



**AN ABORIGINAL HERITAGE SURVEY OF
THE PROPOSED SHOTTS INDUSTRIAL
ESTATE: COLLIE WESTERN AUSTRALIA.**

*A report prepared for South West Aboriginal Land &
Sea Council on behalf of Landcorp.*

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EXECUTIVE SUMMARY

Landcorp is proposing to develop a 250 hectare parcel of land at Shotts 10kms south-east of Collie into a heavy Industrial Estate to service the coal mining industry. Prior to proceeding with this development proposal Landcorp wish to determine whether any sites of significance to Nyungar people will be affected by this proposed work thereby fulfilling their obligations under the Western Australian Aboriginal Heritage Act (1972).

As a result of archival research, no previously recorded Aboriginal Heritage sites were identified to be located within the boundaries of the proposed develop area (PDA) identified as the 'Shotts Industrial Estate'.

Three previously recorded archaeological sites, Site ID 601 Ewington 1, Site ID 602 Ewington 2 and Site ID 18734 Gci (Max's Site) were identified to the north and outside of the project area, however the presents of these sites does indicate some potential for archaeological material to be present within the study area. The accompanying archaeological report by Harris (2009) will address this potential.

As a result of consultations held with 11 members of the Gnaala Karla Booja WC98/058 Native Title Claim group as determined by SWALSC no sites of significance as defined by section 5 of the Western Australian Aboriginal Heritage Act (1972) were identified to be located within the area designated (PDA) for the development of the Shotts Industrial Estate.

While no sites of significance under the 'Act' could be established during the survey it was reported by several informants that Nyungar people did occupy and also camp within the old Shotts town site. Several informants consulted during this survey provided accounts of Nyungar families that had lived in tents and bush camps near the old rail siding opposite the town site at Shotts; however an accurate location of these former camps could not be determined. Several informants also reported that Nyungar people had occupied houses at Shotts between the 1930's to the 1950's while working in timber mills in the area.

As a result of these reports the group requested that the Shotts town site and associated camps be recorded as an Aboriginal Heritage site due to its historical significance as a place of sentiment to the Nyungar community and as a place that represents a 'cultural marker' of their family's history that is associated with the identity of Nyungar rural mill workers attracted to the region.

In line with these views the group requested that the area of the 'Old Shotts town site' and the former rail siding should be protected and preserved and that any plans to locate an industrial plant in the location should be modified to allow for the continued existence of the town site in its current state.

In regards to this request it is determined by the authors of this report that it would be unlikely that the Department of Indigenous Affairs would accept this proposal for registration. Firstly during the survey no material evidence of the reported former camps and there actual location could not be determined. Secondly despite the reported historical associations no verification of the camps existence or Nyungar associations with the town could be determined from written historical records or from former European residents from Shotts. Finally no specific statements of significance could be elicited with regards to Nyungar people's former occupation of houses within the town.

No other sites or issues were identified during the survey.

As a result of the survey, the following recommendations are made:

It is recommended that as no sites of ethnographic significance as defined by Section 5 of the Western Australian Aboriginal Heritage Act (1972) were identified to be located within the project area (PDA) that Landcorp should proceed with the project as planned.

Despite the fact that no sites of significance as defined by Section 5 of the Western Australian Aboriginal Heritage Act (1972) were identified to be located within the project area **it is further recommended** that both the Aboriginal and European values embodied within the land within and adjacent to the old Shotts town site be formally recognised by the proponents by the development and placement of an interpretive historical memorial at the location of the Old School at the Shotts town site. This interpretation would recognise the sentiment and the heritage values held by both ethnic groups with regards to the social history of those people who lived and worked in mills in the area and in the early Premier Coal mine.

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REPORT

An Aboriginal Heritage Survey of the Proposed Shotts Industrial Estate, Collie Western Australia

ISSUE

Landcorp is proposing to develop a 250 hectare parcel of land at Shotts 10kms south-east of Collie into a heavy Industrial Estate to service the coal mining industry. Prior to proceeding with this development proposal Landcorp wish to determine whether any sites of significance to Aboriginal people will be impacted upon by this proposed work thereby fulfilling their obligations under the Western Australian Aboriginal Heritage Act (1972).

REPORT OBJECTIVES

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

To report on consultations held with representatives of the Gnaala Karla Booja WC98/058 Native Title Claim in order to determine if any new Aboriginal Heritage sites will be affected by this proposal.

BACKGROUND

On 7th April 2009, Mr Sean O'Hara from the South West Aboriginal Land and Sea Council (SWALSC) on behalf of Landcorp contacted Brad Goode and Associates Pty Ltd and requested that they provide a fee proposal to conduct a Site Identification Aboriginal Heritage survey of the proposed Shotts Industrial Estate, 10km south-east of Collie. Mr O'Hara stated that the consultants should liaise directly with Mr Michael Campi the Landcorp project manager with regards to the specific details for the proposal.

The proposed development area includes several irregular shaped UCL and freehold lots north and south of Shotts Road which is central to the development. . Shotts Road runs parallel to and 400m south of Coalfields Road. The land parcel subject to development extend 3.5kms east-west and vary from 55m to 1150m in breadth north-south. The development area commences at the western end with the crossover of a Western Power Transmission line, railway line and Shotts Road. Then continues east passing a second transmission line, Ewington Haul Road, a conveyor belt, Premier Road, a rail line and loop and finishes at a haul road on the eastern perimeter. The old Shotts town site formerly exists within the north-eastern perimeter of the development site. The development area currently contains areas of pasture, remnant stands of native vegetation, an old disused sand quarry and the old Shotts town site. To the north and south of the proposed Industrial Estate is Griffins Coals Ewington mine and Wesfarmers Premier Coal mine.

The proposed Industrial Estate at present has two prospective tenants who would lease the north-west portion of the estate for a fertilizer plant and a coal char plant is planned for the southern end of the site. In the future other proponents would purchase or lease sites centrally for other and as yet to be determined industrial plants to service the coal mining industry. Landcorp had not progressed plans for where roads and services would be located until all the environmental and heritage constraints had been identified.

As a result of the above brief, an archaeological survey was conducted by Mrs Jacqueline Harris and assistant Mr Wayne Webb between the 10th and 12th May 2009. An ethnographic survey was conducted by Mr Brad Goode and assistant Mr Colin Irvine on the 14th May 2009 with members of the Gnaala Karla Booja Native Title Claim group. Mr Michael Campi from Landcorp also attended the consultations to assist with technical details for the proposal.

LOCATION



Figure 1: Location of the Project Area

ETHNOGRAPHIC & HISTORICAL BACKGROUND

TRADITIONAL NYUNGAR CULTURE

Prior to European settlement Western Australia's southwest was home to thirteen socio-dialectal groups who shared traditions and a common language with local variations. These groups, known collectively as *Nyungar* encompassed a triangle from Jurien Bay in the north to Esperance in the southeast (Berndt 1979, Tindale 1974, Tilbrook 1983). Before linguistic boundaries were formed these people were known as *Bibbulmun* and were said to be 'the finest group in all West Australia' (Bates 1938:59-61). The word *Bibbulmun* means many breasts, a name derived, perhaps, from the fertility of the region or the great number of women and children among the seventy subgroups.

Bates records the *Kunniung* (west) *Bibbulmun* people as having occupied the Collie area prior to colonization. She records the dialect of the Collie region as *Burrong Wongi* (Bates 1985:54). Tindale (1974:244, 260) and Berndt (1979) both record this region as home to the *Kaneang*.

Kaneang territory is extensive and includes:

"On the upper Blackwood River; east to a line joining Katanning, Tambellup, Cranbrook, and Tenterden; at Kojonup, **Collie**, Qualeup, Donnybrook, Greenbushes, Bridgetown; headwaters of Warren and Frankland rivers; **south bank of Collie River to Collie**; in later days they went west to the coast and as far north as Harvey. North eastern limits of the tribe correspond with the change from place names with [-up] terminations to ones with [-ing]." (Tindale 1974:244)

Wilman territory also intersects Collie to the north and east;

"At Wagin and Narrogin; **on Collie**, Hotham, and Williams rivers **west to Collie**; Wuraming north to Gnowing, Dattening, and Pingelly; east to Wickham, Dudinin, and Lake Grace; south to Nyabing (Nanpup), Katanning, Woodanilling, and Duranilling. Southern and western boundaries correspond with the change with the change in place name terminations from [-ing] to [-up]." (Tindale 1974:260)

Unlike their inland neighbours who employed the 'Old Australian tradition' of circumcision (Berndt 1979) Nyungars restricted the physical marks of initiation to nasal septum piercing and cicatrisation. A boy at age nine or ten would be removed from his home camp to live with his maternal uncles for several years. During this time upper body cicatrisation and nasal septum piercing would take place and he would learn the lore of the country before returning to live with his immediate family, having passed into manhood (Bates 1985:151-158).

The two primary social moieties of the Nyungar, the *Manitchmat* (white cockatoo) and *Wordungmat* (crow) were the basis for marriage between a further four semi-moieties or clan groups. The semi-moieties *Tondarup* and *Didarruk* were derivatives of the former and *Ballaruk* and *Nagarnook* derivatives of the latter (Berndt 1979:82; Bates 1985:74). It was strictly forbidden to marry within one's own moiety. In fact, the only lawful marriage was seen to be the cross cousin marriage of paternal aunts' children to the maternal uncles' children. This form of social organization was identical in tribes across all of Western Australia (Bates 1966:24-25).

The basis for Aboriginal spirituality, land use and ownership lies in their Dreaming. In the Dreaming ancestral beings created the world and all within it thereby defining spiritual, social, moral and territorial division for its inhabitants. The spiritual essence of all ancestral beings not only transformed the landscape but also infused it with living spirit. The beings remained in significant sites and so all generations are linked to the Dreaming and to the eternal spiritual beings (Berndt 1979). The Nyungar held one central creator spirit, the *Waugal* (after Moore

1842, Berndt 1979; *woggal* after Bates 1938 & 1985), who created and is still present in all sources of water in the southwest. Bates (1985:219-221) notes that wherever the Waugal stopped or camped was sacred. As a consequence, these places were generally avoided (*winnaitch*). O'Connor, Quartermaine and Bodney (1989) provide a theoretical explanation of what they term "the ubiquitous Waugal myth." The Waugal, they say, is a water creative spiritual force with a serpentine physical manifestation, which created many of the south west rivers and whose essence remains in such as the Collie and Preston Rivers to this day. The author's state the imputation of religious significance to water sources is at least as old as recorded human history and that it is not surprising that in an arid country such as Australia it occurs in many totemic forms. O'Connor et al note Waugal sites of significance at various locations on the Collie River at Collie, namely Bottoms Pool, Wuridjong Pool, Telfer Pool and Wellington Dam. Today the Collie River and its tributaries (Site ID 16713) is a registered heritage site associated with the *Ngarnjungudditj Walgu Dreaming*

Aborigines throughout all of Australia have historically held two distinct and complementary forms of relationship to the land: esoteric (sacred, ritual, mythological and ceremonial) and economic (biographical, historical and habitation). Stanner clarifies their difference by using the terms *estate, range and domain*. Estate refers to the home ground or Dreaming place of a particular descent group. Range refers to the tract of country over which the group travelled for hunting and foraging, and included their estate. In short, range gave economic boundaries and estate offered a sense of place and of spiritual meaning for both the individual and the group as a whole. A descent group's domain refers to the combination of both estate and range (Stanner 1965:2). The strength of attachment to a particular place would vary from person to person and/or family to family but the associations with the land were, and remain today, crucial elements of Aboriginal society.

Nyungars employed a mobile lifestyle and movement by local family groups was usually along a series of well-defined tracks or paths (*bidi*) which followed the corridors of easiest movement. The fluidity of the kinship system among Nyungars was recorded in early ethnographic studies as individuals were noted to have moved freely between these family runs (Salvardo 1977:130-131). During our current survey a number of informants reported that a historical run between Darkin and Collie followed the rail line through the Shotts area connecting camps at Buck's Mill in the south to Boronia Gully North West of the Ewington mine.

EUROPEAN SETTLEMENT AND ABORIGINAL SOCIAL DISRUPTION

During his expedition of 1829, Lieutenant Preston, officer on the HMS Sulphur, was accompanied by naval surgeon Dr Collie and set sail from the Swan River Settlement to examine the south-western coast. Passing through the channel between Garden Island and Cape Peron they chartered the water south to Murray River. Following this they travelled on to Port Leschenault and, upon entering the inlet discovered a river about three miles from their camp. They named it the Preston River, after the Lieutenant. On the same day they discovered another river just a few miles downstream of the Preston and named it the Collie River, in honour of the doctor. Collie, the mining town, was also later named in his honour. The explorers reported seeing a group of about 30 Aborigines at the mouth of the Collie River. They found themselves:

"In the midst of natives who testified the greatest and most friendly eagerness to be allowed to approach us... carrying green boughs and without any weapons of offence or defence... after a very amicable interview during which we did not admit them close to the tents they returned seemingly very much gratified with what they had seen and with a few trifles which they had gotten." (Martinick 1994:15)

Surveyor-General Lieutenant Roe followed on from this first party in 1830 to survey the 'very good' land surrounding the Preston and Collie Rivers. He discovered valuable forestland and a range of hills that he named after himself (Sanders 1975:3). During his explorations around the Preston and Collie Rivers, Lieutenant Roe reported no sightings of Aborigines but noted traces

of old habitations that were constructed of boughs and grass. It is thought these may have been the remnants of Nyungars winter camps. Lieutenant Henry William St Pierre Bunbury formed a post at Pinjarra on the Murray River in 1836 in order to investigate the district and was known for his good relations with the Aborigines. Before his return to England in 1837 he pioneered land exploration between Pinjarra and the emerging district of Vasse. An Aboriginal guide named Monang and others from the Pinjarrup tribe led the party to Leschenault Inlet, where the Collie and Preston Rivers flow into Koombana Bay. Here the Gomborrup people lived well as food was plentiful and the land was rich (Sanders 1975:99). Bunbury reported his encounters with hundreds of people from differing groups of Aborigines as he travelled from the inlet up the Collie and Preston Rivers and inland from the Preston River (Hallam 1979:69).

Two tracks passed close to where Collie is now located, one track connected Williams and Darkan with Wokalup. This road was used by Sandalwood cutters and by early settlers in Darkan to transport their goods to the coast for export. Another track that passed to the south of where Collie presently stands, that track connected Bunbury and Kojonup. Early settlers recorded that they remembered seeing Aboriginal camps where this path crossed the river at MacAlinden (Williams 1979). During the 1880's the area around Collie was used by pastoralists to run their sheep.

“Mr Gibbs from Darkan had stock on the Muja flats; Mr Pollard claimed a paddock on the Bingham River; Mr Rose of Roelands grazed cattle closer to, but upstream from the present townsite ; Mr Perrin of Brunswick does not seem to have established a permanent base, but was known to have run cattle in the West Collie area.” (Williams 1979:9)

It is unclear exactly who first discovered coal in the Collie region but it was either Mr. George Marsh a shepherd who according to legend used some black stones to make a ring around his campfire only to find the stones burnt. Alternatively it may have been Mr. Arthur Perrin, Marsh's employer, who discovered coal in the river on a visit to check on his stock (Williams 1979). The story which has been given official recognition is:

“Mr Perrin himself, on one of his trips along the river, found some black stones. Realising he had discovered coal, and appreciating the economic value of his find, he reasoned that he alone should reap the rewards. To prevent others from claiming a share, he removed the evidence by throwing the coal into a deep hole in the river.” (Williams 1979:10)

During the 1880's Collie was the scene of considerable activity as geologists explored the coal field. On the 13th of December 1897 Collie was proclaimed a town and by July of 1898 it was connected to the rail system with its own station and had a school with 15 pupils in attendance. By 1900 this had grown to a town with a school with 60 students, a police station and a post office and by 1902 there were no less than seven hotels in Collie (Williams 1979).

Before 1890 the southwest region supported only small pockets of agriculture and a young timber industry and both were strained by extreme transport difficulties (de Garis 1993:110). Completion of the Bunbury harbour works in 1907 and further ongoing development of the southwest's railway system opened up greater possibilities for coal export. By the 1920's heavy engines could run coal direct from Collie to Bunbury to be loaded onto ships. The first full cargo of Collie coal bound for South Australia left the Bunbury wharf in 1923 (Barker & Laurie, 1992:171-224). The southwest's hardwoods, on the other hand, had already found markets in the eastern colonies and overseas before the 1870's. Before construction of a bridge across the Brunswick River in 1845, milled timber was placed on a lighter (semi submerged raft) and sailed to the port of Bunbury via the Collie River and Leschenault estuary. A second bridge across the Collie River was built in 1844, and a third over the Preston River in 1848 (Sanders 1975; O'Brien 1996:45).

Amidst ongoing tension as indigenous and colonial people jostled to retain their own cultural practices, farmers across Western Australia regularly employed Aborigines as a convenient and cheap source of labour. Heavily relied upon to support the foundation of European farming techniques, Aborigines were generally offered little if any payment for work and were often given goods such as flour, sugar and tobacco in exchange for farm labour and domestic help (Shann 1926). Their importance was verbally acknowledged when in 1898 John Forrest said 'Colonization would go on with very slow strides if we had no natives to assist us' (Goddard & Stannage 1984).

"The 1930's saw an influx of Aborigines to the town [Collie] although some had been about since the early days – Tommy Newell having camped on the Wallsend group before it became a camp for miners; in the days when Aborigines were sought after to assist the shepherds running stock along the river, well before the turn of the century. Paddy Katamunga, better known as 'Black Paddy' had been a well known identity, employed by the Salvation Army Homes... An old Aboriginal couple were employed by the Mc Nishe's at Cardiff early in the century, and others were known to have assisted in fencing some of the early agricultural properties. The Slavin family, and the Mears family were among the early settlers in Collie." (Williams 1979:121)

Williams (1979) also noted that early Aboriginal camps were centred around 'Air Spring' on the Harris River, 'Twoup' on the Williams Road and later at 'Boronia Gully'. Woggary Pool, also known as the Eight Mile Pool on the Darkan Road and Minnipup Pool were reported to be home of the 'Woggary'. Corroborees were also reported to be held at Telfers Pool close to town and later at Woggary Pool. (Williams 1979:122)

By the turn of the twentieth century over half of the Aboriginal population in the south-west was of mixed race descent (Haebich 1988:47). Colonial rulers saw children of one British parent as having potential if they could be trained to live as Europeans and the Industrial Schools Act of 1874 brought their removal to missions where they were prepared for servant hood or menial apprentice work in the European community. Aboriginal parents of these children were afforded no comment in this process. The Depression of the 1930's saw unemployed Nyungars receive a lower sustenance rate than unemployed Europeans. Nyungar people were often employed to clear for farming the land they formerly lived on. Living more or less permanently in fringe camps, seeking out seasonal employment and supplementing their diet with game, fish and bush tucker was a lifestyle which predominated for many Aboriginal people until the late 1960's (McDonald et al., 1994). Camps such as Boronia Gully on the Williams Road and a reserve on Harris Road were examples of such fringe camps in Collie during this period.

There is little specific ethno-historical information pertaining to the Shotts town area particularly in relation to observations of Nyungar people living in the town historically. Interviews with locals born in Shotts has been gleaned that there were approximately 20 permanent houses within the town, with 4-5 lots of 5 acres located outside of the township and small farms occupied within a mile from the town (Mrs Stella Jones per comm.)

A view of a map of the town site of Shotts (Shotts Public Plan) shows that the railway ran on the southern side of the town with up to 61 housing lots allocated a town hall, recreation area and Forrest Department Office. The street names allocated to the town included Palmer Street, Smith Street, Arthur Street, King Street, Mahoney Street, Bardi Street and Lintott Street (Shotts Public Plan Map 505131). One small shop was established in the town attached to the owners home, however most people travelled to Collie via the train from Darkin for supplies (Mrs Stella Jones per comm.)

"Between 1931-1938.....G.G. Iddons delivered groceries by horse and cart to the Shotts Township, the Buckingham and Muja wandoo mills. This was an all round trip

of about thirty two miles.....Another store, the Collie Co-operative Store, used to service these areas with bread and meat about three times a week.” (Coote, N 1991:93)

Mrs Stella Jones who was born at Shotts in 1928 said that a school was established in the town site in 1913. Mrs Jones reported attending this school between 1934 and 1942. While attending school Mrs Jones lived in a house next to the school and community hall. The school was closed in 1953 and the hall was demolished and relocated to Collie some time after. After finishing school Mrs Jones then lived on a farm 2km to the south of Shotts until 1989 when she moved to Collie. (Stella Jones per com 2009)

Mrs Jones reported that she has no knowledge of Nyungar people living within the town or along the rail line in camps at Shotts. Mrs Jones remembers European families who were long term residents of Shotts such as Borlini, Marley, Millers, Orsatti, Kendell, Howe, Parker, Palmer and Cottalonga (Mrs Stella Jones per comm.). Interviews with some of these local residents referred to the consultants by Mrs Stella Jones such as Mr John Borlini and Mr Peter Piavanini failed to establish any recollections of Nyungar people living and working in the Shotts town site between the 1920's and 1950's. Further contact was attempted with Mr Brian Marley another resident born and raised in Shotts, however contact was unsuccessful. This is somewhat perplexing considering the detailed ethno-historic accounts given by several Nyungar informants during our current survey regards to Nyungar people living within the town and along the railway line during this period.

ARCHIVAL RESEARCH

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

SITES REGISTER SEARCH

A search of the DIA Sites Register was conducted on the 8th April 2009, in order to determine if there were any previously recorded Aboriginal Heritage sites that would affect the project proposal. The search revealed three Aboriginal Heritage sites that overlaid the search area (see Appendix 1 for Site Register).

Site ID 601 Ewington 1, Site ID 602 Ewington 2 and Site ID 18734 Gci (Max's Site) are all located north of the project area and will not be impacted upon by the proposed works.

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

Table 1: Summary of Registered Aboriginal Heritage Sites within the project area

SITE ID.	Status	Access	Restriction	Name	Location (AMG Zone 50)*		Site Type
					East	North	
601	S	O	N	Ewington 1	431005mE	6307184mN	Artefact
602	P	O	N	Ewington 2	431039mE	6307178mN	Artefact
18734	P	O	N	Gci (Max's Site)	429113mE	6307235mN	Artefact

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

I – Interim Register, S – Stored Data, P – Permanent Register, O – Access Open, N – File Not Restricted.

REVIEW OF RELEVANT SITE FILES

As all the sites identified are of an archaeological nature, please see the attached archaeological report by Harris 2009 for site details.

Site ID 601 Ewington 1, Site ID 602 Ewington 2 and Site ID 18734 Gci (Max's Site) are all located north of the project area and will not be impacted upon by the proposed works.

REVIEW OF RELEVANT ETHNOGRAPHIC REPORTS

Australian Interactive Consultants 2006 *Report of an Ethnographic Consultation of the Proposed Buckingham Coal Mine Extension at Collie, Western Australia*. Report prepared for the Griffin Coal Group.

This report was conducted on behalf of Griffin Coal for the proposed extension of the Buckingham Coal Mine in Collie. The Buckingham Coal mine is located near the existing Muja open cut mine in the catchments of Chicken Creek and the Collie River east branch. Archival research for the project revealed that Site ID 5308 Griffin Coal Mining Lease 7 and Site ID 16713 Collie River Waugal are located within the project area and will be impacted upon by the proposed works. The Nyungar consultants advised that all waterways in the region which relate to the Collie River Waugal have mythological significance in association with the dreaming figure, the Waugal. It was advised that any disturbances to these waterways including pollution and crossings were of a high concern to the Nyungar community. It was advised that all options would be considered with final recommendations made once detailed environmental and development plans were made available. No new ethnographic sites of significance were identified during the survey.

This survey area is located north-east of the current project proposal and therefore no sites identified within this report will be impacted upon during the current survey.

Goode et al. 2001 *Ethnographic Survey of the Griffin Coal Mining Tenements (Chicken Creek Option 2 and Ewington Options' 1 & 2) Collie Western Australia*, Unpublished report prepared for Halpern Glick & Maunsel Pty Ltd on behalf of Griffin Coal Mining.

This ethnographic survey was conducted for the above mining tenements in May 2001. Two ethnographic sites were identified, from previous research Site ID 603 Ewington Camp and Site ID 16713 Collie River Waugal. These sites are located to the north and to the east of the proposed Collie Shotts Industrial Estate project area and will not be affected by the proposal.

Goode, B 2004 *A Desktop Report of the Proposed Industrial Estate at the Collie Shotts Townsite, Western Australia*. Report prepared for the Western Australian Land Authority.

This survey was conducted on behalf of Landcorp to identify a suitable parcel of land around the Collie Shotts town site in order to build an Industrial Estate. As a result of archival research, no ethnographic sites were located within the study area; however four archaeological sites were located within the north and north-western portions of the study area which was at the time of the study larger than what is currently proposed. (Site ID 601, Site ID 602, Site ID 5305 and Site ID 18734). Portions of the study area have previously been surveyed, including the northern portion and south-east portion. The only portion not to have been subject to an archaeological survey was the south-west portion of the study area. The desktop report recommended that a full archaeological and ethnographic survey be conducted once the Industrial Estate boundaries had been finalised. All sites identified within this report are located north of the Coalfields Road and will not be impacted upon by the current project proposal.

Harris, J. 2001. *Report of an Archaeological Survey at Proposed Mining Development at Ewington 1, Ewington 2 & Chicken Creek 3, Colli.* Unpublished report prepared for Griffin Coal Mining Company Pty Ltd.

This report was written after a field survey was conducted to survey areas of Griffin Coal's mining leases that had been identified in Yates 2001 not to have been overlapped by the numerous other previous surveys conducted in the region since the 1980's. This report comprehensively reviewed the archaeological work conducted in the region to date (Brown 1984; Novak 1980; Novak & Brown 1979, O'Connor 1989, Pierce 1981, 1982 & 1983; Veth 1983; Veth, Ward & Zlantik 1983) and described the sites found as a result. The report also discussed the archaeological patterning of the region and dated the sites previously recorded. The report also described one new archaeological site recorded during the field work, Site ID 18734 GC1 (Max's Site). The survey concluded that the low number of archaeological sites found within the study area was more attributed to poor surface visibility and the high level of industrial activity that had disturbed the area rather than traditional Aboriginal land use practices. All sites identified within this report are located north of the Coalfields Road and will not be impacted upon by the current project proposal.

Murphy, A.M. Edwards, K., Walster, A. and Hammond, M. 1995. *Report of an Aboriginal Heritage Survey: Proposed Ewington II Coal Lease Collie*. Unpublished report prepared for Halpern Glick Maunsel upon behalf of Griffin Coal Mining.

This Aboriginal heritage survey of Griffin Coal's Ewington II mining area reported that there were no previously recorded ethnographic sites within the area of Griffin Coal's interest at the time of the survey. During consultations with seven representatives of the Aboriginal community, one new ethnographic site, 'Site ID 603 Ewington Camp' was reported. During this

survey two archaeological sites that were artefact scatters with a quartz lithogy were recorded. These sites, Site ID 601 Ewington 1 and Site ID 602 Ewington 2 were located on tracks on low lying swampy areas. All sites identified within this report are located north of the Coalfields Road and will not be impacted upon by the current project proposal.

OUTCOMES OF ARCHIVAL RESEARCH

As a result of archival research, no previously recorded Aboriginal Heritage sites were identified to be located within the boundaries of the current area proposed to develop the new Shotts Industrial Estate.

Three archaeological sites, Site ID 601 Ewington 1, Site ID 602 Ewington 2 and Site ID 18734 Gci (Max's Site) identified in the broader register search are all located to the north and outside of the project area, however the presents of these sites does indicate some potential for archaeological material to be present within the study area . The accompanying archaeological report by Harris will address this potential.

IDENTIFICATION OF SPOKESPEOPLE

THE RIGHT TO SPEAK ON HERITAGE ISSUES

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

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

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

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

While the notion of descent is clearly an important criterion within 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 is one 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.

- Gnaala Karla Booja WC 98/058

Applicants:

Mr. Derrick Smith, Mr. Franklyn Nannup, Mr. Harry Narkle, Mr. Joseph Northover, Mr. Joseph Walley, Mr. Mervyn Abraham, Mr. Peter Michael, Ms. Barbara Corbett-Stammner, Ms. Lorraine Bellotti.

- Single Noongar Claim (Area 1) WC03_006 (unregistered)

Applicants:

Anthony Bennell, Alan Blurton, Alan Bolton, Martha Borinelli, Robert Bropho, Glen 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, Bill Reidy, Robert Riley, Lomas Roberts, Mal Ryder, Ruby Ryder, Charlie Shaw, Iris Slater, Barbara Stammner-Corbett, Harry Thorne, Angus Wallam, Charmaine Walley, Joseph Walley, Richard Walley, Trevor Walley, William Webb, Beryl Weston, Bertram Williams, Gerald Williams, Richard Wilkes, Andrew Woodley, Humphrey Woods, Dianne Yappo, Reg Yarran, Saul Yarran, Myrtle Yarran, Ken Colbung

SELECTION OF SPOKESPEOPLE FOR THIS SURVEY

The selection of spokespeople for this survey was based on assistance given from South West Aboriginal Land and Sea Council's (SWALSC) Mr Sean O'Hara who arranged for the Gnaala Karla Booja Native Claim Group claimants to elect the spokespeople for the survey at the working party meeting held on the 23rd April 2009. The consultant also attended the working party meeting to provide details of the project proposal and to interview those selected in order to be satisfied that those elected had the necessary ethnographic knowledge of the area in question. Following the selection of the survey team Ms Yvette Bradley SWALSC anthropologist provided the consultants with information pertaining to informant's genealogical links to the Gnaala Karla Booja claim area.

The consultants own previous experience in conducting Heritage survey's 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. Those selected were assessed against the consultants own records confirming that those selected represented a good cross section of community members with both traditional and historical interests in the area. As a result of this pre-consultation process, the following Aboriginal people were selected to participate in the survey:

Mrs Shirley Hayward (nee Michael) was born in Narrogin in 1941 to parents Ida Hume's (1903) and Jack Michael (1902). Mrs Hayward's grandfather on her father's side was Harry Michael who married a full blood Aboriginal woman. Mrs Hayward's traditional ancestors on her mothers side is Mungalit (Delyugin-east of Pingerly) and Ngurandjan (Yurdoming near Williams). On her mother's father's side was Jack Mungar Bennell (1851-York) whose mother was a full blood Aboriginal woman at York. Mrs Hayward is a member of the Ngalang Boodja Council of Collie and sits on the working party for the Gnaala Karla Booja Native Title Claim group at SWALSC. Mrs Hayward has worked in community welfare inclusive of the Catholic Aboriginal Education Council in Collie/Bunbury. Mrs Hayward has lived in Collie for the last 40 years. Mrs Hayward was selected to participate in this survey by nomination through the Gnaala Karla Booja working party at SWALSC.

Mr Joe Northover was born in the Collie region to parents Joe Northover Snr and Kathleen Mears. Mr Joe Northover's grandparents on his mothers side is Phoebe Newell (Collie /Badjaling area) and Jack Mears (Roebourne). Phoebe Newel's parents were Rosie Mippy (Collie) and Jack Newell (Wadjelas from Collie). Mr Joe Northover's grandparents on his fathers side is Percy Riley (Dumbleyung) and Bella Kelly (Collie) Mr Joe Northover is an applicant to the Gnaala Karla Booja Native Title Claim is the former chairperson of the Ngalang Booja Council of Collie and was formerly employed as an Aboriginal Heritage Officer with the Department of Indigenous Affairs in Bunbury. Mr Northover and his brother Mr Phillip Ugle are widely recognised as the primary informant of the '*Ngarngungudditj Walgu*' mythology regards the creation of the Collie River. Mr Northover was selected to participate in this survey by nomination through the Gnaala Karla Booja working party at SWALSC.

Mr Philip Ugle was born in Collie to parents Joe Northover Snr and Kathleen Mears. Mr Philip Ugle's grandparents on his mothers side is Phoebe Newell (Quairading /Badjaling) and Jack Mears (Roebourne). Phoebe Newel parents were Rosie Mippy (Collie) and Jack Newell (Wadjelas from Collie). Mr Ugle's grandparents on his fathers side is Percy Riley (Dumbleyung) and Bella Kelly (Collie). Mr Ugle carries the legal name 'Ugle' as that was his mother's legal married name at the time he was born. Mr Philip Ugle is a brother to Mr Joe Northover. Mr Ugle was selected to participate in this survey by nomination through the Gnaala Karla Booja working party at SWALSC.

Mr James Khan was born in the Quindanning region to parents James Khan Snr (Geeralying) and Irene Hart (Narrogin). James Khan's grandparents on his mother's side were Melbourne Hart (Collie) and Lula Flox's (Lake Yealering). James Khan's grandparents on his fathers side was John Regan (Bridgetown) and Alice Mary Bolton (Narrogin). The Khan name came from Phatta Khan who was an Afghan that was legally married to Alice Bolton. Mr James Khan is a member of the Gnaala Karla Booja Native Title Claim group and sits on the working party at SWALSC. Mr Khan is the vice chairperson of Ngalang Booja Council in Collie. Mr Khan is a Teacher's Assistant at Collie TAFE. Mr Khan was selected to participate in this survey by nomination through the Gnaala Karla Booja working party at SWALSC.

Mr Herbert Ramsell was born in Collie to parents John (Wogga) Ramsell (Collie) and Mildred Khan (Bussell Pines bush camp-Collie). Mr Ramsell's grandparents on his father's side were Mr Thomas Ramsell (born in England) and Ms Dorothy Newell (born in Collie). Mr Ramsell grandmother upon his mother's side is Mabel Khan. Mr Herbert Ramsell attended school at Wandering Mission and Boddington High School. Mr Ramsell resides in Collie and has worked in the region at the Collie Shire, EG Green & Sons and NEEDAC. Mr Herbert Ramsell was selected to participate in this survey by nomination through the Gnaala Karla Booja working party at SWALSC.

Mr Sam Hart was born in Collie to parents Cenick Cockie (Collie) and Jean Ugle (Collie). Mr Sam Hart's grandmother on his mother's side was Doreen Ugle, her father was Ted Ugle, and his father was Robert Ugle whose mother was a full blood Nyungar from the Collie region. Mr Sam Hart's grandfather on his mother's side was Nicole Hart whose father was Frank Hart. Mr Sam Hart attended primary and high school in Collie and worked in the region within the building industry. Mr Sam Hart was selected to participate in this survey to represent his mother who was original selected by nomination through the Gnaala Karla Booja working party at SWALSC but could not attend due to ill health.

Mr Cornell Hart was born in Narrogin to parents Morton Hart (Williams) and Norma Gigup (Williams). Mr Hart grandparents on his fathers side is Melbourne Hart (Collie) and Lula Flox's (Lake Yealering). Mr Hart's grandparents on his mothers side is Doren Humes and Norman Gigup. Mr Hart went to school at Williams, Badjalng and the Wandering Mission. Mr Hart has worked in the building trades and as a shearer in the Collie region .Mr Hart was selected to participate in this survey by nomination through the Gnaala Karla Booja working party at SWALSC.

Ms Gail Wynne was born in Collie to birth parents Mr Stan Riley (born in Wagin) and Ms Shirley Wynne (born in Collie). Ms Gail Wynne's stepfather was Russel Wynne from where she takes her family name. Ms Gail Wynne's grandparents on her mothers side was Alma Ugle (Collie) and Bob Toby (Katanning). Ms Gail Wynne's grandparents on her fathers side was Eileen Penny and Fred Wynne. Ms Gail Wynn was raised by her maternal grandparents in Collie and also attended school in Collie. Ms Wynne was selected to participate in this survey by nomination through the Gnaala Karla Booja working party at SWALSC.

Mr Richard Cockie was born in Narrogin to parents Mr Jimmie Cockie Jnr (Williams) and Ms Florence Ugle. Mr Richards Cockie grandparents on his fathers side is Jim Cockie (Williams) and Lily Regan (Collie). Richard Cockies maternal grandmother Lily Regan descended from Susan Sanbull whose mother was a full blood Aboriginal from Bridgetown. Mr Richards Cockie great grandparents on his father's side were John Cockie and Lucy Cockie from Williams. Mr Richard Cockie attended school in Collie and at Roelands Mission and has worked in the region as a farm hand and a railway and timber mill labourer. Mr Richard Cockie who currently lives in Fremantle was selected to participate in this survey by nomination through the Gnaala Karla Booja working party at SWALSC.

Mrs Iris Hart was born in Williams to parents Melbourne Hart (Collie) and Lula Flox's (Lake Yealering). Mrs Iris Hart's grandparents on his fathers side was Jack Hart (Williams) and Angie Dickie. Mrs Iris Hart's grandparents on his mothers side was Freddie Fox and Minnie. Mrs Iris Hart is a member of the Gnaala Karla Booja Native Title Claim group and a member of Ngalang Boodja Council in Collie. Mrs Iris Hart has lived in and around Collie all her life and grew up at Boronia Gully as a child. Mrs Iris Hart is considered a senior Elder by the Collie Aboriginal community and was selected to participate in this survey by nomination through the Gnaala Karla Booja working party at SWALSC.

Mr Norman Hayward was born in Katanning to parents Mr Maley Hayward (Katanning) and Ms Martha Farmer (Katanning). Mr Hayward's grandparents on his father's side are Mr William Hayward and Ms Minnie Eades. Mr Hayward's grandparents on his mother side are Mr William Peg Farmer (Katanning) and Ms Emily Coyne. Mr Hayward is now retired and resides in Collie where he has lived for over 45 years with his wife Shirley Hayward. Mr Hayward attended school in Katanning and worked for Westrail since 1954 in Katanning, Kalgoorlie and Collie. Mr Hayward is a member of the Gnaala Karla Booja Native Title Claim group and also the Ngalang Booja Council in Collie. Mr Hayward was selected to participate in this survey by nomination through the Gnaala Karla Booja working party at SWALSC.

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 Western 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 Nyungar informants selected to participate in this survey were contacted by phone, briefed as to the requirements of the survey with onsite meetings arranged at the Shotts old town site. The informants were orientated to the project details by a description of the works. An inspection of the large project area was conducted from vehicles and on foot. Discussions between the Nyungar informants and the consultants were conducted as to the affect that this work would have on the cultural values of the area and any issues identified were recorded by the anthropologist.

COMMUNITY CONSULTATION PROCESS

On the 14th of May 2009 the consultants Mr Brad Goode (anthropologist) and Mr Colin (Floyd) Irvine (Graduate assistant) met with members of the Gnaala Karla Booja WC98/058 Native Title Claim Group as nominated by the working party at SWALSC, Mrs Gail Wynne, Mr Sam Hart (representing his mother Mrs Jean Ugle), Mr Joe Northover, Mr James Khan, Mr Norman Hayward, Mrs Shirley Hayward, Mrs Iris Hart, Mr Philip Ugle, Mr Cornell Hart, Mr Herbert Ramsell and Mr Richard Cockie at a gazebo in the park on Forrest Street in Collie. Mr Michael Campi (Project Manager) from Landcorp also attended the meeting to assist the consultants with the provision of the projects details.

After the necessary introductions Mr Campi briefed the group as to the nature and extent of the survey area aided by the project plans being overlaid upon a large scale air photo map showing the proposed Industrial Estates boundaries. The map showed that the development area currently contains areas of pasture, remnant stands of native vegetation, an old disused sand quarry and the old Shotts town site a former township associated with coal mining and timber mills that were once located in the area. To the north and south of the estate is Griffins Coals Ewington mine and Wesfarmers Premier Coal mine. Mr Campi explained to the group that the Industrial Estate would encompass 250ha of land and that at present prospective tenants would lease the north-west portion of the estate for a fertilizer plant and a coal char plant were planned for the southern end of the site. It was explained that in future other proponents would purchase or lease sites centrally for other and as yet to be determined industrial plants to service the coal mining industry. Mr Campi explained that at present that Landcorp had not progressed plans for where roads and services would be located until all the environmental and heritage constraints had been identified.

Following this briefing the group made a number of generalized statements about the areas former Aboriginal use and occupation. Several members of the group were aware of the area having been used by Aboriginal people both in the traditional period and in the more recent historical period. Mr Freeman Dinah and Mr Cyril Cockie were named as people the group knew who had camped in the area near Shotts; they were known to have lived in this area as it was close to work on the mills at Buckingham and near the Shotts town site. Several members of the group said that traditional people would have occupied the area prehistorically to take

advantage of the abundant fresh water sources and bush tucker resources known to be present at the site. It was pointed out to the consultants that many artefact sites had been recorded in the Ewington mine area just to the north of the proposed Industrial Estate and that the group believed that the area was a part of a run from historical timber cutters camps at Buckingham to the south of the proposed estate to Boronia Gully (Site ID 4691) to the north. The group also stated that the development site was also situated within a run between Collie and Darkin and that Nyungar people moving between the two towns would often follow the rail line and camp overnight within the proposed development site.

Following the initial briefing and discussion regarding their knowledge of the land the group then drove to the western end of the proposed Industrial Estate via Shotts Road where they stopped alongside an area of open pasture adjacent to a disused sand quarry (430043mE & 6306477mN). After an examination of the map to orientate the group to the location of the stop the group were asked if they knew of specific locations where Nyungar people had habitually camped or where births had occurred, where there were Nyungar graves or where there were any places that were considered to be of cultural and ethnographic significance. It was explained to the group in order for places identified to be considered as ethnographic sites under the Western Australian Aboriginal Heritage Act (1972) that people would need to be able to demonstrate that this place was of importance and special significance, such places would be places where ceremonies or rituals had or do occur or places that were known or named in traditional stories about the areas creation. It was emphasised that simple camp sites that were used overnight did not meet the criteria unless people could demonstrate that events of importance and special significance in people's lives had occurred at these places.



Figure 2: Members of the survey team at Stop 1 on the western end of Shotts Road. View looking to the north-east.

The group told the consultants that they were aware that people had camped opportunistically along the roadside as they were travelling between Collie and Darkin but that apart from these overnight camps they were not aware of any specific areas of heritage or cultural significance within the western portion of the survey area. The group mentioned Bucks Camp as a place where Nyungar people used to camp and live long term while working at Buckingham Mill, the road through the Shotts area was a regularly travelled path and linked Bucks Camp (south of the

PDA) with Boronia Gully (Site ID 4691). The group talked about how the people camping there use to trade perch and marron for flour in town. Other trade goods included possum, kangaroo and rabbit skins, these were usually collected throughout the year and then traded on occasional trips to Bunbury where buyers would purchase them for overseas trade.

Mrs Gail Wynne also wanted to make a statement about the significance of the land in general to Nyungar and Aboriginal people. Mrs Wynne said that the Western world did not understand the significance of land to Aboriginal people because European people have themselves become so dispossessed and disconnected from the natural world. Mrs Wynne said the land has a spiritual essence, the old people used to sing to the land, throw stones into the water as they approached to warn the spirits that inhabited the place they were approaching. Mrs Wynne said that the spirits of their ancestors still wandered around the countryside and that the group knew they would be tormented unless the right things were being done regarding the ancestral spirits. Mrs Wynne said that Nyungar people still have that strong connection to the land and feel that they are still being dispossessed; it is still being taken from them bit by bit. Mrs Wynne said that Nyungar people were aggrieved that only sites as white fellas define them are protected as opposed to respecting all the land as Nyungars do.

The group then drove to the near eastern end of the proposed development area and stopped at the location of the now deserted Shotts town site.



Figure 3: Sign indicating the location of the Shotts school which was utilised between 1913 and 1953.

It was noted that no buildings remain in the area but there are the obvious remains of foundations, assorted discarded materials and a sign indicating the location of the old Shotts school building. The town site was located on the north side of Shotts Road and on the southern side of the road is the location of the old Shotts Rail Siding. There are some pine trees growing in the location of the old siding but little else remains to indicate the location or its previous use. The location where the group stopped on Shotts Road was recorded as follows 432090mE & 6305978mN.

At this stop the group stated that Nyungar people used to camp down by the rail siding and that other families lived in the houses in the town itself. The group was asked to name the families

who had camped either at the rail siding or had lived in houses in the town itself. The group reported that; Carroll (Peter), Thorne (Tom, Naomi and children) Cockie (Cyril and Richard who was present at the survey), Sikes (Sammy), Ramsell, Hart, Humes, Ugle, Khan and Davis (Ray) had camped near the rail siding and had later occupied houses in the town (1930's to 1950's). Mr Richard Cockie was familiar with the area having spent some of his childhood living down by the rail siding, he spent some time during the survey looking through the bush south of Shotts Road to try to determine the exact location of the siding camp but was unable to pinpoint it exactly although he had no doubt he was in the general area. Mr Cockie did discover some sheets of tin and other remnants that he thought may have been part of the camp. Mrs Iris Hart had also visited Shotts camp as a child and said her uncle Sunny Khan had lived there during the 1950's, he had worked at the Buckingham mill with his brother Willy (or Birdie) Khan. Mrs Hart was able to name the children of her late uncle and said she believed some of them could have been born while they had been living at the Shotts town/camps but was not certain. Despite not being able to determine an accurate location for the reported camps all present were sure that they were in the area determined by Richard Cockie. All suggested that the strip of bush between the rail lines bordered by Shotts Road to the north opposite the school site (100m in length approx) was the area where the camps formally existed. All consulted said the camps were habitually occupied by Nyungars for many years from around the 1930's through to the 1950's.



Figure 4: Reported camping area, located opposite the Shotts school between the road and railway line. View looking to the west-north-west.

The group was asked to make a statement regarding the significance of the Shotts town site and the associated camps. The group said that the Shotts town site was an important place to Nyungars as it represented a piece of Collie Nyungar people's social history. Shotts town site was also important and is described as a meeting place. Memories of having gatherings at the hall opposite the school with relatives living there in the past were reminisced about during the discussions. Shotts town site also represented a connection with their families and Nyungar history in the region and their association with the timber milling industry as many families came to Shotts to work the mills. It was reported that the people who had lived here had also lived off bush tucker as well as their earnings from the mill and this was recognised by the group as a way of life that has disappeared or is disappearing in the modern day. In a sense it

marked an important period within the south west when Nyungars were expected to assimilate and maintain employment but during down times still lived by traditional skills of the bush. For some of the group the Shotts town site was a part of their childhood memories and also a place where their parents and grandparents had also grown up and as such was a place of great sentiment to their sense of identity.

The group were invited to make a statement on the effect destroying the site would have on them. Mr Richard Cockie made a statement regarding the effect destroying or removing the old town ship and camping area would have on him. Mr Cockie said that it would be like running a bulldozer over him, it would hurt him inside and he saw it as being disrespectful to the older generations. The group agreed that to destroy the site would be disrespectful to their ancestors who had lived there and would be removing another tangible link with their past. The group requested that the area should be protected and preserved in its current state.

Verification of the Nyungar communities association with the Shotts town site was sort by conducting interviews with European families that had been born and raised in the Shotts Township. Mrs Stella Jones (born in 1928) advised that to her knowledge she did not know of any Aboriginals living or camping within the township of Shotts. Mrs Jones advised that as there was no permanent water source or river running through Shotts that the Nyungars families would not have camped there. Mrs Jones said that she believed camps further east at Buckingham and south-west at Cardiff near the mills was more likely to be where Nyungars had camped. Mrs Jones advised that the only mill utilised in Shotts was owned and run by the Palmer family and was only a small scale business which cut sleepers but to her knowledge no Nyungar people worked at this mill. (Mrs Stella Jones per comm.)

Mrs Jones referred the consultants to other long term residents of the Shotts town site. Interviews with some of these local residents referred to the consultants by Ms Stella Jones such as Mr John Borlini and Mr Peter Piavanini failed to establish any recollections of Nyungar people living and working in the Shotts town site between the 1930's and 1950's. This is somewhat perplexing considering the accounts reported above by the Nyungar community. It is possible that there may been conflict between to two ethnic groups or that the Nyungar people were invisible to these residents. This dilemma cannot be easily resolved. Despite the lack of verification of the camps by European former residents there is no doubt of the sentiments expressed by the Nyungar informants regards to the importants of Shotts as an important place associated with the mining and timber industries. In deed the European former residents expressed similar sentiments and they too expressed sadness to see the former town become industrialised.

The group then drove around the rail loop at the eastern end of the survey area to complete the site inspection. No other heritage issues were identified by the group. The area of the old town site and associated camps was the only area of heritage and cultural interest identified by the group within the area of the proposed Shotts Industrial Estate. With regards to the general survey area being developed for industry Mrs Gail Wynne said that it felt to Nyungar people that they were once again being dispossessed of their land and their heritage. Mrs Wynne said that people feel like they can't go back to the bush and live the way they want to, to sit around a fire like they used to, these things are being taken away from the Nyungar people bit by bit. Mrs Wynne and the others in the group said while they could not identify any sites as defined by the Western Australian Aboriginal Heritage Act (1972) in the area, that all the land was of importance to Nyungar people and that this should be respected by the developers and that Nyungar peoples former associations need to be recognized in some tangible way.

COMMUNITY CONSULTATION OUTCOMES

As a result of consultations held with 11 members of the Gnaala Karla Booja WC98/058 Native Title Claim group as determined by SWALSC no sites of significance as defined by section 5 of the Western Australian Aboriginal Heritage Act (1972) were identified to be located within the area designated (PDA) for the development of the Shotts Industrial Estate.

While no sites of significance under the 'Act' could be established during the survey it was reported by several informants that Nyungar people did occupy and also camp within the old Shotts town site. Several informants consulted during this survey provided accounts of Nyungar families that had lived in tents and bush camps near the old rail siding opposite the town site at Shotts; however an accurate location of these former camps could not be determined. Several informants also reported that Nyungar people had occupied houses at Shotts between the 1930's to the 1950's while working in timber mills in the area.

As a result of these reports the group requested that the Shotts town site and associated camps be recorded as an Aboriginal Heritage site due to its historical significance as a place of sentiment to the Nyungar community and as a place that represents a 'cultural marker' of their family's history that is associated with the identity of Nyungar rural mill workers attracted to the region.

In line with these views the group requested that the area of the 'Old Shotts town site' and the former rail siding should be protected and preserved and that any plans to locate an industrial plant in the location should be modified to allow for the continued existence of the town site in its current state.

In regards to this request it is determined by the authors of this report that it would be unlikely that the Department of Indigenous Affairs would accept this proposal for registration. Firstly during the survey no material evidence of the reported former camps and their actual location could not be determined. Secondly despite the reported historical associations no verification of the camps existence or Nyungar associations with the town could be determined from written historical records or from former European residents from Shotts. Finally no specific statements of significance could be elicited with regards to Nyungar people's former occupation of houses within the town.

No other sites or issues were identified by the group during the survey.

RECOMMENDATIONS

As a result of the above report, the following recommendations are made:

It is recommended that as no sites of ethnographic significance as defined by Section 5 of the Western Australian Aboriginal Heritage Act (1972) were identified to be located within the project area (PDA) that Landcorp should proceed with the project as planned.

Despite the fact that no sites of significance as defined by Section 5 of the Western Australian Aboriginal Heritage Act (1972) were identified to be located within the project area **it is further recommended** that both the Aboriginal and European values embodied within the land within and adjacent to the old Shotts town site be formally recognised by the proponents by the development and placement of an interpretive historical memorial at the location of the Old School at the Shotts town site. This interpretation would recognise the sentiment and the heritage values held by both ethnic groups with regards to the social history of those people who lived and worked in mills in the area and in the early Premier Coal mine.

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APPENDIX 1: SITES REGISTER SEARCH

Search Criteria

3 sites in a search box. The box is formed by these diagonally opposed corner points:

MGA Zone 50	
Northing	Easting
6304446	428691
6307392	433124

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

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Legend

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

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)	
S Stored data			Final assessment will be determined by the Aboriginal Cultural Material Committee (ACMC).

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.

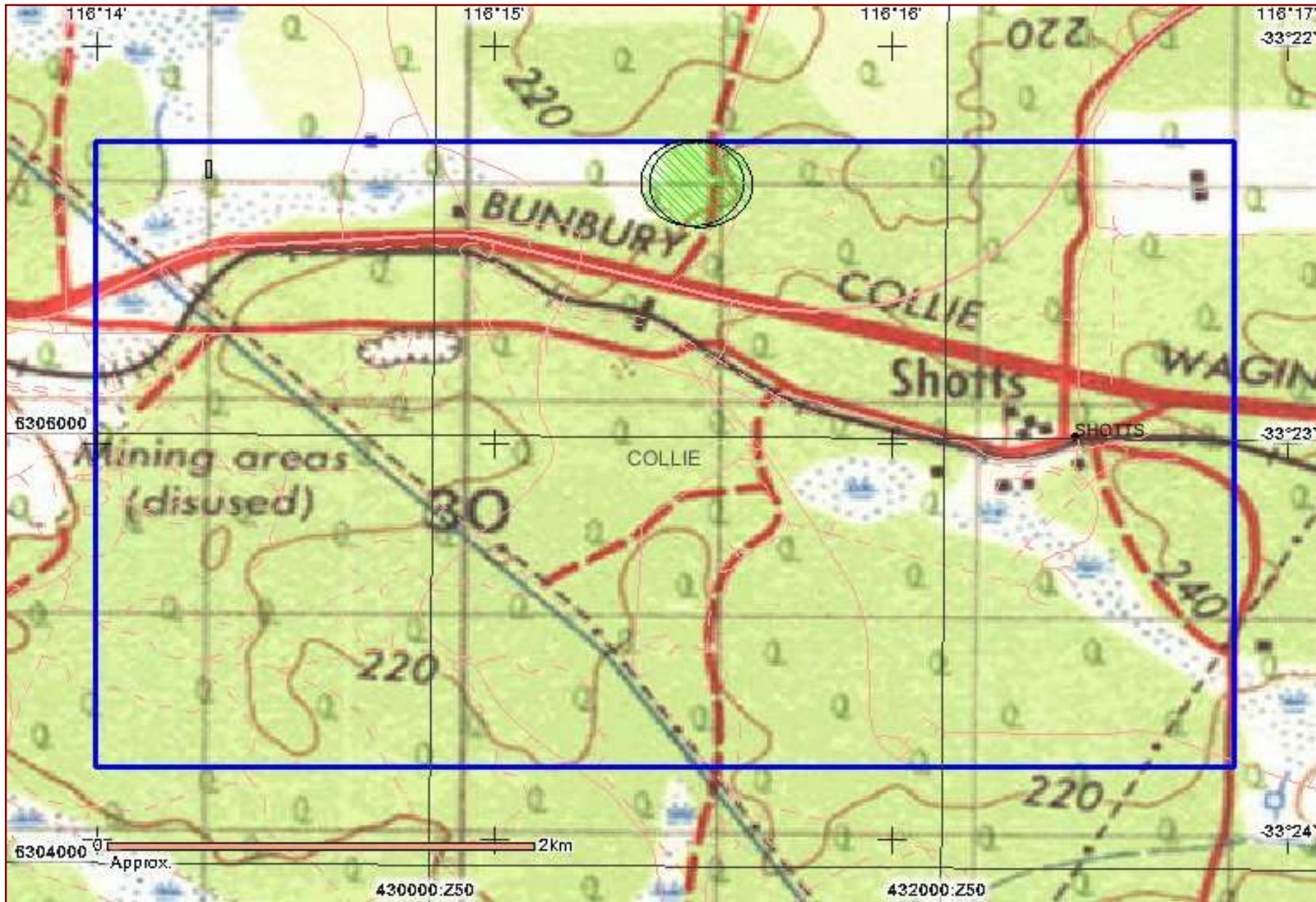


Aboriginal Heritage Inquiry System

Register of Aboriginal Sites



Site ID	Status	Access	Restriction	Site Name	Site Type	Additional Info	Informants	Coordinates	Site No.
601	S	O	N	Ewington 1	Artefacts / Scatter		*Registered Informant names available from DIA.	431005mE 6307184mN Zone 50 [Reliable]	S02906
602	P	O	N	Ewington 2	Artefacts / Scatter			431039mE 6307178mN Zone 50 [Reliable]	S02907
18734	P	O	N	Gci (Max'S Site)	Artefacts / Scatter	Camp, Water Source	*Registered Informant names available from DIA.	429113mE 6307235mN Zone 50 [Reliable]	



Legend

- Highlighted Area
- Town
- Map Area
- Search Area

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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.

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APPENDIX 2: LETTER OF ADVICE

Brad Goode
Consulting Anthropologist
Heritage Assessments

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DUNSBOROUGH WA 6281
Phone: (08) 9755 3716
Fax: (08) 9756 7660
E-mail: bradnlee@westnet.com.au
ABN: 40 803 184 260



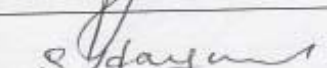
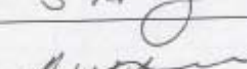

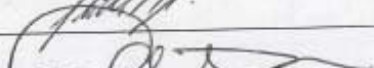
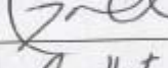
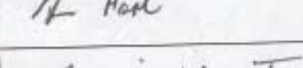
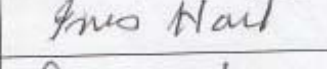
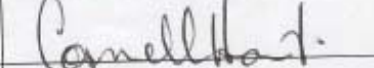
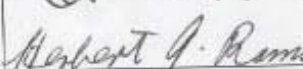
14th May 2009

We the undersigned have been consulted by Bradley Goode on behalf of Land Corp for the proposed Shotts Industrial Park at Collie. We would like to make the following recommendations in relation to the Western Australian Aboriginal Heritage Act (1972).

X No Ethnographic sites in the survey area except a historical camp in the old Shotts transit site.

X Wish the hist camp area to be avoided if the location can be determined.

Gnaala Karla Booja WC98/058 Native Title Claim Group

Name	Date	Signature
James Khan	14/5/2009	
Norm Hayward	14/5/2009	
Shirley Hayward	14/5/2009	
Shirley Wynne GAIL	14/5/2009	
Phil Ugle	14/5/2009	
Joe Northover	14/5/2009	
Sam Hart	14/5/2009	
Iris Hart	14/5/2009	
Cornell Hart	14/5/2009	
Herbert Ramsell	14/5/2009	
Richard Cockie	14/5/2009	

**APPENDIX 3: MAPS OF THE PROJECT AREA IN RELATION TO
ABORIGINAL HERITAGE SITES**

429000

430000

431000

432000

GCI (Max's Site) SiteID:- 18734

EWINGTON 1 SiteID:- 601
EWINGTON 2 SiteID:- 602

Coalfield Road

Haul Road

Premier Road

Shotts Road

6307000

6307000

6306000

6306000

6305000

6305000






429000

430000

431000

432000

Shotts Industrial Park, Collie - Land Corp in relation to DIA Aboriginal Sites

- Legend
-  sites
 -  Fertilizer_Plant
 -  CADASTRE_29JUL05
 -  Industrial_Park_Boundary
 -  Char_Plant

DATE
5th May 2009

SCALE - at A4
1:15,000



GDA 1994 MGA Zone 50

Survey conducted by
BRAD GOODE & ASS - 79 Naturaliste Terrace, DUNSBOROUGH WA 6281

Mapping provided by
WARPSPEED GIS - P.O. BOX 147, VASSE WA 6280

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REPORT ON AN ARCHAEOLOGICAL SURVEY OF SHOTTS INDUSTRIAL ESTATE, COLLIE WESTERN AUSTRALIA



Prepared for South West Aboriginal Land and Sea Council on behalf of Landcorp

By Mrs Jacqueline Harris and Mr Wayne Webb

MAY, 2009

EXECUTIVE SUMMARY

An archaeological investigation for Aboriginal heritage sites was commissioned by South West Land and Sea Corporation (SWALC) on behalf of Landcorp for proposed development of an Industrial Park at Shotts, east of Collie. The field survey was undertaken on 10th, 11th and 12th May 2009 and was conducted by Mrs Jacqueline Harris, archaeologist and Mr Wayne Webb, a Nyungar senior archaeological field assistant. Mrs Toni Webb assisted as an additional field assistant throughout the survey.

The proposed study area included several irregular shaped lots north and south of Shotts Road, 10kms east of Collie. Shotts Road runs parallel to and 400m south of Coalfields Road. These lots extend 3.5kms east-west and vary from 55m to 1150m breadth north-south at its widest point. The study area measures some ~250 hectares.

The survey design was formulated using a combination of predictive and systematic transects throughout the project area with particular emphasis on de-vegetated locations. The systematic sample survey of the proposed structure plan to identify any archaeological sites incorporated three persons walking abreast, spaced about 25m apart. In addition, predictive intensive transects were conducted at firebreaks, de-vegetated patches and any other area of site potential.

Due to the industrial complexity of the area the survey was undertaken in sections. These sections were bounded by non-passable roads e.g. haul roads, pipelines or conveyor belts. Elsewhere Shotts Road, railway line, transmission line, rail loop or Premier Road formed part of a boundary. Because of a signed “dangerous area” in the south-east as discussed below, transects were conducted tentatively and cautiously around the circumference of the sector and then opportunistic meanders throughout the central area.

It is estimated that the overall sampling percentage of the project area was around 35% with the addition of predictive sampling. Ground visibility within the forested areas was around 10% but improved on cleared paddocks to 50% and disturbed cleared areas to 70%.

The project area was typical low undulating jarrah forest but extensively modified throughout. Only one section in the western perimeter had been utilized as farmland. The southern portion of the farmland had been used for milling logs. Further south of this a large portion of the land had been used as a gravel pit with the south eastern edge used as for pine forests. In the middle portion of the project area were some seven irregular or triangular shaped sections of land. A small rectangular portion had been excised for a European cemetery but there was little evidence that it had been utilized as such. A large water substation with several pipelines running off in different directions sits at the edge of Premier Road.

East of the mid section and south of the rail line crossing there is a patch extensively disturbed by construction camps of railway workers or remains of a small settlement. South of this area is a fenced off triangular shaped piece of land bearing signs marked “Danger Collapsed Ground”. In the far north eastern sector a stretch of land on the side of a hill is the remains of Shotts village as indicated by roads, tracks, debris and logging activities. South of this village is a railway loop where an old miner remains living in the centre surrounded by furrowed grounds and sheds. Extending out from the small farmlet are rubbish dumps utilised by mining and remains of other homesteads. Parts of the original sediment have been removed to build the railway loop leaving a low swampy depression over most of the inner loop area.

The forested areas have been decimated by logging and now exhibit substantial regrowth. The major rock types present on the surface were conglomerate, quartz, and laterite. The entire project area has been extensively disturbed by infrastructure, coal mining, logging, and settlements from the early 1900’s.

An online search of the site register at Heritage and Culture Division, Department of Indigenous Affairs (DIA), defined that no archaeological sites lay within or in proximity to the project area. No archaeological site, as defined by Section 5 of the Western Australian Aboriginal Heritage Act (1972), was located within or in close proximity to the project area in the course of the survey.

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 creeks, swamps 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 ground surface. **It is recommended** that Landcorp 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 Western Australian Aboriginal Heritage Act (1972).

If Landcorp locate 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 Department of Indigenous Affairs and the Western Australian Police Service. Any artefactual material should be reported to Heritage and Culture Division, Department of Indigenous Affairs.

INTRODUCTION

PURPOSE OF HERITAGE SURVEY REPORT

An archaeological investigation for Aboriginal heritage sites was commissioned by South West Land and Sea Corporation (SWALC) on behalf of Landcorp for proposed development of an industrial park at Shotts, east of Collie. The scope of services required an archaeological and ethnographic site identification survey to Section 18 standard and was provided in a written document to Brad Goode & Associates Pty Ltd by Mr Sean O'Hara, Future Acts Officer, SWALSC.

The objective of the investigation was to establish if any archaeological sites were located in the vicinity of the study area and determine any effects the proposal may have over such sites. A report was required after completion of fieldwork.

The field survey was undertaken on 10, 11 and 12 May 2009 and was conducted by Mrs Jacqueline Harris, archaeologist and Mr Wayne Webb, a Bibbulman/Wadandi representative and senior field assistant. Mrs Toni Webb assisted as an additional field assistant throughout the survey.

STUDY AREA

The proposed study area included several irregular shaped lots north and south of Shotts Road, 10kms east of Collie. Shotts Road runs parallel to and 400m south of Coalfields Road. These lots extend 3.5kms east/west and vary from 55m to 1150m breadth north/south at its widest point. The study area measures some ~250 hectares.

The study area commences at the western end with the crossover of a transmission line, railway line and Shotts Road and continues east passing a second transmission line, Ewington haul road, a conveyor belt, Premier Road, a rail line and loop and halting at a haul road on the eastern perimeter.

ENVIRONMENT

Climate

The project area lies within the south-west region of Western Australia which is characterised as a dry Mediterranean climate consisting of hot, dry summers and mild, wet winters. Annual rainfall is approximately 936.6 mm, most of which falls between May and August (Beard 1981). The mean maximum temperature is 30.5°C that falls in January while the mean minimum temperature is 4.2°C that falls in July (BOM 2009)

Geology & Topography

The project area is located on the southern portion of the Darling Region, which is an area of uplands east of the Darling Scarp (Beard 1981; DCE 1980). The Darling escarpment separates the Swan Plain in the west from the uplands in the east. The Swan Plain is a very deep basin that has filled with sediments eroded off the Darling Plateau and Darling Range.

On the east side of the Darling Fault is a band of hills dissected by deep narrow valleys known as the Darling Ranges. The width of the Darling Range varies but generally is between 20 km and 40 km wide. This is an area of high rainfall, deep laterite and thick forest. To the east, the Darling Range merges with the Darling Plateau. The plateau is the western edge of the Yilgarn Block, a very old and stable portion of the earth's crust that underlies most of western and central Australia.

Beard (1981) divided the South West, including the Darling Region, into a number of physiographic units, based on their vegetation systems, soils and landforms. The project area

falls within the western portion of the Darling Plateau unit (Beard 1981:49). This is described as an ancient erosion surface capped by lateritic duricrust that has been dissected by drainage. Dominant soils are lateritic gravels and large ironstone pavements are common on ridgetops and occasionally on slopes. Gravels that tend to become finer midslope are mined as bauxite. The valley slopes and floors are heavily lateritised, but erosion has stripped the laterite from the major, deeper valleys.

DCE (1980) describes the area as Collie Basin that is an outlier of Permian and younger sedimentary rocks in the Precambrian rocks of the Darling Plateau. The surface members are mainly sandstone eroding to sandy detritus with laterite remnants. On the Collie Basin the surface is a mantle of weathered rock as deep as 50m. Iron and bauxite horizons have developed in the upper weathered zone that is the laterite profile.

The landform of the study area is described as lateritic uplands of the Collie Basin with low relief. DCE further divide the area into Cardiff unit that consists of gentle undulations dominated by grey sands with broad shallow swampy depressions. Patches of Collie unit, described as gently undulating dominated by duricrust, gravels and grey sand, intersect the dominant Cardiff unit (DCE1980).

The Collie River and tributary Collie River South are the principal water sources in the area. These run from south to north on either side of the project area but some 5kms distant and then turn east west at Collie towards the coast.

Vegetation

DCE1980 describe the Collie complex as an open forest of jarrah, marri and sheoak with understorey species reflecting poor soils and gravels. The Cardiff complex is described as an open woodland of Banksia with distinctive understorey.

The major catena comprise: blackbutt solely or mixed with jarrah-marri in valley flats; bullich on semi swampy valley bottoms upstream towards waters sheds; river gum along river banks and paperbark at water's edge of permanent rivers; and low woodland of river gum, paperbark and banksias in broad valley bottoms and swamps.

History

The eastern sector of the study area comprises some of the original mining tenements of Premier Coal Mine. The mine commenced underground works in 1911 but halted in 1914 as a result of creep, fire and water problems on Lease 261. These workings were allowed to flood then later pumped dry but to no avail (Stedman 1988). A further tunnel was put down some 0.5km south west of the original mine and mining commenced again in 1916 but problems such as soft roof and floors that required extensive shoring up continued. The mineworks ceased in 1927.

The settlement of Shotts, located in the north-east sector of the project area, commenced at the same time as mining at Premier Coal Mine. The residential area was conveniently situated immediately north of the Narrogin railway line and forms part of the study area. The mine workers preferred to live in the village or on small farm holdings close enough to the mine to commute by walking or riding a horse (Williams 1979).

ARCHAEOLOGICAL RESEARCH

DESKTOP STUDY

An online search of the site register at Heritage and Culture Division, Department of Indigenous Affairs (DIA), was undertaken on 8 April 2009. Seven grid references were extrapolated from a 1:50,000 topographic map to capture the survey area allowing a buffer zone of 0.2 km surrounding the area (See register search in Appendix). The search defined that no archaeological sites lay within or in proximity to the project area.

To determine the archaeological signature of the area another archival search was undertaken allowing a buffer zone of 0.5 km surrounding the area. The search of the larger area defined three archaeological sites that lay north of the project area. Two of these are small quartz artefacts scatters containing less than five artefacts. The other contained some 50 quartz and one silcrete artefacts. All were located in low lying swamp areas.

REVIEW OF HERITAGE SURVEY REPORTS

A search for reports relevant to the region was undertaken. Several consultancy surveys have been conducted in the immediate vicinity of the study area.

Novak, V & Brown, S 1979. A survey for Aboriginal sites, Griffin Coal Mining Leases, Collie Area. Report prepared for Griffin Coal.

The authors surveyed two areas, one located about 8kms east of Collie adjacent to a NW/SE orientated pipeline. A quarter of the area has been disturbed by previous coal mining and farming with the remainder open jarrah-marri forest. The second area, 15kms SE of Collie, lies between Collie Muja railway line and Muja open cut. The area is traversed by numerous tracks while the southern half includes an extensive swamp fringed to the west and east by jarrah marri forest. The northern section contains equal proportions of farmland and forest.

The survey strategy included sampling selected from aerial photographs where the vegetation and soil surface had been disturbed by sand pits, firebreaks and rubbish dumps. Spot checks were made for marked trees and stone structures. Seven artefact sites were located, four sites of which contained one artefact, one site contained three artefacts and seven artefacts were found at two sites. At one site the artefacts were concentrated in a 50m square area but at the remaining sites artefacts were scattered along sandy tracks over distances ranging from 200-300m. All artefacts were made from quartz excepting one piece made from bottle glass. The assemblage included a steep scraper, bipolar core, amorphous lumps and utilised pieces. The sites indicate that Collie area was exploited in the past.

Pearce 1981 *Worsley Alumina Project Survey for Aboriginal Sites*. Report prepared for Worsley Alumina Pty Ltd.

Excluding the mining area and transport corridor near Boddington, details on the refinery area are extracted and examined in detail. The refinery is located in State Forest, 17kms northwest of Collie. The land is covered by open forest including jarrah and marri. Coverage by large trees was 70% ensuring a sparse under storey that thickened in deep valleys. The terrain was hilly with a surface of laterite boulders, gravel or sandy gravel with sandy clay in valleys. The area was disturbed by numerous rough tracks and felled trees as a result of timber exploitation occurring over a length of time.

In the open Jarrah forest near Collie, 49 sites were discovered and recorded containing a total of 605 stones. These were all small artefact scatters; no large sites were found. Twenty-three sites contained less than 10 artefacts, 19 sites contained 10-20 artefacts and seven sites contained

between 20 and 50 artefacts. No other site type was located within the area. Often sites were discovered in disturbed areas on lateritic gravel. Typically, they were on the floors of valley close to ephemeral streams or near damp or swampy areas with gentle slopes. Rarely were sites on rocky ridges or steep slopes. All the artefacts were made of quartz, bar a single specimen of silcrete and one of chert.

Artefact types included mainly flakes, flaked pieces, scrapers and cores. All were made from quartz excepting two flakes of chert and silcrete. No glass artefacts were evident. Some quarrying may have occurred at several small quartz outcrops or nodule pockets. While the single silcrete artefact may derive from a source some distance away, it is likely that the material used generally was from the immediate area. The results indicate that the area was used for occasional occupation by small groups of people for short periods of time. The absence of large sites with high artefact densities indicates that no place was used frequently for a long period or by a large number of people for short periods.

A test excavation was undertaken at one site, 1km northwest of the junction of Hamilton Farm and the power line within 60m of a swampy area at the head of a creek. The area was sandy soil on a gentle slope of 5cm in every metre. Two squares measuring 1m x 1m were dug. Artefacts occurred mainly in the intervals 5 to 15cm and 25 to 45cm. A total of 117 chips and flakes were present made from quartz and quartzite with 3 ochre nodules. Charcoal samples were collected down to 35cm. The result suggests a time range of a few thousand years ago followed by a period of less frequent usage (20 – 25cm level), then an increase followed by another decline several hundred years ago.

Harris J. 2001. *Report of an Archaeological Survey at proposed mining development at Ewington 1, Ewington 2 and Chicken Creek 3, Collie*. Report prepared for Griffin Coal Mining Company Pty Ltd.

Harris surveyed an area of 1350 hectares of predominantly forest with some disturbed mining land and farmland. Transects were conducted by four persons spaced at 25m apart at every 200m interval. Survey strategy used was part of a landscape approach based on locating traditional land usage areas such as bush tucker, camping, water and lithic sources. One small artefact scatter of 50 flaked pieces manufactured from quartz and silcrete was located near a swamp. Six isolated artefacts were located along tracks.

Mattner C.J. & Harris J. 2004. *Archaeological assessment of proposed expansion areas for Boddington bauxite mine*. Report prepared for Worsley Alumina Pty Ltd.

Prior to long term future expansion at Worsley an archaeological assessment planning survey was undertaken at East Quindanning, Morgans, Hotham North Extension, Mid Central and Brookton leases. These leases ranged in size from 1650 ha at Morgans to 35800ha at Mid Central. The authors proposed an archaeological location model based on a study of land use patterns in the eastern jarrah forest.

Major artefact scatters with thousands of pieces will occur within a radius of about 500 m, but not closer than 100 m, of reliable and long-lasting water sources, such as soaks, springs, swamps and deep river pools.

Major artefact scatters will be situated on open and flat or slightly sloping ground in clearings. They are more likely in areas with broad valleys and major creeks or rivers, and where granite bedrock is exposed in large domes and hills.

Medium sized artefact scatters with hundreds of pieces will not be numerous but may occur at a variety of locations, especially near seasonal water sources such as creeks, swamps and soaks, and possibly near granite outcrops where these contain gnamma holes or soaks. They will occur close to water sources, probably within 200 m.

Small artefact scatters will be numerous and principally occur close to watercourses, often within 20 m of the drainage channel, and close to granite outcrops. But such sites will also occur in a wide variety of locations, provided the land is reasonably level.

Artefact clusters, consisting of a few artefacts and possibly representing butchery sites, can be expected in valleys or on the crest of ridges. They will occur on a wide range of landforms and will not be tied to water sources.

Quarries for stone to manufacture flaked stone tools will be uncommon. They will be found at outcrops of fine grained silicified dolerite, but most dolerite outcrops will not contain quarries. Quarries will also occur where quarry veins and seams are exposed in granite domes or outcrop, but most granite exposures will not host quartz outcrops and will not be potential quarry sites.

Ceremonial stone arrangements may be expected on a small number of the granite domes, particularly in locations near ephemeral water sources that are remote from major campsites. Mundane stone arrangements, such as standing stones or lizard traps, can be expected on some granite domes, especially those where water was available nearby, either from gnamma holes or depressions in the rock or from seasonal creeks. Burial sites are known to exist in the region. These all appear to be historic and possibly the graves have markers. There are unlikely to be any undiscovered graves, but if any exist, they probably will be reasonably close to historic settlements, such as farms or timber camps.

Engraving sites will be rare. If any undiscovered examples exist, they will be located at granite outcrops with large boulders that provide surfaces to engrave. Other site types reported for the region, such as ochre quarries or grinding grooves, are rare. Painting sites will be rare. They are only likely to exist in protected overhangs or rock shelters. Scarred or marked trees will be uncommon. They are more likely to occur in woodland than forest, and are likely to be marri trees rather than jarrah or wandoo trees. For this reason, such sites are more likely to exist in clearings in broad valleys.

McDonald Hales & Associates.1995. *Warren Blackwood Planning Study: Report of an Aboriginal Heritage and Planning Guidelines Sub Study*. Prepared for Department of Planning and Urban Development.

This study encompassed the Shires of Nannup, Manjimup, Bridgetown – Greenbushes, and Boyup Brook. A review of the archives established that 122 Aboriginal sites including 111 archaeological and 11 ethnographic sites were registered in the region. The archaeological sites consisted of 91 artefact scatters, 16 "other", 7 structures, 4 quarries, one burial, one engraving, 3 fishtraps, one midden and a modified tree. Fifty percent of these sites were recorded by WA Museum staff during the 1970s.

Within the shires of Bridgetown, Greenbushes and Boyup Brook, few systematic surveys have been conducted in the region with reporting of sites initiated by knowledgeable locals and historical groups or on an ad hoc basis by WAM officers. A total of 22 archaeological sites, comprising 17 artefact scatters, a scarred tree and a stone arrangement, 3 "others" and one burial have been recorded in the shire. The majority of these artefact scatters were recorded by McDonald Hales in the Southern Forest Survey.

All sites, excepting one located on a lateritic access track through low scrub, were located on sandy or lateritic tracks and paths in karri high open forest. Most of these sites contained an isolated artefact (11 examples) while only two sites contained 2 – 4 artefacts. All were manufactured from quartz. The majority are located near a drainage line. The stone artefact assemblages consist of small collections of cores, scrapers, debitage and retouched/utilised pieces with quartz as the dominant lithic, in addition to chert and dolerite.

The report concluded that Aboriginal sites are unevenly distributed across the area. This was interpreted as a function of:

- °past Aboriginal land-use patterns
- °regional preservation and taphonic factors
- °level and location of heritage research
- °level of community knowledge and involvement in heritage matters
- °nature of land tenure

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 jarrah forest of the southwest.

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 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.

West of 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, south 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 any sites are 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 a Garmin GPSmap 60CS on datum GDA, a 1:50,000 cadastral map and an aerial site plan demarcating the proposed project area. The survey design was formulated using a combination of predictive and systematic transects throughout the project area with particular emphasis on de-vegetated locations.

The systematic sample survey of the proposed structure plan to identify any archaeological sites incorporated three persons walking abreast, spaced about 25m apart. These transects were conducted within revegetated forests, field of pasture, former settlements and industrial lands. In addition, predictive intensive transects were conducted at firebreaks, de-vegetated patches and any other area of site potential.

Due to the industrial complexity of the area the survey was undertaken in sections. These sections were bounded by non-passable roads eg haul roads, pipelines or conveyor belts. Elsewhere Shotts Road, railway line, transmission line, rail loop or Premier Road formed part of a boundary. Because of a signed "dangerous area" in the southeast as discussed below, transects were conducted tentatively and cautiously around the circumference of the sector and then opportunistic meanders throughout the central area.

It is estimated that the overall sampling percentage of the project area was around 35% with the addition of predictive sampling. Ground visibility within the forested areas was around 10% but improved on cleared paddocks to 50% and disturbed cleared areas to 70%.

SURVEY AREA

The project area was typical low undulating jarrah forest but extensively modified throughout. Only one section in the western perimeter had been utilized as farmland. The southern portion of the farmland had been used for milling logs. Further south of this a large portion of the land had been used as a gravel pit with the south eastern edge used as for pine forests.

In the middle portion of the project area were some seven irregular or triangular shaped sections of land. A small rectangular portion had been excised for a European cemetery but there was little evidence that it had been utilized as such. A large water substation with several pipelines running off in different directions sits at the edge of Premier Road.

East of the mid section and south of the rail line crossing there is a patch extensively disturbed by construction camps of railway workers or remains of a small settlement. South of this area is a fenced off triangular shaped piece of land bearing signs marked "Danger. Collapsed ground". Subsequent phone calls with the proponent and mine owner and further discussions with a local inhabitant suggest these grounds have collapsed into the original underground mine. The informant suggested this occurred a long time ago so it is assumed that these were the historical remains of the original Premier mine tunnels from the 1910s. Fresh depressions and collapses have subsequently occurred.

In the far north eastern sector a stretch of land on the side of a hill is the remains of Shotts village as indicated by roads, tracks, debris and logging activities. South of this village is a railway loop where an old miner remains living in the centre surrounded by furrowed grounds and sheds. Extending out from the small farmlet are rubbish dumps utilised by mining and remains of other homesteads. Parts of the original sediment have been removed to build the railway loop leaving a low swampy depression over most of the inner loop area.

The forested areas have been decimated by logging and now exhibit substantial regrowth. The major rock types present on the surface were conglomerate, quartz, and laterite. The entire

project area has been extensively disturbed by infrastructure, coal mining, logging, and settlements from the early 1900s.

FIELD SURVEY RESULTS

Archival research established that no previously registered archaeological sites were located in the vicinity of the proposed works and would impact upon the proposed development area. 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.

The presence of isolated artefacts generally indicates Aboriginal hunting and gathering forays in the region. In this case, no examples were identified. Extensive disturbance over some 100 years to the surface from coal mining and logging has affected the possibility of locating any isolated artefact in the majority of the survey area. It is considered that the survey techniques employed in the field survey were sufficient to have located any major archaeological site present on the surface.

POTENTIAL EFFECTS

As no previously recorded sites nor new archaeological site was located within or in close proximity to the proposed development, there will be no known impact upon an archaeological site from the future development.

CONCLUSIONS

DISCUSSION

An archaeological survey was conducted at a proposed industrial park at Shotts, east of Collie. The survey area included some farmland, cleared and revegetated forests, collapsed mine tunnels, large borrow pit, remains of settlements and a pine forest. The project area was typical low undulating grey sands and laterite terrain with some swamp areas mostly caused by major modifications of the landscape. The study area was remarkable for the amount of industrial infrastructure present such as two transmission lines, two haul roads, a conveyor belt, Shotts and Premier Roads, a railway line, two pipelines, a railway loop and industrial rubbish dumps.

The archival results indicate that there is low potential for artefact scatter sites to be discovered within the low undulating terrain because of the absence of creeks and rivers. Because small artefact scatter sites are frequently located in the region close to major river and water resources, the focus for camp sites would be 4kms to the north and east where Collie River flows. It is unlikely that a scarred tree remains within the extensively logged forests as the large old trees have been removed with the forest presently comprising mostly regrowth.

At several locations to the east of the project area there was a large amount of European historical remains indicative of dwellings and a larger settlement at Schotts. If Aboriginal people occupied any of these dwellings or lived in campsites on the fringes of the settlement it may be problematic discerning these features in a major salvage testing the nature of the remains as there is much mixing of debris as a result of bulldozing and industrial activities.

Using the Mattner & Harris (2004) archaeological location model based on a study of land use patterns the lack of a major water source precludes the likelihood of a large artefact scatter being present. Any swampy area that may indicate the presence of a moderate artefact scatter are unlikely as the low lying areas were the product of extensive modification to the landscape. Similarly artefact clusters were negligible due to major disturbance to the landscape.

Ground visibility was low in the jarrah forests. Archaeological research in woodland/forest suggests artefact scatter sites are frequently found in disturbed ground, particularly in areas where, prior to disturbance, there is low visibility. Archaeological sites nevertheless require some land integrity for the sites to have any provenance and, thus, scientific significance. These revegetated forests where the project area was located have been extensively disturbed. The highest disturbance factor of mining and logging together with farming techniques, infrastructure, settlements and low visibility are seen as the major contributors to the lack of archaeological sites located in the study area. These major alterations have obliterated or camouflaged potential sites.

Nyungar land use for both summer and winter in the Darling Ranges region has been modeled by Hook (2001) from a study of a bauxite mine and refinery near Pinjarra. The winter land use model largely followed Anderson (1984). Hook proposed that the cool wet winter was when Nyungars were most active in the Jarrah forests. With a wide availability of surface water, this was a time “of maximum dispersal and high mobility ... [because of] the dispersed nature of plant and animal resources”. Key plant resources at this time of year were *Zamia* palm seeds and tubers or yams, particularly warran. The wet windy weather made it easier to stalk animal prey, especially emus, kangaroos and medium sized marsupials. She stressed that sources of knappable stone were an important resource, as there are almost no stone sources on the coastal plain. So stone material, chiefly quartz, was obtained in the Darling Ranges and transported to the plains.

In summer, when there were few water sources, Hook proposed that most of the Darling Ranges was uninhabited. Instead, when visiting the Jarrah forests “people were gathered in larger groups tied to major water-sources such as the large swamps and pools”. These water resources were also significant sources of food for the Nyungars, who were involved in “fishing, hunting water birds and collecting tortoises and freshwater crustaceans, as well as plant resources surrounding the water systems”. In contrast to winter, this was a time of low mobility and minimum dispersal.

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 creeks, swamps 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 ground surface. **It is recommended** that by Landcorp 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 Western Australian Aboriginal Heritage Act 1972.

If Landcorp locate 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 Department of Indigenous Affairs and the Western Australian Police Service. Any artefactual material should be reported to Heritage and Culture Division, Department of Indigenous Affairs.

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