



# Aboriginal Cultural Heritage Assessment

## Bassendean Precinct Structure Plan

19 September 2025

→ **The Power of Commitment**



<b>Project name</b>	Town of Bassendean Town Centre Precinct Plan						
<b>Document title</b>	Aboriginal Cultural Heritage Assessment   Bassendean Precinct Structure Plan						
<b>Project number</b>	12637475						
<b>File name</b>	12637475-REP-B-Aboriginal Cultural Heritage Assessment-Bassendean Precinct Structure Plan						
Status Code	Revision	Author	Reviewer		Approved for issue		
			Name	Signature	Name	Signature	Date
S0	A	A Butcher	S Keiller	On file	A Augustson	On file	15.08.25
S0	B	A Butcher	S Keiller	On file	A Augustson	On file	19.09.25

**GHD Pty Ltd | ABN 39 008 488 373**

Contact: Sarah Keiller, Senior Heritage Advisor | GHD

180 Lonsdale Street, Level 9

Melbourne, Victoria 3000, Australia

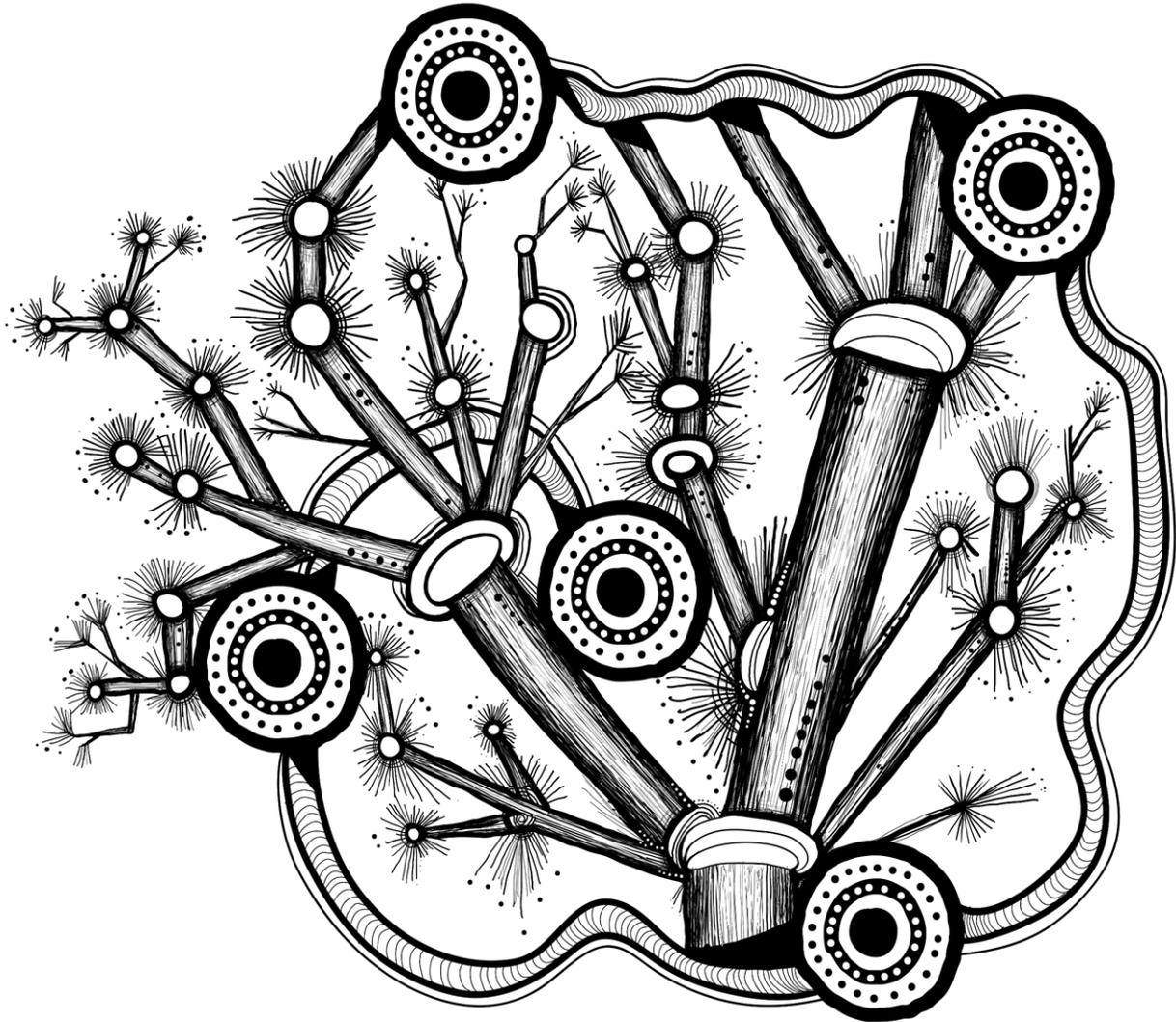
**T** +61 3 8687 8000 | **F** +61 3 8732 7046 | **E** melmail@ghd.com | **ghd.com**

© GHD 2025

This document is and shall remain the property of GHD. The document may only be used for the purpose for which it was commissioned and in accordance with the Terms of Engagement for the commission. Unauthorised use of this document in any form whatsoever is prohibited.

# Acknowledgement of Country

GHD acknowledge the Whadjuk, who are the Traditional Custodians of the Country described in this document, and to the Whadjuk, who are the Traditional Custodians of the Country in which GHD's office is situated. We pay our respects to their Elders past and present and their continuing cultural and spiritual connects to their lands.



# Executive summary

The Town of Bassendean (The Town) has engaged GHD Pty Ltd (GHD) to undertake a Cultural Heritage Desktop Assessment (CHDA) to support the preparation of a Precinct Structure Plan for the Bassendean Town Centre and Success Hill Frame (the Precinct). The Town is required to develop appropriate land use and develop controls that best reflect the priorities of its current and future community. The Town's Local Planning Strategy recognises the potential for development of the Bassendean Precinct to accommodate medium to high-density, mixed-use development with increased functions in housing, employment, and activity.

This CHDA provides information and advice on heritage considerations for the proposed Precinct Structure Plan.

Legislative considerations for the project have been assessed under the *Aboriginal Heritage Act 1972* (AH Act) and *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The results of the database searches are:

- There are four Aboriginal places on the Department of Planning, Lands and Heritage (DPLH) Aboriginal Cultural Heritage Inquiry System (ACHIS);
- 17 previous Aboriginal heritage surveys covering the study area that are recorded on the ACHIS; and
- No World Heritage List (WHL), Commonwealth Heritage List (CHL), or National Heritage List (NHL) registrations are present

Under the DPLH Aboriginal Heritage Due Diligence Guidelines an assessment of the proposed project area and activity were assessed (DAA, 2013). The assessment identified the proposed works as activities that cause 'Negligible disturbance' to the land, which are activities which are non-invasive and cause negligible or no impact to the land.

Based on the CHDA results, the following recommendations have been developed to assist The Town and developers with the management of the Aboriginal heritage values in the project area.

## **Engagement with Whadjuk Aboriginal Corporation**

Consultation with Whadjuk is to be undertaken as part of the consideration of the Bassendean Precinct Structure Plan. Consultation would allow for further discussions on the heritage values of the project area and the appropriate management of sensitive landscapes.

## **Avoidance of ACH**

As there are four Aboriginal cultural heritage (ACH) places (ACH-00003487, ACH-00003757, ACH-00003758, and ACH-00003840) located within the Bassendean Precinct Structure Plan. The Town is advised that it is an offence under s17 of the *Aboriginal Heritage Act 1972* to knowingly damage or impact a heritage place without a s18 permit.

## **Heritage Approvals Pathway**

The following are the steps in order required to by the Town or developers to undertake works within the Bassendean Precinct Structure Plan.

## **Noongar Heritage Agreement for Local Government or Noongar Standard Heritage Agreement**

If not done so already, The Town could enter into a Noongar Heritage Agreement for Local Government (NHALG), or developers enter into a Noongar Standard Heritage Agreement (NSHA) with the South West Aboriginal Land and Sea Council (SWALSC), or if the current SWALSC arrangement changes in the near future, sign an NHALG or NSHA with the Whadjuk Aboriginal Corporation (WAC).

### ***Requesting access to site files***

As a part of preparing an activity notice and preparing for a site identification heritage survey the heritage consultants will need to open the four closed site files for ACH places (ACH-00003487, ACH-00003757, ACH-00003758, and ACH-00003840). This process will need to be coordinated between WAC and the DPLH.

### ***Activity Notice***

To begin consultation with WAC, an Activity Notice should be submitted to the SWALSC. This notice is to contain sufficient information to help SWALSC determine whether a heritage survey is needed for the project area.

It is recommended that an Activity Notice be issued under the NHALG or NSHA if there is any risk that the activity may unlawfully impact Aboriginal cultural sites (e.g., through excavation, destruction, damage, concealment, or alteration). Early engagement with SWALSC and WAC regarding the sharing of detailed information about the proposed activities will help facilitate an informed assessment and decision-making process.

### ***Cultural Heritage Management Plan***

It is leading practice for management of ACH places within the survey area to be managed subject to a cultural heritage management plan (CHMP). A CHMP provides long-term protection and management of Aboriginal heritage, particularly during planning and construction phases.

The Town could prepare a CHMP with the Whadjuk Traditional Owners subsequent to the Bassendean Precinct Structure Plan. The CHMP will detail the nature, extent and significance of ACH that has been identified. It will also provide requirements and mitigation measures to be taken before, during and after project activities to manage the protection of ACH. This CHMP would also include a discovery policy for ACH places, objects and ancestral remains.

# Contents

<b>1. Introduction</b>	<b>2</b>
1.1 Purpose of this report	2
1.2 Aboriginal Corporation	2
1.3 Limitations	2
<b>2. Project description</b>	<b>3</b>
2.1 Plan project area	3
2.2 Perth & Peel @ 3.5 million and Central Sub-Regional Planning Framework	4
2.3 Town of Bassendean Local Planning Strategy	4
2.4 Town Centre Masterplan	4
2.5 Town of Bassendean Local Planning Scheme	5
<b>3. Legislative framework</b>	<b>6</b>
3.1 Environment Protection and Biodiversity Conservation Act 1999	6
3.2 Planning and Development Act 2005	6
3.3 Aboriginal Heritage Act 1972	6
3.4 South West Native Title Settlement	7
<b>4. Methodology</b>	<b>8</b>
4.1 Heritage registers	8
4.2 Due diligence guidelines	8
<b>5. Desktop assessment</b>	<b>19</b>
5.1 Overview of the region	19
5.2 Ethnohistory	21
5.3 Historical context	25
5.4 Regional archaeological context	29
5.5 Ground disturbance	30
<b>6. Results</b>	<b>34</b>
6.1 Heritage database results	34
6.2 Risk assessment	39
<b>7. Conclusion</b>	<b>40</b>
<b>8. Future steps</b>	<b>41</b>
<b>9. References</b>	<b>42</b>

## Table index

Table 1	Aboriginal heritage matrix categories (DAA, 2013)	9
Table 2	DPLH Aboriginal heritage risk matrix (DAA, 2013)	18
Table 3	ACHIS ACH place search results	34
Table 4	Assessment of impact significance	39
Table 5	Assessment of risk significance	39

## Figure index

Figure 1	Precinct boundary (GHD, 2024)	3
Figure 2	Precinct regional context (GHD, 2024)	4
Figure 3	Simplified geological dates of WA (Gozzard, 2007)	20
Figure 4	Map indicating the Perth region before settlement (Town of Cambridge, 2018)	23
Figure 5	Surveyors plan/map of the Town of Guildford, 1902. Project area in red (Bassendean Memorial Library, 2025)	27
Figure 6	Only convict built cottage still standing, 1 Surrey Street (inHerit Place No. 00131) (Carter, 2020)	28
Figure 7	ACHIS results within proximity of the project area	38

## Plate index

Plate 1	Historical aerial image of Bassendean, 1965 (Landgate, 2025)	31
Plate 2	Historical aerial image of Bassendean, 1974 (Landgate, 2025)	31
Plate 3	Historical aerial image of Bassendean, 1977 (Landgate, 2025)	32
Plate 4	Historical aerial image of Bassendean, 1981 (Geoscience Australia, 2025)	32
Plate 5	Historical aerial image of Bassendean, 2002 (Google Earth)	33
Plate 6	Aerial image of Bassendean, 2025 (Google Earth)	33

# Acronyms and definitions

Term used	Meaning
ACH	Aboriginal Cultural Heritage
ACH Historic	Aboriginal heritage places determined to not meet the criteria of Section 5 of the <i>Aboriginal Heritage Act 1972</i> . Includes places that no longer exist as a result of land use activities with existing approvals.
ACH Lodged	Aboriginal cultural heritage place with information in a verification stage and prior to ACHC assessment.
ACH Registered	A heritage place which was assessed as meeting Section 5 of the <i>Aboriginal Heritage Act 1972</i> .
ACHC	Aboriginal Cultural Heritage Committee
ACHIS	Aboriginal Cultural Heritage Inquiry System
AHMP	Aboriginal Heritage Management Plan
Activity	An activity involving no, minimal, low or moderate to high level of ground disturbance that may harm ACH
Activity area	The area where it is intended that the proposed activity will be carried out
AH Act	<i>Aboriginal Heritage Act 1972</i>
CHDA	Cultural Heritage Desktop Assessment
CHL	Commonwealth Heritage List
CHMP	Cultural Heritage Management Plan
Country	Refers to the lands, waterways, and seas to which Aboriginal people are connected through ancestral ties and family origins
DCCEEW	Department of the Climate Change, Energy, Environment, and Water
DPLH	Department of Planning, Lands and Heritage
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
GIS	Geographic information systems
Heritage Place	Aboriginal site or object as defined in sections 5 and 6 of the AH Act.
ILUA	Means an Indigenous land use agreement registered on the Register of Indigenous Land Use Agreements established and maintained under Part 8A of the <i>Native Title Act 1993</i>
LHS	Local Heritage Survey
NHALG	Noongar Heritage Agreement for Local Government
NHL	National Heritage List
NNTT	National Native Title Tribunal
NSHA	Noongar Standard Heritage Agreement
Protected area	ACH of outstanding significance to a knowledge holder (refer to the Protected Area Order Guidelines)
PMST	Protected Matters Search Tool
SHC	State Housing Commission
SWALSC	South West Aboriginal Land and Sea Council
The Act	<i>Planning and Development Act 2005</i>
The Precinct	Bassendean Town Centre and Success Hill Frame
The Town	The Town of Bassendean
WAC	Whadjuk Aboriginal Corporation
WHL	World Heritage List

# 1. Introduction

The Town of Bassendean (The Town) has engaged GHD Pty Ltd (GHD) to undertake a Cultural Heritage Desktop Assessment (CHDA) to support the preparation of a Precinct Structure Plan for the Bassendean Town Centre and Success Hill Frame (the Precinct) under the *Planning and Development Act 2005* (the Act).

The CHDA considers the land use planning implications as relevant to the conservation of Aboriginal cultural heritage values within the Precinct. This CHDA does not expressly consider the European/historic heritage values of the Precinct. It is noted that a Heritage Impact Assessment has been prepared for the Success Hill Frame as part of the Precinct Structure Plan project.

The Bassendean Precinct Structure Plan has been prepared to address the vision, planning principles, objectives and community priorities expressed in the Town's Local Planning Strategy (the Strategy). The Strategy was endorsed in 2020 and enshrines key land use planning and development priorities of the Town's community.

To understand their obligations under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and *Aboriginal Heritage Act 1972* (AH Act), the Town have commissioned a CHDA over the proposed works.

## 1.1 Purpose of this report

Where an activity may affect Aboriginal cultural heritage (ACH) and European historic heritage values, a CHDA is undertaken to assess the risk of harm, enabling the proponent to determine how to proceed in relation to the proposed activity. The purpose of this report includes an analysis of the project area region generally, its connection to Traditional Owner groups and, outline findings relevant to the preparation of a Precinct Structure Plan.

## 1.2 Aboriginal Corporation

The Precinct Structure Plan area is located within the Whadjuk Indigenous Land Use Agreement (ILUA) area (refer Whadjuk ILUA WAD 242/11). The interests of Whadjuk are represented by South West Aboriginal Land and Sea Council (SWALSC) and Whadjuk Aboriginal Corporation (WAC).

## 1.3 Limitations

*This report: has been prepared by GHD for Town of Bassendean and may only be used and relied on by Town of Bassendean for the purpose agreed between GHD and Town of Bassendean as set out in section 1.1 of this report.*

*GHD otherwise disclaims responsibility to any person other than Town of Bassendean arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.*

*The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.*

*The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.*

*The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report (refer section(s) 1.1 of this report). GHD disclaims liability arising from any of the assumptions being incorrect.*

## 2. Project description

### 2.1 Plan project area

Figure 1 depicts the land subject to the Precinct Structure Plan.

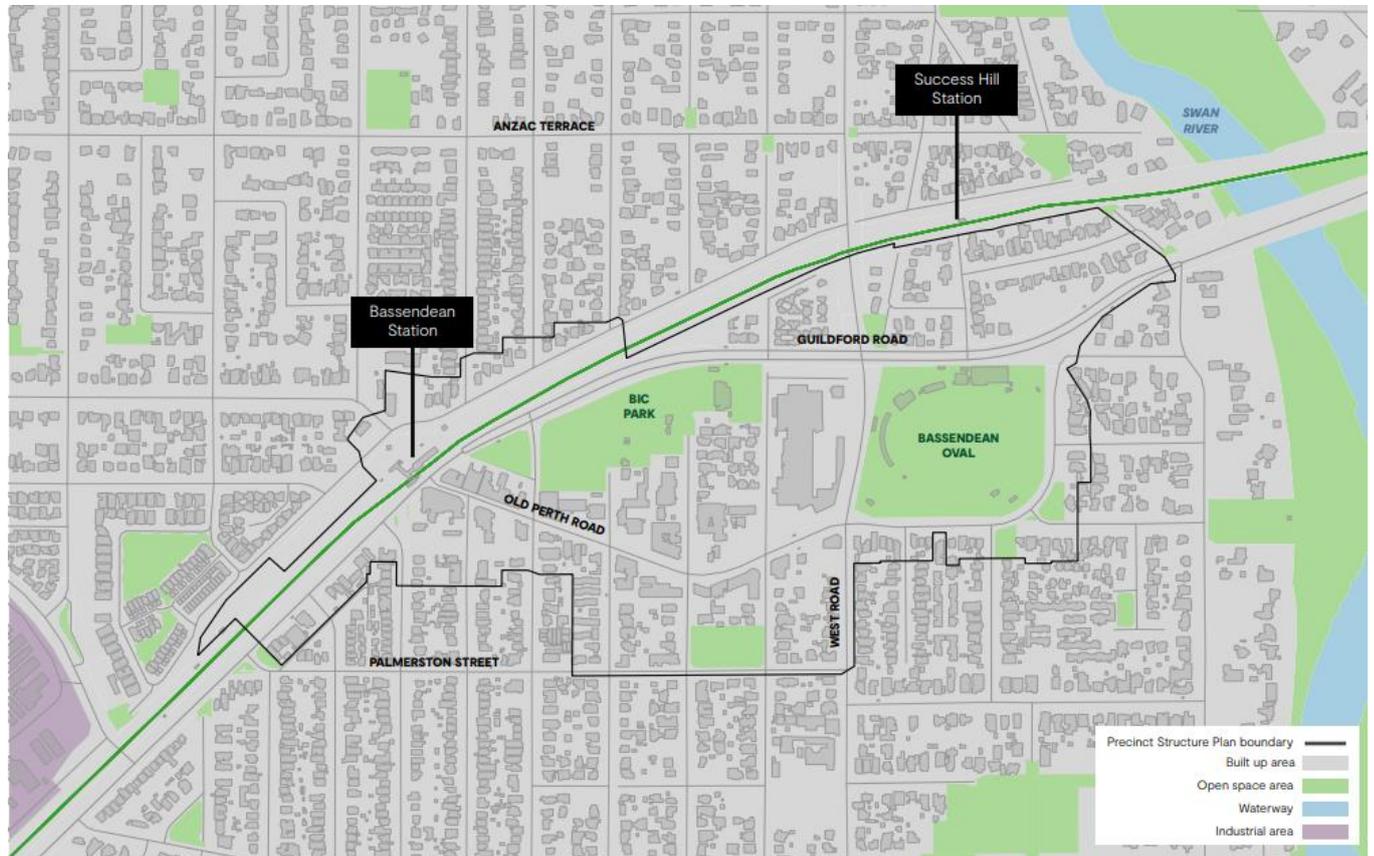


Figure 1 Precinct boundary (GHD, 2024)

The Precinct is positioned in Perth's eastern suburbs, forming part of a series of connected centres along the Perth-Midland railway line, as shown in Figure 2 Precinct regional context **Error! Reference source not found..** Connected to major centres like Maylands, Bayswater and Midland, the Bassendean Precinct plays an important role in connecting residents of Bassendean, Ashfield and Success Hill to wider transport networks, areas of employment and activity and natural amenity.

The Precinct is well located to enable current and future residents to leverage employment opportunities at major employment hubs like Ashfield, Bayswater, Midland and Morley. The Swan River significantly curtails the Precinct's catchment to the south and to a lesser extent to the east, dividing the Bassendean Precinct from otherwise nearby locations such as Redcliffe/Perth Airport, Hazelmere, Guildford and the lower Swan Valley.

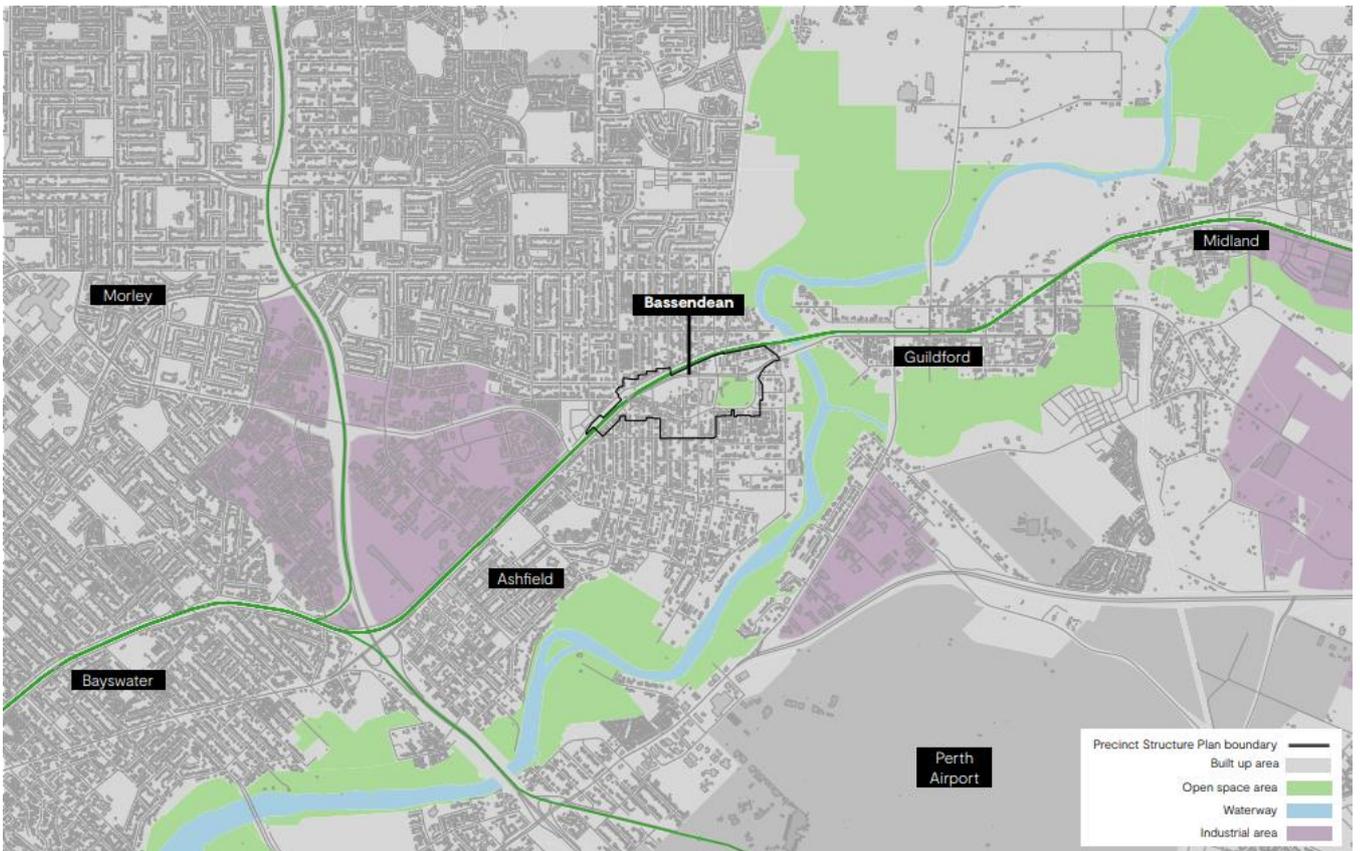


Figure 2 Precinct regional context (GHD, 2024)

## 2.2 Perth & Peel @ 3.5 million and Central Sub-Regional Planning Framework

The Perth and Peel @ 3.5 million suite of strategic land use and infrastructure plans, including four Sub-regional Planning Frameworks (north-west, north-east, central and south metropolitan Peel), seek to guide the future growth of the Perth and Peel regions as a compact, consolidated and connected city that can accommodate a population of 3.5 million by 2050.

The Central Sub-regional Planning Framework provides high level guidance for the growth of the Central sub-region of the Perth metropolitan area, and forms part of the ‘Perth and Peel @ 3.5 million’ suite of strategic land use and infrastructure plans. The framework provides high-level guidance regarding where new homes and jobs will be located, how to make best use of existing and proposed infrastructure and how best to protect the natural environment to allow sustainable growth within the central sub-region.

## 2.3 Town of Bassendean Local Planning Strategy

The Town’s Local Planning Strategy was endorsed in February 2023. The Strategy sets out the long-term planning direction for land use and development within the Town; principle of which is planning for the Precinct.

Consistent with the principles of urban consolidation, the Strategy identifies six planning areas for land use intensification. For the Bassendean Precinct, this includes accommodating between 1,209 and 2,175 additional dwellings by the middle of the century. The Strategy includes actions to prepare a Precinct Structure Plan for the precinct, based primarily on the findings and community aspirations expressed through the Town Centre Masterplan.

## 2.4 Town Centre Masterplan

In 2021, the Town endorsed the Bassendean Town Centre Masterplan following extensive community and external stakeholder engagement. The Masterplan provides a high-level vision for the Precinct and is intended to

be implemented through preparation of this Precinct Structure Plan. Objectives identified in the Masterplan relevant to transport and movement outcomes for the Precinct are as follows:

- Improved pedestrian mobility and accessibility;
- Transit-oriented development and locating high density development in proximity to train stations; and
- Appropriate management of parking supply and demand.

## **2.5 Town of Bassendean Local Planning Scheme**

LPS11 applies to the whole of the Precinct. LPS11 provides site, development and land use requirements that apply to any application for development approval. Most of the Precinct is zoned District Centre, with no residential density coding applied. The District Centre zoning focuses on properties near to Old Perth Road, including the Bassendean shopping centre.

This Precinct Structure Plan specifies zoning and coding outcomes for the Bassendean Precinct that are to be implemented as part of a future amendment to the local planning scheme.

## 3. Legislative framework

### 3.1 Environment Protection and Biodiversity Conservation Act 1999

Commonwealth requirements in relation to environmental (including heritage) assessment and management are principally specified in the EPBC Act administered by the Commonwealth Department of the Climate Change, Energy, Environment, and Water (DCCEEW).

### 3.2 Planning and Development Act 2005

The Planning and Development Act 2005 is the primary legislation for the management of planning and development within WA. The Act consolidates the provisions of local planning schemes, which regulate the use and development of land. Local governments manage items of local heritage significance through the Act and are administered by their relevant local Council Planning Scheme.

### 3.3 Aboriginal Heritage Act 1972

The AH Act states that compliance means that the proponent is obligated to identify and protect all Aboriginal heritage sites and places as defined by section 5 of the AH Act prior to development occurring.

If protection is not an option, then consent to affect such sites and places can be sought from the DPLH and the Minister of Aboriginal Affairs under section 16 and 18 of the AH Act, or under regulation 10 of the *Aboriginal Heritage Regulations 1974*. After the repeal of the *Aboriginal Cultural Heritage Act 2021* the AH Act was reinstated with amendments in 2023.

ACH is defined in section 5 of the AH Act as:

#### **Aboriginal cultural heritage —**

- 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; and*
- 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.*

Other important sections of the AH Act:

#### **Offences relating to Aboriginal sites —**

- *Under section 17 of the AH Act, a person who excavates, destroys, damages, conceals or in any way alters any Aboriginal site commits an offence, unless he or she acts with the authorisation of the Registrar of Aboriginal Sites (Registrar) under section 16 or the consent of the Minister of Aboriginal Affairs (Minister) under section 18*
- *All land users who wish to use land for a purpose which might contravene Section 17 of the AH Act must exercise due diligence in trying to establish whether or not their proposed activity on a specified area may damage or destroy an Aboriginal place*

#### **Consent to certain uses —**

- *Under Section 18 of the AH Act provides that, in order to avoid committing an offence under Section 17, a landowner may give notice to the Committee that he or she requires to use the land for a purpose that might*

*impact on a heritage place unless consent is given by the Minister to the use of the land for that purpose. The Committee considers the notice and makes a recommendation to the Minister for Aboriginal Affairs. The Minister then makes a decision whether or not to consent to the use of the land.*

There are four different types of approvals under the AH Act and are as follows:

- s.18, as discussed above
- s.16, as discussed above
- r.7 provides approvals to take digging or lifting equipment or explosives to an Aboriginal site
- r.10 approvals are granted in relation to a range of minor activities, including maintenance works, bridge works, environmental work, emergency activities, fencing, jetties, dredging and remediation works

#### **Assessment of Significance —**

Section 39(2) is regarding the assessment of significance and importance regarding Aboriginal heritage sites, this assessment generally only takes place as a part of the s.18 process. Lodging of Aboriginal heritage places with the DPLH does not guarantee registration by the Aboriginal Cultural Heritage Committee (ACHC) as this site assessment is generally triggered by the s.18 process. Section 39(2) states that:

*In evaluating the importance of places and objects the Committee shall have regard to:*

- *Any existing use or significance attributed under relevant Aboriginal custom;*
- *Any former or reputed use or significance which may be attributed upon the basis of tradition, historical association, or Aboriginal sentiment;*
- *Any potential anthropological, archaeological or ethnographical interest; and*
- *Aesthetic value*

## **3.4 South West Native Title Settlement**

The Precinct Structure Plan area is located in the South West Native Title Settlement Area. The National Native Title Tribunal (NNTT) finalised all Native Title Claims in the Settlement Area on 1 December 2021. The Settlement Area is governed by SWALSC, who direct proponents to the relevant Aboriginal Corporation; in this case the WAC.

Through this process native title has been extinguished in the area within the Settlement Area, and the *Native Title Act 1993* no longer applies (DPLH, 2023).

### **3.4.1 Noongar Standard Heritage Agreement**

SWALSC are the native title service provider to the Traditional Owners of the south west of WA and help administer Noongar Standard Heritage Agreements (NSHA). The ILUAs bind the parties to enter into a NSHA when conducting Aboriginal Heritage Surveys in the ILUA areas unless they have an existing heritage agreement.

The NSHA provides a uniform and efficient approach to Aboriginal heritage surveys in the south west, in compliance with the AH Act. A NSHA provides all parties with a clear framework of the various obligations and delivers a process for improving the quality of data on the government's ACHIS.

### **3.4.2 Noongar Heritage Agreement for Local Government**

Noongar Heritage Agreement for Local Government (NHALG) is a modified NSHA that has been specifically tailored for local government regulations. The NHALG was developed with the Western Australian Local Government Association (WALGA).

### **3.4.3 Activity Notice**

An 'Activity Notice' is a notice that is issued by the proponent to SWALSC under cl.8.2 of the NSHA NHALG. The purpose for issuing an Activity Notice as set out in cl.8.3 of the NSHA, is as follow:

- To provide adequate information to assist SWALSC in assessing whether a survey is required

- If a survey is required to provide information relevant to the conduct of the survey.

It is recommended that an Activity Notice is issued under the NSHA and NHALG where there is a risk that an activity will unlawfully impact (i.e., by excavating, destroying, damaging, concealing or altering in any way) an Aboriginal site. Proponents are encouraged to engage early with SWALSC and provide information about the proposed activities to enable informed decisions to be made.

## 4. Methodology

### 4.1 Heritage registers

#### 4.1.1 Protected Matters Search Tool

The EPBC Act provides for the listing of natural, historic, or Indigenous heritage values on Commonwealth lands and is maintained by the federal government of Australia. The places include sites that are considered to be of outstanding heritage value or those considered significant to the state. Listings include the World Heritage List (WHL), National Heritage List (NHL), and Commonwealth Heritage List (CHL).

#### 4.1.2 Aboriginal cultural heritage information system

The ACHIS comprises a catalogue of previously recorded and submitted heritage places and is maintained by the DPLH. The proposed project area shapefile was entered into the DPLH's ACHIS to determine whether any previous heritage surveys had been conducted and whether any ACH or reports are located within the area.

- **ACH Registered:** Are heritage places that have been assessed by the ACHC as constituting sites under Sections 5 of the Act.
- **ACH Lodged:** Are heritage places that have been submitted to the DPLH and are yet to be assessed by the ACHC. Generally, a heritage place will only be assessed by the ACHC when a s18 is lodged over an area due to time limitations of the ACHC.
- **ACH Historic:** Aboriginal heritage places determined to not meet the criteria of Section 5 of the AH Act by the ACHC. It also includes places that no longer exist because of land use activities with existing approvals.
- **Surveys:** These are the surveys that have been undertaken and represents reports lodged with the DPLH.

### 4.2 Due diligence guidelines

The DPLH Aboriginal heritage due diligence guidelines advise to apply a precautionary approach to the assessment of risk to Aboriginal heritage. This ensures all aspects of potential risk are considered and appropriate steps are applied to avoid or minimise damage to Aboriginal places (DAA, 2013). The precautionary principle should be applied to any circumstances where doubt exists, particularly about:

- Potential impact to Aboriginal heritage; and/or
- Nature and level of potential impact of the proposed activity(s)

Risks to Aboriginal heritage associated with the Project have been assessed based on:

- Archaeological sensitivity of the project area, and relative potential of interference within the footprints of individual elements of the Project, in according to the planned works program
- The nature of the activities in relation to possible disturbance of potential heritage places and to determine the level of risk of posed by construction activities in each location

Table 1 lists the typical development activities which demonstrates the likely activities associated with the level of disturbance. The categories are intended to be used in conjunction with the Aboriginal Heritage matrix (refer Table 2).

Table 1 Aboriginal heritage matrix categories (DAA, 2013)

Category	Description
Negligible disturbance	<p>Activities which are non-invasive and cause negligible or no impact to the land may include:</p> <ul style="list-style-type: none"> <li>– Walking, photography, filming</li> <li>– Aerial surveying/magnetic surveys</li> <li>– Use of existing tracks, water courses</li> <li>– Environmental monitoring</li> <li>– Water and soils sampling</li> <li>– Fossicking using handheld instruments</li> <li>– Spatial measurement</li> <li>– Scientific research, using handheld tools</li> </ul>
Minimal disturbance	<p>Activities that cause minimal disturbance to the land may include:</p> <ul style="list-style-type: none"> <li>– Cultivation/grazing in areas previously cultivated/grazed</li> <li>– Maintenance of existing paths, walls, roads, tracks, bridges, public infrastructure (e.g., electrical, water, sewage) and community utilities within the existing footprint and adjacent service areas</li> <li>– Feral animal eradication, weed, vermin and pest control, vegetation control and fire control</li> <li>– Light vehicular access and camping</li> </ul>
Moderate disturbance	<p>Activities that cause moderate disturbance to the land may include:</p> <ul style="list-style-type: none"> <li>– Work program clearance</li> <li>– Sampling using handheld rig or rig mounted on a light vehicle</li> <li>– New fire breaks</li> <li>– Re-vegetation</li> <li>– Temporary power lines</li> <li>– Temporary gravel or soil stockpile</li> <li>– Temporary camps</li> </ul>
Significant disturbance	<p>Activities that cause significant disturbance to the land may include:</p> <ul style="list-style-type: none"> <li>– Creation of new roads or tracks</li> <li>– New public access ways, bridges, culverts, flood remediation and erosion levies</li> <li>– Land clearing over more than a small area</li> <li>– Intensive soil/core sampling</li> <li>– New pipelines</li> <li>– Significant reclamation works</li> <li>– Major landscaping/contouring</li> </ul>
Major disturbance	<p>Activities that cause major and lasting disturbance to the land may include:</p> <ul style="list-style-type: none"> <li>– Large-scale land clearing</li> <li>– Exploration drilling</li> <li>– Bulk sampling, soil excavation</li> <li>– Mechanical earthmoving, blasting</li> <li>– Major construction works</li> <li>– Open cut mining</li> <li>– Large scale changes to waterways</li> <li>– Industrial development</li> </ul>

The risk to Aboriginal heritage within the project area is assessed according to the potential for ACH values to be impacted by the Project activities.

Table 2 DPLH Aboriginal heritage risk matrix (DAA, 2013)

Previous land use	LAND ACTIVITIES – CATEGORIES 1-5					
		Negligible disturbance	Minimal disturbance	Moderate disturbance	Significant disturbance	Major disturbance
	<b>Built Environment</b> - e.g., urban environment, towns, metropolitan region.	Low	Low	Low	Low	Medium
	<b>Significantly Altered Environment</b> - e.g., cultivated and cleared land.	Low	Low	Low	Medium	High
	<b>Moderately Altered Environment</b> - e.g., partially cleared lands, re-vegetated landscape.	Low	Low	Medium	Medium	High
	<b>Minimally Altered Environment</b> - e.g., urban bush land, regrowth areas	Low	Medium	Medium	High	High
<b>Unaltered Environment</b> - e.g., protected areas or pristine environment.	Low	Medium	High	High	High	
Risk Assessment		Actions				
Low Risk (Review)		<b>A range of further actions may be required, including:</b> <ul style="list-style-type: none"> <li>– Consult the DPLH regarding Aboriginal and/or Historic Heritage</li> <li>– Desktop survey</li> <li>– Aboriginal consultation</li> </ul>				
Medium Risk (Review/Exercise Caution)		<b>A range of further actions may be required, including:</b> <ul style="list-style-type: none"> <li>– Consult the DPLH regarding Aboriginal and/or Historic Heritage</li> <li>– Desktop survey</li> <li>– Aboriginal consultation</li> <li>– Ethnographic survey</li> <li>– Archaeological survey</li> </ul>				
High Risk (Consult/Survey/Approvals)		<b>A range of further actions may be required, including:</b> <ul style="list-style-type: none"> <li>– Desktop survey</li> <li>– Consult the DPLH regarding Aboriginal and/or Historic Heritage</li> <li>– Aboriginal consultation</li> <li>– Ethnographic survey</li> <li>– Archaeological survey</li> <li>– Application for s.18 of the AH Act approval</li> <li>– Application for r.7 or r.10 of the AHR approval</li> <li>– Cultural Heritage Management Plan (CHMP)</li> <li>– Government Heritage Property Disposal Process</li> </ul>				

## 5. Desktop assessment

### 5.1 Overview of the region

#### 5.1.1 Environmental context

##### 5.1.1.1 Biogeographic region

The project area is located within the Swan Coastal Plains region of the Interim Biogeographic Regionalisation for Australia (IBRA). The Swan Coastal plains are bound in the east by the Darling Scarp and in the west by the Indian Ocean, and extends north into the Geraldton Sandplains and south towards the Margaret River area terminating on the border with the Jarrah Forrest IBRA south of Busselton (Australian Commonwealth Government, 2025). The Swan Coastal Plan consists of a low-lying coastal plain which is mainly covered by woodlands. The plain is typically dominated by Banksia or Tuart on sandy soils *Casuarina obesa* on outwash plains, and paperbark trees in swampy areas (Government of Western Australia, 2000).

Within the IBRA division the project area is also within the Swan Region Natural Resource Management (NRM) region (Australian Commonwealth Government, 2025). The NRM provides the Perth region with an integrated framework for natural resource management. The NRM covers one million hectares which includes the Perth metropolitan area, the Swan and Canning River Catchments, and extends to three nautical miles offshore, incorporating islands such as Rottnest and Garden Islands (Perth NRM, 2022).

##### 5.1.1.2 Geology and geomorphology

The project area is located within the Swan Coastal Plain which consists of unconsolidated sediments or dune limestone. Two belts of sediments that differ in origin make up the Swan Coastal Plain; aeolian sediments in the west and alluvial sediments in the east. There are three major dune systems that make up the aeolian sediments, these dune systems are comprised of the Bassendean Dune System, Quindalup System and the Spearwood System (Government of Western Australia, 2000).

In between the two dune systems (Bassendean and Quindalup) systems sits the Spearwood System which was formed during the Pleistocene glacial and interglacial periods approximately 40,000 years ago. The dunes are made up of yellow brown sands of varying thickness lain over Tamala limestone (Semeniuk & Glassford, 1989). Although not as old as the Bassendean dunes, the Spearwood dunes contain iron salts and some calcium carbonate. The sands that make up these dunes have come from the ocean and consequently contain other marine material in them, i.e., shells from dead molluscs (Semeniuk & Glassford, 1989). The project area is within the Spearwood Dune System which is the formal name given to the Quaternary sands that overlay coastal Tamala Limestone formations.

The Swan Coastal Plain is part of the wider Perth Basin. The Perth Basin was created during the continental separation of the Indian subcontinent with Australia during the breakup of the Super continent of Gondwana (Gozzard, 2007). The Perth basin consists of the Swan Coastal Plain which is between the Darling Scarp in the east and the Indian Ocean in the west. The Coastal Plain is dissected by meandering rivers and smaller tributaries that originate within or east of the Darling Scarp depositing into the Indian Ocean in the West. The Swan Coastal Plain is underlain by between 30 m and 70 m of Quaternary superficial sands, limestone and clay. The Darling Fault forms the eastern boundary of the Perth Basin with the Precambrian crystalline rocks of the Yilgarn Craton, which consist of granite, gneiss migmatite with minor schist, cut by dolerite dykes. The Precambrian rocks are deeply weathered with a lateritic profile (Commander, 2025). These minerals are consistent with two periods of extensional faulting in the Late Carboniferous Early Permian and in the late Jurassic Early Cretaceous period (See Figure 3) separated by a sag basin development. The sag basin was formed during the last period of rifting which occurred during the Late Jurassic - Early Cretaceous periods (Norvick, 2003).

Eon	Era	System/Period	Lower boundary age (Ma)	Duration (Ma)	Rocks of Perth Region		
Phanerozoic	Cenozoic	Quaternary		1.81	65.5	Superficial formations	
		Neo-gene	Pliocene Miocene Oligocene	23.0			
		Paleo-gene	Eocene Paleocene	65.5			
	Mesozoic	Cretaceous		145.5		80.0	Rocks of the Perth Basin
		Jurassic		199.6		54.1	
		Triassic		251.0		51.4	
	Paleozoic	Permian		299.0		48.0	
		Carboniferous		359.2		60.2	
		Devonian		416.0		56.8	
		Silurian		443.7		27.7	
Ordovician		488.3	44.6				
Cambrian		542.0	53.7				
Proterozoic	Neoproterozoic		1000	458	Cardup Group		
	Mesoproterozoic		1600	600			
	Paleoproterozoic		2500	900			
Archean					Rocks of the Yilgarn Craton		
			Lower limit is not defined				

Figure 3 Simplified geological dates of WA (Gozzard, 2007)

### 5.1.1.3 Climate and hydrology

The Perth region of Southwestern Australia consistently receives weather that is hot and dry in the summer, and wet and mild in the winter. The closest long term data collection centre (Jandakot Airport) has rainfall records dating to 1972 (BOM, 2025a). These records show the project area (or as close to the project area as possible) fluctuates in rainfall with increases being recorded in some years followed by years of lesser rainfall (BOM, 2025a). The mean yearly rainfall is 810.7 mm with the lowest recorded rainfall in 2010 at 495.8 mm and the highest yearly rainfall recorded in 1987 at 1148.1 mm (BOM, 2025a).

The Perth Basin consists of three distinct river systems: the Swan-Canning Estuary, Murray, and Harvey. The Precinct is located on the eastern edge of the Swan River, within the Swan-Canning Estuary Catchment. While the Swan River is the main surface water body, there are several small wetlands remaining in the Town including Bindaring Wetland and the micro-wetland at Mary Crescent Reserve, adjacent to the river and its flood plain. However, these exist outside of the Precinct boundary.

### 5.1.1.4 Flora and fauna

The Swan Coastal Plain and the surface ground water retained in lakes and streams support extensive aquatic ecosystems that extend along the entire length of the Swan Coastal Plain and further north into the Geraldton Sandplains. These ecosystems are reliant on the swampy nature of the Coastal Plain. The Swan Coastal Plain is

located in the Botanical sub-district of Drummond within the broader Botanical Province of the South-West or Darling, the project area contains a wide variety of flora and fauna and is considered one of the world's 34 plant diversity hotspots (Beard, 1980; Harris, 2018). The Drummond subdistrict is characterised by low *Banksia* woodland on leached sands and *Melaleuca sp.* and associated species where drainage is poor. Tuart woodland (*Eucalyptus gomphocephala*), Jarrah (*Eucalyptus marginata*) and Marri (*Eucalyptus calophylla*) being present on less leached soils (Rory O'Connor, 1989).

Recent environmental studies of the Bindaring Park, Bassendean, south of the precinct have identified 180 vertebrate fauna species as potentially occurring in the Bindaring Park study area, five fish, 6 frogs, 20 reptiles, 134 birds, 8 native and 7 introduced mammals (Browne-Cooper & Bamford, 2017). It was found that the main processes currently affecting the fauna assemblage include habitat size and loss, connectivity and feral species (plants and animals), and local hydrology (Browne-Cooper & Bamford, 2017). Local fauna identified included Slender Tree-Frog (*Litoria adelaidensis*), Mosquito Fish (*Gambusia Holbrook*), Bobtail (*Tiliqua rugosa*), Grey Teal (*Anas gracilis*), Yellow-billed Spoonbill (*Platalea flavipes*), Black Cockatoo spp., Australian Raven (*Corvus coronoides*), and European Red Fox (*Vulpes vulpes*) (Browne-Cooper & Bamford, 2017). It should be noted that the Australian Raven is one of two moiety groups in Whadjuk Nyungar society (Peoples Ocean Knowledge Trail of Cockbourn Sound and Districts, 2025).

## 5.2 Ethnohistory

### 5.2.1 Noongar Nation

Noongar Country spans from the west coast at a point north of Jurien Bay and proceeds easterly to a point north of Moora, where it then extends south east on the southern coast between Bremer Bay and Esperance (Tindale, 1974; Berndt & Berndt, 1979). However, the contemporary boundaries differ slightly from the boundaries proposed by Normal Tindale who was informed by an elder called Ngepal in 1953 (Tindale, 1974).

The Noongar value and honour place and use a round cyclical sense of time as a result of the rhythm and flows of the seasons (Bates, 1985). Together with tradition and the seasons, this cycle determined peoples' daily activities. The season recorded by Bates (1985) are as follows:

Noongar name	English translation
<i>Mokur</i>	Winter – June and July
<i>Jilba</i>	Spring – August and September
<i>Kambarong</i>	October and November
<i>Beeruk</i>	Summer – December and January
<i>Boornor</i>	Early autumn – February and March
<i>Winyarung</i>	Autumn – April and May

Like many Aboriginal groups around Australia the kinship or moieties system assigns the relationships between people and particular species or individual animals or trees and bond them to place (Collard, 1994). In particular the Noongar marriage or union system was constructed to ensure the survival of Noongar people over thousands of years. The system was a rule-based system designed to avoid intermarriage between close relatives. As such, groups of families were placed into separate moieties or kinship groups (Bates, 1992). This classification is determined by descent from their mothers or from their fathers depending on the Country in which they came (Bates, 1992). Bates (1992) stated that Noongar men would travel a long distance to find a wife from a different group.

The Noongar nation is comprised of 14 sub-dialectical language groups. These groups were referred to by Daisy Bates and Norman Tindale as clans and tribes. This perspective has changed as a broader understanding of the makeup of Noongar society is further studied and our collective knowledge is expanded (South West Aboriginal Land & Sea Council, 2025). The Noongar language is spoken officially by all South West Western Australian Aboriginal groups which include 14 dialects (South West Aboriginal Land and Sea Council, n.d.). Some of these dialects are loosely based on contemporary ILUA boundaries established in the South West Native Title Settlement in 2018 and are as follows:

- *Amangu,*
- *Yued/Yuat,*
- *Whadjuk/Wajuk,*
- *Binjareb/Pinjarup,*
- *Wardandi,*
- *Balardong/Ballardong,*
- *Nyakinyaki, Wilman,*
- *Ganeang,*
- *Bibulmun/Piblemen,*
- *Mineng,*
- *Goreng and Wudjari*
- *Njunga*

## 5.2.2 Whadjuk Country

The Whadjuk People (ILUA WI 2017/015) custodial lands cover 5,580 km<sup>2</sup> centred roughly on the Perth central business district including the Swan River and its tributaries as well as the many lakes located within the coastal hinterland (e.g., Bibra Lake and Lake Monger/Galup) (Figure 4). The towns and cities incorporated in the Whadjuk ILUA include Fremantle, Perth, Joondalup, Armadale, Toodyay, Guildford, and Bullsbrook (Whadjuk Regional Development Coordinator, 2025).

The Whadjuk are situated around the Derbal Yaragan (Swan River), meaning *der-bal*= an estuary; *yaragan*= river. However, the name and meaning has been contested due to the application being to the estuary alone and not the river in its entirety (Hughes-Hallett, 2010).

The Jarrah Forrest is primarily confined to the Darling ranges in the east, trending roughly north to south. The ranges that make up the escarpment terminate in the south beyond Whadjuk traditional lands as does both the Swan Coastal Plain and Jarrah Forrest (Tindale, 1974).

These lands were hunted on, and food resources were gathered for consumption, storage or for the creation of clothing, tools, and shelter (Isaacs, 2002). Noongar people were identified through the prevalence of skin cloaks called *Bukka* which were endemic to the South West of Western Australia (Lofgren, 1975, p. 47). This is due in part to the wide variety of fauna available to them on a regular basis.



Figure 4 Map indicating the Perth region before settlement (Town of Cambridge, 2018)

### 5.2.2.1 Family and totems

Whadjuk society is a matrilineal society that is divided into moiety or totem groups (Peoples Ocean Knowledge Trail of Cockbourn Sound and Districts, 2025). Each moiety group is determined by the mother. Everyone in Noongar society has a moiety and cannot intermarry with their own group (Peoples Ocean Knowledge Trail of Cockbourn Sound and Districts, 2025). Totems are the ancestral form of animals, plants, or other objects. Each person has a personal totem and a family totem (Walley, 2025). Having a totem denotes what ancestral being you are to look after, as they cannot look after themselves (Walley, 2025). This gives both families and individuals a large amount of responsibility in maintaining the balance of nature. Totems help define a person's relationship to the world and to the Dreaming: past, present and future (Peoples Ocean Knowledge Trail of Cockbourn Sound and Districts, 2025). Dreaming and mythology

The story of the *Waugal* plays an important part of Aboriginal society, not just in the Perth region. A. R. Radcliffe-Brown (1926) identified the universal nature of the Rainbow Serpent. He indicated that the serpent was often associated with certain pools or water holes, with many instances associated with crystal quartz. The crystal is

known for its prismatic colours which are closely linked to the Rainbow Serpent (Radcliffe-Brown, 1926). This close association led Radcliffe-Brown to comment that “*rock crystal, in a great number of Australian tribes, is regarded as a substance of great magical virtue, and is constantly made use of by medicine men*” (Radcliffe-Brown, 1926, p. 19). Further beliefs in the *Waugal* were that it was dangerous for anyone other than a medicine man to approach including water holes where it lay; those who did would get sick and die (Radcliffe-Brown, 1926). Because of this, those who acquired wounds they could not explain often believed that it had been caused by the *Waugal*. Miscarriages or pain prior to childbirth were thought to be influenced by the *Waugal* (Radcliffe-Brown, 1926). For women it was considered a particularly strong taboo to approach waterholes that contained the *Waugal* (Radcliffe-Brown, 1926, p. 22). Hence the *Waugal* was a widely known about spiritual entity that holds an enduring high significance to all Aboriginal People.

Whadjuk see the universe in a unique way which is expressed through a philosophical and religious lens. This complex system is based on the past activity of great beings who created Aboriginal People and their social system along with the features in the landscape (Lofgren, 1975). The beings created the land through actions that cannot be repeated, yet their influence is timeless and can be felt by all Aboriginal people in contemporary times.

One such creation story is the *Waugal*, specific to the Perth area, Noongar People believe that the *Waugal* is represented by the Darling Scarp (*KattaMorda*). The *Waugal* meandered through the landscape creating the curves and contours of hills and gullies (South West Aboriginal Land & Sea Council, 2025). His tracks shaped the sand dunes, and his body scoured out the course of the river where he occasionally stopped to rest, creating bays and lakes (South West Aboriginal Land & Sea Council, 2025). Piles of rock are the excretal remains and are considered sacred such as those outside of *Garungup* in Rocky Bay (Hughes-Hallett, 2010, p. 25; Pickering, 2012, p. 26). Moving along his scales were shed which morphed into the region’s forests and woodlands (South West Aboriginal Land & Sea Council, 2025). After navigating the Narrows and uncoiling to create an open expanse below them:

“*Waugal then ascended Mount Eliza through a gap in the limestone cliffs, by way of the small valley or stormwater gully situated behind where the Swan Brewery Stables were built*” (Pickering, 2012, p. 26).

The final resting place of the *Waugal* is within a cave or two caves known as *Garungup* and/or *Waugal* cave located at Rocky Bay (Hughes-Hallett, 2010). The caves are believed to be places of anger or a place to be avoided (Hughes-Hallett, 2010, p. 25; Pickering, 2012, p. 26). There is a slight contradiction between sources here as two indicate that the *Waugal*’s final resting place was here (Hughes-Hallett, 2010; Pickering, 2012), however local signage developed by the Swan River Trust indicates that it was a resting place for the *Waugal* after creating a large flood that submerged the land between Rottnest Island and the coast (Jamet, 2025). In this way the story of the *Waugal* is an integral part of Whadjuk society it permeates every facet of society and landscape that the Noongar People know.

The Whadjuk People’s belief in the creation of the land relies upon consistent maintenance through religious, philosophical, and ritual practices that are governed by lore (Lofgren, 1975). These practices can be anything from dances and singing, storytelling, ceremonies, or actions that uphold and maintain the landscape and animals within it (Tilbrook L. , 1983). Lore is a key determining factor in broader societal decision making which dominates every facet of Noongar life (South West Aboriginal Land & Sea Council, 2025). Lore governed who someone could and could not marry, and the punishments that were dealt if lore was not obeyed (South West Aboriginal Land & Sea Council, 2025). Ceremonies were also based around upholding lore throughout the land (South West Aboriginal Land & Sea Council, 2025). Visitors to Whadjuk land were obliged to obey the lore of the land they were visiting.

Noting that there are various spellings for *Waugal* based on historical documents and for the purpose of this report the spelling *Waugal* has been implemented based on ‘A Nyoongar Wordlist’ (Bindon & Chadwick, 1992).

### 5.2.2.2 Natural resources

Access to water for Whadjuk was necessary for survival particularly in the hotter summer months. The main water sources are the Swan River (*Derbal Yerrigan*), and the Canning River (*Djarlgarro Beelier*) including all local tributaries and catchment areas. Additionally, there are many freshwater lakes between the Indian Ocean (*wardan*) and the Darling Ranges (*KattaMorda*) to the east. The significance of water sources for the Whadjuk people is reflected in the prominence of spiritual beliefs involving water and water sources. The creation story of the landscape reflects this.

Subsistence strategies largely evolved with the seasons, changing depending on the availability of food, weather, and other socio-cultural reasons such as enforcing totemic beliefs (Tilbrook L. , 1983). Hunting was typically undertaken by men while women would catch small animals, gather fruit and root vegetables. Fishing for Whadjuk was a shared activity, taking place with both men and women. Whadjuk harvested many types of *yurenburt* (berries), *karda* (goanna), *bardi* (witchetty grubs), *yongka* (kangaroo), *yarkan* (turtles), and birds' eggs. Food from the sea and waterways are a major resource for Whadjuk People: *djildjit* (fish), *wardan noorn* (eel), abalone, *goodinyal* (cobble fish), *marron* (crayfish) and gilgies (South West Aboriginal Land & Sea Council, 2025; Museum of Perth, 2025; Wood, 2025; Whitehurst, 1997)..Fishing was traditionally carried out by men, whilst women gathered yams, berries, and *quandong*s (South West Aboriginal Land & Sea Council, 2025; Museum of Perth, 2025; Wood, 2025; Whitehurst, 1997).

Prior to European settlement the Noongar people “*ate rich, exciting and balanced diets of seasonal fruit, nuts, roots, vegetables, meats and fish – all indigenous varieties and species and each totally adapted to this unique environment*” (Isaacs, 2002, p. 11). The fauna of the Swan Coastal Plain has been affected by both colonisation and climate change. This has resulted in a marked decrease in mammal species across the Swan Coastal Plain. Since colonisation only the Quokka and Chuditch have seen improvements in recent times but there are no clear trends for improved numbers of mammals overall on the Swan Coastal Plain (McKenzie, 2003). Fauna such as emu, kangaroo, echidna, fish, shellfish, birds, and reptiles were all staples of Indigenous people's diets which were drastically altered after colonisation (Tilbrook L. , 1983). The weather determined where and when people camped, this was largely due to the availability of food sources.

Stone tools in utilised by Whadjuk Noongar people contain some unique items only used in the South West of Western Australia such as the Kodj hatchet (Akerman, 2014). The Perth basin contains outcrops of quartz, chert, dolerite, each of which would have been utilised by the Noongar People for stone tool manufacture. Other materials such as chert and dolerite would likely have been imported into the area through trade, as outcrops of these types are rare in the Perth Basin (though some in the Darling Scarps do occur) (Barbetti, 1981; Carly Monks, 2016).

## 5.3 Historical context

### 5.3.1 Early European contact

European interaction with Western Australia began around 1616 with the landing of Dirk Hartog in the Dutch East India Trading Company ship *Eendracht* (The National Museum of Australia, 2024). The West Coast would over the next 200 years be mapped out by French, English, and Dutch explorers, and Britain, after establishing colonies in New South Wales, feared French expansion to Australia in the West. This began the process of first establishing a military outpost at King George Sound (now Albany) and eventually the establishment of a colony at Swan River. The West Coast of Australia was claimed as part of the British Empire by Captain Charles Fremantle on 8 May 1829, in what would have enduring consequences for all First Peoples in Western Australia which are still felt today. James Stirling was announced as the governor in June 1829 further establishing British control over the land. Stirling established Fremantle as a port town and Perth further inland, due to the lack of good soils for agriculture near the coast. Sir James Stirling in August 1829 laid the foundation stone for Perth. The early colony years were marked by hardship for the Europeans (The National Museum of Australia, 2024).

The 1830s were characterised by the following features: crop failures, overpopulation (receiving more settlers than could be fed), lack of funding, the need to ship in supplies especially food, and a frontier war with the local Whadjuk peoples (The National Museum of Australia, 2024). Another major hurdle to colonisation was procuring potable water (The National Museum of Australia, 2024). To overcome some of the colony's issues, in 1838 convicts were brought in to contribute to large-scale public works to support the colony under military supervision (The National Museum of Australia, 2024). These projects included the construction of buildings, roads, bridges, ferries, establishing potable water sources, and sewerage works to name a few (McNicol, 1977). The introduction of convicts ended the period of a free settler colony.

Conflict with the Whadjuk people began soon after colonisation began. The initial amicable relations soon deteriorated into open conflict that typically featured raids, battles, massacres, scorched earth, animal theft, and the forced removal of people off traditional lands. Freedom fighter Yagan was one Whadjuk man who fought back against colonisation. He would eventually be killed by two settlers in 1833 after a bounty was placed on his head.

Yagan's head was removed from his body after death and was placed in a hollow tree stump and slowly preserved in the smoke of gum leaves. His head was then taken to England in September 1833 and was held at the Liverpool Museum (SWALSC, 2025). Yagan's head was brought back home in 1997 by a delegation of Elders and reburied at the 'Yagan Memorial Park' (SWALSC, 2025).

Much of the conflict with the Noongar peoples culminated in the Pinjarra massacre on 28 October 1834. Governor Stirling organised and conducted a raid against the Gnaala Karla Booja People to the south of Whadjuk lands resulting in the massacre. Governor James Sterling issued a severe warning against reprisals and resistance to colonial continued expansion (University of Newcastle, 2024). The result of this severely reduced effective resistance towards British expansion, though it did not stop all violence on the newly established frontiers (University of Newcastle, 2024).

Colonial expansion, assisted by the influx of convicts would establish industries. These industries made use of extensive logging of the Jarrah woodlands, clearing land for farming, quarrying of local stone for construction, a whaling and fishing industry, mineral exploitation among many more. This created animosity between European settlers and Whadjuk people who were progressively forced off traditional lands. Many Noongar people were forced to take up employment with farmers to maintain cultural connections to their lands (Hughes-Hallett, 2010). Industry continued to expand with a continued reliance on Britain for many years, until local industry was adequately established (Hughes-Hallett, 2010).

### 5.3.2 Early European settlement

Land grants along the Swan River were allocated from 1829, with more than 3,000 acres of rich alluvial land set aside which was to be used as a government farm (Dundas, 2005). The farm was to be under the control of Jame Drummond, the Superintendent of Government Gardens, however Drummond abandoned the reserve after a quarrel with Stirling (Town of Bassendean, 2022). The land was then divided up into two large blocks and five smaller ones, these blocks were located on the northwestern banks of the Swan River and was named West Guildford in 1829. The original name of the Town of Bassendean was West Guildford with the town being laid out early in 1831 (Carter, 2020).

The first recorded European settler in the area was James Garden who established a farm on the Swan River in 1830 (Carter, 2020). Other settlers including John Monger establishing a farm in 1831 and Richard Aldworth who built a house in 1839 (Carter, 2020).

The name Bassendean is derived from a parcel of land granted to James Henty, who originally named it 'Stoke Farm' (Heritage Council, 2025). The farm was then acquired by Peter Broun in 1832 who renamed it Bassendean after his family's estate of the same name in Berwickshire (Town of Bassendean, 2022). From 1831, until the turn of the century many of the West Guildford lots changed hands and by the late 1830's a man named William Tanner had acquired a large portion of the lots (Briggs, et al., 2009). In 1841, Tanner sold some of these lots to Edward Hamersley who named his properties 'Pyrton' and 'Lockeridge', the remaining lots would later become the Town of Bassendean (Town of Bassendean, 2022).

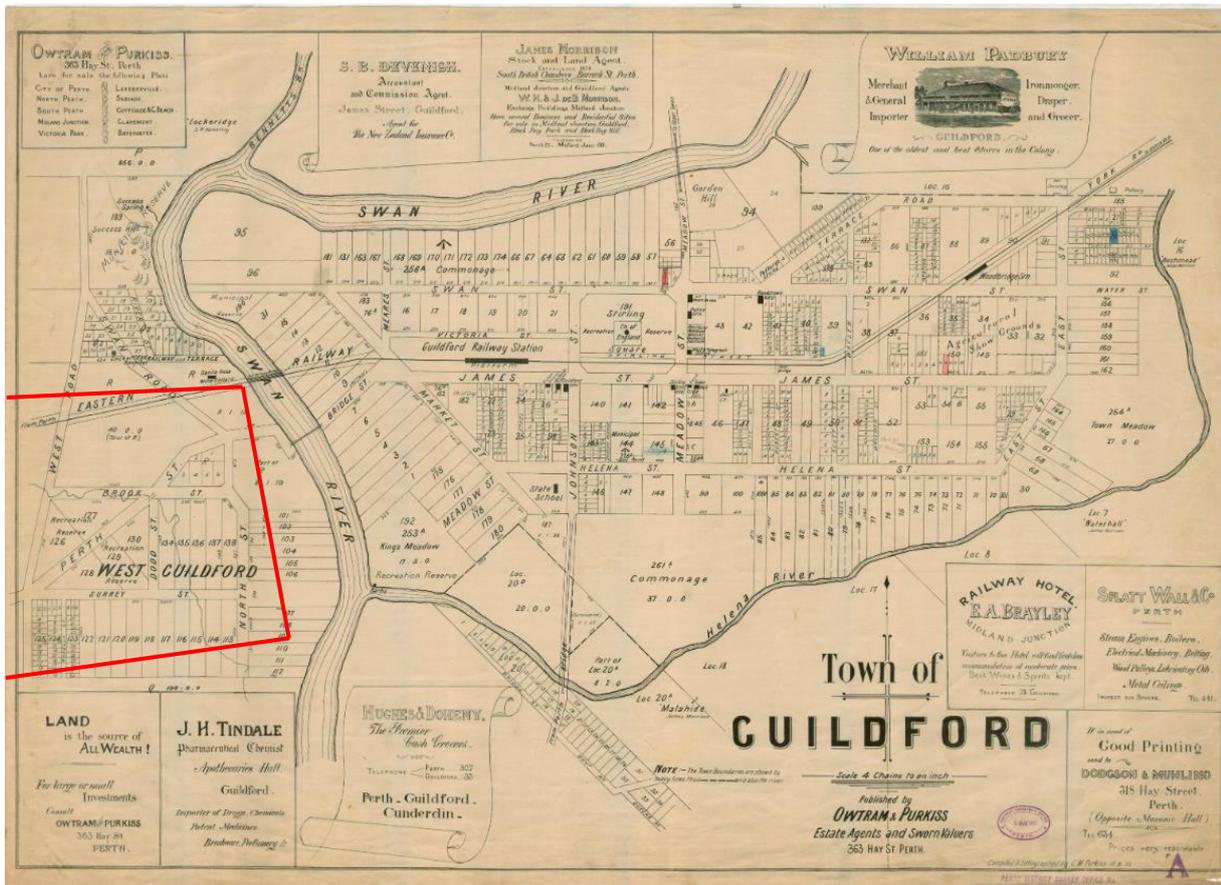


Figure 5 Surveyors plan/map of the Town of Guildford, 1902. Project area in red (Bassendean Memorial Library, 2025)

In June 1850, the first convict ship docked in Fremantle 21 years after the founding of the Swan River Settlement (WA Gov, 2025). Convict labour was used throughout the region and were initially overseen by military and marine soldiers, as well as members of the Enrolled Pensioner Force. The Enrolled Pensioner Force, popularly known as the pensioner guards, were retired good-conduct servicemen of the British Army, the Royal Marines, or the East India Company (Stevens, 2009). These men were entitled to free passage to Australia for themselves and their families, however, were not to be granted land (Town of Bassendean, 2022). This all changed within a month of the first convict ships arrival and Pensioner ‘villages’ were to be established in order for the families of the Enrolled Pensioners to support themselves (Town of Bassendean, 2022). A Pensioner ‘village’ was established at West Guildford and after seven years of working and maintaining their grants, were eligible to claim ownership (Carter, 2020).

In 1851, a party of convicts were assigned to work on building a two-roomed dwelling in West Guildford for Pensioner Guards (Figure 6). The dwelling (inHerit Place No. 00131) is the only surviving extant free standing two-roomed Pensioner Guard cottage remaining of the 80 built in the metropolitan area and is the oldest building in Bassendean (Carter, 2020).



Figure 6 Only convict built cottage still standing, 1 Surrey Street (inHerit Place No. 00131) (Carter, 2020)

Convicts, as well as being assigned to building cottages operated the local ferry that transported people across the Swan River from West Guildford to the Town of Guildford. However, in 1880 the ferry service was discontinued even though a train bridge over the river was yet to be built. The railway bridge was built in 1881, but did not provide access for wheeled traffic or contain access for pedestrians (Heritage Council, 2025). It was not until 1885 that a separate traffic bridge, Guildford Road Bridge was constructed alongside the railway bridge (Town of Bassendean, 2022).

West Guildford continued to grow slowly but steadily until the 1890s with the discovery of gold. The discovery saw a rapid influx of people and as a result the Western Australian population grew from less than 49,000 to almost 200,000 in under a decade (Carter, 2020). The river environment played an important role in the growth of local industry. Jeremiah Asquith in 1898 maintained a thriving building yard where he crafted rowing boats and punts and other watercrafts (Town of Bassendean, 2022). Other river side industries included brickmaking and by 1901 there were several brickyards including that north of the railway line near Success Hill (Town of Bassendean, 2017). The river flats also supported industries such as dairy farming, poultry yards, market gardening, and seasonal cropping of wheat, oats, hay and corn (Carter, 2020).

Bassendean became a thriving industrial area in the early 1900s with several factories and mills established in the area (Town of Bassendean, 2025). There was a high demand for labour at the Midland Railway workshops, which in turn gave the suburb its distinct working class character and further accelerated its development (Town of Bassendean, 2025). A blacksmith forge and coach building works were established in 1911 by Arthur Ebenezer Yelland (Thomas, 1947).

It wasn't until 1922 when West Guildford was renamed Bassendean, which coincided with a population boom between the world wars (Town of Bassendean, 2025). The name change came about when the West Guildford Road Board voted to change the name of the suburb to distinguish it from the township across the river (Town of Bassendean, 2022).

### 5.3.3 Contemporary land use

At the end of the Second World War, migration to Australia was highly encouraged, which resulted in an influx of migrants after 1946. The State Housing Commission (SHC) had acquired land in selected Perth suburbs or subdivision and low cost housing for development (Town of Bassendean, 2022). The town of Bassendean was one of the first places to be developed and resulted in a population boom from the mid-1950s (Town of Bassendean, 2022).

Between 1947 and 1961 the population of Bassendean increased by almost 60% as young families moved into the new housing developments set up by SHC (Town of Bassendean, 2022). In 1963, as part of a proposal more than 47,000m<sup>3</sup> of soil was removed from Success Hill and most of it sold for commercial venture. Sand was also removed in large amounts from Success Hill by the Council, which is a highly significant place to Aboriginal people and caused much distress. The Council had adopted a 'beautification' scheme which included Sandy Beach, the Point Reserve and Success Hill (Carter, 2020). Some of the sand was used on sites around Bassendean, including the old Hamersley Estate and also used to build up the banks surrounding the Swan Districts Oval (Town of Bassendean, 2022).

Between the 1970s and 1990s the town went through a period of quiet stability, while new developments did occur, the general trend in the established areas was an aging population (Town of Bassendean, 2017). The Midland workshops closed in 1993 which hit local Bassendean residents hard as this is where many of the workforce lived (Town of Bassendean, 2017). However, the town bounced back with the introduction of the Tonkin Industrial Park (Town of Bassendean, 2017).

Today, the town has a mix of housing including higher density living, parks and recreational areas, as well as light industry and commercial areas (Megarrity, nd). There are also open public places along the river, which has largely been undeveloped. The district has changed from rural to urban (Megarrity, nd).

## 5.4 Regional archaeological context

The south west region of Western Australia, based on current evidence was occupied from around 40,000 years ago until the time of European arrival (Balme, 2014). There are currently only four sites that have been identified within the region that have occupations dates in this period and are Quinup Brook, Kalgan Hall, Tunnel Cave and Devils Lair (Balme, 2014). Several sites that have been recorded along the west coast provides evidence that Aboriginal people first occupied the south west of Western Australia approximately 50,000 years ago (Pearce & Barbetti, 1981). Stratified archaeological deposits from sites such as Upper Swan (Pearce & Barbetti, 1981) near Perth and Devil's Lair (Dortch, 1979), which is located on the eastern side of the Leeuwin Naturaliste Ridge.

Results of excavations at Devils Lair provided evidence of human occupation as early as 50,000 years (Turney, et al., 2001), and has contributed to arguments about Pleistocene technology, changes in environment and subsistence, the antiquity of Aboriginal occupation in Australia and changes in population density overtime (Balme, 2014).

Wetlands, rivers and estuaries of the Swan Coastal Plain, and Noongar occupation site patterning is considered to be well understood (Martinik & Associates, 1994). Through research from regional archaeological models, the results indicated that site density of the Swan Coastal Plain was three to six times greater, particularly in areas containing alluvial deposits (Anderson, 1984). Larger sites and site clusters located across the plain are likely to be situated on elevated dunes and or on sandy ridges compared to those from the Darling Range and inland plateau that commonly occur on low-lying and gently sloping ground (Anderson, 1984). Anderson (1984) proposed that during the summer and autumn seasons groups gathered in large numbers on the coastal plain and centred territories on specific water-based areas such as estuaries, rivers, lakes and swamps.

A report of Aboriginal significance of Wetlands and Rivers in the Perth to Bunbury Region was undertaken in 1989 by O'Connor, Quatermaine and Bodney. Through previous surveys and independent research, they identified that 1,136 Aboriginal sites had been reported and registered with the WA Museum (O'Connor, Quatermaine, & Bodney, 1989). These sites consisted mainly of small artefact scatters but also included, quarries, burials, modified trees, structures, engravings, paintings, grinding patches, fish traps, and repositories (O'Connor, Quatermaine, & Bodney, 1989). The most common site type across the Perth to Bunbury Region were identified as surface artefact scatters and made up 77% (n = 890) of sites, while also being a component of 10% of other sites (O'Connor, Quatermaine, & Bodney, Report on an investigation into Aboriginal Significance of Wetlands and Rivers in the Perth-Bunbury Region, 1989). The next most common site types were burials (n=14) and artefact scatter/quarry (n=14) (O'Connor, Quatermaine, & Bodney, 1989).

Hallam (1986) suggested four phases of occupation across the Swan Coastal Plain and are as follows:

- Early – low numbers of sites centred towards the coast. Artefacts include steep scrapers on flakes and scrapers made from Eocene fossiliferous chert. This phase was up to 5,000 years ago;

- Middle – from 5,000 to 500 years ago. Showed concentration of occupation to sites near permanent water. Artefacts were made of quartz and green chert and included backed blades, adzes, scrapers and flakes;
- Late- from 500 years ago. Concentration of sites on the Coastal Plain. Bipolar cores were introduced, and a large percentage of assemblages were made up of quartz flakes, chips and debitage; and
- Final – post European contact and settlement. Use of introduced materials such as glass, pottery and clay pipes, for the manufacture of artefacts

Previously recorded Aboriginal Places across the Swan Coastal Plain are dominated by artefact assemblages and are rich in quartz artefacts (O'Reilly, 2012). It was found that majority of these previously recorded Aboriginal Places are typically identified on intact or deflated Holocene dunes and are representative of background scatters that reflect single use sites (O'Reilly, 2012). However, because of the location of these Aboriginal Places been destroyed due to the natural aeolian processes, or from disturbances as a result of development (O'Reilly, 2012). The distribution of archaeological Aboriginal Places on the Swan Coastal Plain is not uniform. Anderson (1984) and Meagher and Ride (1979) found that large Aboriginal Places and Place complexes are located in highly favourable locations, which are locations that were repeatedly revisited over a long time frame. These favourable locations can be defined as wetlands, lakes and estuaries of the coastal plain and the rivers that drain into them. It was found that the vast majority of Aboriginal Places have been identified within 500 m of water sources (Anderson, 1984; Meagher & Ride, 1979).

## 5.5 Ground disturbance

The Town of Bassendean was chosen originally for its rich alluvial soils and its location along the banks of the Swan River. Historical ground disturbance of the town has been a result of residential housing, agriculture and local industry. Maize and wheat were first grown in the early 1800s during settlement, as well as tobacco which was grown in swampy places (Carter, 2020). The river flats primarily supported industries such as dairy farming, poultry yards, market gardening and crops of wheat, oats, hay and corn (Carter, 2020).

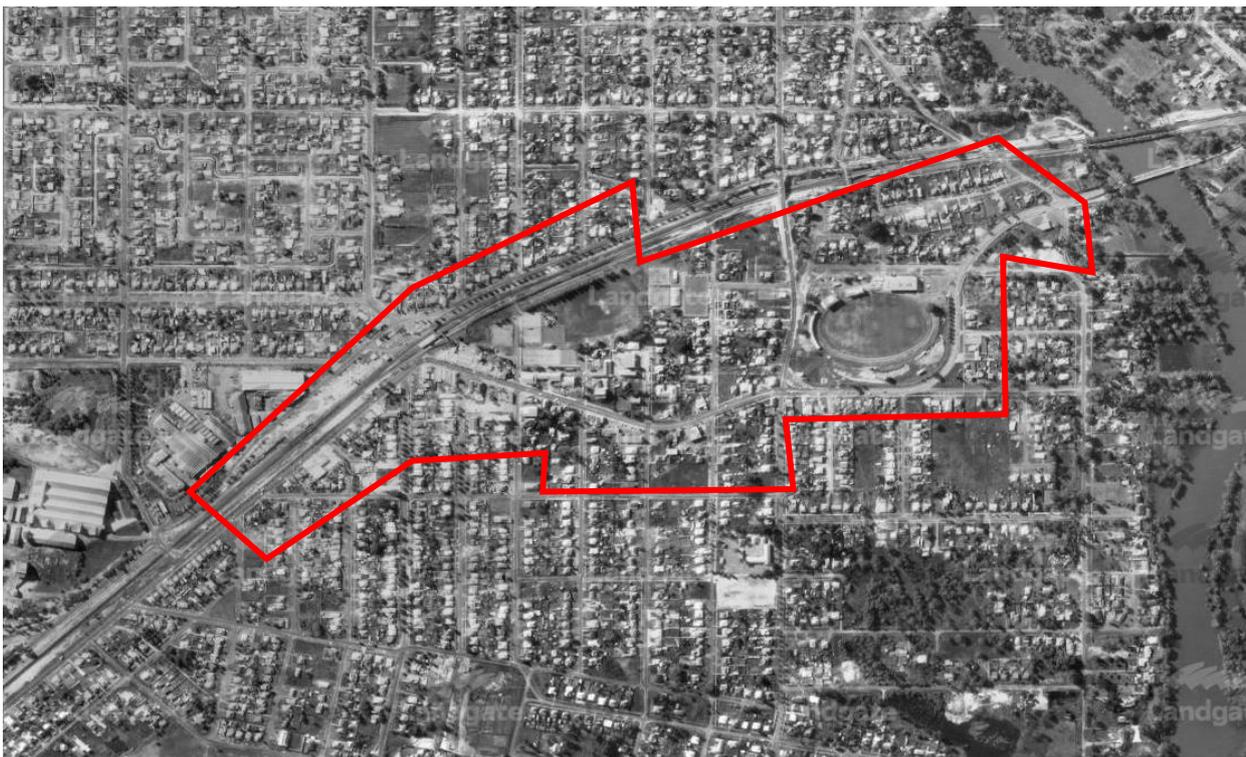
Section 5.3.2 provides accounts of early ground disturbing activities occurring as early as the 1890s. These early disturbances were of the town developing (Heritage Council of WA, 2025). It is then noted that from 1946 as the town grew, the need for subdivision of the town was required and the need for low cost housing became necessary. Then in 1963 more than 47,000m<sup>3</sup> of sand was removed from Success Hill and further a large amount also removed from Success Hill by the Council (Carter, 2020). Some of the sand was used on sites around Bassendean, including the old Hamersley Estate and also used to build up the banks surrounding the Swan Districts Oval (Town of Bassendean, 2022).

The earliest aerial imagery available for Bassendean is from 1965 (Plate 1) which shows the Town precinct has predominantly been developed. Within the northern central portion of the precinct, aside from the trainline, there has been minimal disturbance. This area remains relatively untouched until 1977 (Plate 3) when the Guildford Road was constructed. From the aerial imagery vegetation and buildings were removed to make way for the road. After construction of the road, limited developed occurred along the Guildford Road.

Between 1981 and 2002, minimal development has occurred within the precinct. There has been limited change to the landscape as can be seen in Plate 4 and Plate 5. Between 2002 and 2025 (Plate 5 and Plate 6 **Error! Reference source not found.**) there has been minimal developments, with most occurring outside of the precinct. The town now has a mix use and consists of housing, parks and recreational areas, as well as light industry and commercial areas. The green space located in the northern central portion of the precinct has remained untouched and as of 2025 is still green space. It can therefore be suggested, taking into consideration the desktop assessment and early European settlement, that most ground disturbance occurred during the 1940s.



**Plate 1** *Historical aerial image of Bassendean, 1965 (Landgate, 2025)*



**Plate 2** *Historical aerial image of Bassendean, 1974 (Landgate, 2025)*



**Plate 3** *Historical aerial image of Bassendean, 1977 (Landgate, 2025)*



**Plate 4** *Historical aerial image of Bassendean, 1981 (Geoscience Australia, 2025)*



**Plate 5** Historical aerial image of Bassendean, 2002 (Google Earth)



**Plate 6** Aerial image of Bassendean, 2025 (Google Earth)

## 6. Results

### 6.1 Heritage database results

#### 6.1.1 Commonwealth Government’s Protected Matters Search Tool

The EPBC Act provides for the listing of natural, historic, or Indigenous heritage values on Commonwealth lands, lands under Australian Government control or that are of outstanding heritage value. Listings include the World Heritage List (WHL), National Heritage List (NHL) and Commonwealth Heritage List (CHL).

The Commonwealth Government’s PMST was accessed on 08 July 2025. There are no heritage values registered on the WHL, NHL or CHL within the project area.

#### 6.1.2 ACHIS search results

A search of the DPLH ACHIS was undertaken on 08 July 2025 to understand the extent of heritage surveys undertaken to date within the project area. This research relies largely on the ACH directory of heritage places is maintained by the DPLH, which is a catalogue of heritage places previously recorded and submitted to the DPLH.

The results of the ACHIS search identified four heritage places (registered, lodged or historic) within the project area (Table 3). The search identified 17 previous surveys and survey reports that covered the project area.

**Table 3** ACHIS ACH place search results

ACH ID	Place name	Place type	Restrictions	ACH Status
ACH-00003487	Bennett Brook: Eden Hill R.	Camp; Meeting Place; Water source	Boundary Restricted and Culturally Sensitive. No Gender Restrictions.	Registered
ACH-00003757	Success Hill	Artefacts/Scatter; Birthplace; Camp; Ritual/Ceremonial; Creation/Dreaming Narrative; Fish Trap; Traditional Structure; Meeting Place; Other; Quarry; Repository/Storage Place; Water Source	Boundary Restricted and Culturally Sensitive. No Gender Restrictions.	Registered
ACH-00003758	Helena River	Ritual/Ceremonial; Creation/Dreaming Narrative; Repository/Storage Place	Boundary Restricted and Culturally Sensitive. No Gender Restrictions.	Registered
ACH-00003840	Bennett Brook: Camp Area	Burial; Artefacts/Scatter; Camp; Ritual/Ceremonial; Creation/Dreaming Narrative; Fish Trap; Historical; Hunting Place; Traditional Structure; Plant Resource; Water Source	Boundary Restricted and Culturally Sensitive. No Gender Restrictions.	Registered

##### 6.1.2.1 ACHIS Aboriginal cultural heritage places

The ACH places (Table 3) and their associated site files held by the DPLH are not publicly accessible as they are all closed sites. To be able to review these site files a letter must be sent to WAC and the cultural informants requesting permission to open the site files. It is not appropriate for GHD to make this request as part of the CHDA process.

All four ACH places have boundary restricted and as a result have large boundaries where the ACH places are located within the larger extent. As the site files are closed the only information available was located in O’Connor et al:

- The boundary for ACH-00003478 – Bennett Broo: Eden Hill R. is described as “The site complex extends from Pyrton Footbridge to Esther Street in the south to Harper Street extension in the north. It is bounded on its western side by Lord Street”.

- The boundary of ACH-00003757 – Success Hill is described as “The present Success Hill Reserve is bounded on its northern side by the grounds of Pyrton Training Centre, on its western side by Seventh Avenue and on its southern side by River Street and Eighth Avenue. The Swan River forms a natural boundary to the east... The present Reserve, measuring approximately 450 metres by 200 meters is smaller than the Aboriginal camping/mythological/ritual site that existed in traditional times. The site extended to the western bank of Bennett Brook, with the Swan River as one boundary and a line parallel to the River and 200 metres distant from it as the other”.
- The boundary of ACH-00003758 – Helena River was described as “Aboriginal Elders consider the site as including the whole river system, including tributaries, floodplains and wetlands, and its boundary at the 100 year flood level of the river, including the flood plains”.
- No information was provided in O’Connor et al regarding ACH-00003840. The information provided in O’Connor et al’s report is from 1989 and there have been subsequent heritage surveys regarding these ACH places and there may be updated information regarding the site boundaries that reflect what is currently portrayed on the ACHIS.

In 2022, the Town enquired as to the potential for Aboriginal cultural heritage to be present at Bassendean Oval (Lot 246 West Road, Bassendean). DPLH advised the Town that upon review of the departments Register of Places and Objects, the land parcel comprising Bassendean Oval did not intersect with the actual boundary of the Bennett Brook: Camp Area, Helena River or Bennett Brook: Eden Hill R. places.

### 6.1.2.2 ACHIS survey report summaries

There have been 17 aboriginal heritage assessments undertaken within the project area; however, none are project specific or isolated to the Town. The most recent reports are identified as having occurred in 2005 and many of these reports are studies and research projects. The ACHIS heritage survey reports should be subject to scrutiny as some of these past surveys were not conducted to a standard that would hold up in today’s context.

A summary of the 17 previous surveys and heritage survey reports are summarised below, however some of these reports were either restricted or were heavily redacted.

**C. F Makin** (1969) undertook an anthropological survey as part of their thesis, within the metropolitan region of Perth. The thesis identified bush camps near fresh water in the suburbs of Bassendean, Bayswater, East Perth, Midland Junction, Caversham, Claremont, Swanbourne and Shenton Park. These camps were examples of a maintained system of land ownership that divided up the country around the Swan River based upon clan groups which had a patrilineal line of descent.

**University of Western Australia** (1972) represented by the Australian Institute of Aboriginal studies and Sylvia Hallam undertook investigations on the changing patterns of Aboriginal settlement and land use. These investigations occurred within the southwest area of Perth between April 1970 and March 1972. Hallam approached the project systematically and involved contacting appropriate local people, scientific experts, field survey, select excavation and full recording. A total of 120 site locations were visited and over 10,000 artefacts were collected. However, this report was to be the first of many reports that were produced for this project. These included surface campsites and artefact scatters, stone arrangements and rock art, including hand stencil and geometric painted motifs. Hallam’s work continued a decade later in her report Australian Research Grants Scheme: Final Report on the Project the Swan Coastal Plain, Western Australia (1986).

**Brown, S.H** (1980) This report was not received from the DPLH and therefore may be a restricted document.

**Brown, S** (1983) undertook an ethnographic investigation relating to the proposed highway and road developments in the Perth metropolitan area. The project covered the following highways, Beechboro-Gosnells Highway, Guildford Road to Morley Drive, Beechboro-Gosnells Highway. Great Eastern Highway to Guildford Road. This investigation was undertaken to assist the Western Australian Museum to determine whether the proposed roadworks would affect ethnographic sites in the Perth metropolitan area. The report identified a number of ethnographic sites. The survey area is located outside of the current Project area.

**R. O’Connor** (1985) conducted a wide-ranging research study of the Perth and Murray River Regions funded by the Australian Heritage Commission. The aim of the research was to provide an overview of Aboriginal sites in the Perth metropolitan area and to assess their significance to Aboriginal people. The study also provided recommendations in managing and protecting the sites of most significance to Aboriginal people. The survey area

was originally planned to be a 50km radius from the Perth City center, however while undertaking preliminary consultation with Aboriginal people a suggestion to expand the survey area to include the Moore River in the north, the Murray River in the south and the Darling Range in the east was made. Due to time constraints, a compromise was made, and the survey area was amended to include Yanchep National Park in the north, Gidgegannup in the east and Pinjarra in the south. It is unknown if the Town of Bassendean was included in this study.

**L. Tilbrook** (1985) prepared a report on the Historical Significance of Aboriginal Sites within the Perth Metropolitan area. The report focused on Mt Eliza as an area of particular significance to Aboriginal people and the broader community. The report briefly mentions Bennett Brook, near Bassendean and that the site could bear further information if investigated further. Tilbrook suggested that considerable historical research would have to be undertaken to properly document areas along the tributary of the Swan River.

**S. Hallam** (1986) conducted regional archaeological research of the Swan Coastal Plain in the upper southwest region. Hallam's focus was primarily on Aboriginal subsistence within the Swan Coastal Plain, however the study also incorporated data from the Darling Scarp and Darling Plateau. Hallam's study analysis archaeological site found in different ecological zones within a transect stretching across the Perth metropolitan area from the coast to the Darling Range. The study was undertaken to determine their relative usage by Aboriginal people. It was concluded that the Darling Scarp and Plateau appeared to have little use owing to the lack of evidence in those zones.

**L. Strawbridge** (1987) prepared a management scheme for Aboriginal sites in the Perth metropolitan area, which involved an analysis of the existing body of archaeological data and an ethnographic survey by R. O'Connor. This report assesses the known Aboriginal sites in the Perth metropolitan area. The assessment aimed to assess their potential to contribute to an understanding of the pattern of Aboriginal occupation and usage of the region. The report covers the Swan Coastal Plain and the Swan-Avon River system and makes mention of Bennett Brook Camping Area (ACH-00003840) and covers the Town of Bassendean. The report identified that there are four sites of ethnographic significance recorded within the local authority boundary and nine archaeological sites recorded by the Swan Area Archaeological Survey.

**R. Tauss** (1987) report considers areas of conflict between Aboriginal and non-Aboriginal societies and outlines some ways of decreasing clashes. The basis of the report was a result of a second year college student who spent four months with an Aboriginal group near Perth. The student observed social and cultural differences between the group members and the student. The report does not discuss ACH places or the archaeology near Perth.

**O'Connor, R, G Quartermanie and C. Bodney** (1989) were commissioned by the Water Authority to assess the significance of wetlands and water resources within the region to Aboriginal people. The study area was defined as extending from the Moore River in the north to the Preston River in the south, taking in the Murray River and the Collie River catchments to the east but not the upper Swan-Avon system. The report covers the current Project Area of the Town of Bassendean. The investigation involved the review of archaeological sites registered with the DPLH, survey reports and other relevant literature. The investigation identified that surface scatters were the most common site type across the study area and accounted for 77% of ACH places. It was stated that some of the artefact scatters, particularly those on alluvial terraces may have potential to contain a stratified deposit, as with the Upper Swan and Helena River ACH places.

**B Machin** (1994a; 1994b) undertook an archaeological and ethnographic survey of five ethnographic locations. However, the report states that a comprehensive survey had not yet been undertaken where a total systematic survey, recording and measuring artefacts methodology would be undertaken. An ethnographic survey was carried out in July, August and September. Some locations of the ethnographic survey have been redacted. Both reports discuss ACH places within their territorial boundaries and examine Whadjuk culture and post-colonialism history. It is unknown whether the survey area covers the current Project Area.

**B Machin** (1995) was commissioned by Main Roads to carry out an ethnographic survey to assess the impact of works at bridge 910 Guildford Road over the Swan River and Upper Swan Bridge 672 Great Northern Highway over the Swan River. The report concluded in saying that all Aboriginal informants said that there were no Aboriginal objections to the proposed bridge works.

**E. McDonald** (2005) was commissioned to undertake a study into Aboriginal cultural values associated with groundwater-related environmental features and processes on the Gngangara Mound in Perth's northern metro area. The mound is a large underground water source that extends from the Moore River and Gingin Brook in the

north, Ellen Brook in the east, the Swan River in the south, and the Indian Ocean to the west. The Project area sits within the Gnangara Mound's boundary.

The Gnangara Mound is the primary ground water resource for people north of the Swan River, Perth Region, and also supports several groundwater-dependent ecosystems. The groundwater of the mound is a major source of fresh water and the study found that the Noongar people base much of their culture, identity and spirituality on their close association with groundwater. The results of the survey demonstrate the close historical associations Noongar people have with the groundwater features of the Gnangara Mound which includes its lakes, rivers, swamps and springs.

**E. McDonald et al** (2005) (Volume 1 & 2) were commissioned to undertake a study into Aboriginal cultural values associated with groundwater-related environmental features and processes on the Gnangara Mound in Perth's northern metro area. These reports are restricted, and little information was made available.

There are two volumes of the report, one is the report itself while the other is an inventory of registered sites. The reports are restricted and contain background information about the ACH places in the vicinity of the project area.

**Villiers, L et al** (2008) were engaged to provide heritage advice to include archival research, archaeological investigation, ethnographic consultation and reporting for the proposed construction of a sewer pressure main under the Swan River at Guildford Road Bridge. The report identified six previously recorded ACH places and 275 reports related to the search area. An archaeological site investigation survey was undertaken and included paths along the riverbanks adjacent to and under the Guildford Road Bridge. The survey did not identify any new archaeological or ethnographic ACH places.

**Australian Interaction Consultants** (2010) were engaged by BG & E Consulting Engineers on behalf of Main Roads to undertake an archaeological and ethnographic site identification survey of timber bridges within the City of Swan and City of Belmont. The survey intersected with Bennet Brook Camp Area (ACH-00003840) as the project area intersects with West Swan Road, however all other ACH places associated with the current study area are located outside of the project area. The survey did not identify any new ethnographic or archaeological ACH places in the project area.

**Australian Interaction Consultants** (2010) prepared an Aboriginal Heritage Management Plan (AHMP) on behalf of Main Roads Western Australia who proposed to carry out regular maintenance, repairs and auxiliary works on 12 timber bridges within the City of Swan and Belmont. The purpose of the AHMP was to ensure the Main Roads Western Australia conducts the construction project in a manner that complies with statutory obligations related to Aboriginal heritage management and to mitigate any disturbance to Aboriginal sites in a planned and appropriate manner thereby minimising impacts to sites. The AHMP focused on all previously identified Aboriginal Sites adjacent to and within the Project area as well as those identified immediately before and during both the construction and development phases of the Project. The AHMP discussed protection over three ACH places of interest to the current Project Area, Ellen Brook, Helena Rover and Bennett Brook.

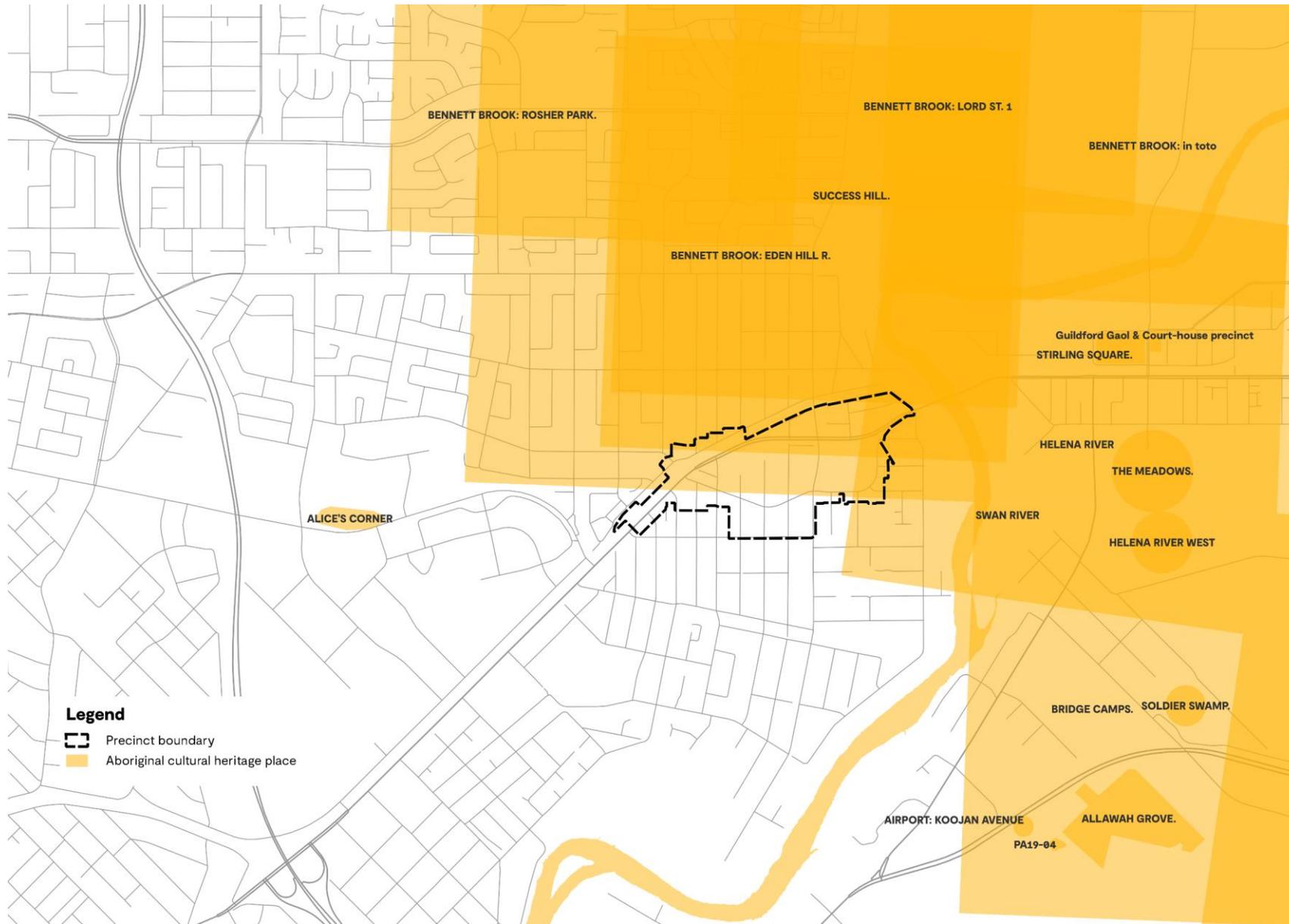


Figure 7 ACHIS results within proximity of the project area

## 6.2 Risk assessment

The DPLH Aboriginal heritage risk matrix in Table 2 identifies the following actions be undertaken as a result of the risk assessment and include:

- Consult the DPLH regarding Aboriginal and/or Historic Heritage
- Desktop survey
- Aboriginal consultation
- Ethnographic survey (medium risk)
- Archaeological survey (medium risk)
- Application for s.18 of the AH Act approval (high risk)
- Application for r.7 or r.10 of the AH Act approval (high risk)
- CHMP (high risk)

### 6.2.1 Impact assessment

Based on the scope of works for the Precinct Structure Plan, no ground disturbing works are occurring and therefore no impact will occur to ACH in the area. This impact assessment has been conducted for the purpose of risk minimising the Project bringing it in line with current WA heritage compliance standards.

Using the categories provided in Table 4, the proposed works can be classified as significant disturbance.

Table 4 Assessment of impact significance

Project footprint	Disturbance	Description
Town of Bassendean	Negligible disturbance	The northern, northwestern and eastern portions of Bassendean are located within areas that are associated with four ACH site. There have been 12 aboriginal heritage assessments undertaken within the project area. Based on the proposed activities the Project poses a low risk to Aboriginal heritage.

### 6.2.2 Risk assessment

The Project area, the Town is approximately 10.4 km<sup>2</sup> in size and contains a mixture of residential areas, public open space, regional open space, district centre and mixed use spaces. The Project area has undergone a series of historical disturbances as discussed in section 5.5.

As the project involves the preparation of a Precinct Structure Plan, it is unlikely to impact on the heritage values identified in this report. Despite this, future works within the Precinct should be cognisant of the potential presence of Aboriginal cultural heritage values. Where significant ground disturbance works are proposed (i.e. construction of basements, major structures or trenching), proposals should be supported by sufficient due-diligence investigations prior to works being undertaken. It may be appropriate for construction works to be monitored for the potential presence of heritage values; particularly for land that intersects with the dithered boundaries of registered places.

Table 5 Assessment of risk significance

Project footprint	Likelihood	Magnitude of impact	Consequence
Town of Bassendean	Unlikely	Negligible	Low

Using the DPLH Aboriginal heritage risk matrix in Table 2, the proposed works poses a **low risk** to Aboriginal heritage.

## 7. Conclusion

A DPLH ACHIS search of the project area identified four ACH places and 17 past cultural heritage surveys have been undertaken. However, the most recent report from the Project area is from 2005 and most of the past surveys that have been conducted are research or thesis studies rather than a heritage survey. The past cultural heritage surveys are also region based and are generally not confined to the Town of Bassendean.

Based on the regional archaeological context and the predictive statement for ACH in the region there is the potential that there will be ACH within the project area. This is due to past and present environmental factors, landscape occupation models and European colonial influences that have occurred within the project area. Regional archaeological context shows that a large portion of Aboriginal Places have been recorded close to reliable water sources, including the Swan River (*Derbal Yerrigan*), and the Canning River (*Djarlgarro Beelier*) including all local tributaries and catchment areas. The significance of the water sources for the Whadjuk people is reflected in the prominence of spiritual beliefs involving water and water sources. The creation story of the landscape reflects this.

Under the DPLH Aboriginal Heritage Due Diligence Guidelines an assessment of the proposed project area and activity were assessed (DAA, 2013). The assessment identified the proposed works as activities that cause 'Negligible disturbance' to the land, which are activities which are non-invasive and cause negligible or no impact to the land. It is recommended that consultation with Whadjuk Aboriginal Corporation (WAC) be undertaken as part of the project.

The project area has undergone varying degrees of disturbance which has included vegetation clearance, growing of crops and livestock management. In more recent years, disturbance has been attributed to housing development and the reintroduction of local industry. The desktop assessment has revealed that sand removal as part of the 'beautification' scheme impacted a significant Aboriginal place. The four ACH places identified by the ACHIS search all overlap with the Success Hill area. It is unknown how much of an impact these historical works have had on these places.

With the provided review of existing information from the regional archaeological context and the land use history of the project area it is reasonable to make the following assumptions regarding the proposed project area:

- Artefacts/scatters are typically identified on intact or deflated Holocene dunes.
- Aboriginal Places and Place complexes are in highly favourable locations, including wetlands, lakes and estuaries of the coastal plain and the rivers that drain into them.
- Aboriginal Places have been identified within 500 m of water sources

There have been 17 aboriginal heritage assessments undertaken within the project area; however, none are specific to the Precinct Structure Plan area, nor to the preparation of the Precinct Structure Plan document. As the project involves the preparation of a Precinct Structure Plan, it is unlikely to impact on the heritage values identified in this report.

## 8. Future steps

Based on the CHDA results, the following future steps have been developed to assist The Town and developers with the management of the heritage values in the project area.

### **Engagement with Whadjuk Aboriginal Corporation**

Consultation with Whadjuk is to be undertaken as part of the consideration of the Bassendean Precinct Structure Plan. Consultation would allow for further discussions on the heritage values of the project area and the appropriate management of sensitive landscapes.

### **Avoidance of ACH**

As there are four Aboriginal cultural heritage (ACH) places (ACH-00003487, ACH-00003757, ACH-00003758, and ACH-00003840) located within the Bassendean Precinct Structure Plan. The Town is advised that it is an offence under s. 17 of the *Aboriginal Heritage Act 1972* to knowingly damage or impact a heritage place without a s18 permit.

### **Heritage Approvals Pathway**

The following are the steps in order required to by the Town or developers to undertake works within the Bassendean Precinct Structure Plan.

### ***Noongar Heritage Agreement for Local Government or Noongar Standard Heritage Agreement***

If not done so already, The Town could enter into a Noongar Heritage Agreement for Local Government (NHALG), or developers enter into a Noongar Standard Heritage Agreement (NSHA) with the South West Aboriginal Land and Sea Council (SWALSC), or if the current SWALSC arrangement changes in the near future, sign an NHALG or NSHA with the Whadjuk Aboriginal Corporation (WAC).

### ***Requesting access to site files***

As a part of preparing an activity notice and preparing for a site identification heritage survey the heritage consultants will need to open the four closed site files for ACH places (ACH-00003487, ACH-00003757, ACH-00003758, and ACH-00003840). This process will need to be coordinated between WAC and the DPLH.

### ***Activity Notice***

To begin consultation with WAC, an Activity Notice should be submitted to the SWALSC. This notice is to contain sufficient information to help SWALSC determine whether a heritage survey is needed for the project area.

It is recommended that an Activity Notice be issued under the NHALG or NSHA if there is any risk that the activity may unlawfully impact Aboriginal cultural sites (e.g., through excavation, destruction, damage, concealment, or alteration). Early engagement with SWALSC and WAC regarding the sharing of detailed information about the proposed activities will help facilitate an informed assessment and decision-making process.

### ***Cultural Heritage Management Plan***

It is leading practice for management of ACH places within the survey area to be managed subject to a cultural heritage management plan (CHMP). A CHMP provides long-term protection and management of Aboriginal heritage, particularly during planning and construction phases.

The Town could prepare a CHMP with the Whadjuk Traditional Owners for the Bassendean Precinct Structure Plan. The CHMP will detail the nature, extent and significance of ACH that has been identified. It will also provide requirements and mitigation measures to be taken before, during and after project activities to manage the protection of ACH. This CHMP would also include a discovery policy for ACH places, objects and ancestral remains.

## 9. References

- Akerman, K. (2014). Observations on edge-ground stone hatchets with hafting modifications in Western Australia. *Australian Archaeology*, 153-161.
- Anderson, J. (1984). *Between Plateau and Pplain: Flexible Responses to Varied Environments in Southwestern Australia*. Canberra: Department of Prehistory, ANU.
- Australian Commonwealth Government. (2025, July 07). *IBRA Regions of Australia*. Retrieved from Protected Matters Search Tool: <https://pmst.environment.gov.au/#/map?lng=115.91308683156969&lat=-31.911758546374735&zoom=7&baseLayers=Imagery,ImageryLabels&l=17>
- Australian Interaction Consultants. (2009). *Site Identification survey report of the Proposed Dual Pathway on the Foreshore at Applecross, Western Australia*. Osborne Park: Australian Interaction Consultants.
- Australian Interaction Consultants. (2010). *Archaeological and Ethnographic Site Identification Survey Report of Timber Bridges withi nthe City of Swan and City Belmont, Western Australia*. Perth: Prepared for BG&E Consulting Engineers on behalf of Main Roads Western Australia.
- Australian Interaction Consultants. (2010). *Timber Bridges Maintenance Project, Aboriginal Heritage Management Plan*. Main Roads Western Australia.
- Balme, J. (2014). Devils Lair: Occupation intensity and land-use. *Australian Archaeology Vo.79 (1)*, 179-186.
- Barbetti, R. H. (1981). A 38, 000-Year-Old Archaeological Site at Upper Swan, Western Australia. *Archaeology in Oceania*, 173-178.
- Bassendean Memorial Library. (2025, July 09). *Surveyors, plans and maps of West Guildford, Guildford and Bassendean*. Retrieved from State Records Office and State Library of WA: [https://archive.sro.wa.gov.au/uploads/r/srowa/a/b/ab41118aee206e9296f0ae64ea3d653d1afed20caa9af67c7e4c9cc9ee75d553/Cons3868\\_item\\_178.jpg](https://archive.sro.wa.gov.au/uploads/r/srowa/a/b/ab41118aee206e9296f0ae64ea3d653d1afed20caa9af67c7e4c9cc9ee75d553/Cons3868_item_178.jpg)
- Bates, D. (1985). *The native tribes of Western Australia*. Canberra: National Library of Australia.
- Bates, D. (1992). *Aboriginal Perth, Bibulman Biographies and Legends*. Carlisle: Hesperian Press.
- Beard, J. S. (1980). A New Phytogeographic Map of Western Australia. *Western Australian Herbarium Research Notes*, 45.
- Berndt, C. H., & Berndt, R. M. (1979). *Aborigines of the West: Their Past and Their Present*. Perth: University of Western Australia Press.
- Bindon, P., & Chadwick, R. (1992). *A Nyoongar Wordlist: From the south-west of Western Australia*. Western Australian Museum.
- BOM. (2025a, January 21). *Monthly rainfall Jandakot Aero*. Retrieved from Bureau of Meteorology: [http://www.bom.gov.au/jsp/ncc/cdio/weatherData/av?p\\_nccObsCode=139&p\\_display\\_type=dataFile&p\\_stn\\_num=9172](http://www.bom.gov.au/jsp/ncc/cdio/weatherData/av?p_nccObsCode=139&p_display_type=dataFile&p_stn_num=9172)
- Briggs, A., Chinnery, R., Colman, L., Dolan, D., Graham-Talor, S., Howlett, J., . . . Walley, R. (2009). *Swan and Helena Rivers Management Framework: Heritage Audit and Statement of Significance*. Perth: Prepared for the Eastern Metropolitan Regional Council .
- Brown, S. H. (1983). *A Survey for Aboriginal Sites – Ethnographic Investigations relating to Some Proposed Highway and Road Developments in the Perth Metropolitan Area*. Unpublished report prepared for the Department of Main Roads.
- Browne-Cooper, R., & Bamford, M. (2017). *Bindaring Park Bassendean - Fauna Assessment*. Perth: Report prepared for Coterra Environment.
- Carly Monks, J. D. (2016). Pleistocene occupation of Yellabidde Cave in the Northern Swan Coastal Plain, Southwestern Australia. *Australian Archaeology*, 1-5.
- Carter, J. (2020). *Bassendean: A brief history*. Prepared for the Town of Bassendean.
- Collard, L. (1994). *A Nyungar interpretation of Ellensbrook and Wannerup homesteads*. Mount Lawley: National Trust of Western Australia.
- Commander, P. (2025, January 21). *Outline of the geology of the Perth region*. Retrieved from Australian Geomechanics Society: <https://www.australiangeomechanics.org/papers/outline-of-the-geology-of-the-perth-region/>
- DAA. (2013). *Aboriginal Heritage Due Diligence Guidelines*. Perth: Department of Aboriginal Affairs & Department of the Premier and Cabinet.
- Dortch, C. (1979). Devil's Lair, an Example of Prolongued Cave use in South-Western Australia. *World Archaeology*, 10(3), 258-279.
- DPLH. (2022). *Guidelines for Assessment of Local Heritage Places*. Perth: Heritage Council.
- DPLH. (2023, January 12). *South West Native Title Settlement – Heritage Fact Sheet*. Retrieved from Department of Planning, Lands and Heritage : <https://www.wa.gov.au/system/files/2023-01/NSHA-Fact-Sheet-Entering-a-NSHA-12-January-2023.pdf>

- Dundas, B. (2005). Paper presented at the National Garden History Conference 2005. *National Garden History Conference*, (pp. 1-11).
- Geoscience Australia. (2025, 07 28). *Commonwealth Historical Aerial Photo (HAP) Collection*. Retrieved from Digital Atlas of Australia: <https://digital.atlas.gov.au/apps/9a0ecbaf94f49829712b46fc69186ff/explore>
- GHD. (2024). *Bassendean Precinct Structure Plan | Context & Issues Summary*. Perth: Report prepared for the Town of Bassendean.
- Government of Western Australia. (2000). *Bush Forever Volume 2. Directory of Bush Forever Sites*. Perth: Department of Environmental Protection.
- Gozzard, R. R. (2007). *Geology and Landforms of the Perth Region*. East Perth: Geological Survey of Western Australia.
- Hallam, S. (1986). *Australian Research Grants Scheme: Final Report on the Project the Swan Coastal Plain, Western Australia*.
- Hallam, S. J. (1986). *Prehistoric Aboriginal Populations on the Swan Coastal Plain, Western Australia*. Australian Research Grants Scheme.
- Harris, K.-L. (2018, November 3). *Flora of south-west WA: diversity & endemism*. Retrieved from Biodiversity and Ecology in the Australian Bush: <https://southernforestlife.net/travels/2018/10/21/wa-endemics>
- Heritage Council. (2025, July 25). *Broun Homestead (fmr) site*. Retrieved from inHerit: <https://inherit.dplh.wa.gov.au/public/inventory/details/55d9fb2a-fe22-4d2b-8d68-b1a453d12e71>
- Heritage Council. (2025, 07 28). *Guildford Road Bridge*. Retrieved from inHeritage : <https://inherit.dplh.wa.gov.au/public/inventory/printsinglerecord/54c2e668-d071-42fd-9cc9-cc0d30bc2e9a>
- Heritage Council of WA. (2025, 07 28). *Hyde Buildings*. Retrieved from inHerit: <https://inherit.dplh.wa.gov.au/public/inventory/printsinglerecord/030efb8a-915f-4a66-aef0-aa3f2de882fd>
- Hughes-Hallett, D. (2010). *Indigenous History of the Swan and Canning Rivers*. Perth: Swan River Trust.
- Isaacs, J. (2002). *Bush Food: Aboriginal Food and Herbal medicine*. Sydney and Auckland: New Holland Publishers.
- Jamet, D. (2025, January 24). *Waugal Cave*. Retrieved from Streetkid Industries: <https://www.streetkidindustries.com/urbex/caves-in-perth/waugal-cave-north-fremantle>
- Lofgren, M. E. (1975). *Patterns of Life: The Story of the Aboriginal People of Western Australia*. Perth: A. F. Lovell.
- Lynch, N. B. (2023). *Canning Bridge Bus Interchange Biological Survey for Main Roads Western Australia*. Perth: GHD.
- Machin, B. (1994a). *Ballaruk (traditional owners) Aboriginal site recording project*.
- Machin, B. (1994b). *Ballaruk (traditional owners of Whadjuk territorial boundaries the lands of the Ballaruk Peoples) Aboriginal site recording project : additional material*.
- Machin, B. (1995). *Ethnographic Survey to assess the impacts of works at Bridge 910 Guildford Road over the Swan River and Upper Swan Bridge 672 Great Northern Highway Over the Swan River*. Main Roads.
- Makin, C. F. (1969). *A Socio-economic Anthropological Survey of People of Aboriginal Descent in the Metropolitan Region of Perth, Western Australia*. Perth: Thesis prepared for the University of Western Australia.
- Martinik & Associates. (1994). *Cultural Heritage Conservation Plan for Garden Island, Western Australia*. Report prepared for Department of Defence.
- McDonald, E. (2005). *Study of groundwater - related Aboriginal Cultural Values on the Gnangara Mound, Western Australia*. Perth: Prepared for the Department of Environment.
- McDonald, E., Coldrick, B., & Villiers, L. (2005). *Study of groundwater - related Aboriginal Cultural Values on the Gnangara Mound, Western Australia: Volume 1 restricted report*. Perth: Report prepared for the Department of Environment.
- McKenzie, J. E. (2003). *Regional Biodiversity Summary: Swan Coastal Plain*. Kensington: Department of Conservation and Land Management .
- McNicoll, R. (1977). *Ubique. The Royal Australian Engineers, [Volume 1] 1835 to 1902, the Colonial Engineers*. Canberra: Corps Committee of the Royal Australian Engineers.
- Meagher, S., & Ride, W. (1979). Use of natural resources by the Aborigines of southwestern Australia. In R. M. Berndt, & C. H. Berndt, *Aboriginies of the West: Their Past and Their Present* (pp. 66-80). Perth: University of Western Australia Press.
- Megarrrity, J. (nd). *How has Bassendean experienced change and continuity since WW1?* Bassendean Memorial Library.
- Museum of Perth. (2025, Janaury 24). *Goodinup*. Retrieved from Museum of Perth: <https://www.museumofperth.com.au/goodinup>
- Norvick, M. S. (2003). Tectonic and Stratigraphic History of the Perth Basin. *Geoscience*.
- O'Connor, R. (1985). *Preliminary Report on the Survey of Aboriginal Areas of Significance in the Perth Metropolitan & Murray River Regions*.
- O'Connor, R., Quartermaine, G., & Bodney, C. (1989). *Report on an Investigation into Aboriginal significance of Wetlands and Rivers in Perth- Bunbury Region*. Perth: Western Australian Water Resources Council.

- O'Connor, R., Quatermaine, G., & Bodney, C. (1989). *Report on an investigation into Aboriginal Significance of Wetlands and Rivers in the Perth-Bunbury Region*. Western Australian Water Resources Council- State Water Planning.
- O'Reilly, T. (2012). *Report of an Archaeological Survey of the Bunbury Outer Ring Road (Southern Section) Project Area, Bunbury, Western Australia*. Prepared for GHD Pty Ltd on behalf of Main Roads.
- Pearce, R. H., & Barbetti, M. (1981). A 38,000 year old archaeological site at Upper Swan, Western Australia. *Archaeology in Oceania*, 16(3), 173-178.
- Pearce, R. H., & Barbetti, M. (1981). A 38,000 year old archaeological site at Upper Swan, Western Australia. *Archaeology in Oceania*, 16, 173-178.
- Peoples Ocean Knowledge Trail of Cockbourn Sound and Districts. (2025, January 22). *Moort | Family*. Retrieved from Peoples Ocean Knowledge Trail of Cockbourn Sound and Districts: <https://www.derbalnara.org.au/moort-totems#:~:text=Whadjuk%20Nyungar%20society%20is%20traditionally%20divided%20into%20two,and%20marries%20a%20person%20from%20the%20other%20moiety>.
- Perth NRM. (2022). *Perth NRM: Swan Region Strategy for Natural Resource Management 2020-2023*. Perth: Perth NRM.
- Pickering, S. B. (2012). *Rivers of Emotion: An Emotional History of Derbarl Yerrigan and Djarlgarro Beelie/ the Swan and Canning Rivers*. Crawley: National Trust.
- Radcliffe-Brown, A. R. (1926). The Rainbow-Serpent Myth of Australia. *The Journal of the Royal Anthropological Institute of Great Britain and Ireland*, 19-25.
- Rory O'Connor, G. Q. (1989). *Report on an Investigation into Aboriginal Significance of Wetlands and Rivers in the Perth-Bunbury Region*. Leederville: Western Australian Water Resources Council.
- Semeniuk, V., & Glassford, D. K. (1989). Bassendean and Spearwood Dunes: their geomorphology, soil and stratigraphy as a basis for habitats of Banksia woodlands. *Journal of the Royal Society of Western Australia*, 71, 87-88.
- South West Aboriginal Land & Sea Council. (2025, January 24). *An introduction to Noongar History and Culture*. Retrieved from South West Aboriginal Land & Sea Council: <https://www.noongarculture.org.au/wp-content/uploads/2013/07/IntroductiontoNoongarCultureforweb.pdf>
- South West Aboriginal Land & Sea Council. (2025, January 22). *Food*. Retrieved from South West Aboriginal Land & Sea Council: <https://www.noongarculture.org.au/food/#>
- South West Aboriginal Land & Sea Council. (2025, January 22). *Noongar*. Retrieved from South West Aboriginal Land & Sea Council: <https://www.noongarculture.org.au/noongar/>
- South West Aboriginal Land & Sea Council. (2025, January 22). *Noongar Lore*. Retrieved from South West Aboriginal Land & Sea Council: <https://www.noongarculture.org.au/noongar-lore/#:~:text=Lore%20for%20Noongar%20people%20is%20unwritten%20and%20refers,and%20trade%2C%20access%2C%20usage%20and%20custodianship%20of%20land>.
- South West Aboriginal Land and Sea Council. (n.d.). *Nyoongar language from the south west region of Western Australia*. Retrieved from South West Aboriginal Land and Sea Council: <https://www.noongarculture.org.au/language/#:~:text=Noongar%20is%20the%20official%20language%20of%20the%20Aboriginal%20people%20of>
- Stevens, S. (2009). Pensioner guards. In J. Gregory, & J. Gothard, *Historical encyclopedia of Western Australia* (pp. 674-675). Crawley: University of Western Australia Press.
- Strawbridge, L. (1987). *Aboriginal Sites in the Perth Metropolitan Area: A management scheme*. Report for Department of Aboriginal Sites, Western Australia.
- SWALSC. (2025, 07 29). *Yagan*. Retrieved from Kaartdijin Noongar-Noongar Knowledge: <https://www.noongarculture.org.au/yagan/>
- Tauss, R. (1987). *"The Pain's Not Over" Fringe Dwellers of the Swan Valley, Guildford, Western Australia*. Report produced for the Faculty of Horticulture, Hawkesbury Agricultural College, toward their requirements of a student undertaking their "Commercial Enterprise Experience".
- The National Museum of Australia. (2024, September 2024). *Defining Moments: Founding of Perth*. Retrieved from National Museum of Australia: <https://www.nma.gov.au/defining-moments/resources/founding-of-perth>
- Thomas, A. T. (1947). *A history of Bassendean*. Bassendean: compiled and published for the Bassendean Road Board.
- Tilbrook, L. (1983). *Nyungar Tradition: Glimpses of Aborigines of South-Western Australia 1829-1914*. Perth: University of Western Australia Press.
- Tilbrook, L. (1985). *Report on the Historical Significance of Aboriginal Sites within the Perth Metropolitan Area*. Perth: Prepared for The Centre for Pre-History, University of Western Australia and The Aboriginal Sites Department of Western Australia.
- Tindale, N. B. (1974). *Aboriginal Tribes of Australia: Their Terrain, Environmental Controls, Distribution, Limits and Proper Names*. Berkeley: University of California Press.
- Town of Bassendean. (2017). *Thematic History and Matrix*. Town of Bassendean.

- Town of Bassendean. (2022). *Local Heritage Survey*. Town of Bassendean.
- Town of Bassendean. (2025, July 09). *Local History*. Retrieved from Town of Bassendean: <https://www.bassendean.wa.gov.au/develop-build/planning-development/local-history.aspx>
- Town of Cambridge. (2018). *Local Government Inventory of Heritage Places NOW REFERRED TO AS A 'LOCAL HERITAGE SURVEY' IN ACCORDANCE WITH THE HERITAGE ACT 2018*. Town of Cambridge.
- Turney, C., Bird, M. I., Keith Fifield, L., Roberts, R. N., Smith, M., Dortch, C. E., . . . Cresswell, R. G. (2001). Early Human Occupation at Devil's Lair, Southwestern Australia 50,000 Years Ago. *Quaternary Research*, Vol 55(1), 3-13.
- University of Newcastle. (2024, October 3). *Colonial Frontier Massacres, Australia, 1788 to 1930*. Retrieved from National Library of Australia: <https://c21ch.newcastle.edu.au/colonialmassacres/map.php>
- UWA. (1972). *An Archaeological Survey Project: Perth Area, Western Australia*. Perth: University of Western Australia.
- Villiers, L. E., Morgan, S., & Von Bamberger, M. (2008). *Aboriginal Heritage Survey on the Impact of Bording under the Swan River at the Guildford Road Bridge, Guildford, WA*. Prepared for The Water Corporation.
- WA Gov. (2025, July 25). *Convicts*. Retrieved from State Records Office of Western Australia: <https://www.wa.gov.au/organisation/state-records-office-of-western-australia/convicts>
- Walley, T. (2025, January 22). *Totems*. Retrieved from People's Ocean Knowledge Trail of Cockbourn Sound and Districts: <https://www.derbalnara.org.au/stories/totems>
- Whadjuk Regional Development Coordinator. (2025, January 22). *About the Whadjuk Region*. Retrieved from South West Aboriginal Land & Sea Council: <https://www.noongarculture.org.au/whadjuk/>
- Whitehurst, R. (1997). *Noongar Dictionary: Noongar to English and English to Noongar*. East Perth: Noongar Language Centre.
- Wood, A. (2025, January 24). *Words and Phrases*. Retrieved from First Nations Languages Around the Country: <http://www.alanwood.id.au/first-nations-australia/first-nations-languages/index.html>