

***A REPORT OF AN ABORIGINAL  
HERITAGE SURVEY OF THE  
EAST ROCKINGHAM WASTE  
WATER TREATMENT PLANT  
AND DISCHARGE PIPELINE  
PROJECT***

***PREPARED FOR THE WATER CORPORATION***

***WESTERN HERITAGE RESEARCH PTY LTD***

***DECEMBER 2006***

## **Disclaimer**

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## **Acknowledgement**

Western Heritage Research Pty Ltd would like to thank representatives of the *Gnaala Karla Booja*, *Ballaruk* and Single Noongar native title claimant groups, and the Water Corporation for their assistance during this survey.

## **EXECUTIVE SUMMARY**

The Aboriginal heritage survey, comprising both archaeological and ethnographic components, of the proposed East Rockingham Wastewater Treatment Plant project and associated pipework was conducted on the 25 November 2006 (ethnography) 22 and 23 December 2006 (archaeology). The *Gnaala Karla Booja*, *Ballaruk* and Single Noongar native title claimant groups were invited to attend the ethnographic component of the survey.

The East Rockingham Wastewater Treatment Plant project area is located approximately 42 kilometres south of Perth in the South West urban corridor and within the Kwinana industrial area. The Wastewater Treatment Plant covers an area of 24 hectares with an associated service pipe connecting to the Sepia Depression Ocean Outlet line (SDOO) at the Point Peron Wastewater Treatment Plant.

It is proposed that the East Rockingham Wastewater Treatment Plant will be an extended aeration activated sludge plant incorporating an oxidation ditch system. Disposal will be to Sepia Depression via SDOO located off Point Peron.

The survey area has been highly disturbed through the construction of residential housing, power, roads and other associated infrastructure.

Western Heritage Research Pty Ltd anthropologist/archaeologist Wayne Glendenning conducted the Aboriginal heritage survey.

Nine representatives of the *Gnaala Karla Booja*, *Ballaruk* and Single Noongar native title claimant groups attended the ethnographic survey.

The survey conformed to the Site Identification methodology whereby sites are identified and defined so that the proponent may manage its project by either avoiding the site or applying for permission from the Minister for Indigenous Affairs to disturb the site under Section 18 of the *Aboriginal Heritage Act 1972* ("The Act").

No new ethnographic sites were identified as a result of the ethnographic survey and no new archaeological sites were identified as a result of the archaeological survey.

Four Aboriginal heritage sites have been located as a result of previous research undertaken within 2 kilometres of the proposed project area. One of these sites, *Rotary Park Rockingham*, is located near to the survey area on the northern side of Point Peron Road.

The Water Corporation will need to inform its employees of the location of the site, *Rotary Park Rockingham*, in order to avoid inadvertent disturbance to the site.

If the Water Corporation intends to disturb the site *Rotary Park Rockingham*, it will need to obtain permission from the Minister for Indigenous Affairs under Section 18 of the *Aboriginal Heritage Act 1972* (“The Act”) prior to any disturbance occurring.

In addition, it is possible skeletal material may be uncovered during the development of the project area. Numerous burial sites are located within the Spearwood and Quindalup dune systems of the Swan Coastal Plain.

If skeletal material is uncovered, work is to cease immediately and the police and a qualified archaeologist are to be notified.

Apart from avoidance of the site *Rotary Park Rockingham*, there are no Aboriginal heritage impediments preventing the proposed

It is therefore recommended:

- The Water Corporation avoids the ethnographic site Rotary Park Rockingham;
- If the Water Corporation is unable to avoid the site then permission is obtained from the Minister for Indigenous Affairs under Section 18 of The Act; and
- The proponent ceases work and informs the police and a qualified archaeologist if skeletal material is located.

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## 1 INTRODUCTION

The Aboriginal heritage survey, comprising both archaeological and ethnographic components, of the proposed East Rockingham Wastewater Treatment Plant project and associated pipework was conducted on the 25 November 2006 (ethnography) and the 22 and 23 December 2006 (archaeology). The *Gnaala Karla Booja*, *Ballaruk* and Single Noongar native title claimant groups were invited to attend the ethnographic component of the survey.

The Water Corporation, following advice from the South West Aboriginal Land and Sea Council chose the participants for the survey.

The East Rockingham Wastewater Treatment Plant project area is located approximately 42 kilometres south of Perth in the South West urban corridor and within the Kwinana industrial area. The Wastewater Treatment Plant covers an area of 24 hectares with an associated service pipe connecting to the Sepia Depression Ocean Outlet line (SDOO) at the Point Peron Wastewater Treatment Plant (see Figure 1 in the Appendix).

It is proposed that the East Rockingham Wastewater Treatment Plant will be an extended aeration activated sludge plant incorporating an oxidation ditch system. Disposal will be to Sepia Depression via SDOO located off Point Peron.

The survey conformed to the Site Identification methodology whereby sites are identified and defined so that the proponent may manage its project by either avoiding the site or applying for permission from the Minister for Indigenous Affairs to disturb the site under Section 18 of the *Aboriginal Heritage Act 1972* ("The Act").

Western Heritage Research Pty Ltd anthropologist/archaeologist Wayne Glendenning conducted the Aboriginal heritage survey. Nine representatives of the *Gnaala Karla Booja* (3), *Ballaruk* (4) and Single Noongar (2) native title claimant groups were invited to attend the ethnographic component of the survey.

The ethnographic survey comprised four components:

- Consultations with the Department of Indigenous Affairs (DIA), the Water Corporation, native title claimant groups, Aboriginal Elders and other relevant organizations to identify appropriate Aboriginal consultants;
- Archival research;
- Field inspections of the survey area with Aboriginal consultants; and
- Reporting of the survey results

The archaeological survey comprised:

- Archival research;
- Field inspection; and
- Reporting of survey results.

A handheld *Garmin eTrex* Global Positioning System (GPS) unit using the GDA 94 datum was used to record any coordinates on each of the surveys.

## 2 PREVIOUS RESEARCH

The area within the vicinity of the survey area has been subject to Aboriginal heritage research on previous occasions. A review of previous consultancy research combined with the regional research discussed in the preceding section enables an understanding of the nature of Aboriginal sites that may be expected to be located within the survey area.

A search of the DIA database shows that within 2 kilometres of the project area six Aboriginal heritage sites are recorded. Details of the sites are provided in Table 1.

Site ID	Site Name	Easting	Northing	Site Type <sup>1</sup>	Site Access
352	<i>Lake Richmond</i>	378955	6427144	S, FT	Open
3689	<i>East Rockingham Cemetery</i>	385339	6430829	B	Open
3690	<i>Mandurah Road Trees</i>	385218	6430878	c	Open
3471	<i>Rotary Park, Rockingham</i>	378450	6428304	M	Open
15974	<i>Lake Richmond</i>	378950	6427100	C	Open
22888	<i>Mooribirdup Ceremonial grounds</i>	378019	6427997	C	Open

**Table 1: Previously recorded Aboriginal heritage sites within 2 kilometres of the survey area.**

Of the above sites, only *Rotary Park, Rockingham* is located within 200 metres of the survey area; north of Point Peron Road.

In addition, there are four reports describing research for consultancy conducted within the project area. (Baines 1984; Hames Consultancy Group 2003; Machin 2001; Parker, R 2003; Pickering 1982).

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<sup>1</sup> M Mythological, C Ceremonial, S Structure, FT Fish Trap, B Burial, c camp

### **3 ETHNOGRAPHIC SURVEY**

#### ***3.1 ABORIGINAL SURVEY GROUPS***

The Water Corporation, following advice from the SWALSC, chose the representatives of both of the Noongar groups consulted for this survey.

The Single Noongar native title claimant group, the *Ballaruk* People and *Gnaala Karla Booja* native title claimant group were identified as being the appropriate people to speak for the country comprising the project area.

The Water Corporation limited the number of informants to a maximum of nine individuals with three for each group.

### **3.2 ETHNOGRAPHIC BACKGROUND**

Traditionally, the people who inhabited the southwest of Western Australia were a part of the *Nyoongah* socio-cultural bloc, which comprised thirteen tribal groups living from south of Geraldton to east Esperance (Berndt 1979). Berndt (1979) categorised the south west *Noongar* groups into four main types: *Perth*, *Bibelmen*, *Wudjari* and *Nyaginyagi*.

According to Tindale (1974), the survey area is located within the estate of the *Whadjuk*, which is located within the following area:

“...Swan River and northern and eastern tributaries inland to beyond Mount Helena; at Kalamunda, Armadale, Victoria Plains, south of Toodyay, and western vicinity of York; at Perth; south along coast to near Pinjarra.”

Tindale relied on this information from a *Whadjuk* man living in the Kimberley in the 1950s.

Bates (1985:49) considered that the groups within the survey area the *Illa kuri wongi* or the *Yabbaru Bibbulmun*, who in turn were a part of the *Bibbulman* nation, which extended from Jurien Bay to a point east of Esperance. Each of the tribes of the *Bibbulman* nation had rights over hunting and food within their estate and all of the landscape features within that estate were owned by whichever group inhabited that country. Each waterhole, hill, river or other physical feature had its own name.

In 1833 settler Robert Lyon published “A Glance at the Manners and Language of the Aboriginal inhabitants of Western Australia” in the *Perth Gazette* (cited in Green 1979:177). Lyons states that the area comprising the eastern and northern sections of the survey area was the district of *Midjemoorong*, father of *Yagan*, which was known as *Beeliar*. The area was roughly defined as being bounded by Melville Water and Canning River in the north; the mountains in the east; the sea in the west and Mangles Bay in the south.

The southern section of the survey area belonged to *Banyowla*, chief of the Murray tribe whose area extended from the sea in the west, north to *Beeliar*, east to the Darling Range and south to the country of Dygan.

Haebich (2000) notes that the life of the *Noongar* People was severely disrupted due to the coming of European settlement. Many *Noongar* children were taken away from their families to government run institutions such as Moore River and Carrolup.

To the *Noongar* People, rivers, swamps, and waterways, were (and still are) very important features of the landscape and sources of food and sustenance. *Noongar* People regularly used major river systems as transport routes through the country and camped at sites accessible to potable water and reliable food source (pers. comm).

Within these waterways and wetlands existed the *Waugal* a mythical snake, which Bates (1992) describes as a deity who provided for and controlled all aspects of *Noongar* life:

“It controlled earth, fire, and water; it caused or prevented sickness and death; it made the most important food and totem laws; and was punisher in chief for any breach of these laws”.

Furthermore, as Bates (1985) states, according to the *Noongar* People, wherever the *Waugal* travelled a river was formed and wherever it camped was sacred ground, which were then avoided by the *Noongar* People.

McDonald, Hales and Associates (1990) write that the veneration of the *Waugal* as the pre-eminent deity of the *Noongar* People has seen a resurgence in what they term the “Cult of the *Waugal*” whereby the *Waugal* is still considered by *Noongar* People in the South West of Western Australia to exist in all bodies of water, permanent or ephemeral.

### **3.2 FIELDWORK**

The ethnographic survey was conducted on 25 November 2006. The Survey Team comprised the anthropologist and the following representatives:

- Single Noongar representatives Barry McGuire, Dianne Wynne and Glenys Yarran
- *Gnaala Karla Booja* representatives Joe Walley and George Walley; and
- *Ballaruk* representatives Corrie Bodney, Violet Mippy, Violet Bodney and Tanya Bodney.

The ethnographic survey was conducted in the following manner:

- Outline of the project to the Survey Team by Wayne Glendenning;
- Pedestrian and vehicular field inspection of the area of the proposed project; and
- Debrief following the survey.

No new ethnographic sites were located as a result of the ethnographic survey component.

The representatives all stated that they know the survey area intimately and as far as they are aware, there are no ethnographic sites apart from the Rotary Park Rockingham.

They also stated that they were concerned there may be burials located within the survey area, which may be uncovered during the excavations for the pipeline and waste water treatment plant.

The representatives requested that a monitor from each group is provided to monitor all excavations in case skeletal material is uncovered.

Apart from this request the representatives have no objection to the Water Corporation's project proceeding.

### **3.3 ETHNOGRAPHIC SURVEY RESULTS**

As a result of the ethnographic surveys with representatives of the Single Noongar, *Ballaruk* and *Gnaala Karla Booja* native title claimant groups, no new ethnographic sites were identified within the proposed project area.

## **4 ARCHAEOLOGICAL SURVEY**

### **4.1 ENVIRONMENT**

#### **4.1.1 Climate**

The climate of the survey area is classified, according to the modified Köppen system of climate classification, as sub-tropical summer. (Stern; de Hoedt, and Ernst, 2001). Total average annual rainfall for the region is 870 millimetres, which falls predominantly between May and September. Average temperatures range from a January daily maximum and minimum of 29.7C and 17.9C respectively, to a July daily maximum and minimum of 17.4C and 9.0C respectively (Bureau of Meteorology, 2006)<sup>2</sup>.

#### **4.1.2 Geology, Geomorphology and Soils**

The project area is situated primarily on the Spearwood Dunes system of the Swan Coastal Plain, which lies upon the geological structure known as Perth Basin. The Perth Basin extends for approximately 1,000 kilometres from the Badgerrada Range to south of Pemberton and is described as a deep trough filled with Phanerozoic sediments, and averages approximately 65 kilometres in width and approximately 15 kilometres in depth (Playford, Cockbain and Low 1976:40).

Beneath the Phanerozoic sediments lies a basement complex consisting of Archaean and Proterozoic igneous and metamorphic rocks, constituents, also, of the Yilgarn Block geological feature immediately to the east of the Perth Basin (Playford, Cockbain and Low 1976:41). The Yilgarn Block, comprising gneissic and granitic rocks, covers an area of approximately 657,000 square kilometres (Trendall, 1975:31-32). Overlying the Phanerozoic sediments are the Quaternary sediments, which range from 20 metres to 150 metres in thickness (Playford, Cockbain and Low 1976:206).

The Swan Coastal Plain is comprised of a series of parallel geomorphic elements, which include the coastal Quindalup Dunes, the Spearwood Dunes, the Bassendean Dunes, the alluvial Pinjarra Plain, and the Ridge Hill Shelf, (McArthur and Bettenay 1960:7). Numerous inter-dunal lakes and swamps are to be found within the Spearwood dune system. It is an important intake

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<sup>2</sup> Readings taken from the Perth Regional Office

area for underground aquifers and fresh groundwater can be found at a shallow depth (Beard 1981).

#### **4.1.3 Vegetation**

The project area lies within the Perth region of the Drummond Botanical sub-district of the Darling Botanical District. The Darling Botanical District is in turn a component of the South-West Botanical Province (Beard, 1981a; 1981b; 1990). On the Swan Coastal Plain, landform and soil type are the prime determinants of vegetation type (Heddle, 1979).

The characteristic floristic types of the Bassendean Dunes in the region of the project area include *Banksia attenuata*, *B. menziesii*, *B. ilicifolia*, and *Nuytsia floribunda* and *Casuarina fraserana*. *E. marginata* and *Corimbia calophylla* are also found in association with *Banksia* and *Casuarina* spp (Beard 1981a; 1981b).

#### **4.1.4 Land Integrity**

The project area is generally very highly disturbed through the clearing of land for residential, farming and infrastructure purposes.

## **4.2 ARCHAEOLOGICAL BACKGROUND**

An awareness of the regional archaeological background of a given survey area may enable the archaeologist to make predictive statements about the type of archaeological material that may be encountered within that area. The regional background can be augmented by the results of previous research undertaken for archaeological surveys and information held in site files at the DIA.

Archaeological research within the southwest of Western Australia has revealed some of the oldest dates for artefact assemblages in Australia. Pearce and Barbetti (1981) excavated a stratified site found in alluvial deposits at Upper Swan and identified artefacts in association with charcoal that was dated to 38,000 B.P.<sup>3</sup>. Schwede (1983) excavated a stratified site at Helena River and obtained a date of 29,000 B.P., again from charcoal found in association with artefacts.

Other archaeological sites have evidence of Aboriginal subsistence of similar antiquity. Several caves with a stratigraphic component have evidence of human subsistence of a considerable time-depth. Devil's Lair, a limestone cave situated on the Leeuwin-Naturaliste block has artefacts within the deposit radiocarbon dated up to 33,000BP (Dortch 1974; Dortch 1979a; Dortch 1979b; Dortch and Merrilees 1972; Glover *et al* 1978; Glover 1979). At Tunnel Cave a radiocarbon date of 22,000BP was obtained from charcoal associated with artefacts from within the cave's deposit (J. Dortch 1996).

Artefact scatters in the region have also indicated great antiquity. Quininup Brook, a complex of six artefact scatters with stratigraphic components, has been dated to 18,500±1,700BP, whilst at the Arumvale site, a Pleistocene open-air occupation site with a stratified component, artefacts in association with charcoal have been radiocarbon dated to 18,400±540BP (Dortch and McArthur 1985; Dortch 1986; Ferguson 1981).

Two studies have been undertaken to ascertain the nature of Aboriginal subsistence in the southwest of Western Australia prior to European settlement. Hallam's (1986) Swan Coastal Plain study was the first regional

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<sup>3</sup> Before the Present

archaeological research project in the upper southwest region. Although her focus was primarily on Aboriginal subsistence within the Swan Coastal plain, the study also incorporated data from the Darling Scarp and Darling Plateau.

In short, Hallam's study is an analysis of archaeological sites found in different ecological zones<sup>4</sup> within a transect stretching across the Perth metropolitan area from the coast to the Darling Range, in order to determine their relative usage by Aboriginal people (Hallam, 1986). The basis of this study was previous research she had undertaken in the Perth metropolitan area. From her research, Hallam (1986) concluded that the Darling Scarp and Darling Plateau appeared to have little use owing to the dearth of sites in those zones.

Anderson (1984) undertook a more comprehensive regional study of the southwest. In her paper, titled *Between Plateau and Plain*, Anderson synthesised ethnohistorical, ethnographic, archaeological and environmental data in order to reconcile discrepancies that could lead to different interpretations of Aboriginal occupation in the three ecological zones: the Swan Coastal Plain, the Darling Scarp, and the Darling Plateau (*Jarrah forest*).

The purpose of Anderson's study was to develop a land use model, which considers the exploitation of the jarrah forest by Aboriginal people in the context of the relationship between the three environmentally distinct zones, for the purpose of defining the contrasts and explaining the pattern of usage in which economic, social, and ceremonial factors were significant (Anderson, 1984:1).

Anderson (1984:20) compared the characteristics of archaeological sites on the Swan Coastal Plain, the Darling Scarp and the Darling Plateau. This included Anderson's own work conducted at South Canning, North Dandalup, Avon River, and Perth Airport, as well as surveys at Perth Airport undertaken by Hallam (1972), and at Collie by Veth (1983) and Pearce (1981a), and at Boddington by Pearce (1981b). The results are shown in Table 1.

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<sup>4</sup> Based upon the soils zones of the Swan Coastal Plain, namely: the Quindalup Dunes; the Spearwood Dunes (comprising the Cottesloe limestone overlain by the Karrakatta sands); the Bassendean Dunes; the Pinjarra Plain alluvium; the Foothills, Darling Scarp and the Darling Plateau.

<i>Survey</i>	<i>Area (km<sup>2</sup>)</i>	<i>Site density per km<sup>2</sup></i>	<i>Dominant site locations</i>	<i>Major sites</i>	<i>Intermediate sites</i>	<i>Minor sites</i>
<i>South Canning</i>	25	0.8	<100m from streams. Low ground	-	15	85
<i>North Dandalup</i>	8	1.3	Close to streams. Low ground	-	20	80
<i>Collie (Pearce)</i>	25	2.0	Near damp or swampy areas on gentle slopes	-	-	100
<i>Collie (Veth)</i>	10	5.0	Close to drainage channels on flat ground	-	<25	>75
<i>Boddington</i>	255	0.8	Near water courses or swamps on gently sloping ground	7	2	91
<i>Perth Airport (Anderson)</i>	6	6.5	Sand ridges near water	5	21	74
<i>Perth Airport (Hallam)</i>	14	3.0	Sand ridges near water	29	29	42
<i>Avon</i>	10	1.7	Close to river, tributaries and lake. Single large artefacts on slopes away from water	6	18	76

**Table 2: Comparison of site data (from Anderson, 1984)**

From this data, Anderson (1984:25) identified a dichotomy between the Swan Coastal Plain and the two Darling Range zones. On the Swan Coastal Plain quartz was the dominant lithic type. Fossiliferous chert was also found in site assemblages, decreasing as a proportion of the assemblage total further away from the coast, possibly due to its source now offshore, as were other lithic materials, mainly dolerite, silcrete and mylonite. Sites on the Darling Range were comprised almost exclusively of quartz artefacts, with dolerite as a very minor component.

Anderson (1984) concluded that the archaeological data indicated much less use of the Darling Range environments by Aboriginal people than the Swan Coastal Plain environment. There were no major sites found within the *Jarra* forest and they were ten times less likely on the Darling Plateau than on the Swan Coastal Plain. Artefact densities are two to three times greater on the Swan Coastal Plain than in the *Jarra* forest.

Site distribution is also different for each zone. For the *Jarra* forest, the minor nature of sites is representative of places where people rested whilst passing through, whereas on the Swan Coastal Plain, due to the greater

number of artefact types and debitage, sites were more permanent, or visited more frequently (Anderson 1984:34).

According to Anderson (1984:34) the distribution of sites is a function of actual resource availability and the time of year of resource availability. Seasonal movement of people from the Plain to the Darling Range in winter and early spring is reflected in the small size of the sites found on the Darling Scarp. Swan Coastal Plain resources sustained relatively large populations for most of the year, and are reflected in the major sites found on the plain.

As result of her research, Anderson (1984:37) proposed a prehistoric indigenous land use model for the three ecological zones, exhibiting the following characteristics:

- a) Aboriginal groups based on the Swan Coastal Plain and on the Darling Scarp were associated with core territories;
- b) There was seasonal movement of groups depending on resource availability. In summer and autumn Swan Coastal Plain groups were concentrated on the coast and waterways (resulting in larger archaeological sites). In winter and spring, times of scarce coastal resources, some Swan Coastal Plain groups either moved to the *jarrah* forest, or stayed and hunted and foraged over a wider area in search of food resources. In spring there was a movement of people back to the Swan Coastal Plain;
- c) Groups inhabiting the *jarrah* forest are generally more nomadic, and there is less distinct seasonal movement;
- d) Plateau groups exploit swamp and waterway environments and large mammal populations;
- e) There is a continual, generalized, sporadic movement of people from the Darling Plateau to the Swan Coastal Plain, and vice-versa, for ritual and social purposes.

### **4.3 SURVEY METHODOLOGY**

Wayne Glendenning conducted the archaeological survey of the project area between 22 and 23 December 2006. An initial inspection of the survey area revealed that, generally, the project area has been highly disturbed through farming, residential, industrial, road and other utility infrastructure construction activities over the past century.

Generally within road verges, residential, farming lake margins and bushland areas archaeological visibility was limited to <10%.

In areas where these impediments were not present, for example, on bare ground surface and sand deflation, archaeological visibility increased to >90%.

The survey methodology involved pedestrian and vehicular inspection of the area of the East Rockingham Wastewater Treatment Plant and total length of the proposed pipeline corridor. Theoretically, approximately 50% of the survey area was inspected using this methodology.

#### ***4.4 RESULTS OF THE ARCHAEOLOGICAL SURVEY***

No archaeological sites were located as a result of the archaeological survey.

## 5 DISCUSSION

The Aboriginal heritage survey, comprising both archaeological and ethnographic components, of the proposed East Rockingham Waste Water Treatment Plant project was conducted on 25 November 2006 (ethnography) and between 22 and 23 December 2006 (archaeology).

Representatives of the Single Noongar, *Gnaala Karla Booja* and *Ballaruk* native title claimant groups attended the ethnographic component of the survey.

The survey area has been highly disturbed through the construction of residential housing, power, roads and other infrastructure. There is almost no part of the survey area that has not been disturbed.

No new ethnographic sites were identified as a result of the ethnographic survey and no new archaeological sites were identified as a result of the archaeological survey.

Four Aboriginal heritage sites have been located as a result of previous research undertaken within 2 kilometres of the proposed project area. One of these sites, *Rotary Park Rockingham*, is located near to the survey area on the northern side of Point Peron Road.

The Water Corporation will need to inform its employees of the location of the site, *Rotary Park Rockingham*, in order to avoid inadvertent disturbance to the site.

If the Water Corporation intends to disturb the site *Rotary Park Rockingham*, it will need to obtain permission from the Minister for Indigenous Affairs under Section 18 of the *Aboriginal Heritage Act 1972* ("The Act") prior to any disturbance occurring.

In addition, it is possible skeletal material may be uncovered during the development of the project area. Numerous burial sites are located within the Spearwood and Quindalup dune systems of the Swan Coastal Plain.

If skeletal material is uncovered, work is to cease immediately and the police and a qualified archaeologist are to be notified.

Apart from avoidance of the site *Rotary Park Rockingham*, there are no Aboriginal heritage impediments preventing the proposed waste water treatment project and associated pipework proceeding.

It is therefore recommended:

- The Water Corporation avoids the ethnographic site Rotary Park Rockingham;
- If the Water Corporation is unable to avoid the site then permission is obtained from the Minister for Indigenous Affairs under Section 18 of The Act; and
- The proponent ceases work and informs the police and a qualified archaeologist if skeletal material is located.

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# 7 APPENDIX



Figure 1: Aerial photograph of the project area.