDonald Hales & Associates 2000, *Report of an Aboriginal Heritage Survey of the Proposed Margaret River East Bypass*, Prepared for SMEC Australia upon behalf of Main Roads WA.
- 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.
- O'Connor, R, Quartermaine, G & Bodney, C 1989, *Report on an Investigation into the Aboriginal Significance of Wetlands and Rivers in the Perth – Bunbury Region*, Unpublished report prepared for the Western Australian Water Resources Council.
- Pickering, W G 1929, *The Letters of Georgina Molloy - Early Days: Journal of the Royal Western Australian Historical Society*, Vol 1 of 4.
- Radcliffe-Brown, A R 1926, 'The Rainbow-Serpent Myth of Australia', *The Journal of the Royal Anthropological Institute of Great Britain and Ireland*, vol. 56 (1926), 19-25.
- 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).

Tindale, N B 1974, *Aboriginal tribes of Australia*, Australian National University Press:
Canberra.

Tilbrook, L 1983, *Nyungar Tradition*, University of Western Australia Press: Nedlands.

Turner, T 1956, *Turners of Augusta*, Paterson Brokenshaw Pty Ltd: Perth W.A.

West Australian Newspaper 1965, Unnamed article, Edition dated 29/4/1965.

**A REPORT ON AN ARCHAEOLOGICAL SURVEY OF SUSSEX
LOCATIONS 5011 AND 5012, DAVIS ROAD, WITCHCLIFFE,
WESTERN AUSTRALIA**



A report prepared for Augusta Margaret River Shire Council

By Mrs Jacqueline Harris, Ms Jeanne Hohnen and Mr Wayne Webb

January 2011

EXECUTIVE SUMMARY

An archaeological investigation for Aboriginal heritage sites was commissioned by Augusta Margaret River Shire Council for Sussex Location 5011 Reserve 43808 and Sussex Location 5012 Reserve 22987 Witchcliffe (Lot 5011 & Lot 5012). The Augusta Margaret River Shire Council is investigating expansion of the waste disposal facility currently operating on Lot 5011 Reserve 43808.

The archaeological field survey was undertaken on Wednesday 17th November 2010 by Ms Jacqueline Harris, archaeologist accompanied by Mr Wayne Webb, Ms Toni Webb and Ms Jeanne Hohnen as field assistants.

Lot 5011 Reserve 43808 and Lot 5012 Reserve 22987 are adjacent land parcels located 1km south of the town of Witchcliffe on the southern corner of the intersection of Bussell Highway with Davis Road, Forrest Grove. The eastern boundary of Lot 5011 extends 800m along Bussell Highway and the northern boundary extends 1km along Davis Road. It is an "L" shaped polygon parcel of land with an area of 48.7 hectares. The adjacent Lot 5012 located to the southeast is a four sided polygon measuring approximately 350m NS x 750m EW, an area of 25.2 hectares.

An online search of the site register at Heritage and Culture Division, Department of Indigenous Affairs, was undertaken on 10th November 2010. The search established there were no archaeological sites previously recorded within Lot 5011 Reserve 43808 and Lot 5012 Reserve 22987.

The survey design was formulated using a combination of systematic and predictive transects over the project area with some emphasis on revegetated areas with increased ground visibility. Systematic transects were conducted through the bushland with four people walking abreast approximately 25m apart. Transects became more opportunistic in areas of dense vegetation with cleared firebreaks and tracks sometimes providing the only viable alternative. As a result, ground visibility was variable being about 80% on tracks and firebreaks but otherwise estimated as generally restricted to about 15%. It was estimated that the overall percentage coverage of the designated project area was around 45%.

The land of Lot 5011 surrounding the existing waste disposal operations is largely natural bushland with evidence of selective logging and some degraded areas of previous landfill and gravel extraction.

Lot 5012 remains as undeveloped bushland. The land is gently undulating with natural slopes inclining towards a central drainage line which runs from west to east across both parcels of land. This tributary of Chapman Brook commences at a watershed area on the western boundary of Lot 5011 adjacent to Bussell Highway. The drainage line contains some clayey loam but soils are variable across both lots with areas of grey sand as well as large areas of laterite and some surface coffee rock.

Vegetation over both lots is predominantly jarrah and marri forest with an understory of mixed species including zamias (*Macrozamia riedlei*), grass trees (*Xanthorrhoea preissii*), emu plum bush (*Eremophila longifolia*), *Chorilaena hazel* and *Hibbertias*. Thick undergrowth and leaf litter restricted ground visibility and access to some areas.

No archaeological site, as defined by Section 5 of the Aboriginal Heritage Act (1972), was located within or in close proximity to the project area in the course of the survey. No isolated artefacts were located. No archaeological sites were previously registered within the project area.

The most likely areas where archaeological sites, in particular, artefact scatters or burials may occur are banks of rivers, lakes, creeks and exposed sandy deposits. The removal or excavation of large quantities of sediment increases the risk of disturbing archaeological sites that may lie beneath the surface. It is recommended that Augusta Margaret River Shire Council inform any project personnel of their obligation to report any archaeological material, should this be encountered during earthmoving, as outlined under Section 15 of the Aboriginal Heritage Act (1972).

If Augusta Margaret River Shire Council locates an archaeological site in the process of survey or ground excavation, it is recommended that work cease in the immediate area. Any skeletal material should be reported to the Department of Indigenous Affairs and the Western Australian Police Service. Any artefactual material should be reported to the Heritage and Culture Division, of the Department of Indigenous Affairs.

INTRODUCTION

PURPOSE OF HERITAGE SURVEY REPORT

An archaeological investigation for Aboriginal heritage sites was commissioned by Augusta Margaret River Shire Council for Sussex Location 5011 Reserve 43808 and Sussex Location 5012 Reserve 22987 Witchcliffe (Lot 5011 & Lot 5012). The Augusta Margaret River Shire Council is investigating expansion of the waste disposal facility currently operating on part of Lot 5011 Reserve 43808. Plans include the extension of existing landfill operations and the clearing of vegetation within Lot 5011 Reserve 43808 for a Material Recycling Facility and a Waste Water Treatment Plant. Planning investigations also include future undefined expansion of waste disposal operations to the adjoining land Lot 5012 Reserve 22987.

The objective of the investigation was to establish if archaeological sites were located on Lot 5011 Reserve 43808 and Lot 5012 Reserve 22987 and to determine the effects the proposed developments may have over any sites. To achieve an overview, data was assembled from previous work in the region, including information from the Heritage and Culture Division at the Department of Indigenous Affairs, previous survey reports, maps and environmental descriptions.

STUDY AREA

Witchcliffe is located approximately 280 kms south of Perth and 9 kms south of Margaret River on Bussell Highway.

Lot 5011 Reserve 43808 and Lot 5012 Reserve 22987 are adjacent land parcels located 1km south of the town of Witchcliffe on the southern corner of the intersection of Bussell Highway with Davis Road, Forrest Grove. The eastern boundary of Lot 5011 extends 800m along Bussell Highway and the northern boundary extends 1km along Davis Road. It is an "L" shaped polygon parcel of land with an area of 48.7 hectares. The adjacent Lot 5012 located to the southeast is a four-sided polygon measuring approximately 350m NS x 750m EW, an area of 25.2 hectares. The combined lots are surrounded by agricultural land which has been largely cleared and developed for grazing and viticulture.

ENVIRONMENT

Climate

Witchcliffe lies within the south-west region of Western Australia which is characterised as a warm temperate Mediterranean climate consisting of hot, dry summers and mild, wet winters. The mean January temperature is 22.6 degrees C and the mean July Temperature is 10.3 degrees C. The region is a winter rainfall zone with an annual rainfall range of 650mm to 1500mm, most of which falls between May and September. Evaporation averages 1400mm per annum. During winter the prevailing winds are the north westerlies and westerlies associated with lows and cold front activity. In summer the winds are from the south east and east in the morning with an afternoon sea breeze from the southwest (DPUD 1992, Beard 1981).

Geology & Topography

The study area lies within the Yilgarn block, a stable Archaean granite and infolded metamorphic rock of migmatite. It forms the Leeuwin-Naturaliste Ridge which hugs the coast and extends from Cape Naturaliste to Irwin Inlet. It is partly mantled with calcarenite and unconsolidated sands and characterised by dissected undulating country of small relief, hard setting loamy soils alternating with leached soils.

Inland from the Leeuwin-Naturaliste Ridge lies the Blackwood Plateau. It consists of capped laterite and is gently undulating, but dissected, revealing Mesozoic sediments (Beard 1981).

Vegetation

The vegetation follows the geographical position on the edge of two different systems. The most west is the Boranup System. It comprises peppermint *Agonis flexuosa*, and /or Banksia low forest, low woodland or open low woodland, Jarrah *Eucalyptus marginata* occurs on leached sands in low forest and off the coast forms jarrah-marri (*E. Calophylla*) forest (Beard 1990).

Further east, the Chapman system of the Blackwood Plateau is classified as jarrah-marri forest (Beard 1990). *Eucalyptus megacarpa* (bullich) and *E patens* (blackbutt) occur with low woodlands of *Melaleuca preissiana* and *Banksia* sp. in damp areas (Beard 1990).

ARCHAEOLOGICAL RESEARCH

DESKTOP STUDY

An online search of the site register at the Heritage and Culture Division, Department of Indigenous Affairs, was undertaken on 10th November 2010 to determine if any sites were previously recorded in the project area. The search established there were no archaeological sites previously recorded within Lot 5011 Reserve 43808 and Lot 5012 Reserve 22987. A broader search was conducted with a buffer zone of approximately 1km surrounding the combined area of the adjacent lots. This search defined no archaeological sites lying in the wider vicinity.

REVIEW OF HERITAGE SURVEY REPORTS

Goode, B & Harris, J 2008, *Aboriginal Heritage Survey of Lot 1 Redgate Road, Witchcliffe, Western Australia*, Unpublished report prepared for Watson Property Group

The project area of approximately 35 hectares of farmland is adjacent to the Witchcliffe town centre. No archaeological sites were previously recorded within Lot 1. Predictive and systematic transects were conducted through paddocks and forested areas as well as around the creek and spring and along cleared firebreaks which offered better ground visibility. No archaeological material was found during the course of the survey.

Goode, B & Harris, J 2008, *Aboriginal Heritage Survey of Lot 1032 Redgate Road, Witchcliffe, Western Australia*, Unpublished report prepared for Koltasz Smith

The project area comprises some 52 ha of cleared agricultural and farm land. Fire breaks and tracks were used to access and traverse paddocks. Transects were conducted over heavily grazed areas as well as along firebreaks with four persons walking abreast. In the landscaped section meandering transects were conducted within the animal paddocks, orchards, roads and accommodation units. No archaeological material was found during the course of the survey in the project area.

Australian Interaction Consultants 2007, *Heritage Survey Report of Location: 2183, Bussell Hwy, and Lot 2, Redgate Rd, Witchcliffe, Western Australia*, Prepared for RPS Bowman Bishaw Gorham.

The study area on which a residential development was proposed comprised an area of approximately 110 hectares in size. No archaeological material was found during the course of the survey in the project area.

One ethnographic site was located within the project area. The identified site was over an unnamed creek line and adjacent area. AIC identifies this "Unnamed Creek" site within the project area as "including the primary vegetated creek line, and up to the cleared roads that run along side it." It also reported that "the site was identified as extending from its headwaters south east, and outside, of the project area, through the project area and beyond. An area of

'emu plum' plants in the eastern portion of the project area was also identified as ethnographically significant.

Few other consultancy reports have been completed in the specific area however, there are several reports that cover the area in a regional overview.

O'Connor, R, Quartermaine, G & Yates, A 1995, *An Investigation into the Aboriginal Significance of Wetland and Rivers in the Busselton-Walpole Region*, Prepared for Water Authority of Western Australia.

The archaeological component was a desktop study of the Busselton – Walpole Region. The most common site in the region is the artefact scatter (44%), followed by burials (12%), scarred trees (7.5%) and stone arrangements (5%). The majority of sites are located on the Leeuwin Naturaliste ridge and coastal plain. Density is estimated to be one site per 200 square kilometres but this may reflect the focus of research and/or development. Sites tended to be located near water sources such as rivers, creeks, lakes, swamps and estuaries.

McDonald Hales & Associates 1995, *National Estates Grant Programme Aboriginal Sites in the Lower Southwest Heritage Study*, Prepared for Gnuraren Aboriginal Corporation.

This project comprised both a desktop study and survey of Cape Naturaliste to Cape Leeuwin extending eastwards to north of Capel to Lake Jasper. The archaeological findings suggest a level of non random associations between site location and environmental context. Sites were located in almost every environmental context. High artefact densities were recorded in open blowout depressions, ridgetops and level well drained ground. The highest densities were recorded in open vegetation zones including coastal and wetland complexes, woodlands and open forest. Interpretation of the location and site data suggests that differences in density and composition were a function of varying levels of residential mobility patterns.

McDonald Hales & Associates 1995, *Aboriginal Heritage in the Southern Forest Region*, Prepared for Australian Heritage Commission.

This study of the CALM southern forest region extended from the Blackwood River in the northwest, Muir Highway in the northeast, Albany and South Coast Highways in the southeast, Southern Ocean in the southwest and Vasse Highway in the west. The study confirms that archaeological sites in the wider region are predominantly artefact scatters. Isolated artefacts, stone arrangements and a shell midden follow as the next most dominant site types. Fishtraps, scarred trees, painting and engraving sites are infrequent in the region.

Research found that artefacts in these assemblages are manufactured mostly from quartz, consisting of flakes, flaked pieces and amorphous pieces with few examples of notched scrapers, pebble choppers, blades, cores and microliths. The presence of scrapers and choppers suggests the procurement of wood and the fashioning of wooden implements while the presence of blades and microliths implies the processing of food.

In the majority of cases in the study, the artefact scatters are located beside a water source such as a drainage indentation, river or swamp. In many examples sites were located in disturbed contexts, in sandy tracks, on roads and verges, in firebreaks and in cleared patches of ground. Sites were located within every environmental context. Artefact densities were high in open depressions and elevated areas in the coastal region while most artefacts were located in gently sloping ground in inland areas. Generally greater artefact densities were noted in open vegetation systems. The authors interpreted the data as reflecting different levels of residential mobility of Aboriginal groups in response to resources across the landscape. According to Hallam's temporal framework model, these artefact sites cover a time span from early to late Holocene, with the number of artefacts, suggesting ephemeral or transient occupation (Hallam 1986).

ARCHAEOLOGICAL CONTEXT

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. The project area is located within the open forests at the junction of the Blackwood Plateau and Leeuwin-Naturaliste Ridge.

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 ethno-historical 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 ethno-historical 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.

One of the earliest sites providing 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.

In proximity to the project area, 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.

Again, north of the project 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 to 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 such research, a predictive model of site type and location can be projected for the project area. 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 that may have largely obliterated or camouflaged archaeological sites.

SITE SIGNIFICANCE

If a site is located a scientific assessment is made of its 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 field survey was conducted using 1:100,000 topographic map and aerial site plans demarcating the project area, the existing waste disposal facilities and extents of the proposed expansion. The survey design was formulated using a combination of systematic and predictive transects over the project area with some emphasis on devegetated areas with increased ground visibility. The survey strategy was designed to locate sites and determine areas of site potential.

The archaeological field survey was undertaken on Wednesday 17th November 2010 by Mrs Jacqueline Harris, archaeologist accompanied by Mr Wayne Webb, (traditional owner) with Ms Toni Webb and Ms Jeanne Hohnen as field assistants.

Lot 5011 Reserve 43808

Firebreaks and tracks were used to access the area surrounding the existing waste disposal facilities. Systematic E/W transects were conducted through the bushland with four people walking abreast approximately 25m apart. Transects became more opportunistic in areas of dense vegetation with cleared firebreaks and tracks sometimes providing the only viable alternative.

Lot 5012 Reserve 22987

Firebreak tracks were used to access this lot from Davis Road in the north and Bussell Highway in the east. Systematic E/W transects were conducted through bushland with four people walking abreast approximately 25m apart. Where dense undergrowth and/or leaf litter reduced access and ground visibility, the transects became opportunistic using firebreak tracks to access the creek line and more open areas.

Ground visibility was variable being about 80% on tracks and firebreaks but otherwise generally restricted to about 15%. The overall sampling percentage of this area approximated 45%.

SURVEY AREA

Lot 5011 comprised approximately 34 hectares surrounding the existing waste disposal operations. It is largely natural bushland with some degraded and disturbed areas indicating previous use for landfill as well as gravel extraction with an open gravel pit remaining near the eastern boundary. The land is gently undulating with natural slopes inclining towards a central drainage line which runs from west to east diagonally across the lots. The headwaters of this drainage line commence on the western boundary of Lot 5011 adjacent to Bussell Highway and feed into a tributary of Chapman Brook which in turn forms a tributary feeding into the Blackwood River. Impenetrable growth covered much of the drainage line preventing access. The watercourse is excluded from development by a 100m separation zone either side of the creek.

With the exception of firebreak tracks Lot 5012 consisting of 25.2 hectares retains undeveloped bushland, predominantly jarrah-marri forest. The drainage line from the headwaters upstream forms a creek/brook which traverses the north eastern section of the lot diagonally for a distance of approximately 500m. The natural vegetation and soil types appear variable reflecting the range on Lot 5011 with the addition of some peppermint trees in the south east corner.

In both lots the drainage line contains some clayey loam but soils are variable across the lots with areas of grey sand as well as large areas of laterite and some surface coffee rock. Vegetation is also variable but predominantly jarrah and marri forest with an understory of mixed species including zamias (*Macrozamia riedlei*), grass trees (*Xanthorrhoea preissii*), emu plum bush (*Eremophila longifolia*), *Chorilaena hazel* and *Hibbertias*. A small stand of bullich eucalypts (*Eucalyptus Megacarpa*) are in the south west, near the operational landfill area which also supports a variety of introduced weeds and exotic garden plant species. Both lots have been subject to extensive selective logging.

FIELD SURVEY RESULTS

No archaeological site, as defined by Section 5 of the Aboriginal Heritage Act (1972), was located within or in close proximity to the project area in the course of the survey. No isolated artefacts were located. **No archaeological sites were previously registered** within the project area.

The original ground surface over much of Lot 5011 has been extensively altered with apparent gravel extraction and landfill. However, Lot 5012 and the surveyed areas of Lot 5011 surrounding the existing waste disposal operations support natural bushland dominated by substantial jarrah/marri forest despite evidence of previous selective logging. While dense vegetation and leaf litter restricted access and ground visibility it is considered that the survey techniques employed in the field survey of Lot 5011 and Lot 5012 were sufficient to have located any major archaeological site present on the surface.

POTENTIAL EFFECTS

No archaeological site was found to be located within the proposed development area during the course of the survey. Therefore there will be no known impact upon an archaeological site from the proposed development.

The archival results indicate there is low potential for an artefact scatter site to be discovered within the grey sandy and/or loamy clay sediment mixed with laterite on the banks of the headwaters of the Chapman Brook tributary. However the probability of locating an artefact scatter, albeit low, could arise as sandy areas are cleared, exposed to erosion or excavated by developers. Scarred trees may be present although the likelihood is reduced by previous extensive selective logging of the survey area. High numbers of burials in the wider region indicate some potential for skeletal remains. However, most skeletal material is generally located closer to the coastal dunes.

CONCLUSIONS

DISCUSSION

An archaeological survey was conducted at Sussex Location 5011 Reserve 43808 and Sussex Location 5012 Reserve 22987 (Lot 5011 & Lot 5012), approximately 1km south of Witchcliffe. The Augusta Margaret River Shire Council proposes expanding the existing waste disposal facility operating on Lot 5011. Current plans include clearing vegetation for a Material Recycling Facility and a Waste Water Treatment Plant on Lot 5011. Lot 5012 is also subject to investigation for future unspecified expansion of waste disposal operations.

A search of the site register at Department of Indigenous Affairs established that there were no archaeological sites previously recorded within Lot 5011 or Lot 5012 or in the immediate surrounds.

The Lots have a combined area of 73.9 hectares with approximately 35 hectares devoted to existing waste disposal operations. Some areas of disturbed ground indicate previous use for gravel extraction and landfill. The surrounding land retains natural bushland of predominantly jarrah – marri forest. Despite evidence of extensive selective logging, thick vegetation and groundcover restricted access and visibility in some areas. The landform is gently undulating with an area of headwaters feeding into a drainage line which traverses the two blocks from west to east, bisecting the survey area. The drainage line forming a tributary to Chapman Brook appeared to be mostly dry.

A review of surveys combined with more general reports and archaeological research covering this area provides a regional overview and a predictive archaeological site pattern. The jarrah uplands and forests in this south west area have recorded relatively few archaeological sites. It has been suggested this may reflect lower population densities and limited natural resources with highly mobile hunting groups associated with small transitory camps. According to the predictive model, archaeological sites in this area would most likely be small quartz scatters of an ephemeral nature and of low to moderate significance.

The predictive site pattern of the region attests to the importance of water sources in the location of archaeological sites. The presence of a water source within the survey area suggested a moderate potential for artefact scatters to be located during the survey. However, the depressed drainage line appeared mostly dry and it is likely that more reliable water and suitable sites for camping and food resources would be further downstream. Scarred trees may be present although the likelihood is reduced by previous selective logging of the survey area. High numbers of burials in the wider region indicate some potential for skeletal remains. However, most skeletal material is generally located closer to the coastal dunes.

Archaeological research in woodland suggests artefact scatter sites are frequently found in disturbed ground, particularly in areas where, prior to disturbance, there is low visibility. There is therefore, an increased probability, albeit low, that artefact scatters may be exposed following removal of vegetation and overlying sands by developers excavating or clearing the land.

RECOMMENDATIONS

No archaeological site was located within or in close proximity to the project area in the course of the survey. **No archaeological sites were previously registered** within the project area. There are no archaeological barriers present to effect the proposed development.

The most likely areas where archaeological sites, in particular, artefact scatters or burials may occur are banks of rivers, lakes, creeks and exposed sandy deposits. The removal or excavation of large quantities of sediment increases the risk of disturbing archaeological sites that may lie beneath the surface. It is recommended that Augusta Margaret River Shire Council inform any project personnel of their obligation to report any archaeological material, should this be encountered during earthmoving, as outlined under Section 15 of the Aboriginal Heritage Act (1972).

If Augusta Margaret River Shire Council locates an archaeological site in the process of survey or ground excavation, it is recommended that work cease in the immediate area. Any skeletal material should be reported to the Department of Indigenous Affairs and the Western Australian Police Service. Any artefactual material should be reported to the Heritage and Culture Division, of the Department of Indigenous Affairs.

BIBLIOGRAPHY

- Anderson, J 1984, *Between Plateau and Plain*, Occasional Papers in Prehistory, No. 4 A.N.U. Canberra.
- Australian Interaction Consultants 2007, *Heritage Survey Report of Location: 2183, Bussell Hwy, and Lot 2, Redgate Rd, Witchcliffe, Western Australia*, Prepared for RPS Bowman Bishaw Gorham.
- Beard J S 1981, *Swan: Vegetation Survey of Western Australia*, U.W.A. Press
- Beard J S 1990, *Plant Life of Western Australia*, Kangaroo Press
- 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
- Department of Planning & Urban Development 1992, *Bunbury - Wellington Regional Profile 1992*.
- 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 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 1985, *A mid-Holocene depopulation of the Australian south-west*, Unpublished PhD thesis, A.N.U. Canberra.
- Goode, B & Harris, J 2008, *Aboriginal Heritage Survey of Lot 1032 Redgate Road, Witchcliffe, Western Australia*, Prepared for Koltasz Smith.
- Hallam S J 1979, *Fire and Hearth: a study of Aboriginal usage and European usurpation in south-western Australia*, A.I.A.S. Canberra.
- Hallam S J 1986, *Prehistoric Aboriginal populations on the Swan Coastal Plain, Western Australia*, Final Report on the Project: Australian Research Grants Scheme.
- Lilley, I 1993, 'Recent research in southwestern Western Australia', *Australian Archaeology* No. 36, pp 34-41
- McDonald Hales 1995a, *Aboriginal Heritage in the Southern Forest Region*, Prepared for Australian Heritage Commission.
- McDonald Hales 1995b, *National Estates Grants Programme Aboriginal Sites in the lower Southwest Heritage Study*, Prepared for Gnuararen Aboriginal Corporation.
- O'Connor R, Quartermaine G & Yates A 1995, *An Investigation into the Aboriginal Significance of Wetlands and Rivers in the Busselton – Walpole Region*, Prepared for Water Authority of Western Australia.

- Pearce R H 1982, 'Archaeological sites in the jarrah forest at Southwestern 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 Southwestern Australia*, Unpublished PhD thesis,
University of Western Australia: Nedlands.
- Veth, P & Moore, P 1989, *Report on an archaeological and ethnographic survey near Beenup,
Augusta, W.A.*, Prepared for Lewis Environmental Consultants.

APPENDIX 1. SITES REGISTER SEARCH



Search Criteria

0 sites in a search polygon. The polygon is formed by these points (in order):

MGA Zone 50	
Northing	Easting
62322295	324820
62323113	325759
6231869	325763
6231866	325890
6231525	325897
6231507	324953



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

Restriction	Access	Coordinate Accuracy
N No restriction	C Closed	Accuracy is shown as a code in brackets following the site coordinates. [Reliable] The spatial information recorded in the site file is deemed to be reliable, due to methods of capture.
M Male access only	O Open	[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.
F Female access	V Vulnerable	

Status

L Lodged	IR	Insufficient Information (as assessed by Site Assessment Group)	Site Assessment Group (SAG)
I Insufficient Information	PR	Permanent register (as assessed by Site Assessment Group)	Sites lodged with the Department are assessed under the direction of the Registrar of Aboriginal Sites. These are not to be considered the final assessment.
P Permanent register	SR	Stored data (as assessed by Site Assessment Group)	Final assessment will be determined by the Aboriginal Cultural Material Committee (ACMC).
S Stored data			

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:Z50' means Easting=5000000, Zone=50.



Legend

- Highlighted Area
- Town
- Map Area
- Search Area

Copyright for base map information shall at all times remain the property of the Commonwealth of Australia, Geoscience Australia - National Mapping Division. All rights reserved.

Copyright for Native Title Land Claim, Local Government Authority, Mining Tenement boundaries shall at all times remain the property of the State of Western Australia. All rights reserved.

For further important information on using this information please see the Department of Indigenous Affairs' Terms of Use statement at <http://www.dia.wa.gov.au/Terms-Of-Use/>

APPENDIX 2. LETTERS OF ADVICE

Brad Goode & Associates Pty Ltd
 Consulting Anthropologist
 Heritage Assessments

79 Naturaliste Terrace
 DUNSBOROUGH WA 6281
 (08) 9755 3716
 bradlee@westnet.com.au
 ACN: 134 732 040
 ABN: 41 134 732 040

13th December 2010

We the undersigned have been consulted by Bradley Goode on behalf of the Shire of Augusta Margaret River in regard to a proposed Waste Treatment Facility within loc 5011 and 5012, Witchcliffe. We would like to make the following recommendations in relation to the Western Australian Aboriginal Heritage Act (1972).

- x No heritage site as defined by Section 5 AHA
- x Concerned repects groundwater affects from tip - request regular results from monitoring bore
- x Request re-consult when groundwater monitoring results are available.

South West Boojarah WC06/4 Native Title Claim Group

Name	Date	Signature
Vilma Webb	13.12.2010	<i>V Webb</i>
Bill Webb	13.12.2010	<i>W Webb</i>
Gloria Hill	13.12.2010	<i>G. Hill</i>
Phil Prosser	13.12.2010	<i>[Signature]</i>
Jack Hill	13.12.2010	<i>J Hill</i>
	13.12.2010	

Brad Goode & Associates Pty Ltd
 Consulting Anthropologist
 Heritage Assessments

79 Naturaliste Terrace
 DUNSBOROUGH WA 6281
 (08) 9755 3716
 bradlee@westnet.com.au
 ACN: 134 732 040
 ABN: 41 134 732 040

15th December 2010

We the undersigned have been consulted by Bradley Goode on behalf of the Shire of Augusta Margaret River in regard to a proposed Waste Treatment Facility within loc 5011 and 5012, Witchcliffe. We would like to make the following recommendations in relation to the Western Australian Aboriginal Heritage Act (1972).

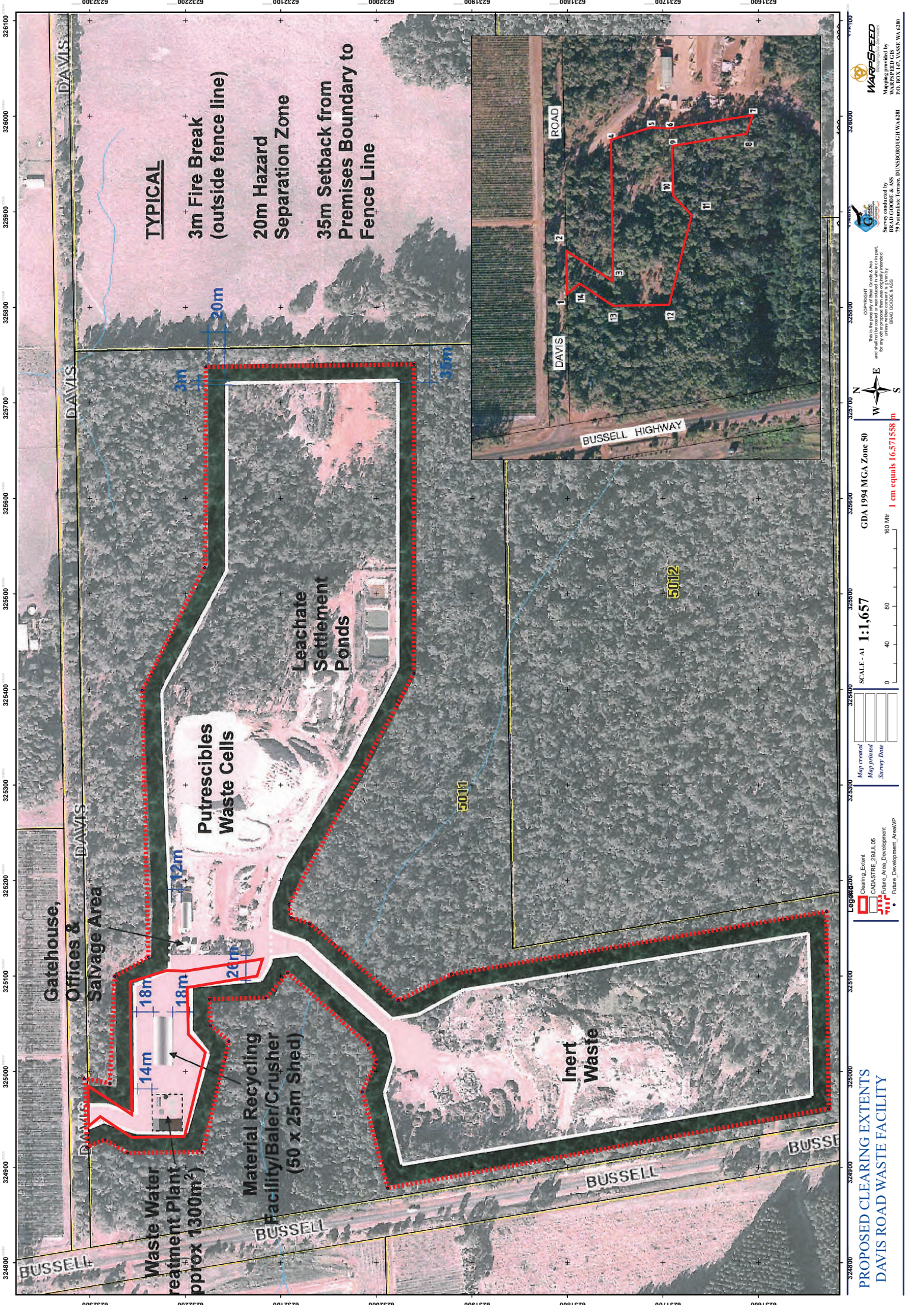
X No sites of significance as defined by section 5 of the AHA.

X No issues

Harris Family Native Title Claim Group WC96/41

Name	Date	Signature
Mini Van Leeuwin	15.12.2010	
Dorothy Blurton	15.12.2010	
Carrie Harris	15.12.2010	
Mark Blurton	15.12.2010	
Naomi Downey	15.12.2010	
	15.12.2010	

APPENDIX 3. MAPS OF THE PROJECT AREA



TYPICAL

3m Fire Break
(outside fence line)

20m Hazard
Separation Zone

35m Setback from
Premises Boundary to
Fence Line

PROPOSED CLEARING EXTENTS
DAVIS ROAD WASTE FACILITY

Clearing Extent
CADASTRE 23JUL05
Future Area Development
Future_Development_Area/FP

Map created	
Map printed	
Survey Date	

SCALE - AI **1:1,657**

GDA 1994 MGA Zone 50
100 Mtr
1 cm equals 16,571,568 m



This is the property of Brad Goode & Associates
Copyright © 2005
For any other purpose than was expressly intended
under the terms of the licence agreement
BRAD GOODE & ASSOCIATES
79 Natimulat Terrace, DUNSBOROUGH WA 6281

