



Desktop Aboriginal Heritage Review for the Proposed Airport Rail Link

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Executive Summary

The Public Transport Authority (PTA) proposes to construct the Airport Rail Link which will join the existing Perth – Midland rail line in Bayswater to the domestic and international terminals at Perth Airport. The rail link will terminate at Dundas Road in High Wycombe. Two alignments are currently proposed and are referred to as the “current alignment” and “tunnel alignment”. The alignments generally follow one another but the “tunnel alignment” deviates at the intersection of Tonkin Highway and Great Eastern Highway and runs along Brearley Avenue to the domestic terminal

GHD Pty Ltd (GHD) commissioned Waru Consulting Pty Ltd (Waru) to undertake an Aboriginal heritage desktop review for the PTA’s proposed Airport Rail Link.

The desktop review had 2 objectives. The first objective was to collate background information on previous heritage surveys, studies and heritage sites in the region. The second objective was to identify those heritage sites that may be at risk from the proposed project and to provide suitable management recommendations. For the purposes of the desktop review the “project area” constitutes the 2 proposed alignments as well as a 200m buffer either side of the alignments.

The review of previous heritage studies found that numerous archaeological surveys have been conducted in the region. These surveys show that land within the vicinity of the proposed Airport Rail Link project area was archaeologically rich. This is consistent with the food and water resources available at the many wetland areas in the area.

Previous ethnographic surveys conducted in the vicinity of the project area have recorded very few ethnographic sites. However, those few which have been recorded including #3536 “Swan River”, #3719 “Munday Swamp” and #25023, “Poison Gully Creek” have been deemed highly significant to contemporary Noongars. Previously, some historical camps and hunting grounds in the area were identified but were not considered significant enough to warrant their registration as sites. Concern has been regularly expressed by Aboriginal spokespersons that environmental features such as swamps be preserved so that native species such as turtles are protected.

As a result of the desktop study it was found that the proposed Airport Rail Link poses a risk to 1 registered archaeological site #4408 “Newburn; Bingham St” and 3 registered ethnographic sites (#3719, “Munday Swamp”, #3536, “Swan River” and #25023, “Poison Gully Creek”).

The desktop study also found verification work is required at 3 other previously recorded archaeological sites that are situated in the vicinity of the proposed rail alignments (#3326 “Bayswater 1-3”, #4033 “High Wycombe: Wittenoom Rd” and #3520 “Maylands Scarred Tree”).

A review of the 9 heritage places listed as ‘Stored Data’ that are reportedly situated within the project area found that further work may be warranted at 2 of the places (#3616, “Kenmure Avenue, Bayswater” and #4090, “Wyatt Road, Bayswater”) with the others having either been totally destroyed or incorrectly mapped. It is important to note that these places have been assessed by the Aboriginal Cultural Material Committee (ACMC) as not meeting the criteria of a site under s.5 or s.39 of the WA *Aboriginal Heritage Act 1972* and are not protected under the provisions of the Act.

The impact to archaeological sites within the project area will be determined by how the proposed Airport Rail Link is to be constructed. If the proposed rail is to be constructed as an underground tunnel with minimal surface disturbance the project may avoid impact to any archaeological sites.

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1.0 INTRODUCTION

1.1 Objectives

GHD Pty Ltd (GHD) commissioned Waru Consulting Pty Ltd (Waru) to undertake an Aboriginal heritage desktop review for the Public Transport Authority's (PTA) proposed Perth Airport Rail link. This is a proposal to build a railway line to Perth airport.

The desktop review had 2 objectives:

1. collate background information on previous heritage surveys, studies and heritage sites in the region.
2. identify those heritage sites that may be at risk from the proposed project and to provide suitable management recommendations.

1.2 Project Area

The proposed Airport Rail Link is situated between 6km and 12km northeast of the Perth CBD (Figure 1). PTA has provided 2 proposed alignments. One proposed rail alignment ("current alignment") is approximately 8.5km in length and joins the existing Perth – Midland rail line near the intersection of Tonkin Highway and Guildford Road in Bayswater (Figure 2). The alignment runs southeast along the Tonkin Highway road reserve for approximately 2km before turning northeast towards the domestic terminal at Perth Airport. The alignment then runs southwest to the international terminal and the northern portion of the Forrestfield rail marshalling yards. Finally the alignment bends south between the marshalling yards and Dundas Road in High Wycombe. The alignment terminates approximately 160m north of the intersection of Dundas Road and Imperial Street.

The second proposed alignment ("tunnel alignment") generally follows the "current alignment" route but deviates at the intersection of Tonkin Highway and Great Eastern Highway and runs along Brearley Avenue to the domestic terminal (Figure 2)

For the purposes of this desktop review the project area constitutes the 2 proposed alignments as well as a 200m buffer either side of the alignments (Figure 2).

1.3 Environment & Geology

The proposed Airport Rail Link is situated within the Swan Coastal Plain, the surface of which consists of Quaternary alluvial and aeolian sediments of varying age (Beard 1981). These sandy sediments form a series of dunes with interdunal low-lying land where wetlands and swamps were common. With the exception of limestone, that is unsuitable for making stone tools, there are no stone outcrops on the Swan Coastal Plain. Consequently, stone for tools had to be brought in from the hills to the east. This means stone artefacts are highly conspicuous.

Perth's climate is classified as Mediterranean (Beard 1981). The annual pattern is for warm dry summers and mild wet winters. Annual rainfall is approximately 880mm, most of which falls in the cooler months (Australian Bureau of Meteorology 2007). Typically, there is a summer drought of several months duration, when high evaporation exacerbates the shortage of surface water. Water availability in the numerous swamps on the low-lying airport land attracted repeated Aboriginal occupation, as attested by the numerous archaeological sites recorded there.

Within the boundary of Perth Airport most of the land has been subject to levelling and clearing for buildings, hardstand areas, runways and other airport infrastructure. In addition to more recent developments, agricultural activities and stock grazing have occurred in the past over much of the airport land. As well as causing ground disturbance, foreign material such as rocks and gravel may have

been imported. Burrowing animals have caused further disturbance and may have damaged the integrity of any buried archaeological material.

The western extent of the proposed Airport Rail Link project area in the suburbs of Bayswater and Redcliffe has been subject to severe disturbance for the construction of housing estates roads and the building of the Tonkin Highway. There has also been severe land disturbance at the eastern termination of the proposed Airport Rail Link in the vicinity of the Forrestfield marshalling yards.

1.4 What is a Site?

The WA *Aboriginal Heritage Act 1972* (AHA) makes provision “for the preservation, on behalf of the community, of places and objects customarily used by or traditional to the original inhabitants of Australia”. The AHA applies to both places (Section 5) and objects (Section 6) which are of “significance and importance” in traditional or contemporary cultural life, including sacred, ritual or ceremonial sites, and places of scientific, aesthetic or social significance (Section 39).

An archaeological site is a place where “significant traces of human activity are identified” (Renfrew & Bahn 1991: 42). In other words, a site is a place where there is substantial, *in situ* evidence of past occupation or activity in the form of material remains. Not all archaeological material constitutes an archaeological site, and not all places or features identified as sites on scientific grounds will be classified as heritage sites under the AHA. Certain types of sites may have both an archaeological and an ethnographic component; for example, stone arrangements or engravings.

It is important to note that all Aboriginal sites are protected under the AHA, whether known or not, and whether reported or not. It is an offence to disturb or conceal a site, or remove artefacts, without appropriate consent from the Minister for Indigenous Affairs.

1.5 Definitions

Mythological sites are linked to Indigenous cosmology and the “Dreaming” period when the world was shaped and its inhabitants were created. Mythological sites are usually situated on Dreaming tracks; that is, the routes of spirit beings on their creative journeys. Places where ceremonies were conducted are important sites, which sometimes also have a mythological connection. Ceremonial sites are sometimes identifiable because of Aboriginal modification of the ground but frequently are not obvious or discernable.

Places with historical or biographical connections for Aboriginal people can also be significant sites. Historical sites include places that were instrumental in some way for the Indigenous community, for families or for individuals. Examples include places where people were born or died, were raised or regularly visited. Burials, whether old or contemporary, are considered very significant by Aborigines.

Archaeological sites are more common than ethnographic sites, but there can be overlap between these two categories when Indigenous people have a connection or personal knowledge of the site. These are ethnoarchaeological sites.

The most common archaeological material is discarded stone tools, or the debris from making such tools by knapping. These artefacts formed a small but durable part of the Aboriginal tool-kit. Often stone tools were used to manufacture other tools from wood or organic materials that have not survive. Where numerous artefacts occur in context and in association they constitute an artefact scatter and together comprise the site assemblage.

Artefact scatters generally represent campsites. Large scatters are places that were regularly occupied, sometimes for long periods, and are the accumulation of many overlapping smaller camps. Small scatters are the remains of sites that were briefly occupied, probably on several occasions. Very small

scatters may be evidence of an overnight camp, meal-time camp or work area where specific activities were carried out.

Apart from concentrations of artefacts at campsites, there are also solitary artefacts which are distributed at a very sparse density across the landscape. These form a background scatter that probably represents evidence of dispersed hunting and gathering activities.

Another site type in the Perth region are marked or scarred trees. Many of these are the scars left by the removal of the outer wood or bark to make implements such as bowls, shields or boomerangs. Other marks include footholds for climbing trees; for example to catch possums or raid nests. Cut marks may indicate where honey was collected from the hives of native bees. Other types of archaeological sites are uncommon in the metropolitan district.

1.6 Site Significance

The heritage significance of a site is determined by several factors. Principal among these will be Aboriginal viewpoints and scientific significance. The public, educational or aesthetic value of a site are also factors to be considered.

Any sites identified or reported by Indigenous consultants are accorded significance in keeping with their comments or opinions. Archaeological sites may have significance to Aboriginal people as well as a scientific significance. Aboriginal viewpoints can be obtained by consultations, while archaeologists are best placed to assess the scientific significance.

Assessments of the archaeological or scientific significance of sites are typically based on two criteria: representativeness and research potential (Bowdler 1981; Coutts 1979; Raab & Klinger 1977). Representativeness refers to the frequency of occurrence of sites or archaeological material. The more commonplace something is the less significant it will be, while unique sites will be of high significance. Research potential refers to the likelihood that study of a site or archaeological material will answer scientific questions. A stratified site that can be dated will have more research potential than a surface site, while a complex assemblage will have more potential than a smaller, less diverse one.

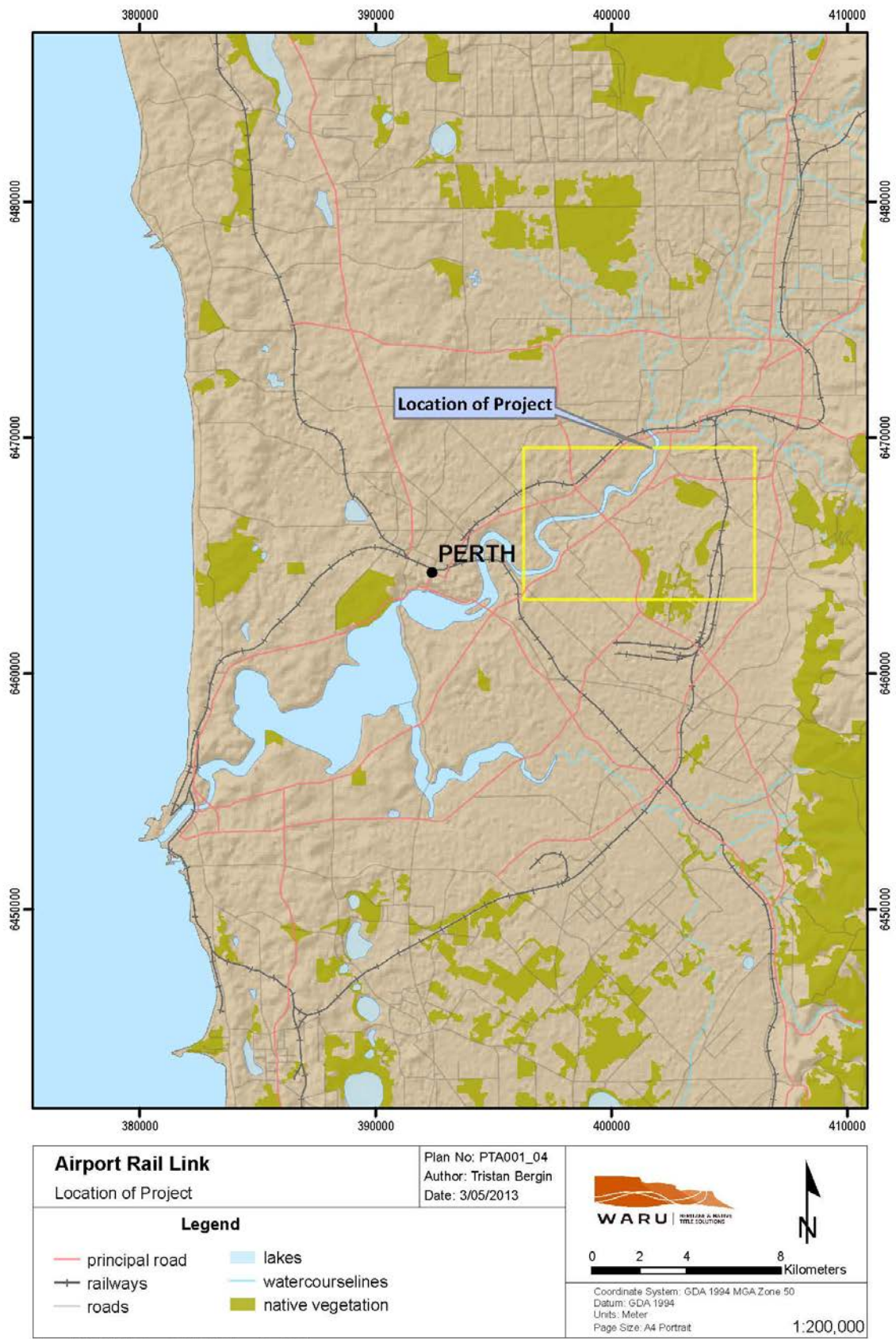


Figure 1: Location of the proposed Airport Rail Link

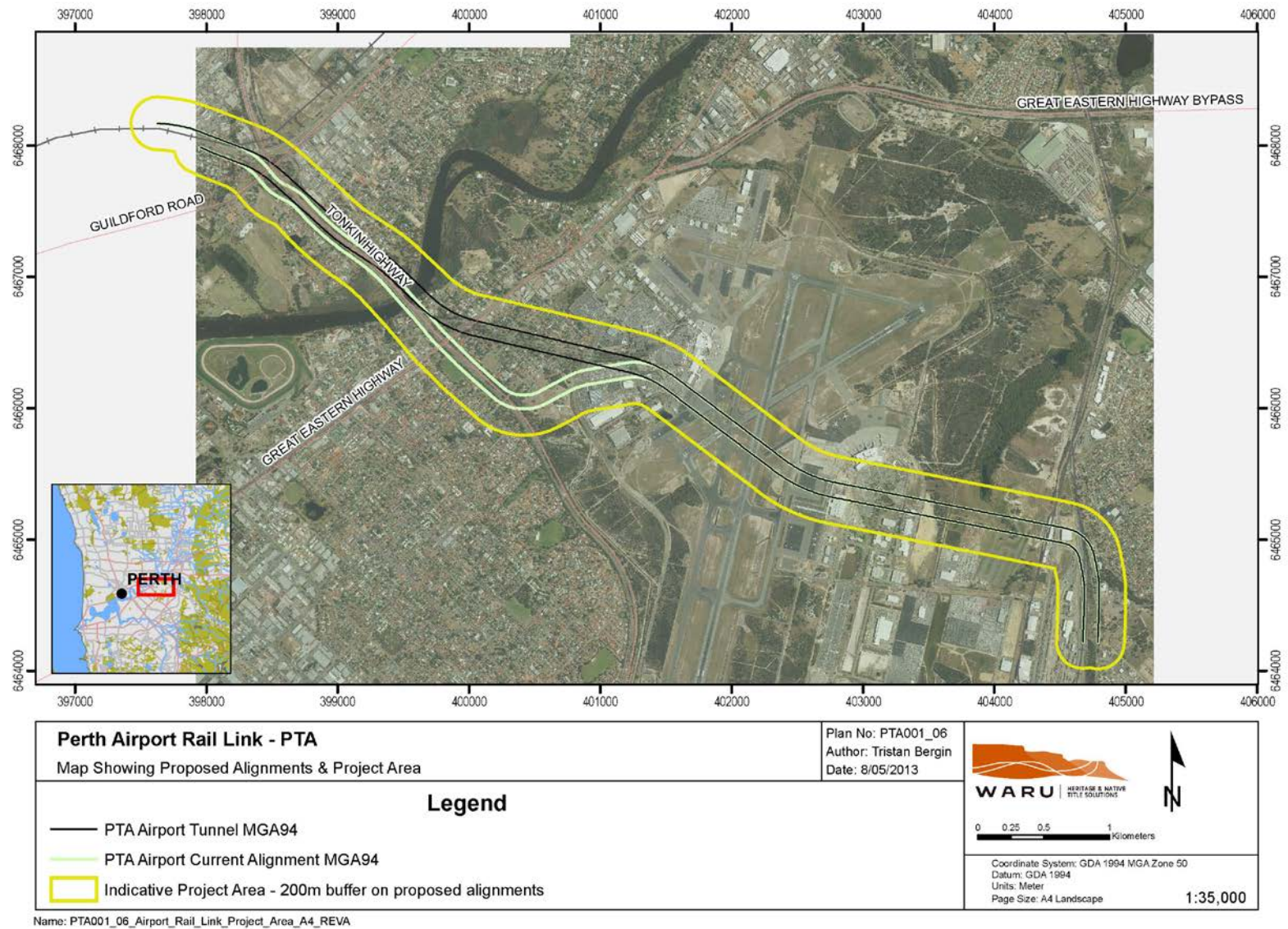


Figure 2: Map showing proposed rail alignments & project area

2.0 ARCHIVAL RESEARCH

2.1 Previous Archaeological Studies

Numerous archaeological surveys have been conducted of Perth Airport land and of the Tonkin Highway road reserve as well as the Forrestfield marshalling yards. These surveys show that land within the vicinity of the proposed Airport Rail Link project area was archaeologically rich. This is consistent with the food and water resources available at the numerous wetland areas in the Perth Airport region.

Much of the land at Perth Airport was searched for archaeological sites in the late 1970s and early 1980s as part of a regional study coordinated by Associate Professor Sylvia Hallam, from the University of Western Australia. Regrettably, there is little documentation of that fieldwork, which was conducted by teams of students, interested amateurs and a few archaeologists. It is not possible to determine precisely what land was scrutinised, nor the sampling design employed for the searches

Not all of the previous survey reports provide a clear description or map outlining the area that was searched. Even fewer describe the survey design and for this reason it is difficult to assess the degree of coverage and quality of the survey.

In 2012, Waru Consulting conducted excavations at DIA ID #4381 "Vale Road" and #17502 "Adelaide Street". These are both artefact scatters on eroding white sands of the Bassendean Dune type. The excavation of site #17502 yielded a collection of over 500 pieces from 10 trenches and 3 sample testpits. In contrast, the excavation of site #4381 recovered only 5 subsurface pieces from 3 trenches and 1 testpit.

In 2012, Waru Consulting conducted an ethnographic and archaeological survey on land called Precinct 3 Stage 2. It was intended for this 16.7ha parcel of land to be subdivided and developed. No new archaeological sites were found during the archaeological survey.

Mattner, Bergin (2009) conducted an audit of 30 registered sites and 20 places situated on Perth Airport land. The field component of the audit found that many of the registered sites and heritage locations on WAC land have been totally destroyed by developments over the past decades.

Mattner, Chown, Bergin, Sanders (2007) surveyed land near the domestic terminal for a proposed link road. Ground visibility within the survey area was generally poor. No archaeological sites or material were discovered.

Mattner, Chown & Bergin (2007a) conducted an archaeological survey for infrastructure upgrades on land south of the main runway. The survey design consisted of purposive sampling of areas considered to be relatively undisturbed or where ground surface visibility was good. All firebreaks and tracks within the survey area were closely scrutinised. Two isolated artefacts were found in the course of the survey.

Mattner, Chown & Bergin (2007b) undertook a survey for a proposed car detailing facility situated immediately north of Grogan Road. No archaeological material or sites were discovered.

Quartermaine (2007a) conducted a site inventory program for archaeological sites situated within Perth Airport precincts 2A and 2B.

O'Reilly surveyed land for Aboriginal archaeological sites along a proposed extension of Abernethy Road through High Wycombe, on land bordering Perth Airport (O'Reilly, McIntyre & Dobson 2000). Visibility varied and was greatest on disturbed land such as eroded dunes and firebreaks. O'Reilly revisited the 4 individual artefact scatters that together constitute registered site #3888 "Munday Swamp: Poison Gully". O'Reilly noted that 3 of these were little changed since they were first discovered in 1970, however one scatter was no longer visible. He attributed this to the deflation of dunes.

Quartermaine (1999a) conducted a survey of land near the domestic terminal. No archaeological sites or artefactual material were found.

Quartermaine (1999b) undertook a survey for the proposed Cummins Motor Company development on land adjacent to Horrie Miller Drive near its intersection with Tonkin Highway. No archaeological material was found within the survey area.

Quartermaine (1996a) surveyed land for a proposed upgrade of the intersection of Tonkin Highway and Stanton Road. Disturbed land, such as on firebreaks, around roads and in cleared areas were targeted because they afforded greater visibility. No archaeological material was discovered within the survey area. The extent of the survey area is not clear from the report.

Quartermaine (1996b) undertook an archaeological survey for the redevelopment of the Forrestfield/Kewdale Railway Complex. This area is situated along the southern and eastern boundary of Perth Airport land. Visibility was good due to extensive clearing and disturbance to the land from previous industrial development. One artefact scatter was found during the course of the survey. However, Quartermaine was unable to find 2 previously recorded sites (#4033 "High Wycombe: Wittenoom Road" and #3172 "Sheffield/kurnall").

McDonald, Edwards, Gregory and Lantzke (1993) surveyed land along Bernley Drive in Viveash. Much of the land had been previously surveyed by McDonald and Murphy (1991). The land was extensively disturbed and covered in thick vegetation. No sites were found during the initial survey. As part of archaeological monitoring during the development phase, 2 artefact scatters and 6 isolated artefacts were discovered.

Murphy & McDonald (1989) surveyed land on the west and east sides of Horrie Miller Drive on land beside and northeast of Tonkin Highway. No new sites were discovered. Murphy could find no trace of several previously recorded sites, but discovered additional artefacts at other registered sites which had been the subject of total surface collection in the past.

Anderson (1984) surveyed land in the West Taxiway reserve. As a result of clearing, visibility in the survey area was good. During the course of the survey 6 artefacts were found sparsely scattered over an area 75m x 40m. Anderson identified the assemblage as a scatter within the previously recorded site #3884 "Sutherland Way A + B". Anderson explained that a total surface collection had been made in 1983 and that recent disturbance had brought more artefacts to the surface or had shifted artefacts from other surface scatters.

Hallam (1983) compiled a report on 42 sites found on land marked for the Perth Airport expansion. The study area is currently occupied by the International Terminal, Horrie Miller Drive and the Forrestfield Marshalling Yards. The report does not make clear the boundary of the surveyed area(s) or the technique used for finding the sites.

Strawbridge (1984) undertook excavations of sites #3933 "Munday Swamp" and scatters 2, 4, 5 of #3896 "Munday Swamp: Poison Gully". These sites are situated on the margins of Munday Swamp. It was found that scatters 4 and 5 of #3896 contain only a sparse amount of artefacts buried in deposits. On the other hand, Scatter 2 of #3896 produced a large number artefacts to a depth of 95cm. Artefacts were found as deep as 180cm in the excavations.

Strawbridge states that the original site may have extended no further than 20cm-30cm below the surface. It was also suggested that earth movement caused small artefacts to move deeper within the unconsolidated sandy soil. Nonetheless, Strawbridge identified 3 successive periods of occupation and abandonment of site #3933.

Anderson (1983a) conducted an archaeological survey ahead of construction of the International Terminal. No sites were discovered, but many previously registered sites were visited and re-assessed. Anderson found that archaeological sites in the area are generally situated near water sources such as swamps, creeks and drainage lines. Sites are also situated near highpoints and dunes. The majority of artefacts found were made of quartz, but examples made of fossiliferous chert and mylonites were also present. Artefact types in the assemblages included flakes, flaked pieces, chips, scrapers, adzes and blades. Anderson frequently recorded and collected additional artefactual material from the surface at sites subject to previous total collection.

Anderson (1983b) conducted a surface survey and excavations of sites near the International Terminal. The test-pits and extensive trenching indicated that the sites were generally superficial in nature. Anderson suggested the dynamic nature of the dune system of the Swan Coastal Plain caused artefacts that were originally distributed in stratified deposits to collect on the surface. Anderson also suggests there is the possibility of other scatters in stratified deposits that have not yet been exposed on the surface.

Brown (1982a) undertook a survey for the proposed Tonkin Highway on land bordering Perth Airport. The land had been heavily disturbed and areas affording high visibility were targeted during the survey. Brown found several archaeological places during the fieldwork. It was during this work that Brown rerecorded site #3326 "Bayswater 1-3".

Brown (1982b) conducted a survey for the proposed Tonkin Highway between Newburn Road (now disused) and Roe Highway on land bordering Perth Airport. The land had been heavily disturbed and areas of high visibility were more closely scrutinised. Three Aboriginal archaeological sites were found.

In 1975 the Western Australian Museum conducted a test excavation on a sand ridge near the current AHG driving centre on Grogan Road. The authors theorised the site represented several occupational events over a considerable period of time, but extensive disturbance of the ground meant their understanding of the site was limited.

The sites were typically found on disturbed ground, such as on firebreaks, near tracks, and in ploughed and cleared areas. Most sites were situated close to water sources (swamps, creeks and drainage lines) but numerous sites were situated on high points and dunes. Indeed, the largest sites were situated on a dune east of Munday Swamp. Typically the sites comprised one or more surface scatters. These scatters varied widely in extent and size. Quartz was the predominant rocktype used, but artefacts of dolerite, fossiliferous chert, silcrete, mylonite and glass were present. Artefacts types included flakes, flaked pieces, scrapers, backed blades, adzes, bipolar pieces, points, mullers and grindstones.

2.2 Archaeological Sites & Places in Region of Project Area

A search was conducted of the Register of Aboriginal Sites, via the on-line Aboriginal Heritage Inquiry Service (AHIS), maintained by the Department of Indigenous Affairs (DIA) of land within a 12km by 12km box centred on the Airport Rail Link project area. This determined that there are 20 registered archaeological sites and 29 archaeological places in the region.

Table 1: Site types within region of project area

No. of sites	Site Type
19	Artefact scatters
1	Modified Tree

Table 2: Heritage places within region of project area

No. of sites	Site Type
26	Artefact scatters
2	Modified trees
1	6 isolated artefacts

As the result of background research, sites of low archaeological potential and higher potential have been identified within the region of the project area.

The sites which possess a higher archaeological potential have generally not been impacted to a great extent by development. They are situated on the remains of sand dunes and therefore have a higher possibility of containing sub surface components and would warrant further scientific investigation.

The sites considered to be of low archaeological potential typically have been severely impacted from various types of development and construction works over the years.

The majority of the previously recorded archaeological sites and places are situated on relatively disturbed ground such as firebreaks and deflating dunes. Quartz is by far the most common lithic type for stone tools. Other lithic types include fossilific chert, silcrete, chert, dolerite and granite.

Stone tools are typically simple flakes, but formal tools such as scrapers and adzes are also commonly found in the area.

The areas of higher archaeological potential include those features or a portion of land surrounding those features. Sites are often near but not directly at water sources, especially where game was allowed access to the same water source or where insect pests (e.g. midges, mosquitos) made camping near the water uncomfortable. On this account, traditional camp sites might be expected to be several hundred metres (up to 500m) from a water source. Such camp sites will typically be on higher, well drained soil.

Features or indicators of areas with a higher potential to contain archaeological sites:

- Water courses – Particularly wetland areas such as Munday Swamp and minor drainage lines such as Poison Gully Creek.
- Sand dunes - These are seen in the most eastern part of the proposed Airport Rail Link project area and some are partially intact while some others have been extensively disturbed by ground works. There likely are sub-surface artefacts within these dunes, as well as a potential for other archaeological materials including charcoal and bone. In this case, it may be possible to date past Aboriginal occupation of the site.
- Relatively undisturbed land - Any areas which have not been destroyed as a result of development in recent years may have the potential to hold archaeological material. These relatively undisturbed areas are situated in the east of the project area between Abernethy Road and the international terminal.

2.3 Previous Ethnographic Surveys

Previous ethnographic surveys conducted in the vicinity of the project area over the past 25 years have recorded very few ethnographic sites. However, #3536 “Swan River” and #3719 “Munday Swamp” have been identified as highly significant sites to Noongar spokespersons. Previously, some historical camps and hunting grounds in the area were identified but were not considered significant enough by the Aboriginal Cultural Material Committee (ACMC) to warrant their registration as sites.

Concern has been regularly expressed by Aboriginal spokespersons that environmental features such as swamps and timbered areas be preserved so that native species such as turtles are protected. In some cases, the spokespersons have strongly objected to developments that threaten or may have damaged areas with ecological values.

In 2012, Waru Consulting conducted an ethnographic and archaeological survey on land at Precinct 3 Stage 2. It was intended for this 16.7ha parcel of land to be subdivided and developed. No ethnographic sites were newly found during the survey.

Mattner, Chown, Bergin & Sanders (2007) surveyed land near the domestic terminal for a proposed link road. No ethnographic sites were recorded in the survey area.

Mattner, Chown & Bergin (2007a) conducted an ethnographic survey for infrastructure upgrades on land south of the main runway. One previously registered ethnographic location (#3495 "Airport: Tonkin Highway Wullemara Spring") was re-recorded. This was an historical turtle hunting area.

Mattner, Chown & Bergin (2007b) undertook a survey for a proposed car detailing facility situated immediately north of Grogan Road. No sites were recorded within the survey area; however, there were differing opinions within the Aboriginal community as to the extent of registered site #3719 "Munday Swamp", which is situated to the northeast of that project area. There was some concern about possible environmental impacts on the wetland. The DIA later established that a Section 18 application was unnecessary, as the project area did not intersect the site.

Macintyre and Dobson (2000) conducted an ethnographic survey for an extension of Abernethy Road through High Wycombe to the Great Eastern Highway Bypass. The informants indicated that Munday Swamp is a major cultural and spiritually significant site and that no development should encroach on the site. Munday Swamp is still used as a hunting, collecting and medicine ground by Aboriginal people.

O'Connor (1997) conducted an ethnographic survey for the proposed upgrade of the intersection between Tonkin Highway and Stanton Street. It was found that areas used in historical times by Aboriginal people for temporary camping no longer existed. It was concluded they likely had been obliterated during construction of Tonkin Highway.

McDonald conducted an ethnographic survey that included areas east and west of the southern section of Horrie Miller Drive, adjacent to Tonkin Highway (McDonald & Murphy 1989). No ethnographically significant sites were identified. The informants told McDonald that there was a small swamp used for recreational turtle hunting east of the intersection of Hardy Road and Tonkin Highway. The Aboriginal representatives did not identify this swamp as ethnographically significant but requested that it be protected to conserve the turtle species. This is site #3495 "Airport: Tonkin Highway Wullemara Spring".

Anderson (1983) conducted an ethnographic survey of land that was to be impacted by the proposed international terminal at Perth Airport. The Indigenous informants told Anderson that Munday Swamp was used as a hunting ground for turtle, kangaroo and goanna. Other activities included collecting bark for paintings as well as reeds and timber. One informant told of how her mother spoke words in a native dialect to ensure turtles would be caught, and to avoid "trouble".

2.4 Aboriginal Spokespersons

If the PTA requires an ethnographic survey and/or Section 18 consultation to be undertaken then appropriate and knowledgeable Aboriginal spokespersons will need to be consulted. DIA's Aboriginal Heritage Due Diligence Guidelines suggest that the following people should be consulted:

- (a) Determined native title holders
- (b) registered native title claimants
- (c) persons named as informants on Aboriginal site recording forms held in the Register at DIA
- (d) any other Aboriginal people who can demonstrate relevant cultural knowledge in a particular area.

In addition, Perth Airport has established a Partnership Agreement with local Noongar representatives. As part of this agreement an Advisory Committee can put forward names of Aboriginal spokespersons to be consulted regarding heritage on Perth Airport land.

Aboriginal participants consulted during previous ethnographic surveys within the same area should also be considered.

3.0 DESKTOP ASSESSMENT

3.1 Registered Heritage Sites

A search was conducted of the Register of Aboriginal Sites, via the on-line Aboriginal Heritage Inquiry Service (AHIS), maintained by the Department of Indigenous Affairs (DIA). The search covered the proposed Airport Rail Link project area (i.e the area of the two alignments and a 200m buffer). As a result of the search it was found that 9 registered sites are purportedly situated within the project area. These 9 sites are protected under the provisions of the AHA. The 9 sites are listed in Table 3 and briefly described below. The distribution of the 9 registered sites is shown in Figure 3.

In addition to the 9 registered sites, 1 place (#25408 “Gobba Lake”) listed as ‘Lodged’ also purportedly intersects the project area (Table 3, Figure 3). Those sites or places listed as ‘Lodged’ may or may not constitute heritage sites covered by the provisions of the AHA because the ACMC is yet to consider whether these places/sites meet the criteria of s.5 and/or s.39 of the AHA.

Table 3: List of 9 registered sites and 1 lodged place purportedly within the project area.

DIA#	Site Name	Site Type
3326	BAYSWATER 1-3.	Artefact scatter
3520	MAYLANDS SCARRED TREE	Scarred tree
3872	AIRPORT: LEGHORN ROAD	Artefact scatter
3719*	MUNDAY SWAMP	Ceremonial, mythological artefact scatter
3935	AIRPORT: ZANTE ROAD A-D	Artefact scatter
4033	HIGH WYCOMBE: WITTENOOM RD	Artefact scatter
25023*	POISON GULLY CREEK	Ethnographic site
4408	NEWBURN: BINGHAM STREET	Artefact scatter
3536	SWAN RIVER	Mythological
Lodged Data		
24508	GOBBA LAKE	Historical

* listed as “Closed” on DIA register of Aboriginal sites

DIA# 3326 “Bayswater 1-3”

Type: Artefact scatter

Situation: Originally recorded by Hallam in 1972 on a north-south orientated dune approximately 500m in length. In 1982 much of the woodland had been cleared and the site was subjected to disturbance from erosion and deflation as well as vehicle and industrial activity.

Background: A total collection of surface artefacts was made in 1972. In 1982, Brown conducted an archaeological survey of the site and observed more surface artefacts in two concentrations each scattered over an area of 20m x 15m. It was believed that the artefacts were exposed due to the wind erosion of the dune on which was located and their presence indicated a possibility for sub surface artefacts and therefore warranted further investigation. Three test trenches were excavated at this site, positioned in areas

where the surface artefacts were at their densest. Artefacts were recorded at least 0.73m below the surface.

Assessment: The DIA polygon for #3326 is situated approximately 20m northeast of the proposed Airport Rail Link alignments. The DIA polygon probably reflects the original extent of the 500m dune plus a buffer area. A review of aerial photography shows that the dune originally containing the site has been totally destroyed due to the development of the Tonkin Highway in the mid-1980s. It is highly likely that the site is no longer extant.

It is recommended that an archaeological inspection is undertaken to confirm the current status of site #3326.

DIA#3719 "Munday Swamp"

Type: Ceremonial/mythological

Situation: Large wetland system and surrounding riparian vegetation situated approximately 750m east of the international terminal.

Background: In 1983 Anderson conducted an ethnographic survey; he was informed that #3719 "Munday Swamp" was used as a hunting ground for turtle, kangaroo and goanna. Other activities included collecting vegetation such as bark for paintings, reeds and timber. McDonald conducted an ethnographic survey in 1989, during this informants told him about a small swamp used for turtle hunting. In 1995, Machin conducted an ethnographic survey and an aboriginal informant Corrie Bodney identified "Munday Swamp" as a place of significance. It was said this site was an important ancient camping area, plant and animal food source and ceremonial and mythological ground. An ethnographical survey was conducted by Macintyre and Dobson in 2000, the informant indicated that "Munday Swamp" is a major cultural and spiritually significant site and that no development should occur encroach on this site.

In 2007 Mattner, Chown & Bergin undertook a survey for a proposed car detailing facility situated immediately north of Grogan Road. No sites were recorded within the survey area; however, there were differing opinions within the Aboriginal community as to the extent of registered site #3719 "Munday Swamp". There was also some concern about possible environmental impacts on the wetland. The DIA later established that a Section 18 application was unnecessary, as the project area did not intersect the site. The project area was situated approximately 100m south of the riparian vegetation that fringes the wetland.

Assessment: This is a highly significant ethnographic site and is listed on the DIA register of sites as 'closed' access. This means that information pertaining to the site is limited. It also means that the site is represented by a 'dithered' polygon which does not represent the actual boundary of the site.

The proposed Airport Rail Link alignments are situated approximately 80m south of the southern portion of the wetland. Considering the work undertaken previously by Mattner, Chown & Bergin it is probable that the proposed project will not impact the site boundary as the DIA understands it. However, Aboriginal spokespersons in previous consultations have expressed different understandings as to the extent of the site.

It is recommended that a consultation is undertaken with the relevant Aboriginal representatives in order to understand if the site is at risk from the proposed project. If project is determined to impact the site then a Section 18 Notice pursuant to the AHA should be made seeking consent "to use the land" containing the site.

DIA#3935 "Airport: Zante Road A-D"

Type: Artefact scatter.

Situation: Originally recorded on firebreaks approximately 120m to the north of the project area.

Background: This site was originally recorded by Thompson in 1979. It consisted of 5 concentrations of artefacts over a length of 450m. A total surface collection of approximately 188 artefacts was conducted at the time. These included scarpers, backed blades, utilises pieces, flakes and chips. Hallam (1983) recommended no further work, however Anderson (1983) recommended test pitting for sub surface artefacts at one of the artefact concentration (Area 5). All the surface artefacts at all the scatters were totally collected at this time. Quartermaine (1997) considered the site to be of low archaeological significance due to the size and number of artefacts and is typical to other artefact scatters within the region. Waru Consulting conducted an audit of this site in 2008. It found that scatters 1-4 had been severely impacted due to the construction of the security fence and firebreak and no surface artefacts were visible. Scatter 5 is believed to have been possibly destroyed by total surface collections and severe disturbance. But it was believed that there is a possibility for subsurface artefacts at all the scatters.

Assessment: Although these sites were originally recorded on disturbed ground, recent development has also greatly impacted on all the scatters within #3935 "Airport: Zante Road A-D" there is a possibility for subsurface artefacts are all scatters within this site.

The DIA polygon does not represent the previously recorded extent of the site. Site #3935 as originally recorded is situated approximately 100m north of the Airport Rail Link project area and approximately 300m north of PTA's proposed rail alignments and will not be impacted by the project.

DIA#4408 "Newburn; Bingham St"

Type: Artefact scatter.

Situation: Originally recorded 250m north of Grogan Road and 180m west of Dundas Road on sand exposures.

Background: This site was originally recorded by Hallam in 1974. It consisted of 3 concentrations of artefact within an area measuring 450m x250m. A total surface collection was conducted at one of the artefact concentrations which totalled 198 artefacts. A testpit was placed at the area where the artefacts were collected from which subsurface artefacts and charcoal was retrieved, one of which was a backed blade at a depth of 0.30m. Grinding material was also prevalent in the eastern extent of the site. Part of this site had been quarried away at the time of this recording. In 1997 Quartermaine surveyed the area, it was noted that the site had not been subject to any more disturbance since its original recording. The site was also considered to have low significance due to its size and assemblage and potential for a stratified deposit. It was also considered to be similar to other others recorded in the region. In 2008, Waru Consulting conducted an audit of "Newburn; Bingham St". It was found to have been greatly disturbed by the construction of the RAC Driving Centre, Abernethy Road and a new industrial estate either side of Abernethy Road. Ground visibility was non-existent throughout much of the area with only small patches of good to excellent ground visibility. One silcrete flake and approximately 100 quartz pieces that are possibly artefactual were found. It was also believed that although the site is partially destroyed

as a result of ground disturbance. It is highly likely that additional artefacts exist beneath thick vegetation or within subsurface deposits.

Assessment: Although this site was originally recorded in a disturbed environment through the quarrying of the sand dune and again in more recent years by further construction and development, there is still a high possibility for sub surface artefacts on the section of remnant dune between the RAC driving centre and the industrial development to the west of Abernethy Road.

The proposed Airport Rail Link alignments intersect the portion of remnant dune which may contain subsurface artefacts. If any ground disturbing work is proposed to be undertaken of land containing #4408 then a consultation with relevant spokespersons and Section 18 Notice pursuant to the AHA should be made seeking consent “to use the land” containing the site.

It is also recommended that an archaeological inspection and additional recording work is undertaken at this site to support a potential Section 18 Notice.

DIA#3872 “Airport: Leghorn Rd”

Type: Artefact scatter.

Situation: Originally recorded on a firebreak approximately 140m north of Grogan Road.

Background: This site was originally recorded by Anderson in 1983; it consisted of 3 quartz artefacts in a 1m x1m area, one of which was a steep scraper. All 3 artefacts were collected at the time of the original recording. Quartermaine returned to this site in 1997, it was found that this was no longer extant. In 2008, Waru Consulting conducted an inspection of this site, the land the site was previously situated on had been totally cleared and levelled.

Assessment: This site has been totally destroyed as a result of the artefact collection and the construction of a large building. Waru Consulting recommended in 2008 that #3872 “Airport: Leghorn Rd” no longer fulfils the definition of a site under section 5(a) of WA Aboriginal Heritage Act 1972.

Considering that #3872 was recorded approximately 130m south of the proposed Airport Rail Link alignments and has since been totally destroyed it will not be impacted by the proposed project.

DIA#4033 “High Wycombe: Wittenoom Rd”

Type: Artefact scatter.

Situation: Originally recorded on a sandy blowout in high dune system north of the intersection between Grogan Road and the now defunct Wittenoom Road. The location map provided in the original recording form and does not match with aerial photography taken around the time it was originally recorded.

Background: This site was originally recorded by Hallam and Glover in 1970, it measured 30m x20m with a varied assemblage of flakes, blades, scrapers, adze and chips. There were also 7 pieces of possible grinding material identified. The site was also largely under pasture and was not threatened by any new developments except for a new railway line and the new alignment of Wittenoom Rd. In 1983, when Hallam visited the hill to the west of the railway had been entirely quarried away leaving a concentration of artefacts close to railway. The grinding material had also been buried (however it was not stated in the

report if this was through environmental or industrial agents). The remaining concentrations of surface artefacts were collected.

Assessment: The location of this registered site is unclear. It is possible that the originally recorded boundary of this site extended north beyond the DIA polygon towards the proposed Airport Rail Link alignments.

Considering the severe disturbance to the land in this area as a result of road, rail and industrial developments it is likely that #4033 has been destroyed.

It is recommended that an archaeological inspection is undertaken to better understand the extent and current status of this site and if it will be impacted by the proposed project.

DIA#3520 "Maylands Scarred Tree"

Type: Scarred tree.

Situation: Situation on a tree in Claughton Reserve 230m to the northeast of Tonkin Highway.

Background: This site was originally recorded 1988 by Wallam and Reynolds of the DIA. The scar is situated on the northeast of the tree and measured 0.51m x 0.12m and the scar is 0.36m from the ground surface. The scar is oval in shape, there is a moderate regrowth around the scar edged and possible cut marks at the base of the scar.

Assessment: It is unknown if this tree is still standing. The DIA polygon is approximately 100m northeast of the proposed "tunnel alignment" and 170m northeast of the "current alignment". If the tree is correctly represented by the DIA polygon then the project will not impact this site.

It is recommended that an inspection is undertaken to confirm the location of the tree.

DIA#3536 "Swan River"

Type: Mythological.

Situation: The river passes through the project area at the Tonkin Highway crosses the river at Redcliffe Bridge.

Background: Numerous surveys have been conducted along the Swan River, Locke & Smith (1990) conducted an ethnographic survey for Aboriginal sites at proposed road crossings of the Swan River and Bennett Brook. The Indigenous informants identified both waterways as significant. The ethnographic surveys conducted in the Viveash and Caversham areas show that the waterways in the area are highly significant to the Aboriginal informants. Very few other ethnographic sites have been recorded in the vicinity.

Noongar society was organised around a system of inherited rights to land and resources, together with a set of obligations to family and clan, as well as to the land and its biota, the plants and animals. These rights and obligations were codified in myths, legends and stories of the creation and creator spirits that were transmitted orally and visually in art, dance, story and song. The Waugal, a mythical water serpent, was the main creator being for the Noongar. In its travels during the Dreaming, it shaped the landscape and created springs, rivers and lakes. Consequently, many of the waterways and wetlands in the region are considered to be sites of significance because of their connection to this creator being.

Assessment: The proposed Airport Rail Link alignments intersect this site. It is recommended that a consultation with the appropriate Aboriginal representatives is undertaken to establish if the proposed work will impact site #3535 "Swan River". If project is determined to impact the site then a Section 18 Notice pursuant to the AHA should be made seeking consent "to use the land" containing the site.

DIA#25023 "Poison Gully Creek"

Type: Mythological/ceremonial

Situation: A minor waterway which runs from the hills to the east through Forrestfield. The aboriginal informants stated in 2008 that the boundary for this site extends for 30m-50m on either side of the creeks back. The original path of the watercourse is heavily disrupted west of Dundas Road and now follows manufactured drainage ditches and culverts.

Background: The watercourse known as Poison Gully Creek was reported to be an ethnographic site in 1995, during a site survey by anthropologist Nick Green. According to Green's report, one group of Aboriginal informants from the Nyungar Circle of Elders identified the whole length of Poison Gully Creek as a site relating to 'women's business'. The informants reported the creek to be a significant ethnographic site, but apparently the site was not registered with the Department of Indigenous Affairs until 2008 when a consultation was conducted by Artefaxion Pty Ltd.

The 2008 consultation with senior Aboriginal women confirmed that the site had both mythological and historical significance. The Aboriginal women stated the entire length of Poison Gully Creek from Kalamunda to Munday Swamp had been a popular place to camp with plentiful supplies of good fresh water, jilgies and turtles.

The informants believed Poison Gully Creek had a significance for Aboriginal women as an area related to 'birthing'. The area was a good place for 'birthing' with access to water, food and red gum medicine. Traditional use of red gum medicine mixed with water was discussed, as was the use of ash and goanna oil on babies.

The Aboriginal women were concerned about the environmental impact on Munday Swamp due to the lack of flow into that wetland.

The extent and location of the "Poison Gully Creek" site was discussed with particular consideration given to the diversion of creek water on the west side of Dundas Road. They were definite and unanimous in stating the redirection of water flow did not alter the traditional mythological dreamtime course of the Waugal or the ancestral and historical path of the walking trail. The representatives explained these are unalterable and fixed in mythology and could not be changed by redirection of water or building development.

Assessment: This is a significant ethnographic site and is listed on the DIA register of sites as 'closed' access. This means that the site is represented by a 'dithered' polygon which does not represent the actual boundary of the site.

The proposed Airport Rail Link alignments are immediately adjacent to Poison Gully Creek where it meets Dundas Road. The proposed alignments also intersect both the redirected version of the creek as well as the original path of the creek.

It is highly likely that the proposed project poses a risk to site #25023, "Poison Gully Creek" and that a consultation should be undertaken with the appropriate Aboriginal representatives. If project is determined to impact the site then a Section 18 Notice

pursuant to the AHA should be made seeking consent “to use the land” containing the site.

DIA#24508 “Gobba Lake” (Lodged Data)

- Type: Historical
- Situation: Situated approximately 120m southwest of the Tonkin Highway and southwest of Wyatt Road in Bayswater.
- Background: This site was originally recorded by Australian Interaction Consultants in 2007. The IAEG, Bibbulmun and Ballaruk representatives identified this site as a water body which was fed from a freshwater spring. It was described as a vital water source in the past and as the location of a main ‘pad’ or track along which Aboriginal people travelled or camped.
- None of the representatives attributed a mythological or ceremonial component to Gobba Lake.
- Comments: #24508 is situated approximately 80m from the proposed “current alignment” of the proposed Airport Rail Link and 100m from the proposed “tunnel alignment”.
- Lodged place #24508, “Gobba Lake” will not be impacted by the proposed project. However, it should be identified and discussed during any consultation with Aboriginal spokespersons about the proposed project.

3.2 Previously Recorded Heritage Places

As a result of the search the Register of Aboriginal Sites, via the on-line AHIS, it was also found that 9 heritage places listed as ‘Stored Data’ are reportedly situated within the survey area. These places have been assessed by the ACMC as not meeting the criteria of a site under s.5 or s.39 of the AHA (Table 4). It is important to note that while they are not covered or protected by the provisions of the AHA some of these places may have cultural significance to local Aboriginal spokespersons.

Table 4: 9 registered heritage places within the project area

DIA #.	Site Name	Site Type
3616	KENMURE AVENUE, BAYSWATER.	Camp
3667	CRUMPET CREEK, FORRESTFIELD	Artefact scatter
3801	BELVIDERE STREET A + B.	Camp
3866	BREARLEY AVENUE	Artefact scatter
4002	AIRPORT: LUCERNE STREET.	Artefact scatter
4043	MATHIESON ROAD, REDCLIFFE	Artefact scatter
4090	WYATT ROAD, BAYSWATER	Artefact scatter
4094	AIRPORT: HARDEY ROAD	Artefact scatter
4095	MONEY STREET, REDCLIFFE	Artefact scatter

DIA#3616, "Kenmure Avenue, Bayswater" is listed as a camp and it also has purported mythological and watersource components listed, but this is the only other information available. It was recorded in 1985 by the Lockridge Camp Aboriginal Group. There is no information available on its current condition. Both proposed alignments intersect the DIA polygon for this place.

DIA#3667, "Crumpet Creek, Forrestfield" was identified as an artefact scatter containing 29 quartz artefacts located on a firebreak, the site was also impacted by vehicle tracks. This place has been incorrectly mapped by the DIA and is actually situated approximately 2km to the south on the margin of Crumpet Creek.

DIA# 3801, "Belvidere Street" was originally recorded by O'Connor in 1983 and is listed as a historical camp site. This has since been destroyed by the construction of the Tonkin Highway in the mid 1980s.

DIA#3866, "Brearley Avenue" was originally recorded by Thomson in 1979 and it contained 15 glass artefacts from a brown bottle that were collected at the time. In 2007 verification work was undertaken to relocate #3866. The likely location for this place was searched but no artefacts were found. It was concluded that the total surface collection removed and #3866 no longer exists.

DIA#4002, "Airport: Lucerne Street" was originally recorded in 1983 by Anderson and was listed as sparse artefact scatter of quartz in an area measuring 50m x 20m. A total surface collection of 52 artefacts occurred during recording. An audit of this place was conducted in 2008 and found that it had been totally destroyed as a result of total surface collections, severe ground disturbance and extensive development.

DIA#4043, "Mathieson Road, Bayswater" is described as an artefact scatter. In 1982 Brown recorded 2 quartz artefacts, but it had been disturbed due to its usage as a horse paddock. Construction of the Tonkin Highway would have destroyed this place which constitutes 2 isolated artefacts and not an artefact scatter.

DIA#4090, "Wyatt Road, Bayswater" was described as an artefact scatter. In 1982, Brown described the site as containing a single quartz bipolar which was partially embedded in clay with a shell fragment close by. There was also broken glass littering the ground. The DIA polygon for this place is situated immediately west of the proposed "current alignment". An archaeological inspection could be undertaken to confirm that #4090 has been totally destroyed and that there is negligible potential for subsurface artefacts.

DIA#4094, "Airport: Hardey Road" was originally recorded in 1979. It was listed as containing historical artefacts. A total surface collection was made at the time. A single quartz flake was identified when Brown revisited the site in 1982. This place was audited in 2008 and found to have been destroyed as a result of a total surface collection and ground disturbance. This place has been incorrectly mapped by the DIA and was originally recorded 3km south of the project area.

DIA#4095, "Money Street, Redcliffe", was identified as an artefact scatter on a small sandy area. Brown revisited the site in 1982 and identified a single quartz chip on an area of yellow/grey sand. #4095 has been totally destroyed as a result of the Tonkin Highway construction.

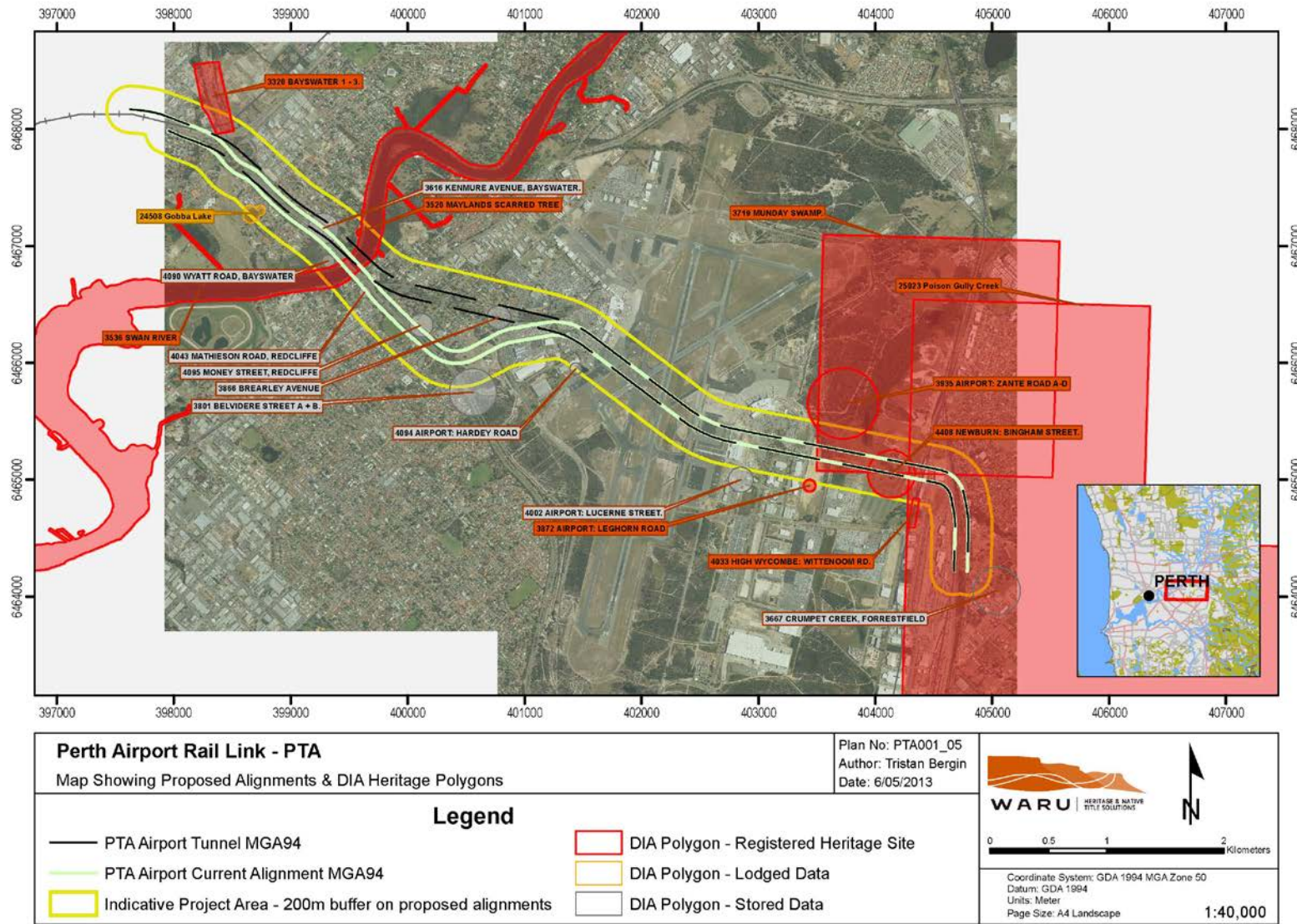


Figure 3: Map showing proposed rail alignments & DIA heritage polygons

4.0 DISCUSSION

4.1 Conclusion

A search of the Register of Aboriginal Sites, via the on-line Aboriginal Heritage Inquiry Service established that 9 previously registered Aboriginal heritage sites purportedly intersect the project area.

As a result of a desktop study of these 9 previously recorded heritage sites it was found that the proposed Airport Rail Link poses a risk to 1 registered archaeological site #4408 "Newburn; Bingham St". In addition, the proposed project potentially poses a risk to 3 registered ethnographic sites, namely: #3719, "Munday Swamp", #3536, "Swan River" and #25023, "Poison Gully Creek".

The desktop study also found that 3 other previously recorded archaeological sites are situated in the vicinity of the proposed rail alignments (#3326 "Bayswater 1-3", #4033 "High Wycombe: Wittenoom Rd" and #3520 "Maylands Scarred Tree"). Archaeological fieldwork is required at these 3 places to establish their current status and extent.

A review of #3872 "Airport: Leghorn Rd" found that it was previously recorded approximately 130m south of the proposed Airport Rail Link alignments and has been previously destroyed as a result of land clearing for development.

A review of #3935 "Airport: Zante Road A-D" found that it is situated 120m north of the project area and is not at risk from the project.

In addition to the registered heritage sites, 1 place (#4508 "Gobba Lake") which is listed as 'lodged data' is situated in the vicinity of the proposed Airport Rail Link alignments. While the proposed project does not intersect this place it should be discussed during consultations with the appropriate Aboriginal representatives.

A review of the 9 places listed as 'Stored Data' that are reportedly situated within the project area found that 2 had been incorrectly mapped and most have been totally destroyed as a result of land clearing and development such as the construction of Tonkin Highway. It is important to note that these places have been assessed by the ACMC as not meeting the criteria of a heritage site under s.5 or s.39 of the AHA.

The review of the 9 'Stored Data' places found that further work may be warranted at 2 of the places. Historical camp #3616, "Kenmure Avenue, Bayswater" purportedly intersected by the proposed Airport Rail Link alignments. Although this place is not covered by the provisions of the AHA it may still possess cultural significance to local Aboriginal spokespersons and should be included in the consultation process.

In addition archaeological place DIA#4090, "Wyatt Road, Bayswater" is situated immediately west of the proposed "current alignment". An archaeological inspection could be undertaken to confirm that #4090 has been totally destroyed and to assess if there is potential for sub-surface artefacts

The impact to archaeological sites within the project area will be determined by how the proposed Airport Rail Link is to be constructed. If the proposed rail is to be constructed as an underground tunnel with minimal surface disturbance the project may avoid impact to any archaeological sites.

4.2 Recommendations

Recommendation 1

An ethnographic survey is undertaken with the appropriate Aboriginal spokespersons to establish if any previously unrecorded ethnographic sites are situated within the project area. Consultations can be undertaken at the same time to establish if the proposed project will disturb the 3 registered ethnographic sites (#3719, "Munday Swamp", #3536, "Swan River" and #25023, "Poison Gully Creek") and 1 historical camp #3616, "Kenmure Avenue, Bayswater". A Section 18 application under the *WA Aboriginal Heritage Act 1972* may or may not be required for these places and this should be discussed as part of the consultations.

The consultations should also seek to record the opinions of the Aboriginal spokespersons regarding #4408 "Newburn; Bingham St" which may be at risk from the proposed development.

Recommendation 2

Site #4408 "Newburn; Bingham St" is situated within the proposed project area. If this site is to be impacted, or might be impacted, then an application will need to be made under Section 18 of the *WA Aboriginal Heritage Act 1972*.

Recommendation 3

An archaeological inspection is required of those portions of land within the project area which have not been totally cleared and developed. These areas include the margins of the Swan River as well as the land to the east of the international terminal. The purpose of the inspection will be to establish if any previously unrecorded archaeological material is situated in the project area and to assess the likelihood for subsurface archaeological material.

Recommendation 4

Archaeological verification work is undertaken to confirm the status and extent of the following 4 registered sites, #4408 "Newburn; Bingham St", #3326 "Bayswater 1-3", #4033 "High Wycombe: Wittenoom Rd", #3520 "Maylands Scarred Tree" and 1 location #4090, "Wyatt Road, Bayswater". Additional recording should be undertaken at #4408 to support a Section 18 application.

Recommendation 5

If any Aboriginal heritage site is at risk from disturbance an application to the Registrar of Aboriginal Sites under Section 18 of the *WA Aboriginal Heritage Act 1972* for consent to use the land required for the proposed project.

Recommendation 6

The project owner is to take adequate measures to inform all personnel and contractors of their responsibilities and obligations to protect Aboriginal heritage sites under the *WA Aboriginal Heritage Act 1972*.

5.0 REFERENCES

- Anderson, S. 1983a Survey for Aboriginal sites in the proposed International Terminal Complex Area, Perth Airport, Western Australia.
- Anderson, S. 1983b Test Pits and Supplementary Survey at Perth Airport, Western Australia.
- Anderson, S. 1984 Survey for Aboriginal sites in the West Taxiway Reserve, Perth Airport, Western Australia.
- Beard, J. 1981 Swan: Vegetation Survey of Western Australia. University of Western Australia Press, Perth.
- Bowdler, S. 1981 Unconsidered trifles? Australian Archaeology 12: 123-133.
- Bowdler, S. 1984 Archaeological significance as a mutable quantity. In S. Sullivan and S. Bowdler (eds) Site Survey and Significance Assessment in Australian Archaeology. pp. 1-9. Research School of Pacific Studies, A.N.U., Canberra.
- Bowdler, S., Strawbridge, L., & Schwede, M. 1991 Archaeological mitigation in the Perth metropolitan region. Australian Archaeology, 32: 21-25.
- Brown, S. 1982a Beechboro-Gosnells Hwy. Leach Hwy to Great Eastern Hwy, A Survey For Aboriginal Sites. Prepared for Department of Main Roads.
- Brown, S. 1982b Beechboro-Gosnells C.A.H Newburn Road to Roe Highway (Forrestfield Railway Bridges) a survey for Aboriginal sites. Prepared for Main Roads Department.
- Hallam, S. 1983 The Perth Airport Extension, 1983. Preliminary report on prehistoric Aboriginal sites.
- Coutts, P. 1982 Management of the Aboriginal cultural heritage in Victoria. In P. Coutts (ed.) Cultural Resource Management in Victoria 1979-1981. Records of the Victorian Archaeological Survey #13: 85-114.
- Dortch, 2011 Report of an archaeological survey for proposed parking areas, Perth Aiport, Western Australia.
- Macintyre Dobson & Associates Pty. Ltd. 2000 Report on an ethnographic and archaeological survey of the two sections of the Abernethy Road Extension Project, High Wycombe. Prepared for the Shire of Kalamunda.
- Mattner & Bergin , 2008 Audit of known aboriginal heritage at Perth airport
- Mattner, J., Chown, B., Bergin, T, 2007a Aboriginal heritage survey & section 18 consultations for proposed for Southern Infrastructure Project Areas, Perth Airport. Prepared for Westralia Airports Corporation
- Mattner, J., Chown, B., Bergin, T, 2007b Aboriginal heritage survey & section 18 consultations for proposed for proposed vehicle processing facility, Grogan Road, Perth Airport. Prepared for Westralia Airports Corporation
- McDonald, E. & Murphy, A. 1989 Survey for Aboriginal sites in areas proposed for development, Perth Airport, Western Australia. Prepared for the Federal Airports Corporation.
- O'Connor, R. 1997 Report on an ethnographic study of the Tonkin Highway/Stanton Road Interchange. Prepared for Halpern Glick Maunsell Pty. Ltd.
- Quartermaine, G. 2007a Report on an Archaeological Site Inventory Programme Munday Swamp Section Perth Airport. Prepared for Westralia Airports Corporation
- Quartermaine, G. 2007b Report on an archaeological site assessment of DIA ID 4381 Vale Road, Hazelmere. Prepared for Westralia Airports Corporation.
- Quartermaine, G. 1999a Report on an archaeological investigation for Aboriginal sites Perth Airport redevelopment Henderson Avenue, Perth Airport Precinct. Prepared for Westralia Airports Corporation.
- Quartermaine, G. 1999b Report on an archaeological investigation of Aboriginal sites Perth Airport Redevelopment Cummins Motor Company Inc Site Perth Airport Precinct. Prepared for Westralia Airports Corporation.
- Quartermaine, G. 1997 Report on an archaeological investigation of Aboriginal sites Perth Airport Planning Strategy. Prepared for Westralia Airports Corporation.

- Quartermaine, G. 1996a Report on an archaeological survey for Aboriginal sites Tonkin Highway/Stanton Road Interchange, Redcliffe. Prepared for Halpern Glick Maunsell
- Quartermaine, G. 1996b Report on an archaeological survey for Aboriginal sites Forrestfield/Kewdale Lands Study. Prepared for BSD Consultants.
- Raab, L. & Klinger, T. 1977 A critical appraisal of 'significance' in contract archaeology. *American Antiquity* 42: 629-634.
- Renfrew, C. & Bahn, P. 1991 *Archaeology: theories, methods and practice*. Thames and Hudson, London.
- Schwede, M. 1990 *Quartz, the multifaceted stone: a regional prehistory of the Helena River Valley on the Swan Coastal Plain of Southwestern Australia*. Unpublished PhD thesis, U.W.A., Perth.
- Strawbridge L. 1988 *Aboriginal sites in the Perth Metropolitan Area: a management scheme*. Prepared for Department of Aboriginal Sites, Perth.
- W.A. Museum 1975 *Report on archaeological investigations at Bingham Road, Forrestfield, Perth, Western Australia*.
- Waru Consulting , 2013 Preliminary results of test excavations at sites #4381 & #17502, high wycombe, & record of s.18 consultations
- Waru Consulting , 2012 Aboriginal heritage survey & section 18 consultations for precinct 3 stage 2 subdivisionperth airport

APPENDICES

APPENDIX 1

OBLIGATIONS RELATING TO SITES UNDER THE WA ABORIGINAL HERITAGE ACT 1972

5. Application to places

This Act applies to -

- (a) any place of importance and significance where persons of Aboriginal descent have, or appear to have, left any object, natural or artificial, used for, or made or adapted for use for, any purpose connected with the traditional cultural life of the Aboriginal people, past or present;
- (b) any sacred, ritual or ceremonial site, which is of importance and special significance to persons of Aboriginal descent;
- (c) any place which, in the opinion of the Committee, is or was associated with the Aboriginal people and which is of historical, anthropological, archaeological or ethnographical interest and should be preserved because of its importance and significance to the cultural heritage of the State;
- (d) any place where objects to which this Act applies are traditionally stored, or to which, under the provisions of this Act, such objects have been taken or removed.

15. Report of findings

Any person who has knowledge of the existence of any thing in the nature of Aboriginal burial grounds, symbols or objects of sacred, ritual or ceremonial significance, cave or rock paintings or engravings, stone structures or arranged stones, carved trees, or of any other place or thing to which this Act applies or to which this Act might reasonably be suspected to apply shall report its existence to the Registrar, or to a police officer, unless he has reasonable cause to believe the existence of the thing or place in question to be already known to the Registrar.

16. Excavation of Aboriginal sites

- (1) Subject to section 18, the right to excavate or to remove any thing from an Aboriginal site is reserved to the Registrar.
- (2) The Registrar, on the advice of the Committee, may authorise the entry upon and excavation of an Aboriginal site and the examination or removal of any thing on or under the site in such manner and subject to such conditions as the Committee may advise.

17. Offences relating to Aboriginal sites

A person who -

- (a) excavates, destroys, damages, conceals or in any way alters any Aboriginal site; or
- (b) in any way alters, damages, removes, destroys, conceals, or who deals with in a manner not sanctioned by relevant custom, or assumes the possession, custody or control of, any object on or under an Aboriginal site,

commits an offence unless he is acting with the authorisation of the Registrar under section 16 or the consent of the Minister under section 18.

18. Consent to certain uses

- (1) For the purposes of this section, the owner of any land includes a lessee from the Crown, and the holder of any mining tenement or mining privilege, or of any right or privilege under the *Petroleum Act 1967*, in relation to the land.

(1a) A person is also included as an owner of land for the purposes of this section if -

(a) the person -

(i) is the holder of rights conferred under section 34 of the *Dampier to Bunbury Pipeline Act 1997* in respect of the land or is the holder's nominee approved under section 34(3) of that Act; or

(ii) has authority under section 7 of the *Petroleum Pipelines Act 1969* to enter upon the land;

or

(b) the person is the holder of a distribution licence under Part 2A of the *Energy Coordination Act 1994* as a result of which the person has rights or powers in respect of the land.

(2) Where the owner of any land gives to the Committee notice in writing that he requires to use the land for a purpose which, unless the Minister gives his consent under this section, would be likely to result in a breach of section 17 in respect of any Aboriginal site that might be on the land, the Committee shall, as soon as it is reasonably able, form an opinion as to whether there is any Aboriginal site on the land, evaluate the importance and significance of any such site, and submit the notice to the Minister together with its recommendation in writing as to whether or not the Minister should consent to the use of the land for that purpose, and, where applicable, the extent to which and the conditions upon which his consent should be given.

(3) Where the Committee submits a notice to the Minister under subsection (2) he shall consider its recommendation and having regard to the general interest of the community shall either -

(a) consent to the use of the land the subject of the notice, or a specified part of the land, for the purpose required, subject to such conditions, if any, as he may specify; or

(b) wholly decline to consent to the use of the land the subject of the notice for the purpose required,

and shall forthwith inform the owner in writing of his decision.

(4) Where the owner of any land has given to the Committee notice pursuant to subsection (2) and the Committee has not submitted it with its recommendation to the Minister in accordance with that subsection the Minister may require the Committee to do so within a specified time, or may require the Committee to take such other action as the Minister considers necessary in order to expedite the matter, and the Committee shall comply with any such requirement.

(5) Where the owner of any land is aggrieved by a decision of the Minister made under subsection (3) he may apply to the State Administrative Tribunal for a review of the decision.

[(6) repealed]

(7) Where the owner of any land gives notice to the Committee under subsection (2), the Committee may, if it is satisfied that it is practicable to do so, direct the removal of any object to which this Act applies from the land to a place of safe custody.

(8) Where consent has been given under this section to a person to use any land for a particular purpose nothing done by or on behalf of that person pursuant to, and in accordance with any conditions attached to, the consent constitutes an offence against this Act.

14 August 2013

Mr Paul Monaghan
Environmental Officer
Infrastructure Planning & Land Services
Public Transport Authority

Paul.Monaghan@pta.wa.gov.au

Dear Paul

Additional Archaeological Verification of DAA Site #4408 “Newburn: Bingham St”

In May 2013, Waru Consulting Pty Ltd (Waru) undertook a desktop review for the Public Transport Authority (PTA) to identify any heritage sites which may be located within the proposed Airport Rail Link project. On 17 June 2013 Waru conducted an inspection and verification of sites identified during the desktop review.

During the verification work DAA Site #4408 “Newburn: Bingham St” (#4408) was located and found to be partially intact and likely to contain sub-surface artefactual material. As a result, it was determined that the remaining part of the original #4408 would be likely to meet s5 of the *Aboriginal Heritage Act 1972* (AHA).

Subsequently, the PTA received advice from Perth Airport Proprietary Limited that there may be additional material still extant within the original site boundary despite the extensive historical disturbance which has occurred in that part of the original site boundary. To determine if there was any further material still in situ in these areas an additional site inspection and verification for #4408 was conducted by Waru on 29 July 2013.

Background

The site was originally recorded in 1974. At the time of recording, the site was comprised of 3 discrete artefact scatters. The DAA polygon for site #4408 is a circle with a 400m diameter. The polygon does not accurately reflect the original recorded boundary of the site. The DAA records do not provide any explanation as to how the polygon boundary was determined.

Using the original 1974 site sketches it was possible to identify the indicative location and extent of the 3 artefact scatters. The boundaries were then geo-referenced and overlaid on aerial photography taken in 1974 and 2012 (Figures 1 & 2 respectively). The DAA polygon for the site boundary is shown in Figure 2

Based on the 2012 aerial photograph, it appeared likely that ‘Scatter 3’ would have been completely destroyed during the construction of the RAC Driving Centre track. The land containing ‘Scatters 1 and 2’ also appeared, from the photo, to have been significantly disturbed as a result of earth moving and development in the past.

On Ground Verification

On 17 June 2013, Waru conducted an on-ground verification of the site. All the land previously identified as containing #4408 and outside of the RAC Driving Centre was thoroughly inspected as a result of systematic transects and purposive searches of areas of high ground surface visibility (such as vehicle tracks and dune

deflations). No fieldwork was undertaken within the RAC Driving Centre as it was determined that Scatters 1 and 3 would have been completely destroyed as a result of the historical works and disturbance within the area.

As a result of the verification work, it was found that a small part of the original site remains within a portion of remnant dune adjacent to Abernethy Road and east of the RAC Driving Centre. This is consistent with the original recording of the dune as Scatter 2. The refined indicative boundary for #4408 is shown in Figure 3. It is considered that there is high potential for sub-surface archaeological material within the remaining portion of the sand dune.

Additional Inspection

On 29 July 2013 a further inspection was undertaken by Waru for purported archaeological material within the 4WD course at the RAC Driving Centre on Grogan Road. Thick vegetation, hard stand areas and roads obscured ground visibility over much of the land however, areas with any ground surface visibility were inspected and purposive searches were made of areas of high ground surface visibility (such as sandy vehicle tracks and scalds).

As a result of the inspection, several quartz artefacts and an estimated 100 pieces of additional quartz material, that are possibly artefactual, were found on sand exposures within cuttings through a cluster of mounds. Several possible artefactual pieces were also found on tracks surrounding the mounds. The area in which the artefacts and potential artefacts were found was identified in the original 1974 recording as Scatter 1.

The topography of the mounds is uneven and the highest points are approximately 3-5m above the surrounding land. The mounds extend in a loose circle with an approximate diameter of 100m. The maps from the original recording show that this area was situated on the margin of an extensive sand quarry. Historical imagery shows that a house, fences and associated outbuildings had been constructed on the southern side of the mounds and were present as late as 1974. Currently the mounds form part of the RAC Driving Centre's 4WD course.

During the inspection rubbish and building debris was found eroding from cuttings more than 1.5m below the current surface level (Photo 1). This suggests that when the buildings were demolished the rubble formed part of the mounds. Additionally, layers of laterite pebbles and clays are present at depth within the mounds (Photo 2). These rock and clays would not be present within a naturally formed aeolian dune. Based on the combined evidence present in the area of the mounds it is likely that the mounds have been artificially constructed.

The extent of severe disturbance in the area means that the artefacts present have been uplifted, churned or transported from their original context. The cause of the disturbance is known to have included land clearing, stock grazing, track construction, excavation, demolition, dumping and erosion.

As a result of the inspection it has been determined that this part of #4408, previously identified as Scatter 1, has been completely destroyed and no longer meets the definition of a site under s5 of the *Aboriginal Heritage Act 1972*(AHA).

Conclusion

As a result of the 2 field inspections in June and July 2013 by Waru archaeologists, it is concluded that site #4408 "Newburn: Bingham St" has in most part been destroyed as a result of historical disturbance.

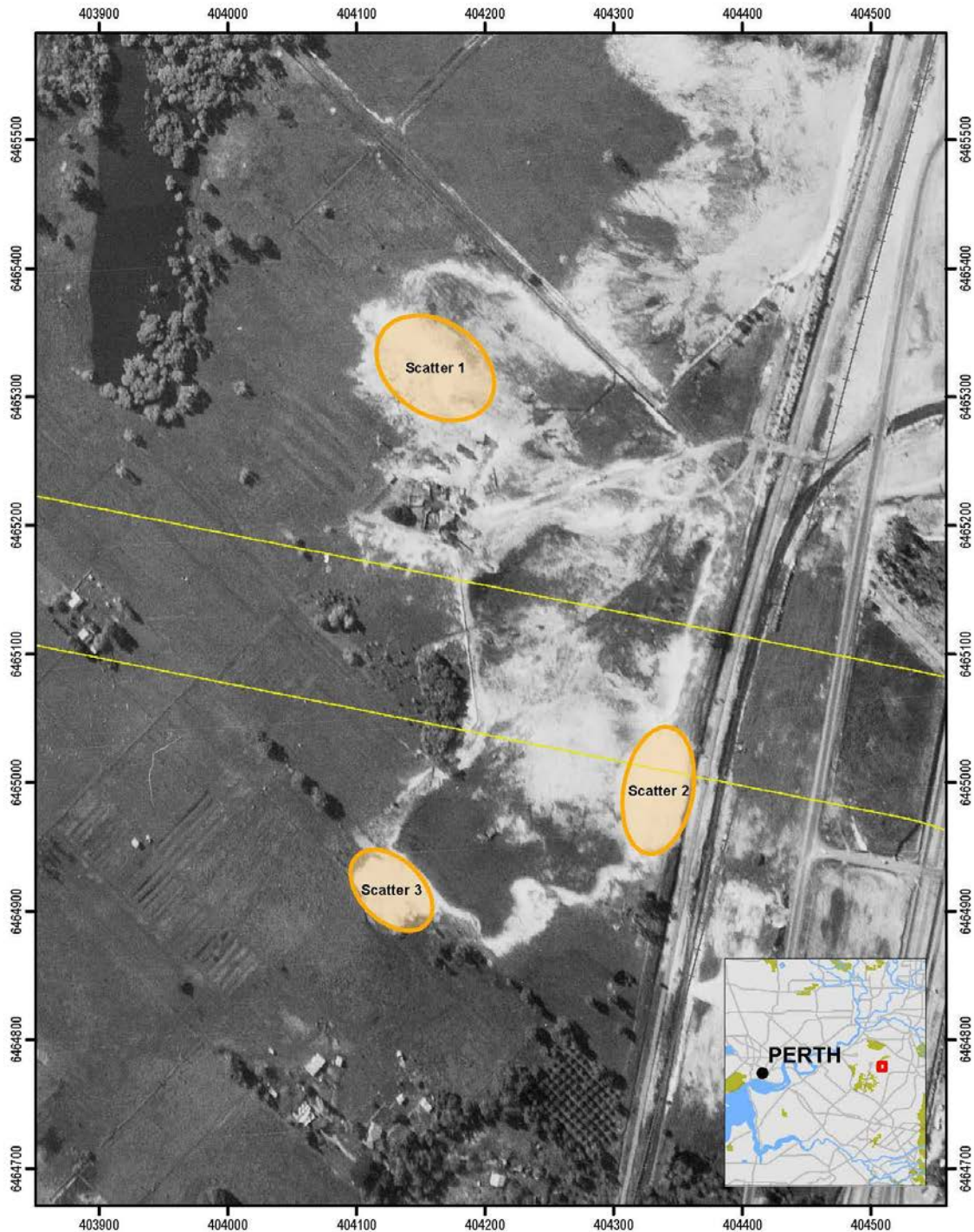
A small part of the original site however, remains within a stretch of remnant dune adjacent to Abernethy Road and east of the RAC Driving Centre as shown in Figure 3. This small part is likely to meet the definition





of a site under s5 of the AHA. The assessment as to whether or not this part of the original site would meet s5 of the AHA can only be confirmed however, by undertaking test excavations to establish and characterise the integrity and nature of any sub-surface cultural material which may remain in situ.

Please do not hesitate to contact me should you require any further information or to discuss the findings.

Yours faithfully

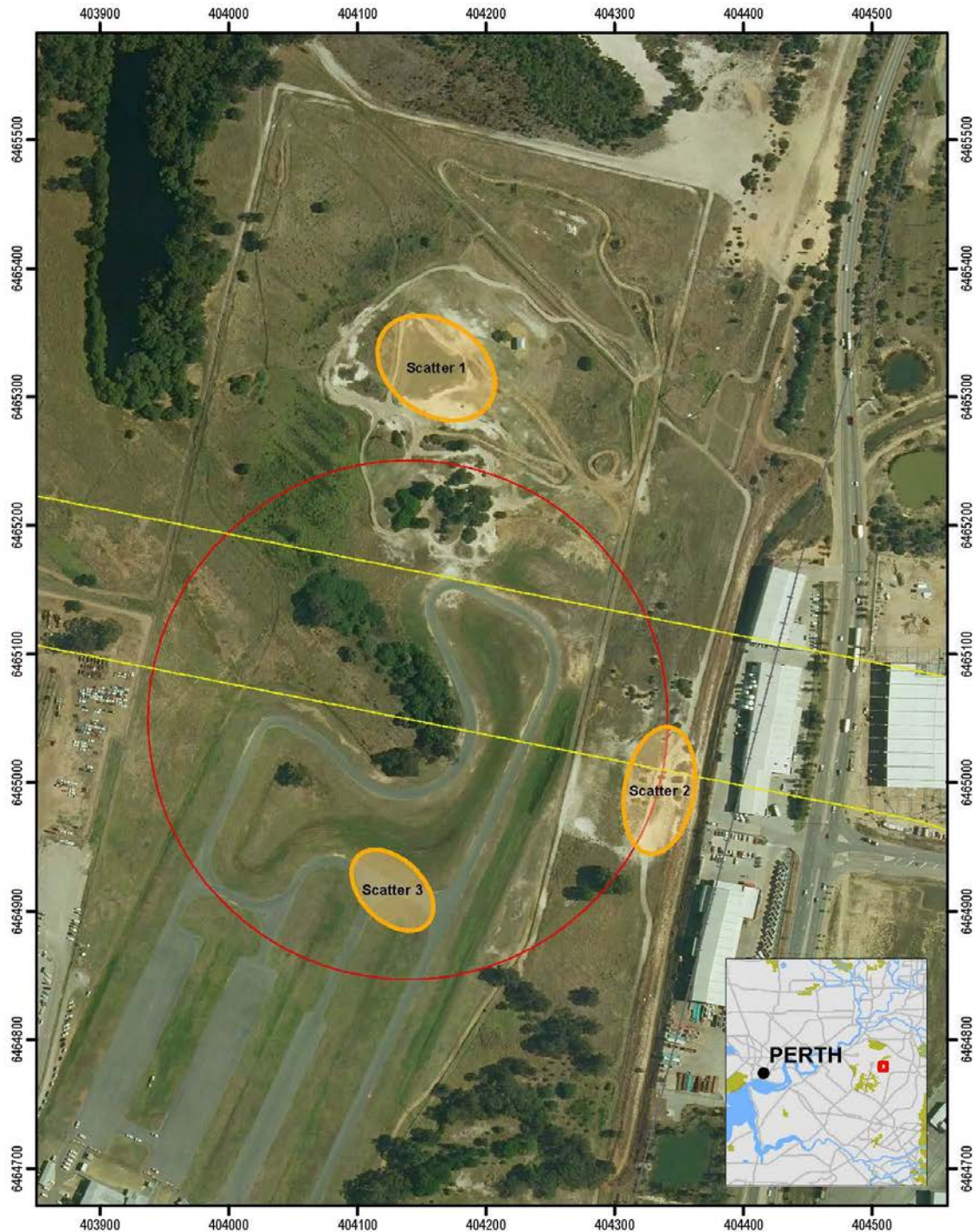
Tristan Bergin



#4408 "Newburn: Bingham Street" Original 1974 Recording & 1974 Aerial Photo		Plan No: PTA001_18 Author: Tristan Bergin Date: 7/08/2013	  0 50 100 200 Meters
Legend  #4408 "Newburn: Bingham Street" Artefact Scatters (Indicative)  Proposed Airport Rail Link Alignment		Coordinate System: GDA, 1994 MGA, Zone 50 Datum: GDA 1994 Units: Meter Page Size: A4 Portrait	

Name: PTA001_18_4408_1974_ortho_REVA

Figure 1: map showing 3 scatters as originally recorded and 1974 aerial photo








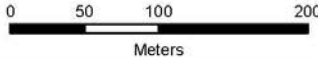
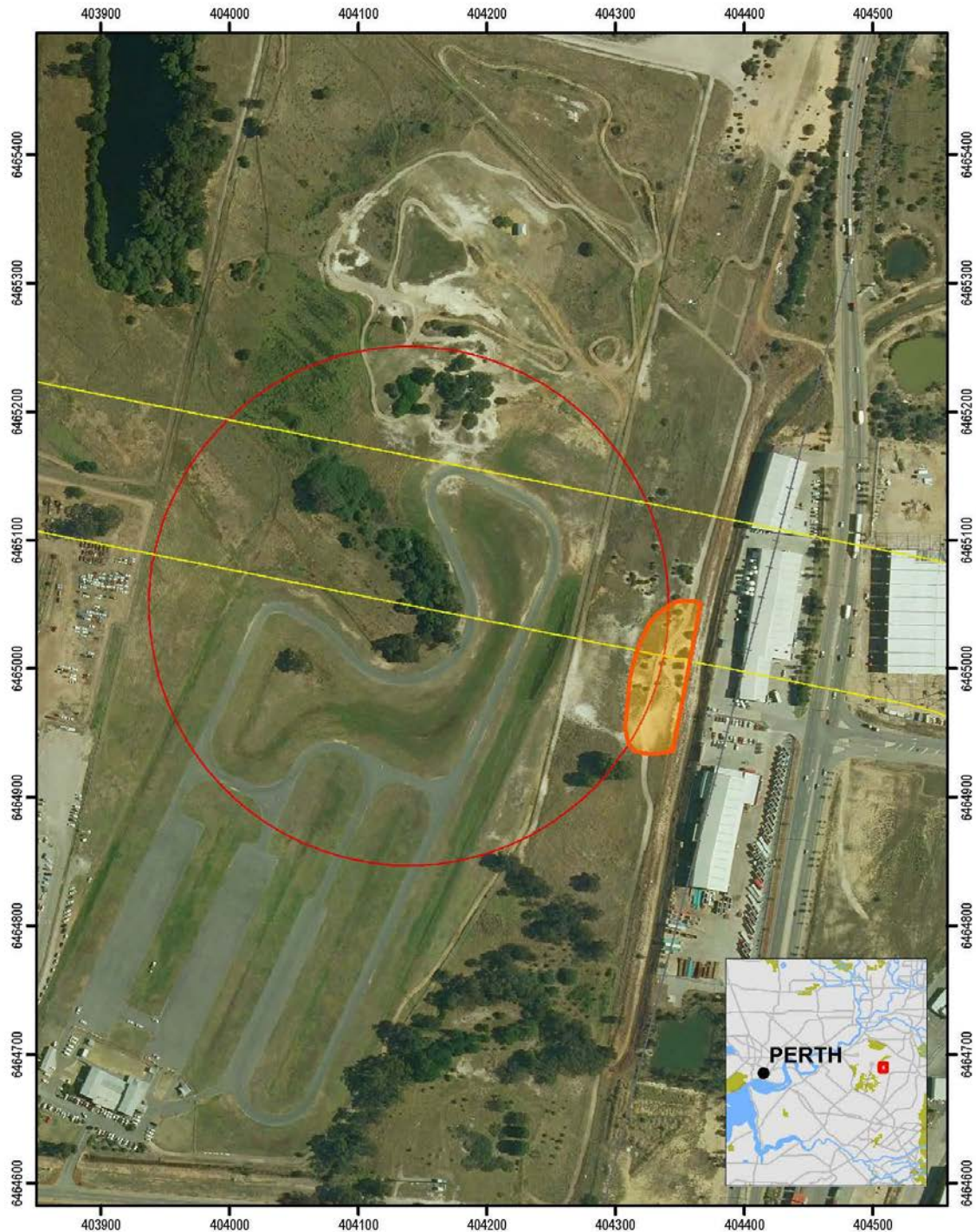



#4408 "Newburn: Bingham Street" Original 1974 Recording & 2012 Aerial Photo		Plan No: PTA001_19 Author: Tristan Bergin Date: 7/08/2013	 
Legend  #4408 "Newburn: Bingham Street" Artefact Scatters (Indicative)  Proposed Airport Rail Link Alignment  DAA Polygon #4408 "Newburn: Bingham Street"			
Name: PTA001_19_4408_2012_ortho_REVA			Coordinate System: GDA 1994 MGA Zone 50 Datum: GDA 1994 Units: Meter Page Size: A4 Portrait 1:4,000

Figure 2: map showing 3 scatters as originally recorded and 2012 aerial photo



#4408 "Newburn: Bingham Street" Results of Archaeological Verification Work 2013		Plan No: PTA001_20 Author: Tristan Bergin Date: 7/08/2013	 
Legend			
	Verified Boundary #4408 (Indicative) i.e Remnant Dune	Coordinate System: GDA 1994 MGA Zone 50 Datum: GDA 1994 Units: Meter Page Size: A4 Portrait	
	Proposed Airport Rail Link Alignment	1:4,000	
	DAA Polygon #4408 "Newburn: Bingham Street"		

Name: PTA001_20_4408_2013_verification_REVA

Figure 3: map showing results of archaeological verification work 2013



Photo 1: rubble & rubbish at depth in artificially created mound



Photo 2: layer of laterite pebble and clay within mound

4th September 2013

Mr Paul Monaghan
Environmental Officer
Infrastructure Planning & Land Services
Public Transport Authority
Paul.Monaghan@pta.wa.gov.au

Dear Paul

Desktop Aboriginal Heritage Review “Gap Analysis” for Proposed Airport Rail Link

The Public Transport Authority (PTA) proposes to construct the Airport Rail Link which will join the existing Perth – Midland rail line in Bayswater to the domestic and international terminals at Perth Airport. GHD Pty Ltd (GHD) commissioned Waru Consulting Pty Ltd (Waru) to undertake an Aboriginal heritage desktop review for PTA’s proposed project. The results of that desktop study are presented in the report entitled *Desktop Aboriginal Heritage Review for the Proposed Airport Rail Link* by E. Larkin & T. Bergin.

In July 2013 PTA requested that an Aboriginal heritage desktop review was undertaken over 3 additional parcels of land potentially required for the Airport Rail Link project. The purpose of the desktop review is to identify those heritage sites and places that may be at risk from the proposed project and to provide suitable management recommendations. This letter is an account of that review.

Methodology

A search was conducted of the Register of Aboriginal Sites, via the on-line Aboriginal Heritage Inquiry Service (AHIS), maintained by the Department of Aboriginal Affairs (DAA). The search covered the 3 proposed parcels of land.

In addition research was undertaken of the relevant site files and previous survey reports held by Waru and DAA. The results of this work are presented below.

Area 1 – Results

Area 1 comprises approximately 0.02sqkm of land situated north of Railway Parade and between Clavering Road and Tonkin Highway in Bayswater (Figure 1). A review of historical aerial photography held by Landgate shows that land in this area has been severely disturbed as a result of land clearing, industrial development and the construction of the Tonkin Highway.

As a result of the search of the AHIS a single registered site polygon intersects Area 1, this is (DAA ID) #3326 “Bayswater 1-3” (Figure 1).

#3326 "Bayswater 1-3" was an artefact scatter originally recorded in 1972 on a north-south orientated dune. A total collection of surface artefacts was made in 1972. Three test trenches were later excavated at this site which recovered several subsurface artefacts.

The DAA polygon for #3326 probably reflects the original extent of the dune plus a buffer area. A review of aerial photography clearly shows that the dune originally containing the site has been totally destroyed due to the development of the Tonkin Highway in the mid-1980s.

Archaeological verification work undertaken by Waru for PTA on 17th June 2013 could not find #3326 "Bayswater 1-3". The verification work concluded that #3326 has been totally destroyed as a result of severe disturbance.

In addition to registered site #3326 "Bayswater 1-3" the search of the AHIS found that 1 heritage place listed as 'stored data' is reportedly situated within Area 1 namely, #3749 "Bayswater Camp 1" (Figure 1). This place has been assessed by the ACMC as not meeting the criteria of a site under s5 or s39 of the AHA. It is important to note that while this place is not covered or protected by the provisions of the AHA it may have significance to local Aboriginal spokespersons.

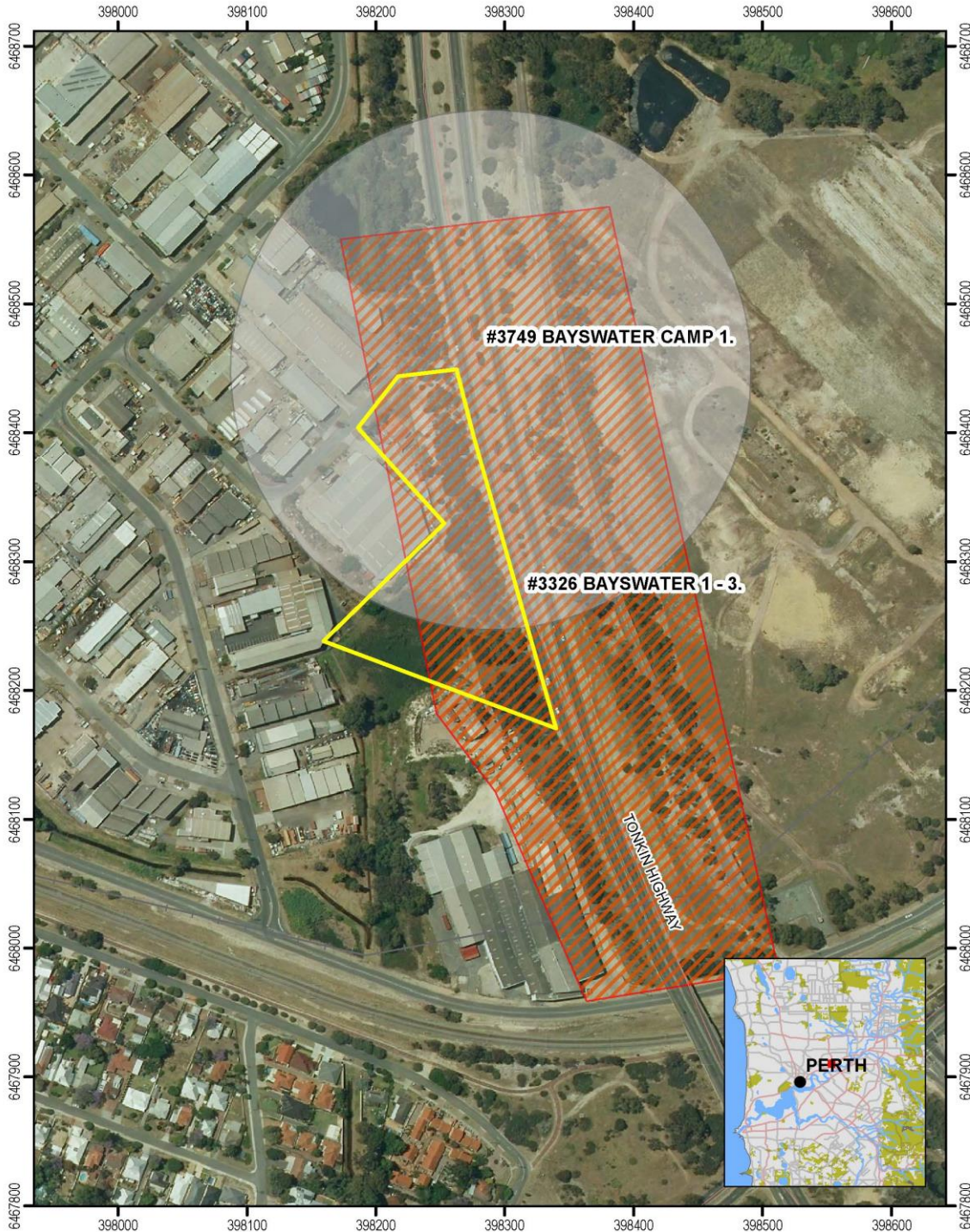
#3749 "Bayswater Camp 1" was originally recorded in 1985. Aboriginal spokespersons described it as a "war time camp" used between 1939-45. It is reportedly situated north-west of the now demolished Cresco fertiliser factory and between Mooney Street and Clune Street in Bayswater. It was noted in 1985 that workshops and other industrial facilities had been built on the former camp area. It is possible that a portion of the former camps were previously situated on land within Area 1.



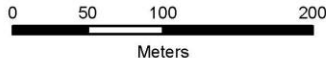


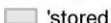
Area 1 – Recommendations

- As a result of severe ground disturbance no archaeological survey work is required within Area 1.
- Consultations with the appropriate Aboriginal spokespersons should be undertaken to establish if the proposed project will disturb the 1 historical camp #3749 "Bayswater Camp 1".
- PTA or Waru Consulting can prepare a submission to the Registrar of Aboriginal Sites at the DAA requesting that #3326 "Bayswater 1-3" is reassessed as 'stored data'. The submission would propose that #3326 has been totally destroyed as a result of severe disturbance. A downgrade to 'stored data' means that there is no legal obligation to protect or preserve the site or archaeological material, so that development could proceed without a Section 18 (s18) Notice. It is unknown how long this process might take. Previously it has taken several months to a year to achieve a status downgrade.

OR

- PTA can submit a s18 Notice 'to use the land' containing #3326 "Bayswater 1-3". This would oblige an assessment be made by the DAA and/or ACMC of the status the previously recorded site, which would either see it downgraded or consent granted to destruction of the site/place. Any s18 Notice would require consultations with the relevant Aboriginal spokespersons based on the current understanding of #3326. This process takes approximately 3-4months.



<p>Perth Airport Rail Link - PTA Map Showing Area 1 & DAA Heritage Polygons</p>	<p>Plan No: PTA001_21 Author: Tristan Bergin Date: 4/09/2013</p>	  
<p>Legend</p> <ul style="list-style-type: none">  Area 1  Registered Heritage Site #3326 "Bayswater 1-3"  'stored data' #3749 "Bayswater Camp 1" 		<p>Coordinate System: GDA 1994 MGA Zone 50 Datum: GDA 1994 Units: Meter Page Size: A4 Portrait</p> <p style="text-align: right;">1:4,000</p>

Name: PTA001_21_Gap_Analysis_Area1_REVA

Figure 1

Area 2 – Results

Area 2 comprises approximately 0.12sqkm of land between Memorial Drive and Wright Crescent in Bayswater (Figure 2). A review of historical aerial photography held by Landgate shows that between 1977 and 1979 large scale ground clearing and earthmoving was undertaken over the entirety of Area 2. As a result of that disturbance there is no possibility of Area 2 containing previously unrecorded archaeological places that meet the criteria of a site under the AHA.

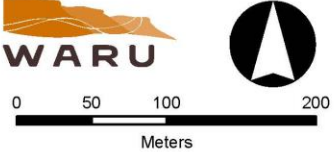


According to the search of the AHIS no registered sites are situated within Area 2. One ethnographic place, however, (#25408 “Gobba Lake”) listed as ‘lodged’ is situated on the margin of Area 2 (Figure 2). Sites or places listed as ‘Lodged’ may or may not constitute heritage sites covered by the provisions of the AHA because the ACMC is yet to consider whether these places/sites meet the criteria of s5 and/or s39 of the AHA.

#24508 “Gobba Lake” is situated approximately 120m southwest of the Tonkin Highway and southwest of Wyatt Road in Bayswater. This historical place was originally recorded by Australian Interaction Consultants in 2007. The IAEG, Bibbulmun and Ballaruk representatives identified this site as a water body which was fed from a freshwater spring. It was described as a vital water source in the past and as the location of a main ‘pad’ or track along which Aboriginal people travelled or camped. None of the representatives attributed a mythological or ceremonial component to Gobba Lake.

Area 2 – Recommendations

- As a result of severe ground disturbance no further archaeological work is required within Area 2.
- Consultations with the appropriate Aboriginal spokespersons should be undertaken to establish if the proposed project will disturb #25408 “Gobba Lake”.
- If the proposed project is found to impact #25408 “Gobba Lake” then a Section 18 Notice pursuant to the AHA should be made seeking consent “to use the land” containing the site.



Perth Airport Rail Link - PTA Map Showing Area 2 & DAA Heritage Polygon		Plan No: PTA001_22 Author: Tristan Bergin Date: 4/09/2013	 0 50 100 200 Meters
Legend  Area 2  'lodged' #24508 "Gobba Lake"		Coordinate System: GDA 1994 MGA Zone 50 Datum: GDA 1994 Units: Meter Page Size: A4 Portrait 1:4,000	

Name: PTA001_22_Gap_Analysis_Area2_REVA

Figure 2

Area 3 – Results

Area 3 comprises 0.42sqkm of land in High Wycombe bounded by Milner Road, Raven Street and the Forrestfield marshalling yards (Figure 3). A review of historical aerial photography shows that large portions of Area 3 have been severely disturbed as a result of land clearing, orcharding, road building and the construction of the rail marshalling yards.

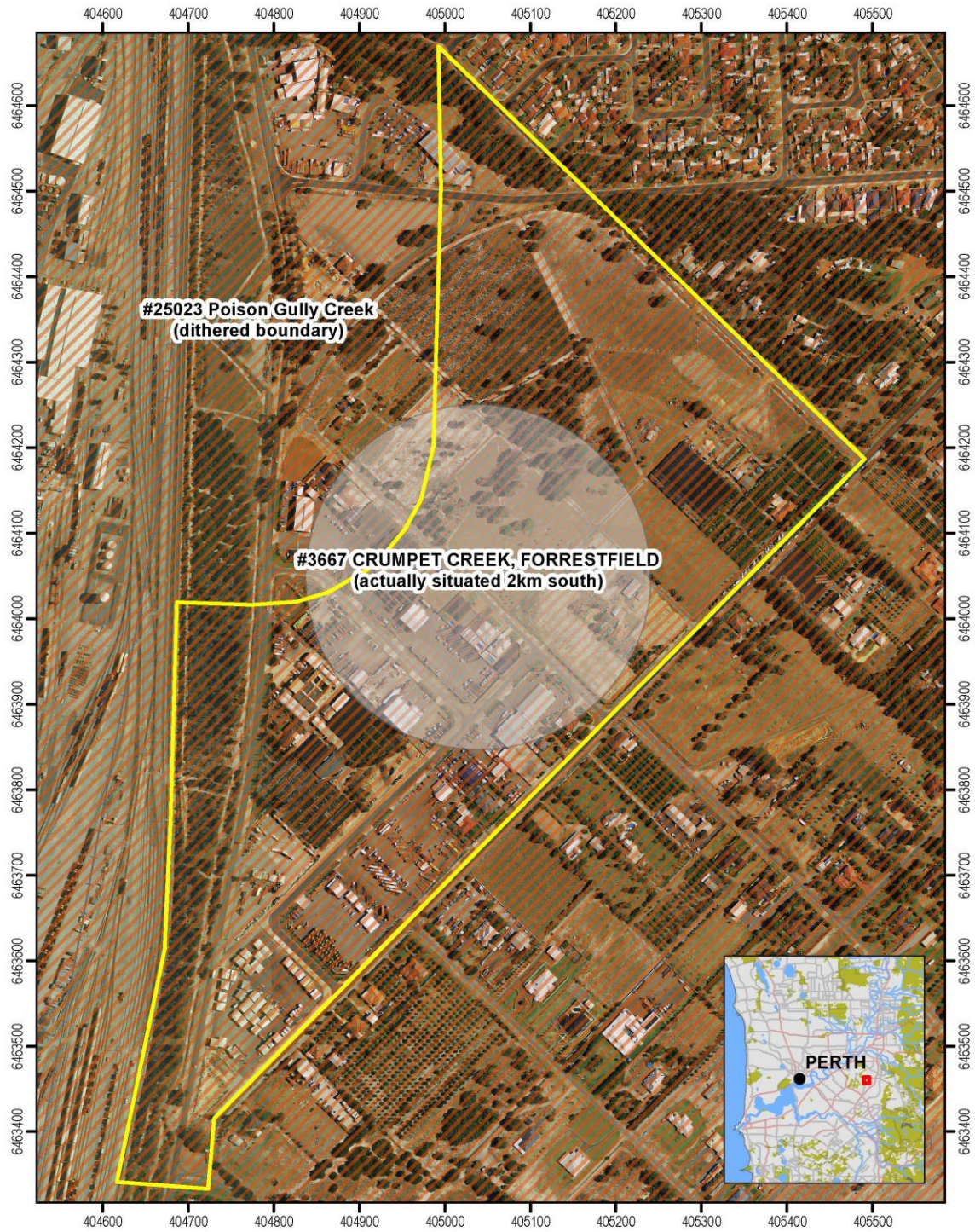
According to the search of the AHIS a single registered site polygon intersects Area 3, this is #25023 “Poison Gully Creek” (Figure 3). #25023 “Poison Gully Creek” is an ethnographic site and is listed on the DIA register of sites as ‘closed’ access. This means that the site is represented by a ‘dithered’ polygon which does not represent the actual boundary of the site. The watercourse known as Poison Gully Creek was reported to be an ethnographic site in 1995 and a 2008 consultation with senior Aboriginal women confirmed that the site had both mythological and historical significance. This site is a minor waterway which runs from the hills to the east through Forrestfield. The Aboriginal informants stated in 2008 that the boundary for this site extends for 30m-50m on either side of the creeks banks.






In addition to the single registered ethnographic site the search of the AHIS found that 1 heritage place listed as ‘stored data’ is reportedly situated within Area 3. This is #3667, “Crumpet Creek, Forrestfield” (Figure 3). This place has been assessed by the ACMC as not meeting the criteria of a site under s5 or s39 of the AHA.

Heritage place #3667 was identified as an artefact scatter containing quartz artefacts located on a firebreak. Research of the original recording form found that this place has been incorrectly mapped by the DAA and is actually situated approximately 2km to the south of the existing DAA centrepont on the margin of Crumpet Creek.

Area 3 – Recommendations

- An archaeological inspection is recommended over those portions of Area 3 which appear to be least impacted by historical disturbance.
- Consultations with the appropriate Aboriginal spokespersons should be undertaken to establish if the proposed project will disturb #25023 “Poison Gully Creek”.
- If the proposed project is found to impact #25023 “Poison Gully Creek” then a Section 18 Notice pursuant to the AHA should be made seeking consent “to use the land” containing #25023 “Poison Gully Creek”.
- No further consideration needs to be afforded heritage place #3667 which is situated 2km to the south and totally outside Area 3.



Perth Airport Rail Link - PTA Map Showing Area 3 & DAA Heritage Polygon		Plan No: PTA001_23 Author: Tristan Bergin Date: 4/09/2013	  0 75 150 300 Meters
Legend  Area 3  Registered Heritage Site #25023 "Poison Gully Creek" (dithered boundary)  'stored data' #3667 "Crumpet Creek, Forrestfield"		Coordinate System: GDA 1994 MGA Zone 50 Datum: GDA 1994 Units: Meter Page Size: A4 Portrait	

Name: PTA001_23_Gap_Analysis_Area3_REVA

Figure 3

Please do not hesitate to contact me should you require any further information or to discuss the findings.

Yours faithfully

Tristan Bergin

DRAFT

26th June 2013

Miranda Ludlow
Environmental Manager
Infrastructure Planning & Land Services
Public Transport Authority

miranda.ludlow@pta.wa.gov.au

Dear Miranda

Archaeological Survey and Site Verification for Proposed Airport Rail Link – Preliminary Advice

On Monday the 17th June 2013, an archaeological inspection and site verification survey of the proposed route for the 'Airport Rail Link' was carried out by archaeologists Tristan Bergin and Orlaith Lenihan of Waru Consulting Pty Ltd.

The inspection and verification work was commissioned by the Perth Transport Authority through GHD Pty Ltd in response to the recommendations set out within the report "Desktop Aboriginal Heritage Review for the Proposed Airport Rail Link" (Larkin & Bergin 2013)(the Report).

In the Report an archaeological survey was recommended for 5 portions of land within the project area which had not been totally cleared and developed (Figure 1). These areas include the margins of the Swan River as well as the land to the east of the international terminal. The purpose was to establish if any previously unrecorded archaeological material was visible on the surface of these portions of land and assess the likelihood for sub-surface archaeological material within their sediments.

In addition, the Report recommended the verification of 4 Aboriginal archaeological sites which are purportedly located within the project area, as well as the 1 reported heritage place. The verification was recommended to ascertain if these 5 locations with archaeological material had been impacted by previous developments and/or if any trace of them still exists. Should any material remain at these locations the report recommended that it be documented and also the potential for sub-surface artefacts.

During the survey no archaeological sites were identified and nor were any isolated artefacts observed. This result is in part attributable to the low or very low ground surface visibility in the 5 designated survey areas. Furthermore, observations made during the course of the survey indicate that most of the land has been disturbed to some degree by a range of environmental and anthropogenic processes, especially land clearance and historic agricultural activity.

The results of the verification for each of the 5 previously reported locations with archaeological material are set out below:

1. Site DAA #3326 "Bayswater 1-3" was not found. This portion of land has been severely disturbed by construction of the Tonkin Highway, and it is likely the site has been destroyed.
2. Site DAA #3520 "Maylands Scarred Tree" was reported to be within Claughton Reserve; however a thorough and exhaustive search did not find any trace of the site.

3. Site DAA #4033 “High Wycombe: Wittenoom Rd” was not found. This portion of land has been severely disturbed by development and it is likely the site has been destroyed (both the surface expression of this site and any sub-surface material).
4. Site DAA #4408 “Newburn; Bingham St” was found and verified. This artefact scatter occurs on a remnant sand dune. Approximately 80 artefacts are visible, concentrated in several clusters, and there is a high likelihood for sub-surface material within the dune.
5. Heritage place #4090 “Wyatt Road, Bayswater” was originally reported to be a single quartz artefact. It could not be found; nor was any other archaeological material observed at this place, which was considerably disturbed and covered with dense vegetation.

In summary, no heritage sites or archaeological material were identified in the 5 portions of land which were targeted for archaeological survey. Only 1 of the 4 previously recorded sites purportedly within the project area was found and verified (DAA #4408 “Newburn; Bingham St”). The other 3 registered sites and the recorded place purported to be within the project area could not be verified and likely no longer exist.

There is high potential for sub-surface archaeological material at site DAA #4408 “Newburn; Bingham St” and in adjacent sections of the sand dune. It is recommended that test excavations are conducted to establish and characterise the integrity and nature of any sub-surface cultural material at this site, prior to a section 18 application being submitted for the project.

The full report will be forwarded to you within the next two weeks, however, please do not hesitate to contact either Orlaith or me should you require any additional information or to discuss further in the interim.

Yours faithfully

Orlaith Lenihan & Joe Mattner

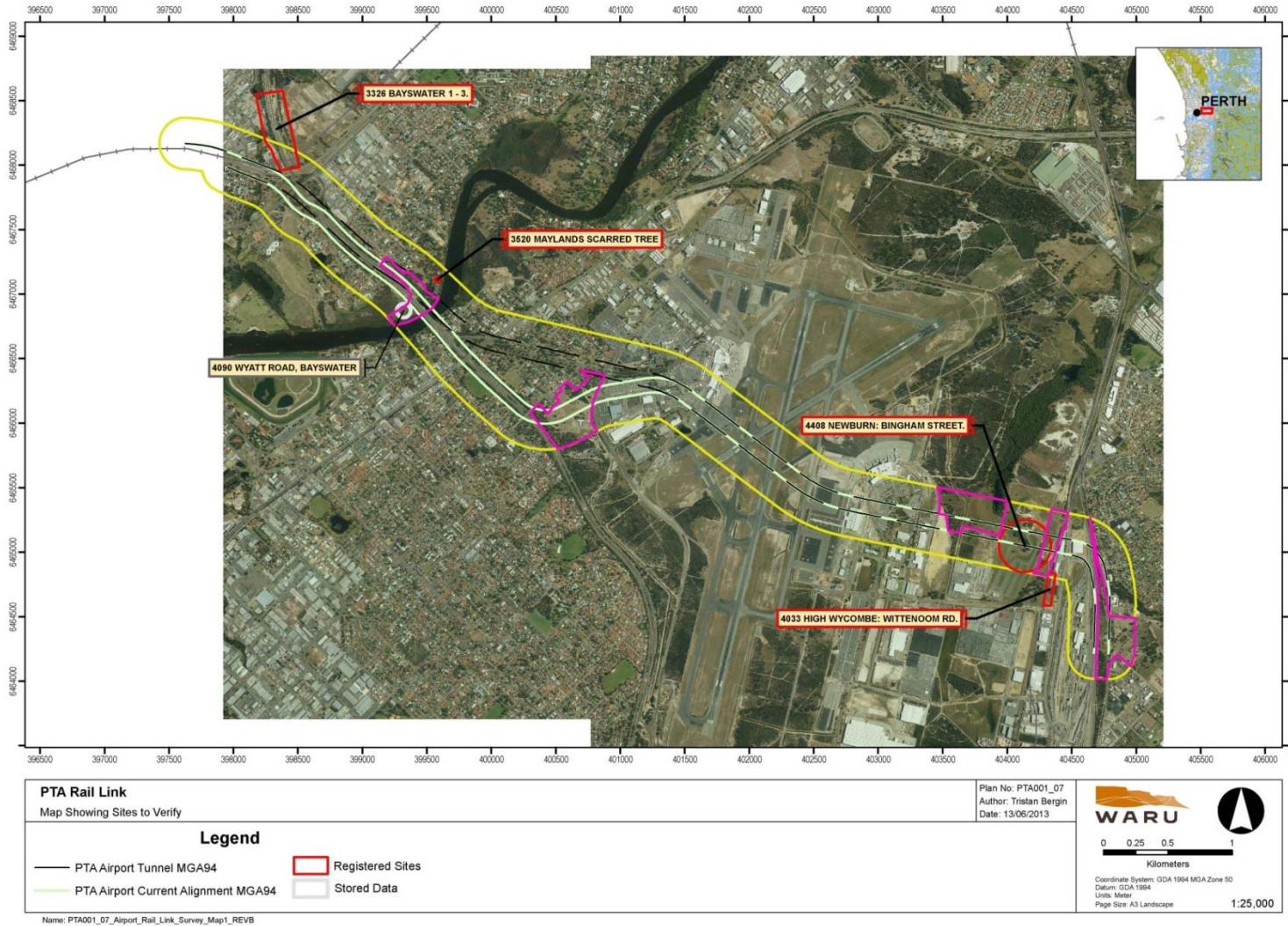


Figure 1: Map of the 4 registered heritage sites, 1 heritage place and the 5 surveyed areas within the Airport Rail Link project area

APPENDIX 10

**Additional Archaeological
Verification of DAA Site #4408
“Newburn: Bingham St” (Waru
Consulting, 2013c)**

14 August 2013

Mr Paul Monaghan
Environmental Officer
Infrastructure Planning & Land Services
Public Transport Authority

Paul.Monaghan@pta.wa.gov.au

Dear Paul

Additional Archaeological Verification of DAA Site #4408 “Newburn: Bingham St”

In May 2013, Waru Consulting Pty Ltd (Waru) undertook a desktop review for the Public Transport Authority (PTA) to identify any heritage sites which may be located within the proposed Airport Rail Link project. On 17 June 2013 Waru conducted an inspection and verification of sites identified during the desktop review.

During the verification work DAA Site #4408 “Newburn: Bingham St” (#4408) was located and found to be partially intact and likely to contain sub-surface artefactual material. As a result, it was determined that the remaining part of the original #4408 would be likely to meet s5 of the *Aboriginal Heritage Act 1972* (AHA).

Subsequently, the PTA received advice from Perth Airport Proprietary Limited that there may be additional material still extant within the original site boundary despite the extensive historical disturbance which has occurred in that part of the original site boundary. To determine if there was any further material still in situ in these areas an additional site inspection and verification for #4408 was conducted by Waru on 29 July 2013.

Background

The site was originally recorded in 1974. At the time of recording, the site was comprised of 3 discrete artefact scatters. The DAA polygon for site #4408 is a circle with a 400m diameter. The polygon does not accurately reflect the original recorded boundary of the site. The DAA records do not provide any explanation as to how the polygon boundary was determined.

Using the original 1974 site sketches it was possible to identify the indicative location and extent of the 3 artefact scatters. The boundaries were then geo-referenced and overlaid on aerial photography taken in 1974 and 2012 (Figures 1 & 2 respectively). The DAA polygon for the site boundary is shown in Figure 2

Based on the 2012 aerial photograph, it appeared likely that ‘Scatter 3’ would have been completely destroyed during the construction of the RAC Driving Centre track. The land containing ‘Scatters 1 and 2’ also appeared, from the photo, to have been significantly disturbed as a result of earth moving and development in the past.

On Ground Verification

On 17 June 2013, Waru conducted an on-ground verification of the site. All the land previously identified as containing #4408 and outside of the RAC Driving Centre was thoroughly inspected as a result of systematic transects and purposive searches of areas of high ground surface visibility (such as vehicle tracks and dune

deflations). No fieldwork was undertaken within the RAC Driving Centre as it was determined that Scatters 1 and 3 would have been completely destroyed as a result of the historical works and disturbance within the area.

As a result of the verification work, it was found that a small part of the original site remains within a portion of remnant dune adjacent to Abernethy Road and east of the RAC Driving Centre. This is consistent with the original recording of the dune as Scatter 2. The refined indicative boundary for #4408 is shown in Figure 3. It is considered that there is high potential for sub-surface archaeological material within the remaining portion of the sand dune.

Additional Inspection

On 29 July 2013 a further inspection was undertaken by Waru for purported archaeological material within the 4WD course at the RAC Driving Centre on Grogan Road. Thick vegetation, hard stand areas and roads obscured ground visibility over much of the land however, areas with any ground surface visibility were inspected and purposive searches were made of areas of high ground surface visibility (such as sandy vehicle tracks and scalds).

As a result of the inspection, several quartz artefacts and an estimated 100 pieces of additional quartz material, that are possibly artefactual, were found on sand exposures within cuttings through a cluster of mounds. Several possible artefactual pieces were also found on tracks surrounding the mounds. The area in which the artefacts and potential artefacts were found was identified in the original 1974 recording as Scatter 1.

The topography of the mounds is uneven and the highest points are approximately 3-5m above the surrounding land. The mounds extend in a loose circle with an approximate diameter of 100m. The maps from the original recording show that this area was situated on the margin of an extensive sand quarry. Historical imagery shows that a house, fences and associated outbuildings had been constructed on the southern side of the mounds and were present as late as 1974. Currently the mounds form part of the RAC Driving Centre's 4WD course.

During the inspection rubbish and building debris was found eroding from cuttings more than 1.5m below the current surface level (Photo 1). This suggests that when the buildings were demolished the rubble formed part of the mounds. Additionally, layers of laterite pebbles and clays are present at depth within the mounds (Photo 2). These rock and clays would not be present within a naturally formed aeolian dune. Based on the combined evidence present in the area of the mounds it is likely that the mounds have been artificially constructed.

The extent of severe disturbance in the area means that the artefacts present have been uplifted, churned or transported from their original context. The cause of the disturbance is known to have included land clearing, stock grazing, track construction, excavation, demolition, dumping and erosion.

As a result of the inspection it has been determined that this part of #4408, previously identified as Scatter 1, has been completely destroyed and no longer meets the definition of a site under s5 of the *Aboriginal Heritage Act 1972*(AHA).

Conclusion

As a result of the 2 field inspections in June and July 2013 by Waru archaeologists, it is concluded that site #4408 "Newburn: Bingham St" has in most part been destroyed as a result of historical disturbance.

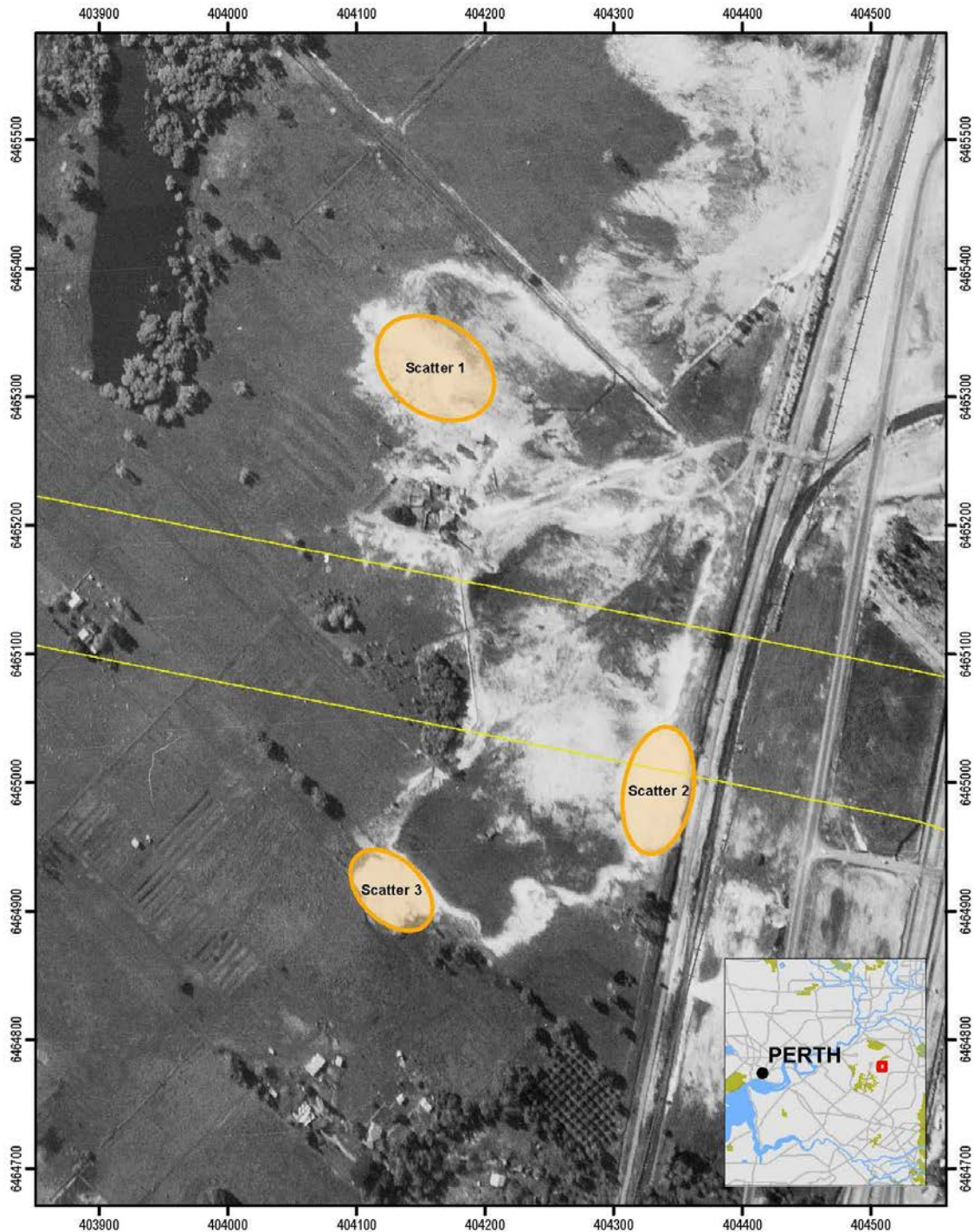
A small part of the original site however, remains within a stretch of remnant dune adjacent to Abernethy Road and east of the RAC Driving Centre as shown in Figure 3. This small part is likely to meet the definition





of a site under s5 of the AHA. The assessment as to whether or not this part of the original site would meet s5 of the AHA can only be confirmed however, by undertaking test excavations to establish and characterise the integrity and nature of any sub-surface cultural material which may remain in situ.

Please do not hesitate to contact me should you require any further information or to discuss the findings.

Yours faithfully

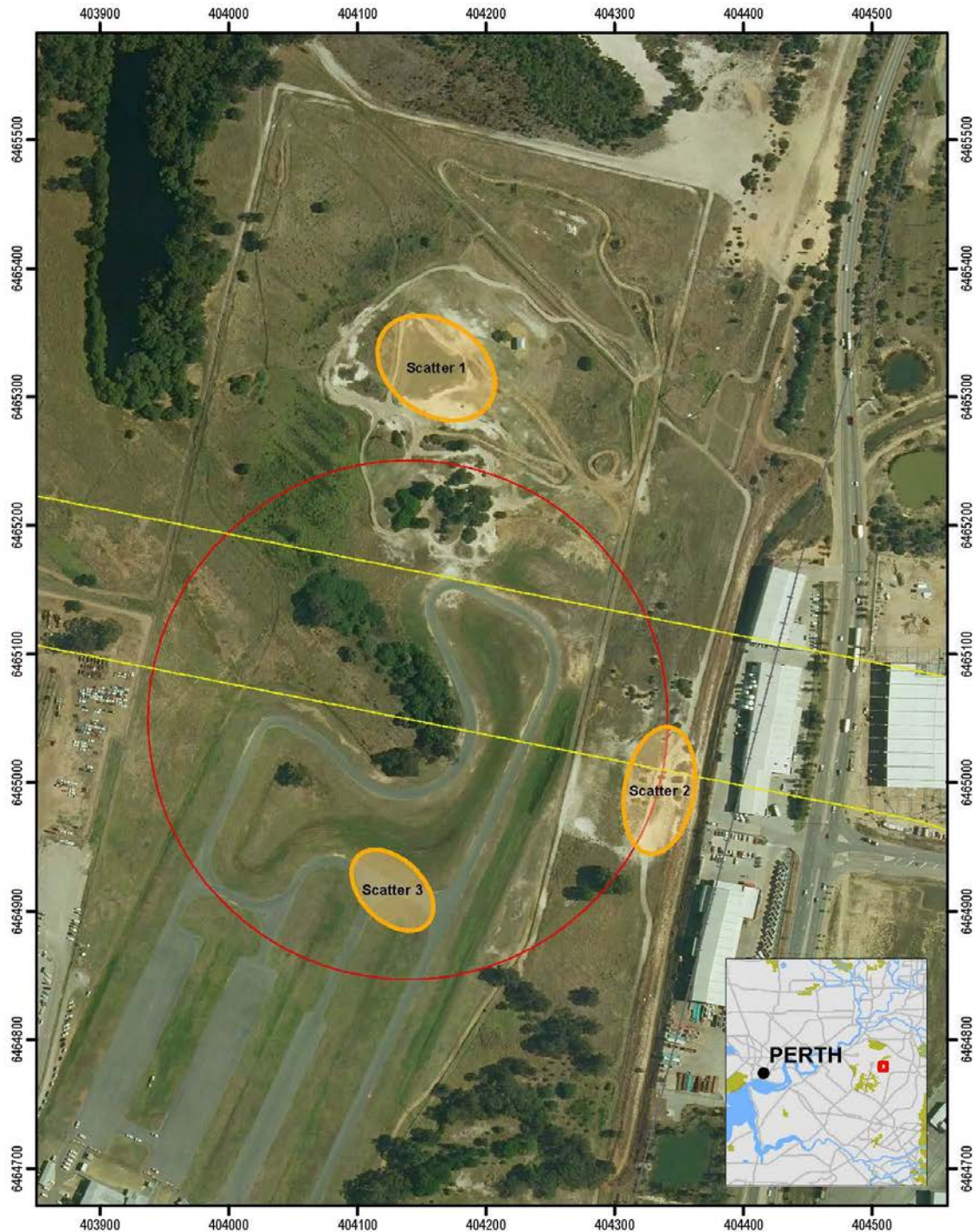
Tristan Bergin



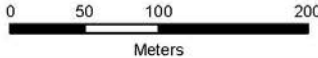





#4408 "Newburn: Bingham Street" Original 1974 Recording & 1974 Aerial Photo		Plan No: PTA001_18 Author: Tristan Bergin Date: 7/08/2013	  0 50 100 200 Meters
Legend  #4408 "Newburn: Bingham Street" Artefact Scatters (Indicative)  Proposed Airport Rail Link Alignment		Coordinate System: GDA, 1994 MGA, Zone 50 Datum: GDA 1994 Units: Meter Page Size: A4 Portrait	

Name: PTA001_18_4408_1974_ortho_REVA

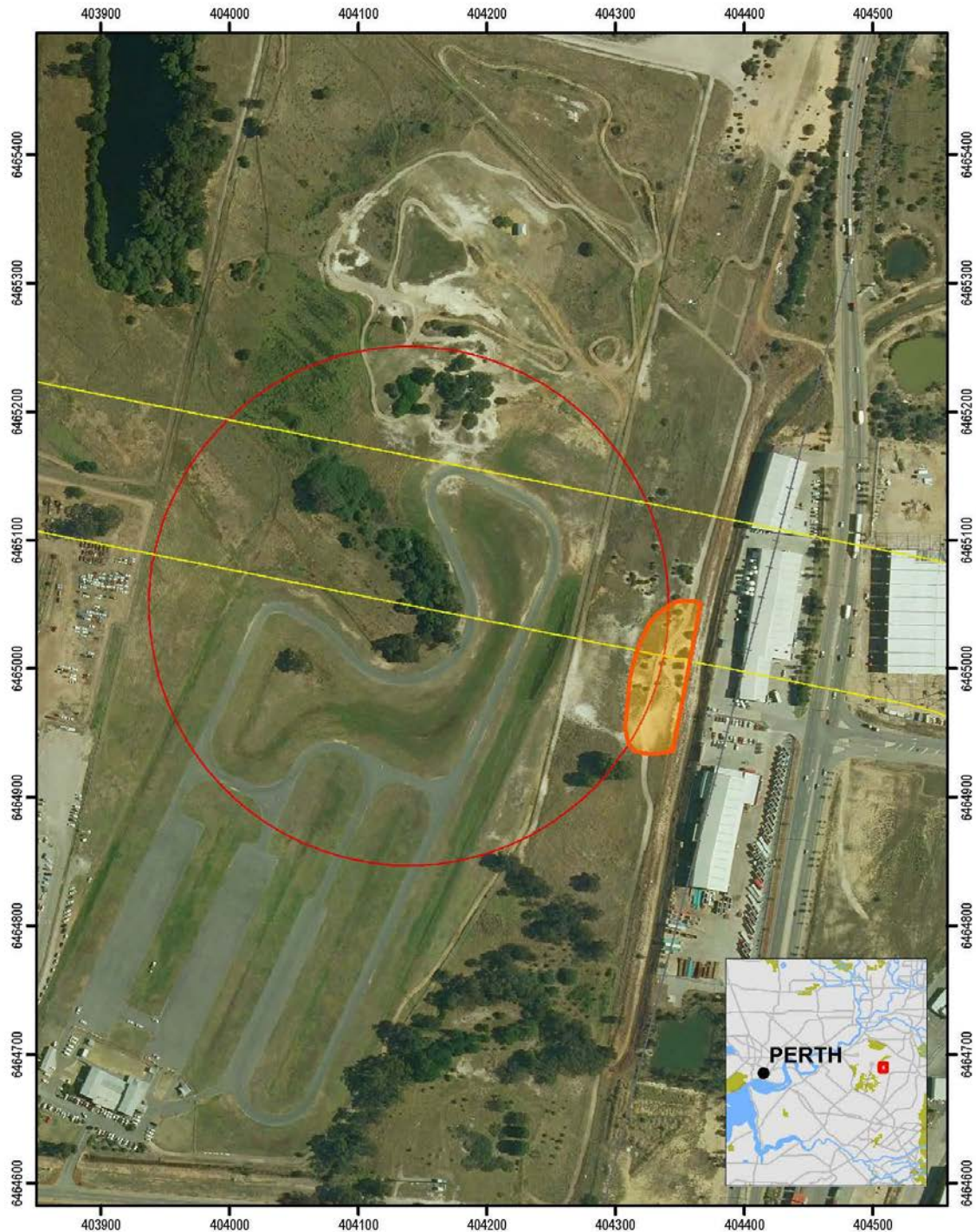
Figure 1: map showing 3 scatters as originally recorded and 1974 aerial photo






#4408 "Newburn: Bingham Street" Original 1974 Recording & 2012 Aerial Photo		Plan No: PTA001_19 Author: Tristan Bergin Date: 7/08/2013	 
Legend			
	#4408 "Newburn: Bingham Street" Artefact Scatters (Indicative)		Coordinate System: GDA 1994 MGA Zone 50 Datum: GDA 1994 Units: Meter Page Size: A4 Portrait
	Proposed Airport Rail Link Alignment		1:4,000
	DAA Polygon #4408 "Newburn: Bingham Street"		

Name: PTA001_19_4408_2012_ortho_REVA

Figure 2: map showing 3 scatters as originally recorded and 2012 aerial photo



#4408 "Newburn: Bingham Street" Results of Archaeological Verification Work 2013		Plan No: PTA001_20 Author: Tristan Bergin Date: 7/08/2013	 
Legend			
	Verified Boundary #4408 (Indicative) i.e Remnant Dune	Coordinate System: GDA 1994 MGA Zone 50 Datum: GDA 1994 Units: Meter Page Size: A4 Portrait	
	Proposed Airport Rail Link Alignment	1:4,000	
	DAA Polygon #4408 "Newburn: Bingham Street"		

Name: PTA001_20_4408_2013_verification_REVA

Figure 3: map showing results of archaeological verification work 2013



Photo 1: rubble & rubbish at depth in artificially created mound



Photo 2: layer of laterite pebble and clay within mound

APPENDIX 11

Desktop Aboriginal Heritage Review “Gap Analysis” for Proposed Airport Rail Link (Waru Consulting, 2013b)

4th September 2013

Mr Paul Monaghan
Environmental Officer
Infrastructure Planning & Land Services
Public Transport Authority
Paul.Monaghan@pta.wa.gov.au

Dear Paul

Desktop Aboriginal Heritage Review “Gap Analysis” for Proposed Airport Rail Link

The Public Transport Authority (PTA) proposes to construct the Airport Rail Link which will join the existing Perth – Midland rail line in Bayswater to the domestic and international terminals at Perth Airport. GHD Pty Ltd (GHD) commissioned Waru Consulting Pty Ltd (Waru) to undertake an Aboriginal heritage desktop review for PTA’s proposed project. The results of that desktop study are presented in the report entitled *Desktop Aboriginal Heritage Review for the Proposed Airport Rail Link* by E. Larkin & T. Bergin.

In July 2013 PTA requested that an Aboriginal heritage desktop review was undertaken over 3 additional parcels of land potentially required for the Airport Rail Link project. The purpose of the desktop review is to identify those heritage sites and places that may be at risk from the proposed project and to provide suitable management recommendations. This letter is an account of that review.

Methodology

A search was conducted of the Register of Aboriginal Sites, via the on-line Aboriginal Heritage Inquiry Service (AHIS), maintained by the Department of Aboriginal Affairs (DAA). The search covered the 3 proposed parcels of land.

In addition research was undertaken of the relevant site files and previous survey reports held by Waru and DAA. The results of this work are presented below.

Area 1 – Results

Area 1 comprises approximately 0.02sqkm of land situated north of Railway Parade and between Clavering Road and Tonkin Highway in Bayswater (Figure 1). A review of historical aerial photography held by Landgate shows that land in this area has been severely disturbed as a result of land clearing, industrial development and the construction of the Tonkin Highway.

As a result of the search of the AHIS a single registered site polygon intersects Area 1, this is (DAA ID) #3326 “Bayswater 1-3” (Figure 1).

#3326 "Bayswater 1-3" was an artefact scatter originally recorded in 1972 on a north-south orientated dune. A total collection of surface artefacts was made in 1972. Three test trenches were later excavated at this site which recovered several subsurface artefacts.

The DAA polygon for #3326 probably reflects the original extent of the dune plus a buffer area. A review of aerial photography clearly shows that the dune originally containing the site has been totally destroyed due to the development of the Tonkin Highway in the mid-1980s.

Archaeological verification work undertaken by Waru for PTA on 17th June 2013 could not find #3326 "Bayswater 1-3". The verification work concluded that #3326 has been totally destroyed as a result of severe disturbance.

In addition to registered site #3326 "Bayswater 1-3" the search of the AHIS found that 1 heritage place listed as 'stored data' is reportedly situated within Area 1 namely, #3749 "Bayswater Camp 1" (Figure 1). This place has been assessed by the ACMC as not meeting the criteria of a site under s5 or s39 of the AHA. It is important to note that while this place is not covered or protected by the provisions of the AHA it may have significance to local Aboriginal spokespersons.

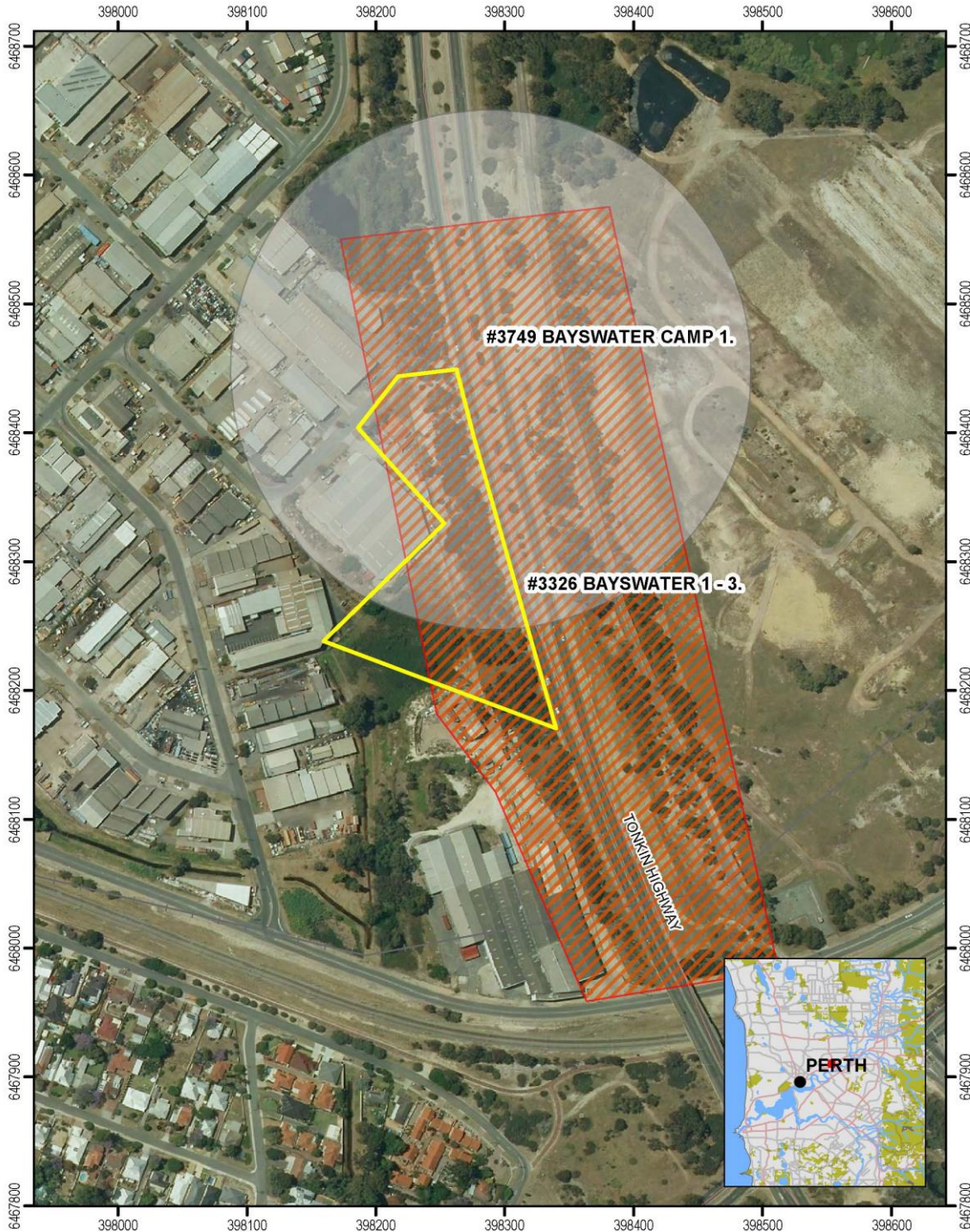
#3749 "Bayswater Camp 1" was originally recorded in 1985. Aboriginal spokespersons described it as a "war time camp" used between 1939-45. It is reportedly situated north-west of the now demolished Cresco fertiliser factory and between Mooney Street and Clune Street in Bayswater. It was noted in 1985 that workshops and other industrial facilities had been built on the former camp area. It is possible that a portion of the former camps were previously situated on land within Area 1.

Area 1 – Recommendations

- As a result of severe ground disturbance no archaeological survey work is required within Area 1.
- Consultations with the appropriate Aboriginal spokespersons should be undertaken to establish if the proposed project will disturb the 1 historical camp #3749 "Bayswater Camp 1".
- PTA or Waru Consulting can prepare a submission to the Registrar of Aboriginal Sites at the DAA requesting that #3326 "Bayswater 1-3" is reassessed as 'stored data'. The submission would propose that #3326 has been totally destroyed as a result of severe disturbance. A downgrade to 'stored data' means that there is no legal obligation to protect or preserve the site or archaeological material, so that development could proceed without a Section 18 (s18) Notice. It is unknown how long this process might take. Previously it has taken several months to a year to achieve a status downgrade.

OR

- PTA can submit a s18 Notice 'to use the land' containing #3326 "Bayswater 1-3". This would oblige an assessment be made by the DAA and/or ACMC of the status the previously recorded site, which would either see it downgraded or consent granted to destruction of the site/place. Any s18 Notice would require consultations with the relevant Aboriginal spokespersons based on the current understanding of #3326. This process takes approximately 3-4months.






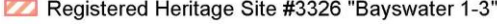
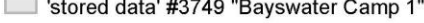
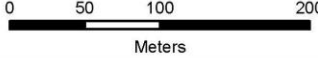
Perth Airport Rail Link - PTA Map Showing Area 1 & DAA Heritage Polygons		Plan No: PTA001_21 Author: Tristan Bergin Date: 4/09/2013	 
Legend  Area 1  Registered Heritage Site #3326 "Bayswater 1-3"  'stored data' #3749 "Bayswater Camp 1"			
Name: PTA001_21_Gap_Analysis_Area1_REVA			Coordinate System: GDA 1994 MGA Zone 50 Datum: GDA 1994 Units: Meter Page Size: A4 Portrait 1:4,000

Figure 1

Area 2 – Results

Area 2 comprises approximately 0.12sqkm of land between Memorial Drive and Wright Crescent in Bayswater (Figure 2). A review of historical aerial photography held by Landgate shows that between 1977 and 1979 large scale ground clearing and earthmoving was undertaken over the entirety of Area 2. As a result of that disturbance there is no possibility of Area 2 containing previously unrecorded archaeological places that meet the criteria of a site under the AHA.

According to the search of the AHIS no registered sites are situated within Area 2. One ethnographic place, however, (#25408 “Gobba Lake”) listed as ‘lodged’ is situated on the margin of Area 2 (Figure 2). Sites or places listed as ‘Lodged’ may or may not constitute heritage sites covered by the provisions of the AHA because the ACMC is yet to consider whether these places/sites meet the criteria of s5 and/or s39 of the AHA.

#24508 “Gobba Lake” is situated approximately 120m southwest of the Tonkin Highway and southwest of Wyatt Road in Bayswater. This historical place was originally recorded by Australian Interaction Consultants in 2007. The IAEG, Bibbulmun and Ballaruk representatives identified this site as a water body which was fed from a freshwater spring. It was described as a vital water source in the past and as the location of a main ‘pad’ or track along which Aboriginal people travelled or camped. None of the representatives attributed a mythological or ceremonial component to Gobba Lake.

Area 2 – Recommendations

- As a result of severe ground disturbance no further archaeological work is required within Area 2.
- Consultations with the appropriate Aboriginal spokespersons should be undertaken to establish if the proposed project will disturb #25408 “Gobba Lake”.
- If the proposed project is found to impact #25408 “Gobba Lake” then a Section 18 Notice pursuant to the AHA should be made seeking consent “to use the land” containing the site.



Perth Airport Rail Link - PTA Map Showing Area 2 & DAA Heritage Polygon		Plan No: PTA001_22 Author: Tristan Bergin Date: 4/09/2013	
Legend Area 2 'lodged' #24508 "Gobba Lake"			
		Coordinate System: GDA 1994 MGA Zone 50 Datum: GDA 1994 Units: Meter Page Size: A4 Portrait	
		1:4,000	

Name: PTA001_22_Gap_Analysis_Area2_REVA

Figure 2

Area 3 – Results

Area 3 comprises 0.42sqkm of land in High Wycombe bounded by Milner Road, Raven Street and the Forrestfield marshalling yards (Figure 3). A review of historical aerial photography shows that large portions of Area 3 have been severely disturbed as a result of land clearing, orcharding, road building and the construction of the rail marshalling yards.

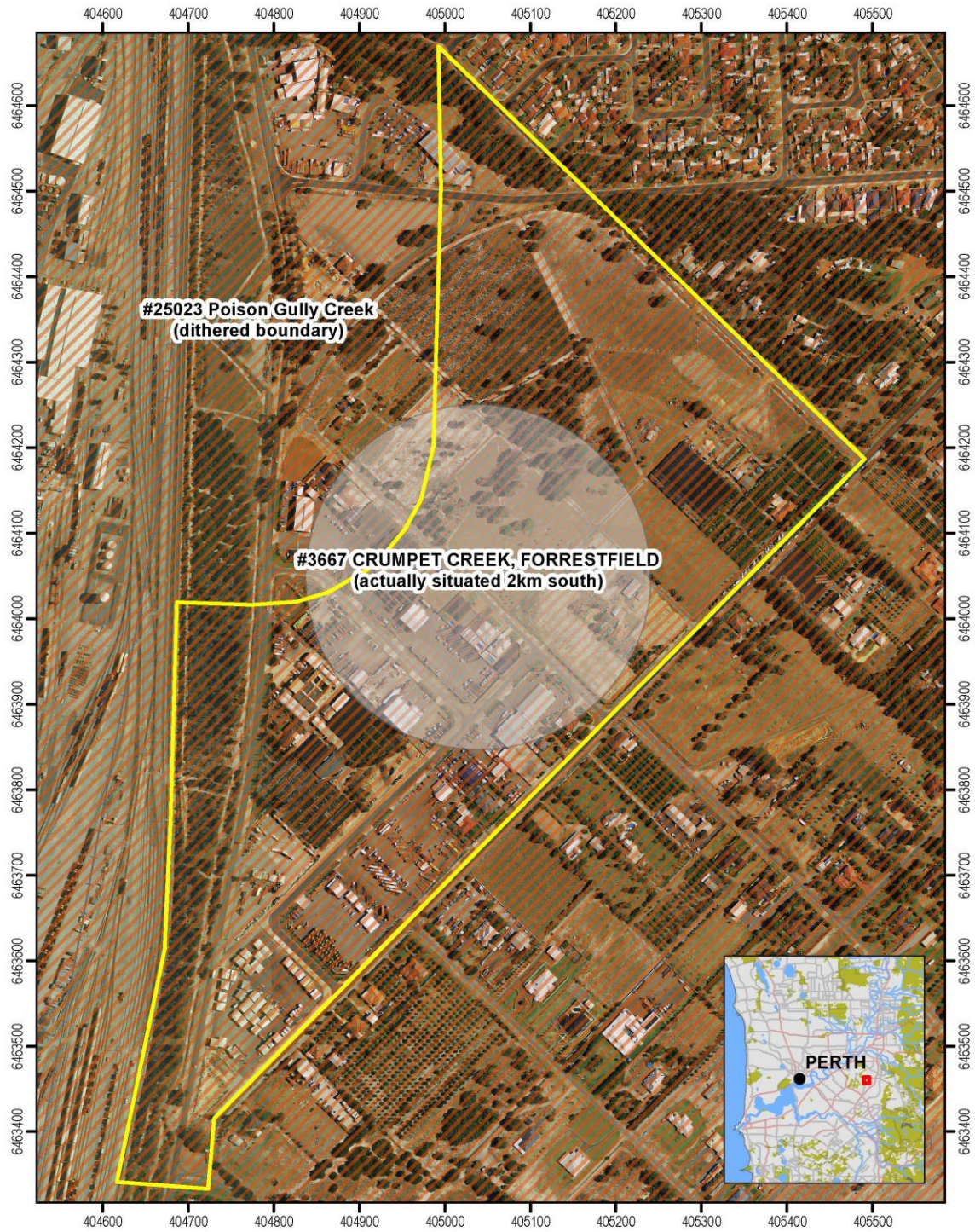
According to the search of the AHIS a single registered site polygon intersects Area 3, this is #25023 “Poison Gully Creek” (Figure 3). #25023 “Poison Gully Creek” is an ethnographic site and is listed on the DIA register of sites as ‘closed’ access. This means that the site is represented by a ‘dithered’ polygon which does not represent the actual boundary of the site. The watercourse known as Poison Gully Creek was reported to be an ethnographic site in 1995 and a 2008 consultation with senior Aboriginal women confirmed that the site had both mythological and historical significance. This site is a minor waterway which runs from the hills to the east through Forrestfield. The Aboriginal informants stated in 2008 that the boundary for this site extends for 30m-50m on either side of the creeks banks.






In addition to the single registered ethnographic site the search of the AHIS found that 1 heritage place listed as ‘stored data’ is reportedly situated within Area 3. This is #3667, “Crumpet Creek, Forrestfield” (Figure 3). This place has been assessed by the ACMC as not meeting the criteria of a site under s5 or s39 of the AHA.

Heritage place #3667 was identified as an artefact scatter containing quartz artefacts located on a firebreak. Research of the original recording form found that this place has been incorrectly mapped by the DAA and is actually situated approximately 2km to the south of the existing DAA centrepoin on the margin of Crumpet Creek.

Area 3 – Recommendations

- An archaeological inspection is recommended over those portions of Area 3 which appear to be least impacted by historical disturbance.
- Consultations with the appropriate Aboriginal spokespersons should be undertaken to establish if the proposed project will disturb #25023 “Poison Gully Creek”.
- If the proposed project is found to impact #25023 “Poison Gully Creek” then a Section 18 Notice pursuant to the AHA should be made seeking consent “to use the land” containing #25023 “Poison Gully Creek”.
- No further consideration needs to be afforded heritage place #3667 which is situated 2km to the south and totally outside Area 3.



Perth Airport Rail Link - PTA Map Showing Area 3 & DAA Heritage Polygon		Plan No: PTA001_23 Author: Tristan Bergin Date: 4/09/2013	  0 75 150 300 Meters
Legend  Area 3  Registered Heritage Site #25023 "Poison Gully Creek" (dithered boundary)  'stored data' #3667 "Crumpet Creek, Forrestfield"		Coordinate System: GDA 1994 MGA Zone 50 Datum: GDA 1994 Units: Meter Page Size: A4 Portrait	

Name: PTA001_23_Gap_Analysis_Area3_REVA

Figure 3

Please do not hesitate to contact me should you require any further information or to discuss the findings.

Yours faithfully

Tristan Bergin

DRAFT

APPENDIX 12

Archaeological Survey and Site Verification for Proposed Airport Rail Link – Preliminary Advice (Waru Consulting, 2013d)

26th June 2013

Miranda Ludlow
Environmental Manager
Infrastructure Planning & Land Services
Public Transport Authority

miranda.ludlow@pta.wa.gov.au

Dear Miranda

Archaeological Survey and Site Verification for Proposed Airport Rail Link – Preliminary Advice

On Monday the 17th June 2013, an archaeological inspection and site verification survey of the proposed route for the 'Airport Rail Link' was carried out by archaeologists Tristan Bergin and Orlaith Lenihan of Waru Consulting Pty Ltd.

The inspection and verification work was commissioned by the Perth Transport Authority through GHD Pty Ltd in response to the recommendations set out within the report "Desktop Aboriginal Heritage Review for the Proposed Airport Rail Link" (Larkin & Bergin 2013)(the Report).

In the Report an archaeological survey was recommended for 5 portions of land within the project area which had not been totally cleared and developed (Figure 1). These areas include the margins of the Swan River as well as the land to the east of the international terminal. The purpose was to establish if any previously unrecorded archaeological material was visible on the surface of these portions of land and assess the likelihood for sub-surface archaeological material within their sediments.

In addition, the Report recommended the verification of 4 Aboriginal archaeological sites which are purportedly located within the project area, as well as the 1 reported heritage place. The verification was recommended to ascertain if these 5 locations with archaeological material had been impacted by previous developments and/or if any trace of them still exists. Should any material remain at these locations the report recommended that it be documented and also the potential for sub-surface artefacts.

During the survey no archaeological sites were identified and nor were any isolated artefacts observed. This result is in part attributable to the low or very low ground surface visibility in the 5 designated survey areas. Furthermore, observations made during the course of the survey indicate that most of the land has been disturbed to some degree by a range of environmental and anthropogenic processes, especially land clearance and historic agricultural activity.

The results of the verification for each of the 5 previously reported locations with archaeological material are set out below:

1. Site DAA #3326 "Bayswater 1-3" was not found. This portion of land has been severely disturbed by construction of the Tonkin Highway, and it is likely the site has been destroyed.
2. Site DAA #3520 "Maylands Scarred Tree" was reported to be within Claughton Reserve; however a thorough and exhaustive search did not find any trace of the site.

3. Site DAA #4033 “High Wycombe: Wittenoom Rd” was not found. This portion of land has been severely disturbed by development and it is likely the site has been destroyed (both the surface expression of this site and any sub-surface material).
4. Site DAA #4408 “Newburn; Bingham St” was found and verified. This artefact scatter occurs on a remnant sand dune. Approximately 80 artefacts are visible, concentrated in several clusters, and there is a high likelihood for sub-surface material within the dune.
5. Heritage place #4090 “Wyatt Road, Bayswater” was originally reported to be a single quartz artefact. It could not be found; nor was any other archaeological material observed at this place, which was considerably disturbed and covered with dense vegetation.

In summary, no heritage sites or archaeological material were identified in the 5 portions of land which were targeted for archaeological survey. Only 1 of the 4 previously recorded sites purportedly within the project area was found and verified (DAA #4408 “Newburn; Bingham St”). The other 3 registered sites and the recorded place purported to be within the project area could not be verified and likely no longer exist.

There is high potential for sub-surface archaeological material at site DAA #4408 “Newburn; Bingham St” and in adjacent sections of the sand dune. It is recommended that test excavations are conducted to establish and characterise the integrity and nature of any sub-surface cultural material at this site, prior to a section 18 application being submitted for the project.

The full report will be forwarded to you within the next two weeks, however, please do not hesitate to contact either Orlaith or me should you require any additional information or to discuss further in the interim.

Yours faithfully

Orlaith Lenihan & Joe Mattner

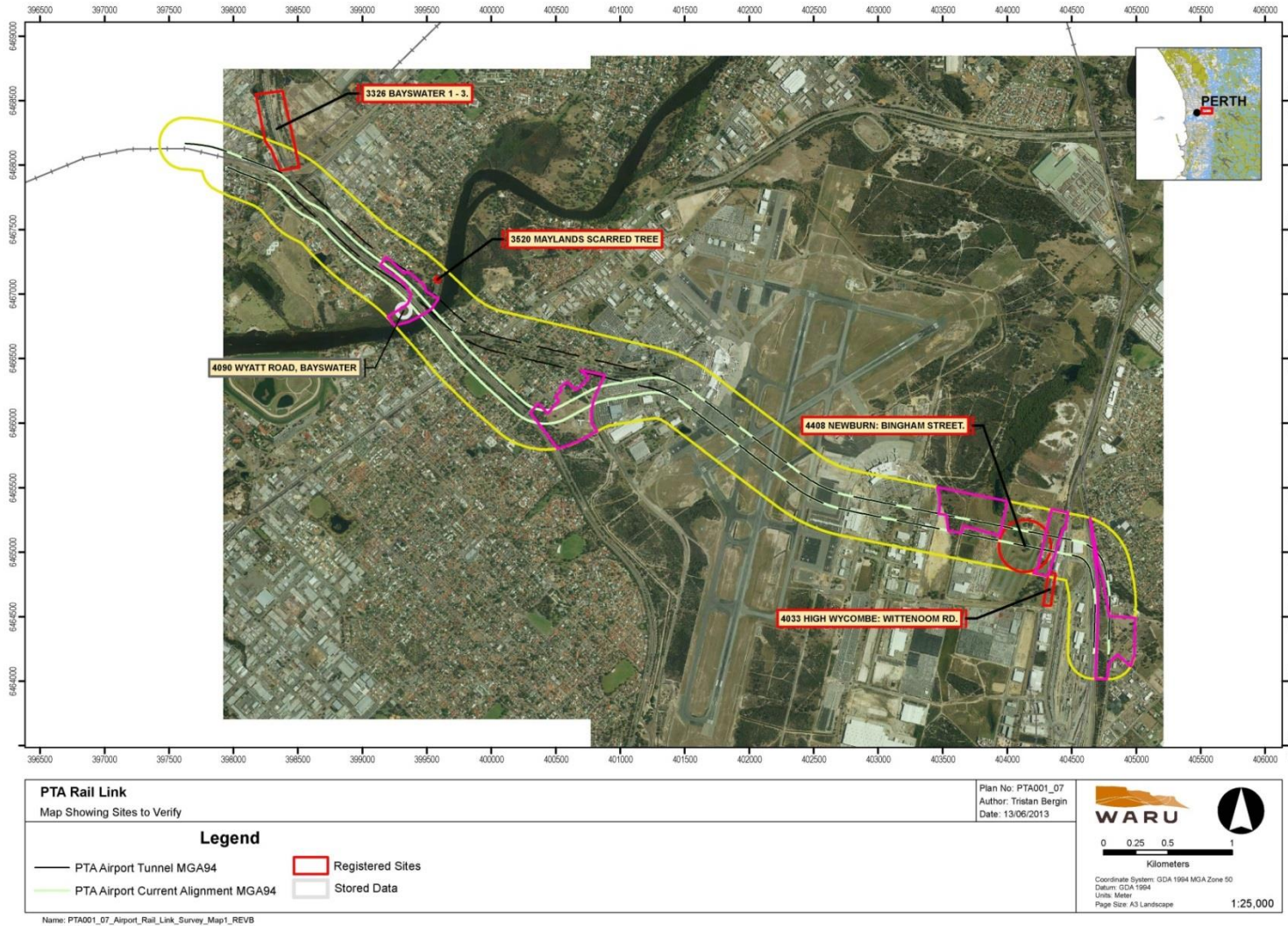


Figure 1: Map of the 4 registered heritage sites, 1 heritage place and the 5 surveyed areas within the Airport Rail Link project area