

Aboriginal Heritage Desktop Assessment

*Twin Hills Wind Farm,
Yamatji Country*

July 2026

Prepared for: Twin Hills Wind Farm Pty Ltd



Urbis staff responsible for this report were:

Director	Marc Beattie, MA (Hons), MSc IHBC, M. ICOMOS
Senior Consultant	Nikola Ristovski, M. Archaeology, BA Archaeology
Heritage Assistant	Dena Charles, BA Archaeology
Project Code	P0051369
Report Number	Draft 1 – 15 August 2025 Draft 2 – 25 September 2025 Draft 3 – 17 October 2025 Final V1 – 17 October 2025 Final V2 – 1 April 2026 Final V3 – 18 June 2026 Final V4 – 2 July 2026 Final V5 – 7 July 2026

Cover image – Landscape photo of Project Area in the Shire of Three Springs.

Source: Alex Krzus to Nikola Ristovski, Email, July 31, 2025.

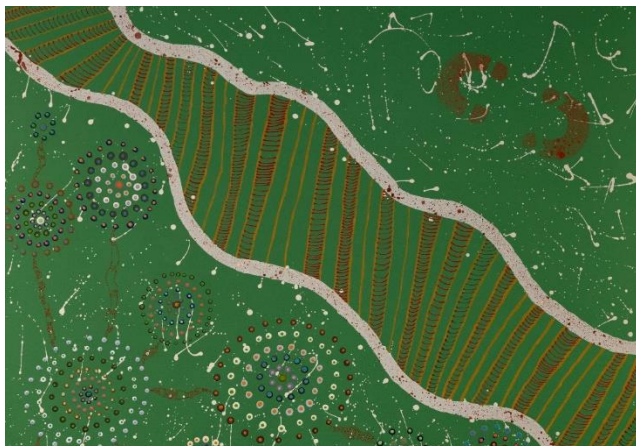
Acknowledgment of Country

Urbis acknowledges the Traditional Custodians of the lands we operate on.

We recognise that First Nations sovereignty was never ceded and respect First Nations peoples continuing connection to these lands, waterways and ecosystems for over 60,000 years.

We pay our respects to First Nations Elders, past and present.

Urbis is committed to incorporating our respect for First Nations cultures, peoples and storytelling in our work across the Country. We are proud to have partnered with Darug Nation artist, **Hayley Pigram**, and to profile her artwork – **Sacred River Dreaming**.



The river is the symbol of the Dreaming and the journey of life. The circles and lines represent people meeting and connections across time and space. When we are working in different places, we can still be connected and work towards the same goal.

All information supplied to Urbis in order to conduct this research has been treated in the strictest confidence. It shall only be used in this context and shall not be made available to third parties without client authorisation. Confidential information has been stored securely and data provided by respondents, as well as their identity, has been treated in the strictest confidence and all assurance given to respondents have been and shall be fulfilled.

© Urbis Ltd
50 105 256 228

All Rights Reserved. No material may be reproduced without prior permission.
You must read the important disclaimer appearing within the body of this report.

urbis.com.au

P0051369_TwinHillsWindFarm_DDA_Final

Contents

Executive Summary	vi
1 Introduction	1
2 Background	2
2.1 Project Area	2
2.2 Proposed Works	5
2.3 Key Aboriginal Stakeholders	5
2.4 Heritage Controls	7
3 Site Context	10
3.1 General Description and Setting	10
4 Environmental and Cultural Context	12
4.1 Environmental Context	12
4.2 Ethnographic Context	20
5 Previously Recorded Heritage	23
5.1 Aboriginal Cultural Heritage Inquiry System (ACHIS)	23
5.2 Previous Aboriginal Heritage Surveys	26
5.3 Historic Heritage Listings	31
6 Heritage Potential and Risk Assessment	33
6.1 Typical Aboriginal Heritage Site Types	34
6.2 Assessment of Aboriginal Heritage Potential	35
6.3 Predictive Heat Map	36
6.4 Aboriginal Heritage Risk Assessment	39
6.5 Potential for Heritage Impact	39
6.6 Key Considerations and Opportunities	40
7 Recommendations	42
7.1 Aboriginal Heritage	42
7.2 Historic Heritage	43
8 References	44
Disclaimer	46

Figures

Figure 1 – Regional location of Project Area.	3
Figure 2 – Project Area.	4
Figure 3 – Map of the Hutt River, Mullewa Wadjari, Southern Yamatji, and Widi Mob lands comprising the Yamatji ILUA area (outlined in red).	6
Figure 4 – Photo from northern extent of Project Area showing cropped field, track and native vegetation, facing southeast.	10
Figure 5 – Photo from northern extent of Project Area showing cropped field and native vegetation, facing south.	10
Figure 6 – Photo from a slight rise facing east towards the Project Area (approx. 3km distance) overlooking a cropped field.	11
Figure 7 – Photo from Three Springs – Eneabba Road, facing field in southwest corner of Project Area.	11
Figure 8 – Topography of the Project Area.	13
Figure 9 – Soil landscape systems within the Project Area.	16
Figure 10 – Vegetation and hydrology with the Project Area.	18
Figure 11 – Aerial image of Project Area in 1984.	20
Figure 12 – Aerial image of Project Area in 2000, showing minor intensification of farming since 1984.	20
Figure 13 – Aerial image of Project Area in 2017, showing minimal changes in land use.	20
Figure 14 – Aerial image of Project Area in 2025, showing minimal changes in land use.	20
Figure 15 – Aboriginal Cultural Heritage sites and surveys within the Project Area.	25
Figure 16 – Historic sites in proximity to the Project Area.	32
Figure 17 – ACH predictive heat map of Project Area.	38
Figure 18 – DPLH Aboriginal Heritage Risk Matrix. The red outline indicates the level of risk relevant to the Project Area.	39

Tables

Table 1 – Project Area lot numbers and addresses.2

Table 2 – Aboriginal Cultural Heritage sites within a
10km buffer of the Project Area..... 26

Table 3 – Aboriginal heritage surveys intersecting
the Project Area..... 26

Table 4 – Indicative process for determining the
potential presence of ACH.....33

Table 5 – Predictive map landscape
characteristics and associated weighting.....37

Executive Summary

Urbis has been engaged by Twin Hills Wind Farm Pty Ltd to conduct an Aboriginal Heritage Desktop Assessment for the proposed Twin Hills Wind Farm located in the Shire of Three Springs, Western Australia (the 'Project Area') on Yamatji Country. This assessment identifies known and potential Aboriginal heritage considerations related to the development of the wind farm and provides recommendations for further research and consultation to meet obligations under the *Aboriginal Heritage Act 1972*. Additionally, this assessment reviews historic (non-Aboriginal) heritage considerations relevant to the project.

The Project Area is located in the Shire of Three Springs in the Mid West region of Western Australia and comprises seven adjacent lots zoned as 'rural'. The total Project Area is 9,912.25 ha, with a proposed development envelope of 6,326.33 ha. The Project Area is located immediately north of Wotto Nature Reserve, 10 km east of Brand Highway, 20 km northeast of Eneabba, and 20 km southwest of Three Springs townsite.

The Project Area is located within the Yamatji Nation Southern Regional Agreement (YNSRA) area subject to the Yamatji Nation Indigenous Land Use Agreement (ILUA), which was authorised by the native title claim groups on 9 December 2019. The Project Area lies within the traditional territory of the Amangu people, recognised as part of the broader Yamatji cultural bloc and represented by the Yamatji Southern Regional Corporation (YSRC).

Twin Hills Wind Farm Pty Ltd has initiated consultations with the YSRC due to the scope of the proposed works. An archaeological and ethnographic survey for a meteorological mast in the Project Area was conducted by Sticks and Stones Cultural Resource Management in 2024, in collaboration with YSRC representatives. The Proponent plans to enter into a heritage agreement with the YSRC after receiving planning approval for the Project, and then complete heritage surveys for the development footprint that is established during detailed design for the Project. Findings from these surveys will guide the design and layout of the proposed works to avoid or minimise impacts on Aboriginal heritage sites.

Aboriginal Cultural Heritage

The assessment concluded that:

- There are zero (0) Registered, Lodged or Historic ACH sites within the Project Area.
- Within a 10 km buffer zone, there is (1) Registered ACH site, the Arrowsmith River (ACHIS ID# 30068), and one (1) Lodged site containing at least stone artefact (ACHIS ID# 29767). These sites highlight the cultural significance of watercourses in the area as well as the potential of ACH material to exist on or beside disturbed ground.
- Narrow corridors on the periphery of the Project Area and broader areas in the region have been previously surveyed for ACH. The survey reports indicate a general absence of archaeological materials in the area, a low potential for ethnographic sites in agricultural land in the broader area, the potential for isolated artefacts and artefact scatter (particularly near water sources and creek lines), and the potential for sub-surface archaeological material.
- The *Aboriginal Heritage Due Diligence Guidelines (2013)* risk matrix assessed that the proposed development has a high risk of impacting Aboriginal heritage where the proposed works constitute major disturbance in a significantly altered environment.
- Considering the above, Urbis has assessed a **high** potential for the presence of artefact scatters, culturally modified trees and PADs, a **moderate** potential for burials, water sources, and ethnographic and historic sites, and a **low** potential for other ACH site types within the Project Area as a whole.
- While no ACH sites are currently recorded within the Project Area, the scale of the proposed works and the identified high and moderate potential for certain types of sites mean that previously unrecorded sites may be identified during future heritage surveys. In accordance with the *Aboriginal Heritage Act 1972* and the *Consultation policy for section 18 applications (2023)*, should any ACH sites be identified that cannot be avoided through design refinement, consultation with YSRC and nominated Knowledge

Holders would be required to determine whether ministerial consent under section 18 is necessary, and the scope and extent of any such consent.

- As a development footprint has not been finalised, preliminary impact mitigation strategies to lower risk to ACH, where practicable, include confining proposed ground disturbance to already altered areas (e.g. cultivated or cleared land), avoiding areas within 100 m of watercourses, and using pre-existing accessways and crossing locations.

Prior to any ground disturbing works, Urbis recommends the following:

Recommendation 1 – Record Keeping

This assessment and its findings should be kept as evidence of the Due Diligence Process having been applied to the Project Area and the proposed development footprint.

Recommendation 2 – Submission of Activity Notice

Urbis understand that the Proponent has been engaged in consultation with YSRC and plans to enter into a heritage agreement with the YSRC after receiving planning approval for the Project. The nature and form of the proposed heritage agreement should be clarified during consultation with YSRC.

Prior to completing activities that involve low to high levels of ground disturbance, the Proponent should submit an Activity Notice letter (or equivalent notice in accordance with the heritage agreement) to YSRC describing their proposed development works and include a copy of this assessment.

Recommendation 3 – Survey of Proposed Development Footprint

Following submission of an Activity Notice, YSRC will determine whether heritage surveys will be required and negotiate a survey methodology that is fit for purpose.

A survey conducted in collaboration with YSRC representatives is recommended to identify any ACH values and risks and ensure that Twin Hills Wind Farm Pty Ltd does not breach section 17 of the *Aboriginal Heritage Act 1972*.

In accordance with the *Aboriginal Heritage Act 1972* and the *Consultation policy for section 18 applications (2023)*, should any unrecorded ACH sites be identified during heritage surveys that cannot be avoided through design refinement, consultation with YSRC and nominated Knowledge Holders would be required to determine whether ministerial consent under section 18 is necessary, and the scope and extent of any such consent.

Historic Heritage

The assessment concluded that:

- The Project Area contains no heritage listed places and does not carry any statutory protection under the *Heritage Act 2018* or the Shire of Three Springs Local Planning Scheme.
- The Project Area has **no historical heritage constraints**.

Urbis recommends the following:

Recommendation 1 – Early Engagement with Heritage Stakeholders

The site currently does not contain any heritage-listed places. However, it would be prudent to engage early with the Shire of Three Springs and other relevant historical heritage stakeholders. This will ensure that no future listings are being considered and provide clear confirmation that historical heritage will not be a constraint for future development.

1 Introduction

Urbis has been engaged by Twin Hills Wind Farm Pty Ltd (the Proponent) to conduct an Aboriginal Heritage Desktop Assessment for the proposed Twin Hills Wind Farm located in the Shire of Three Springs, Western Australia (the 'Project Area') on Yamatji Country. This assessment aims to identify any known or potential Aboriginal heritage considerations related to the development of the wind farm and provide recommendations for further research and consultation to meet obligations under the *Aboriginal Heritage Act 1972*. Additionally, this assessment will identify historic (non-Aboriginal) heritage sites and constraints.

The assessment includes the following:

- Desktop analysis of the Project Area and its context.
- Review of previous Aboriginal heritage surveys within and around the Project Area.
- Updated search of the Aboriginal Cultural Heritage Inquiry System (ACHIS) through the Department of Planning, Lands and Heritage (DPLH).
- Identification of Registered, Lodged, and Historic Aboriginal sites in and around the Project Area.
- Identification of historic (non-Aboriginal) heritage sites in and around the Project Area and relevant legislation.
- Description of Aboriginal heritage constraints and opportunities in the Project Area.
- Summary of outcomes from previous consultation with Traditional Owners and Aboriginal peoples.
- Identification of key Aboriginal organisations, groups and individuals to be notified of the proposed project.
- Recommendations for future proposed development.

2 Background

2.1 Project Area

The Project Area is located in the Shire of Three Springs in the Mid West region of Western Australia (*Figure 1*) and comprises seven (7) adjacent lots zoned as 'rural' (Table 1). The total Project Area is 9,912.25 ha, with a proposed development envelope of 6,326.33 ha.

The Project Area is located immediately north of Wotto Nature Reserve, 10 km east of Brand Highway, 20 km northeast of Eneabba, and 20 km southwest of Three Springs (*Figure 2*).

The Project Area is transected by Eneabba–Three Springs Road, running southwest to northeast, and First North Road, which runs north–south. The Project Area is bounded by minor roads including Skipper Road, Second North Road, Beekeepers Road, Kangaroo Road, and Turkey Flat Road.

Table 1 – Project Area lot numbers and addresses.

Lot	Address
10211	258 Beekeepers Road, ARROWSMITH EAST 6519
11	934 First North Road, KADATHINNI 6519
100	n/a
101	1204 Kangaroo Road, KADATHINNI 6519
10910	750 Kangaroo Road, KADATHINNI 6519
10909	3691 Eneabba–Three Springs Road, KADATHINNI 6519
10895	3282 Eneabba–Three Springs Road, KADATHINNA 6519

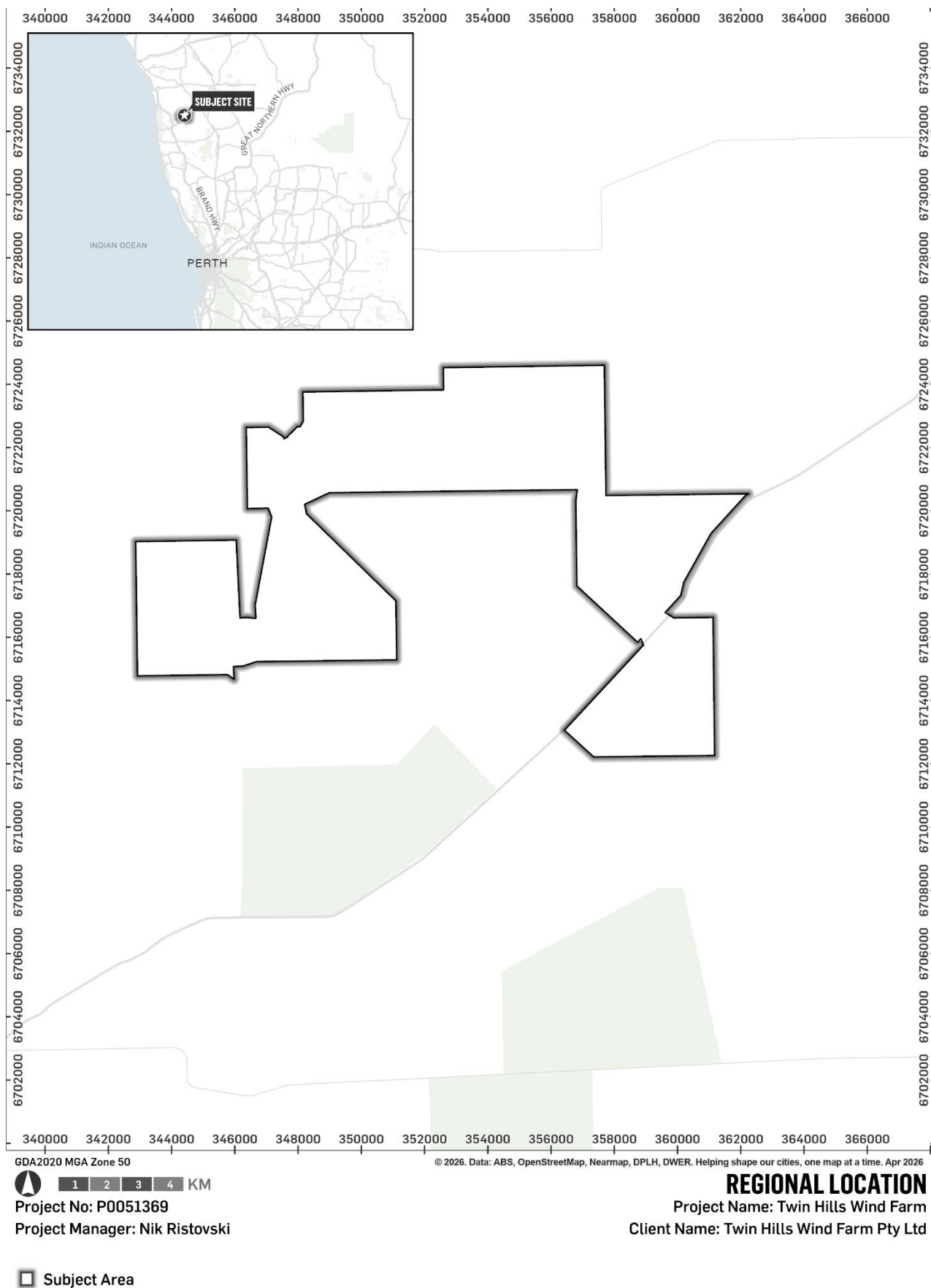


Figure 1 – Regional location of Project Area.

Source: Urbis, 2025



Figure 2 – Project Area.

Source: Urbis, 2025

2.2 Proposed Works

The Proponent is seeking to develop a wind farm with a maximum development footprint of 543.6 ha. The exact number and location of proposed infrastructure components is subject to change following the results of heritage surveys and other technical assessments. However, the proposed works will likely include the construction of the following components:

- Wind Turbine Generators (WTGs)
- Hardstand / Wind Turbine Generator Platforms
- Access Roads
- Underground Electrical Cables
- 330 kV Overhead Line
- Substations and Terminal Stations
- Battery Energy Storage Systems (BESS)
- Concrete Batching Plants
- Temporary Construction Site Office and Compound
- Permanent Operations & Maintenance (O&M) Site Office and Carpark
- Staging Areas
- Washdown Facilities

2.3 Key Aboriginal Stakeholders

2.3.1 Yamatji Southern Regional Corporation

The Project Area is located within the Yamatji Nation Southern Regional Agreement (YNSRA) area. The Yamatji Southern Regional Corporation (YSRC) represents the interests of the Yamatji people, including the Hutt River, Mullewa Wadjari, Southern Yamatji, and Widi Mob claim groups.

Negotiations for the YNSRA began on 6 November 2017, culminating in an agreement on 27 December 2019. This agreement, known as the Yamatji Nation Indigenous Land Use Agreement (ILUA), was authorised by the native title claim groups on 9 December 2019. The YNSRA covers an area of 48,000 km² and is illustrated in Figure 3.¹

The Proponent has initiated consultations with the YSRC due to the scope of the proposed works. To date, five meetings have been held between February 2024 and April 2026. Discussions included project introductions and briefings, heritage considerations, heritage survey requirements and timing, development of a heritage agreement, the proposed meteorological mast site assessment, findings of the Heritage Desktop Assessment, and updates on the Project schedule and community engagement approach.

The Proponent plans to enter into a heritage agreement with the YSRC after receiving planning approval for the Project. The nature and form of the proposed heritage agreement should be clarified during consultation with YSRC. Consultation with YSRC should also consider a broader relationship agreement that delivers community benefits and delivers support for the project, in alignment with the Department of Energy and

¹ Yamatji Southern Regional Corporation, "Our Nation," Yamatji Southern Regional Corporation, 2025, <https://www.ysrc.com.au/our-nation>.

Economic Diversification's *Community Benefits Guideline for Large-scale Renewable Energy Projects in the South West Interconnected System*²

An archaeological and ethnographic survey for a meteorological mast in the Project Area was conducted by Sticks and Stones Cultural Resource Management in 2024, in collaboration with YSRC representatives.

The Proponent plans to complete heritage surveys for the wind farm development footprint that is established during detailed design for the Project. Findings from the heritage surveys should guide the design and layout of the proposed works to avoid or minimise impacts on Aboriginal heritage sites. As such, the Proponent may seek to survey additional area to allow for changes to the Project layout during detailed design if Aboriginal heritage sites are discovered.

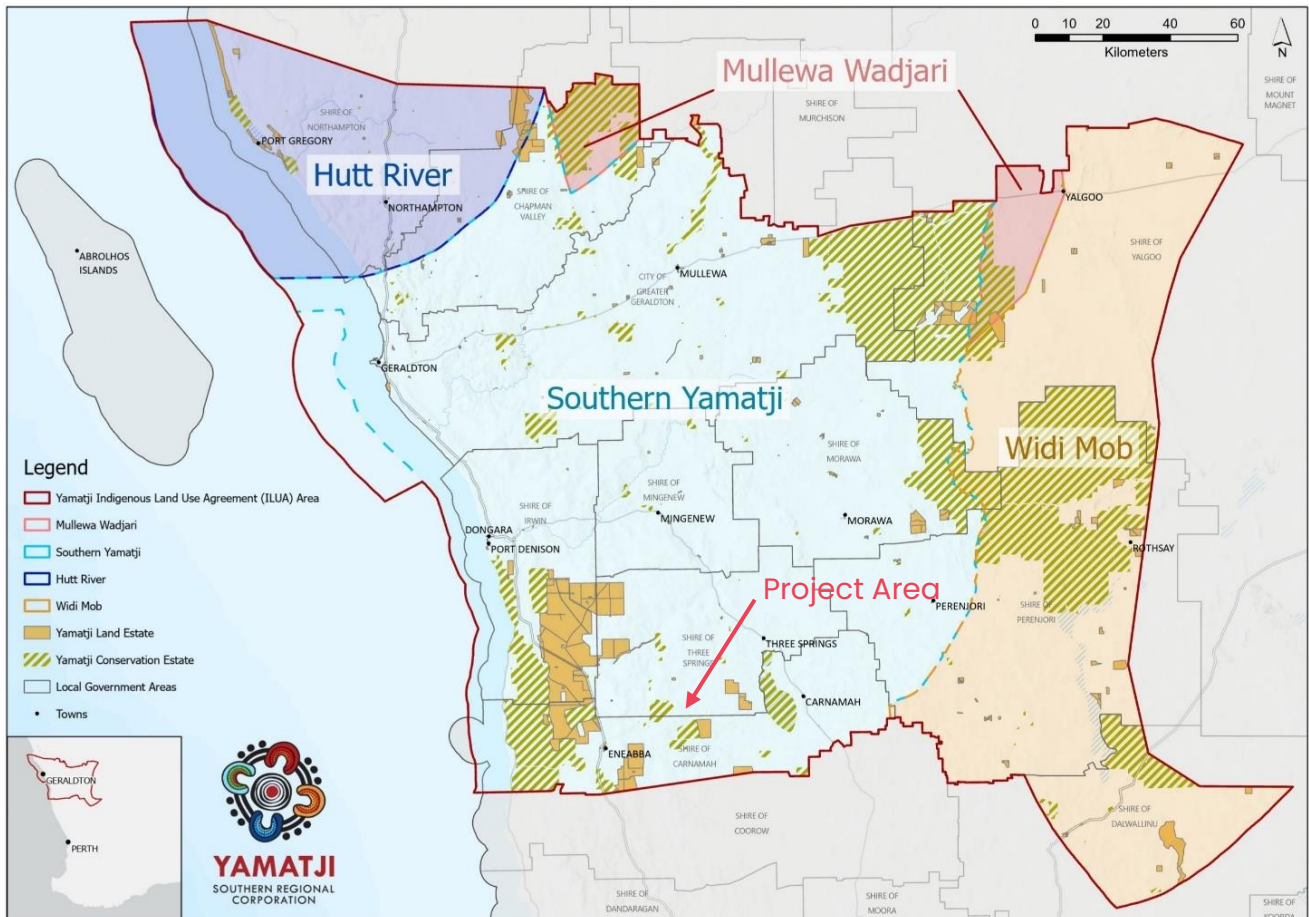


Figure 3 – Map of the Hutt River, Mullewa Wadjari, Southern Yamatji, and Widi Mob lands comprising the Yamatji ILUA area (outlined in red).

Source: Yamatji Southern Regional Corporation, "About Us," 2025, <https://www.ysrc.com.au/about-ysrc>.

² Department of Energy and Economic Diversification, "Community Benefits Guideline for Large-scale Renewable Energy Projects in the South West Interconnected System," WA Government, 2026, https://stateofenergy.wa.gov.au/docs/default-source/default-document-library/community-benefits/community-benefits-guideline-for-large-scale-renewable-energy-projects.pdf?sfvrsn=6e66a37e_1

2.4 Heritage Controls

The protection and management of Aboriginal cultural heritage places and objects within Western Australia is governed by the relevant Commonwealth and State legislation. These are discussed below in relation to the present Project Area.

2.4.1 Aboriginal Cultural Heritage

Aboriginal heritage in Western Australia is protected and managed by the *Aboriginal Heritage Act 1972* (AHA). The AHA has been under review since 2016 as it lacks alignment with modern best practice heritage principles. Over the last five years Aboriginal heritage legislation in Western Australia has been in a state of revolving change following the introduction of the *Aboriginal Cultural Heritage Act 2021* (ACHA) and the subsequent co-design of its regulations and statutory guidelines. However, after only six weeks of being in effect, the ACHA was repealed and amendments to the *Aboriginal Heritage Act 1972* were passed through Parliament. The amended AHA became fully operational on 15 November 2023. The amendments include a right of appeal to section 18 approvals for affected Native Title parties, and a requirement for proponents to report to the Minister any new information in relation to Aboriginal heritage places located within an existing section 18 consent. An 'Aboriginal Site' is defined under section 5 as the following:

1. *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.*
2. *any sacred, ritual or ceremonial site, which is of importance and special significance to persons of Aboriginal descent.*
3. *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.*
4. *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.*

All reported Aboriginal Cultural Heritage (ACH) places are assessed by the Aboriginal Cultural Heritage Committee (ACHC) in accordance with section 5 and 39(2).

In assessing significance under section 39(2) the ACHC must consider:

- *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.*
- *aesthetic values.*

The ACHC must also prioritise any "associated sacred beliefs, and ritual or ceremonial usage", under section 39(3) of the AHA.

Under section 17 of the AHA it is an offence to disturb, damage, alter or conceal an Aboriginal Site without the permission of the Registrar of Aboriginal Sites under section 16 or the consent of the Minister under section 18.

The *Aboriginal Heritage Regulations 1974* have also been updated to complement the restored AHA 1972. To assist proponents in determining if their activities could adversely impact an Aboriginal site, DPLH has created the *Aboriginal Heritage Due Diligence Guidelines (2013)*, which have been taken into account when preparing this report.

Since the amendments to the *Aboriginal Heritage Act 1972* came into effect on 15 November 2023, the Department of Planning, Lands and Heritage has also published the *Aboriginal Heritage Act 1972 Guidelines*

(2023) and the *Consultation policy for section 18 applications (2023)*. These policy guidelines are relevant to understanding current expectations regarding consultation and decision-making where ministerial consent under section 18 of the AHA may be required. These current policy settings have been considered in framing the recommendations of this assessment.

2.4.2 State Register of Heritage Places

Western Australia's historic heritage legislation is the *Heritage Act 2018* (the Act). This Act ensures that places of cultural heritage significance to the State are included on the State Register of Heritage Places and protected under governance of the Heritage Council of Western Australia (HCWA). The Department of Planning, Lands and Heritage (DPLH) is responsible for managing the process under the Act. Other points to note include:

- i. Places included on the State Register of Heritage Places may include values which also relate to Aboriginal cultural significance but must not be exclusively of Aboriginal significance.
- ii. The Act governs the management of historic heritage and archaeological resources and places of significance (historical heritage) included on the State Register of Heritage Places.
- iii. Where development has potential to affect State Registered heritage places a development application is required to be submitted to the determining authority which must be referred to the Heritage Council of Western Australia (HCWA).

After a thorough review of the State Register of Heritage Places, it has been confirmed that there are no sites included on this list within the Project Area.

2.4.3 Local Heritage List

The Planning and Development (Local Planning Schemes) Regulations 2015 (Regulations) are prepared under the *Planning and Development Act 2005*. Part 3 of the deemed (obligatory) provisions for local planning schemes of the Regulations 2015 mandates that a local government must establish and maintain a heritage list to identify places within the planning scheme area that are of cultural heritage significance and worthy of built heritage conservation.

Places included under a local government heritage list are protected under the provisions of the local planning scheme and are likely to require a development application for all changes to the exterior of the place. Where an interior is identified as being significant, internal changes may also require development application.

After a thorough review of the Local Heritage List, it has been confirmed that there are no sites included on this list within the Project Area.

2.4.4 Local Heritage Survey

The *Heritage Act 2018* requires each local government to identify places of cultural heritage significance in a Local Heritage Survey (LHS). The LHS has no direct statutory role in respect of the *Planning and Development Act 2005*, and in particular should not be used as the basis of decision making for development or subdivision proposals. This function is served by a heritage list or heritage area. The Act identifies that the purposes of the LHS include:

- a. *identifying and recording places that are, or may become, of cultural heritage significance in its district; and*
- b. *assisting the local government in making and implementing decisions that are in harmony with cultural heritage values; and*
- c. *providing a cultural and historical record of its district; and*
- d. *providing an accessible public record of places of cultural heritage significance to its district; and*

- e. *assisting the local government in preparing a heritage list or list of heritage areas under a local planning scheme.*

Local government decisions that could be informed by the LHS might include activities to interpret or promote heritage places or provide material for information or education. Examples are assembling a local history or archive; informing a thematic study of the area; providing educational material for school programs; or developing a heritage trail.

The Project Area does not include any sites included on the Shire of Three Springs Local Heritage Survey.

3 Site Context

3.1 General Description and Setting

The Project Area is located 20 km northeast of Eneabba in the Shire of Three Springs, Western Australia. The area lies more broadly within the northern Perth Basin, which prior to European colonisation, was inhabited by Amangu, Yued and Whadjuk Aboriginal groups who actively managed the land. Their movements followed seasonal cycles, dictated by the availability of food and water resources. In this region, songlines, which serve as oral maps of the landscape, primarily traced water sources linked to groundwater systems. These networks distinguished local groups from others who relied on inland rock holes. The use of fire by Aboriginal communities played a significant role in shaping the local vegetation structure.³

In the present day, the Project Area and surrounds are used for broadacre farming of cereals and livestock. Other prominent industries in the region include mineral sands mining near Eneabba and Cataby.

Based on aerial imagery and site photographs, it's understood that individual properties are divided by physical barriers, including fencing, with sparsely scattered houses and outbuildings.

Much of the road network within the Project Area consists of dirt roads and tracks, except for Three Springs-Eneabba Road, which is asphalt and runs southwest to northeast between Lots 10897 and 10895.



Figure 4 – Photo from northern extent of Project Area showing cropped field, track and native vegetation, facing southeast.

Source: Alex Krzus to Nikola Ristovski, Email, July 31, 2025



Figure 5 – Photo from northern extent of Project Area showing cropped field and native vegetation, facing south.

Source: Alex Krzus to Nikola Ristovski, Email, July 31, 2025

³ Neal J. Enright and Ian Thomas, "Pre-European Fire Regimes in Australian Ecosystems," *Geography Compass* 2, no. 4 (June 28, 2008): 979–1011, <https://doi.org/10.1111/j.1749-8198.2008.00126.x>.



Figure 6 – Photo from a slight rise facing east towards the Project Area (approx. 3km distance) overlooking a cropped field.

Source: Alex Krzus to Nikola Ristovski, Email, July 31, 2025



Figure 7 – Photo from Three Springs – Eneabba Road, facing field in southwest corner of Project Area.

Source: Google Earth Pro, 2025

4 Environmental and Cultural Context

4.1 Environmental Context

Aboriginal objects and places can be associated with certain landscape features (e.g., rivers and rock shelters) that played a part in the everyday lives and traditional cultural activities of Aboriginal people. The following section describes the environmental context of the Project Area and its potential for ACH.

4.1.1 Topography

Certain landform elements are associated with greater archaeological potential for Aboriginal sites and places. Areas that are located on a ridge top, ridge line or headland, located within 200 m below or above a cliff face or within 20 m of or in a cave, rock shelter or cave mouth are considered sensitive areas for Aboriginal objects and places.⁴

The Project Area is located on the western edge of the Dandaragan Scarp, which is a sand- and laterite-capped plateau with a gently undulating surface that borders the Arrowsmith region to the east.⁵ The Project Area has an elevation of about 250 m to 300 m above sea level, which slopes downward to 160 m west of First North Road (Figure 8).

The Project Area contains some landform elements, such as gravelly ridge crests and minor lateritic outcrops, which may be indicative of the presence of ACH.

⁴ NSW Department of Environment, Climate Change and Water, "Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales," *Department of Environment, Climate Change and Water* (Sydney: NSW Government, September 2010), <https://www.environment.nsw.gov.au/sites/default/files/due-diligence-code-of-practice-aboriginal-objects-protection-100798.pdf>.

⁵ Western Australian Government Department of Water, "Northern Perth Basin: Geology, Hydrogeology and Groundwater Resources," *Wa.gov.au*, January 2017, <https://www.wa.gov.au/system/files/2022-04/Northern%20Perth%20Basin%20-%20geology%2C%20hydrogeology%20and%20groundwater%20resources.pdf>.

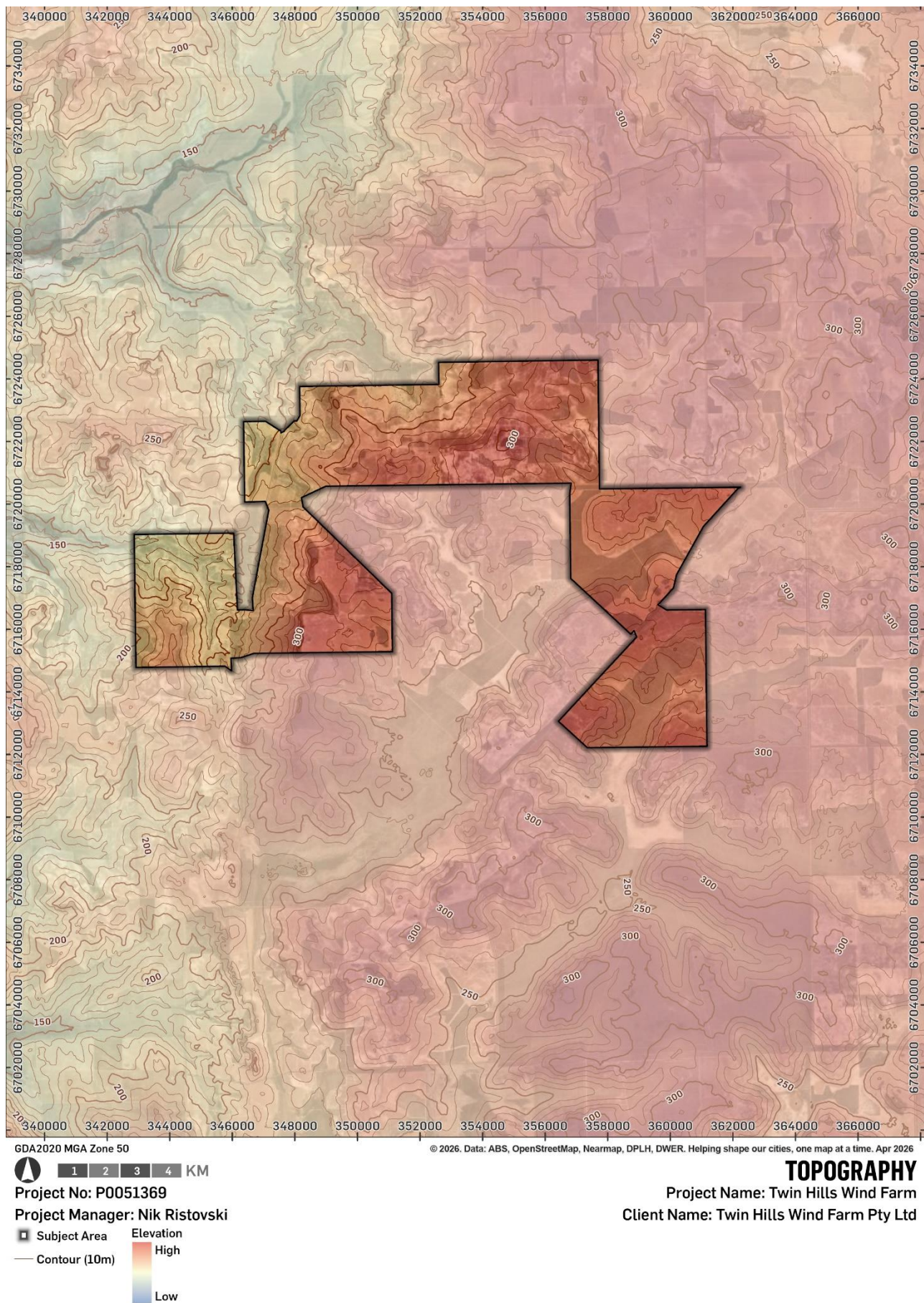


Figure 8 – Topography of the Project Area.

Source: Urbis, 2025

4.1.2 Soil Landscape and Geology

Certain soil landscapes and geological features have a greater potential for Aboriginal archaeological heritage. For example, sand dune systems are associated with the potential presence of burials, middens, and sub-surface archaeological deposits. The depth of natural soils is also relevant to the potential for archaeological materials to be present, especially in areas where disturbance is high. In general, as disturbance depth increases, the integrity of potential archaeological resources decreases. However, it should be noted that existing ground disturbance does not necessarily mean that there is no archaeological potential, as archaeological deposits can be present below the ground surface. Further, heritage values may still exist in a place that has been previously disturbed.

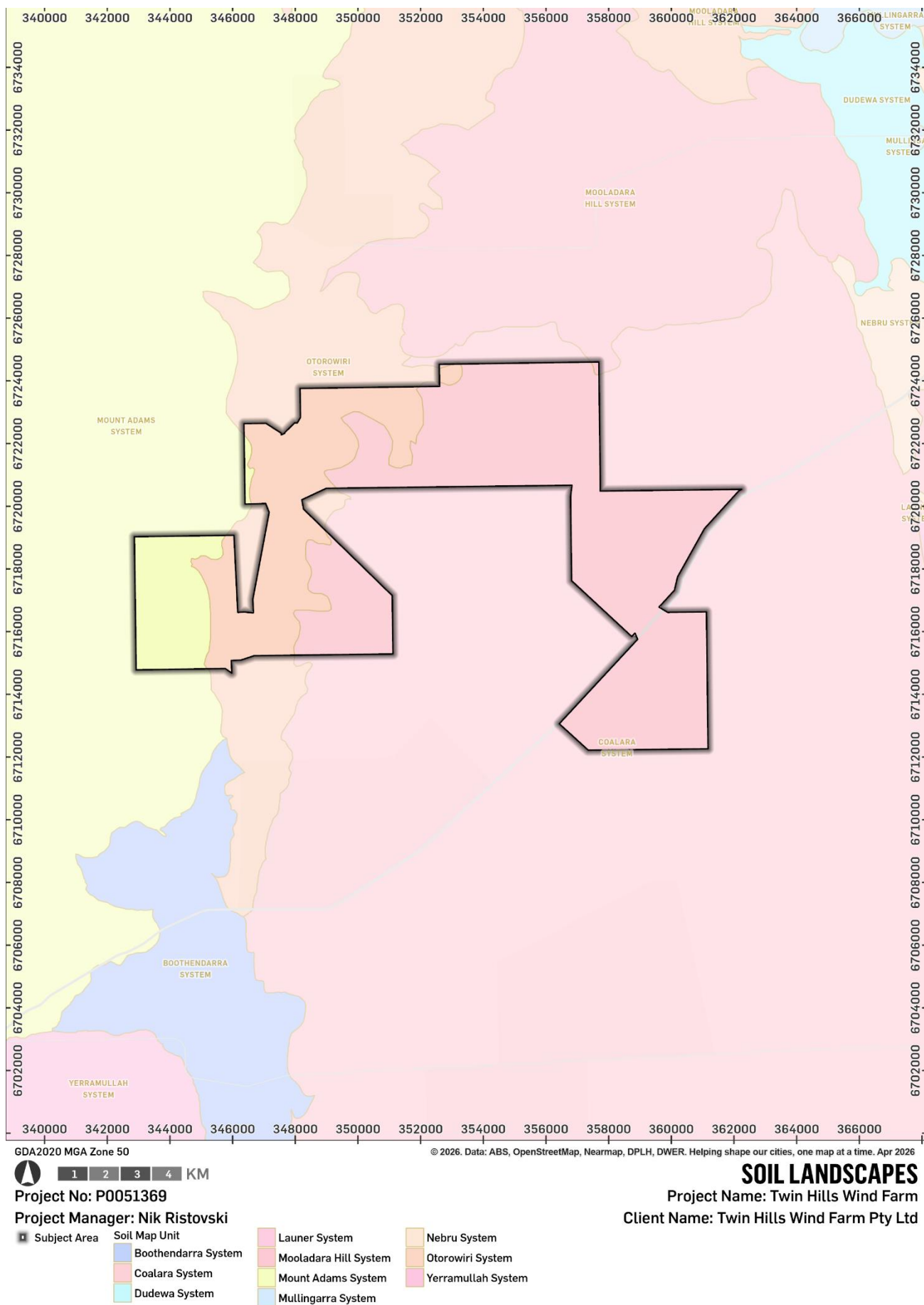
The Department of Primary Industries and Regional Development (DPIRD) provides information on expected soil landscapes in Western Australia.⁶ The Project Area overlays several soil landscape systems, which are described in Table 2 and visualised in Figure 4.

The dominance of sandy soils underscores the potential for the Project Area to contain sub-surface Aboriginal archaeological material.

System	Sub-system	Soil Description
Coalara	Coalara 1	Sand filled alluvial plain, low dunes common; pale and yellow deep sands, some playa soils
	Coalara 2	Long, gently inclined slopes and undulating rises with gravelly ridge crests and minor lateritic outcrops; Sandy gravels and gravelly pale, pale and yellow deep sands
	Coalara 3 crests phase	Plateau residue and hillslopes and some small breakaways; sandy gravels, gravelly pale deep sand
	Coalara 3 powder-bark phase	Gently inclined upper hillslopes and crests; sandy and shallow gravel with pale sands, duricrust common
	Coalara 3	Plateau remnants, hillcrests and very gently to moderately inclined hillslopes, some moderately inclined breakaway slopes; shallow and deep sandy gravel
	Coalara 6	Colluvial slopes, very gently to gently inclined hillslopes, minor drainage lines; yellow and pale deep sands
	Coalara 7	Upland sandplain; pale and yellow deep sands, gravelly pale deep sand
Mooladara Hill	Mooladara Hill 1	Level to gently undulating sandplain with long gentle gradients with shallow valleys; yellow and pale deep sands or sands over gravel
Mount Adams	Mount Adams 1	Lateritic caps and isolated lateritic mesas and eroded scarp slopes, exposed kaolinized bedrock; sandy gravels, pale and yellow deep sand
	Mount Adams 3	Undulating rises to low hills with common minor lateritic outcrops; sandy gravels and pale and yellow deep sands

⁶ WA Department of Primary Industries and Regional Development, "NRInfo (Natural Resource Information) for Western Australia," Wa.gov.au (Government of Western Australia, July 9, 2024), <https://www.dpird.wa.gov.au/environment-and-sustainability/nrinfo-for-western-australia/>.

	Mount Adams 6	Undulating rounded low hills with gently inclined slopes and occasional broad, almost level ridge crests; Pale and white sands over gravels and laterite, deep yellow and white sands
	Mount Adams 7	Narrow valley floors between undulating hills at foot of long gentle slopes; Pale deep sand and Grey deep sandy duplexes with Gravelly pale and Yellow deep sands
Otorowiri	Otorowiri 2	Hillslopes with low rises, below scarp; Pale and Yellow deep sands and sandy duplexes
	Otorowiri 5	Undulating low rises at dissected margins of Dandaragan Plateau; Sandy duplexes and Pale deep sand with some clays and wet soil and gravels
	Otorowiri 6	Undulating to rolling rises and lateritic breakaways. Broad ridges with long gentle to moderate gradients; Sandy duplexes and Pale deep sand with some clays and wet soil and gravels



Source: Urbis, 2025

4.1.3 Hydrology

Hydrological features, including natural wetlands, waterholes, springs, gnamma holes, rivers, creeks, streams and swamps, as well as the presence of alluvial terraces and proximity to the coast, are indicators of likely Aboriginal traditional activity.⁷

Hydrological zones are broad spatial groupings of areas with similar hydrology. The Project Area overlaps the Dandaragan Scarp, which divides the Arrowsmith hydrological zone to the west and the Dandaragan Plateau to the east. These hydrological zones primarily consist of undulating sandplains made up of sandy and gravelly soils that have accumulated from sediment moving downslope due to rain and gravity, as well as rocks that have weathered in place.⁸ The Arrowsmith region is drained by the Arrowsmith, Irwin and Hill rivers and several creeks, with many of these watercourses draining into swamp, lakes and sinkholes.⁹

The Project Area contains two (2) distinct watercourses (Figure 10):

- **Donkey Creek:** a stream in the western extent of the Project Area, which flows northwest and drains into the Arrowsmith River.
- **Warradardge Creek:** one perennial stream and one tributary located in the eastern extent of the Project Area, both of which flow southwest and drain into the Hill River.

Areas of the Project Area in proximity to these watercourses, particularly areas containing native vegetation, have the potential to contain unrecorded ACH, reflecting peoples' proximity to and the use of watercourses in traditional life.

4.1.4 Vegetation

Native vegetation can serve as an indicator of ACH potential, reflecting areas that have experienced less historical disturbance and land clearing. Intact native vegetation is often associated with undisturbed landforms that may retain archaeological features such as artefact scatters, campsites, or culturally modified trees. In particular, vegetation communities located near water sources, elevated ridgelines, or natural resource areas may correlate with traditional Aboriginal land use patterns.

The Project Area contains 2,577 ha of native vegetation (26%), which is interspersed with areas of cleared agricultural land (Figure 10). The native vegetation belongs to the Tathra system, which occurs on the Victoria and Dandaragan plateau surfaces and western slopes. This landscape is predominantly composed of sandplains, typically supporting scrub heath vegetation interspersed with occasional *Melaleuca* thickets, scattered trees, or patches of woodland. Laterite outcrops are commonly present on ridges and breakaways, where they are generally covered with low heath and, at times, thickets of *Allocasuarina*.¹⁰

Portions of the Project Area containing native vegetation, particularly those within proximity to watercourses and located on ridges, have the potential to contain unrecorded ACH.

Protected vegetation areas surrounding the Project Area include Tathra National Park, Wotto Nature Reserve, Wilson Nature Reserve, and various smaller reserves.

⁷ WA Department of Aboriginal Affairs/Premier and Cabinet, "Aboriginal Heritage Due Diligence Guidelines," *WA Department of Aboriginal Affairs/Premier and Cabinet* (Perth: WA Government, April 30, 2013), <https://www.wa.gov.au/system/files/2019-04/Annexure%20D%20-%20Aboriginal%20Heritage%20Due%20Diligence%20Guidelines.pdf>

⁸ Ibid.

⁹ Department of Water, "Northern Perth Basin", op. cit.

¹⁰ J.S. Beard et al., "The Vegetation of Western Australia. 1:3,000,000 Map with Explanatory Memoir" (Perth: Vegmap Productions, February 2005), <https://library.dbca.wa.gov.au/FullTextFiles/919760.pdf>.

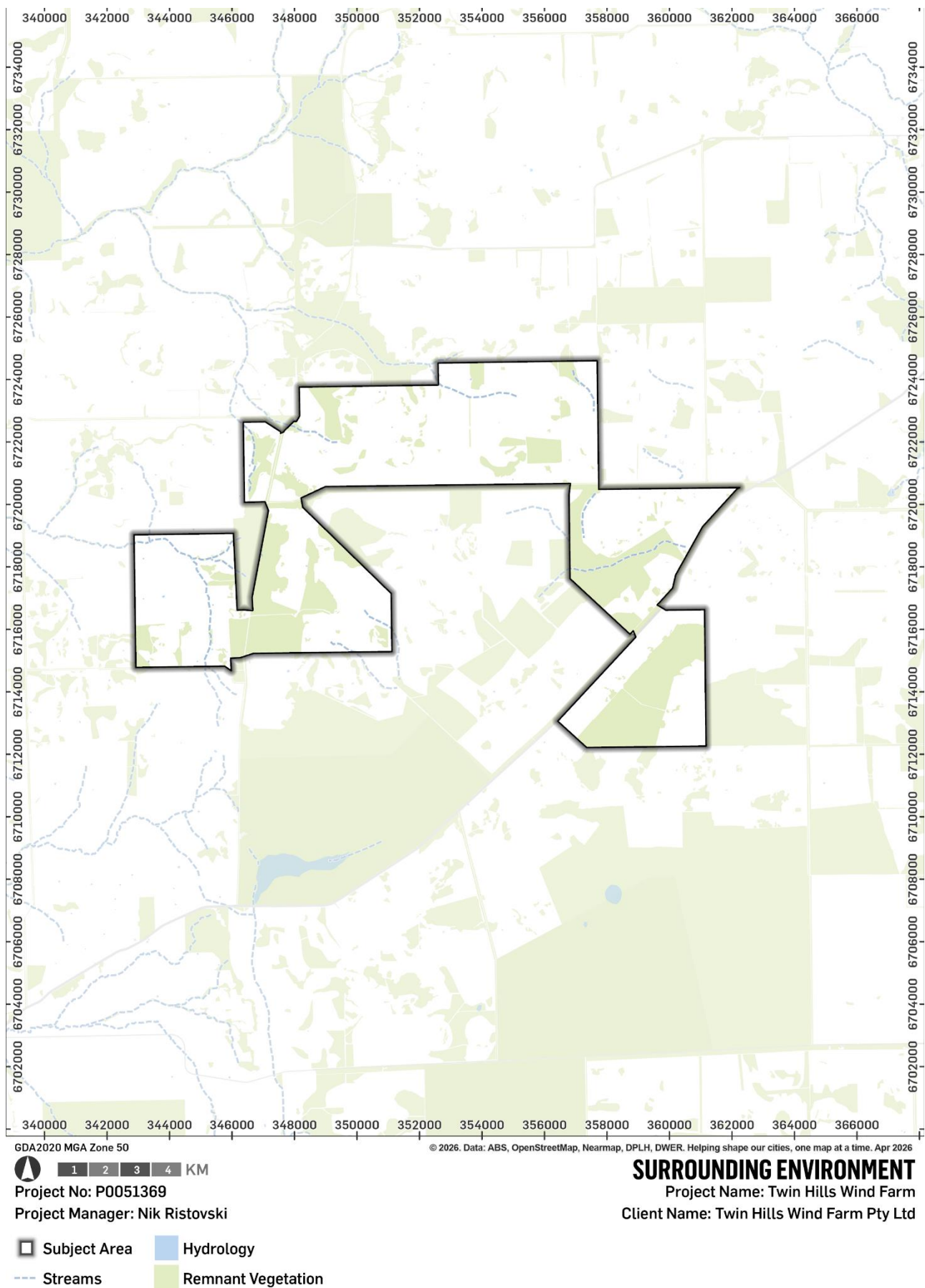


Figure 10 – Vegetation and hydrology with the Project Area.

Source: Urbis, 2025

4.1.5 Historical Ground Disturbance

Historical ground disturbance, either through human activity (e.g. soil ploughing, construction of buildings/structures and clearing of vegetation) or natural processes (e.g. erosion) can reduce the potential for locating surface archaeological materials and may reduce the spatial and physical integrity of surface and/or sub-surface archaeological features of Aboriginal heritage spaces.

The history of ground disturbance in broader Three Springs area is as follows:

- The Amangu people are the Traditional Owners of the region encompassing the Project Area. Archaeological evidence from Yellabidde Cave, west of Eneabba, indicates human occupation in the region as early as 25,500 years ago.¹¹ Additionally, evidence from Yalibirri Mindi Rockshelter in the Weld Range shows Yamatji occupation of the Mid West region dating back 29,000 years.¹²
- The Three Springs area was surveyed by Sir John Forrest in 1872 and later named after three freshwater springs located one mile north of Three Springs townsite.¹³
- While European agricultural development began in the northern Perth Basin during the 1850s,¹⁴ before 1906, the area surrounding Three Springs was only partially used for livestock grazing by pastoralists and to house a few railway employees of the Midland Railway Company.¹⁵
- In 1906, the area west of Three Springs and east of the Project Area was opened for farming selection under the name 'Kadathinni Agricultural Area.'¹⁶ During this period, European occupants began to establish homesteads, clear native vegetation, fence properties, form access tracks, construct basic dams, and plant crops.
- In 1915, the first tractor was used on local farms¹⁷ and in 1931–32, Three Springs achieved the highest average wheat yield in Western Australia, indicating intensified agricultural use of the area and an increase in ground-disturbing farming and occupation activities.¹⁸
- Broader land clearing on sandplains accelerated during the 1950s and 1960s through the War Service Land Settlement Scheme. This scheme was expanded to the general public and continued until 1969, significantly influencing modern land-use patterns across the region.¹⁹
- As a result of this agricultural expansion, approximately 70% of the original native vegetation in the northern Perth Basin has been cleared. The remaining uncleared landscapes are typically less suitable for farming due to sandy, rocky, or waterlogged conditions.²⁰
- As illustrated in Figure 11 to Figure 14, agricultural land use in the Project Area has been largely consistent since the 1980s.

¹¹ Carly Monks et al., "Pleistocene Occupation of Yellabidde Cave in the Northern Swan Coastal Plain, Southwestern Australia," *Australian Archaeology* 82, no. 3 (September 2016): 275–79, <https://doi.org/10.1080/03122417.2016.1244216>.

¹² Vicky Winton et al., "The First Radiometric Pleistocene Dates for Aboriginal Occupation at Weld Range, Inland Mid West, Western Australia," *Australian Archaeology* 82, no. 1 (January 2, 2016): 60–66, <https://doi.org/10.1080/03122417.2016.1163952>.

¹³ Carnamah Historical Society and Museum, "Early History of Three Springs, Western Australia," Carnamah.com.au, 2025, <https://www.carnamah.com.au/three-springs-history>.

¹⁴ Western Australia Department of Lands and Surveys and Western Australia Department of Education, *Western Australia: An Atlas of Human Endeavour, 1829–1979* (Western Australia Department of Lands and Surveys, 1979).

¹⁵ Carnamah Historical Society & Museum. Accessed 8 August 2025.

¹⁶ Ibid.

¹⁷ Three Springs Shire Council. *The Three Springs Heritage Trail*. Accessed 8 August 2025 https://www.threesprings.wa.gov.au/images/1121_Three_Springs_A4_Brochure_ver_B.pdf

¹⁸ Carnamah Historical Society & Museum, op. cit.

¹⁹ Ibid.

²⁰ Department of Water. "Northern Perth Basin", op. cit.

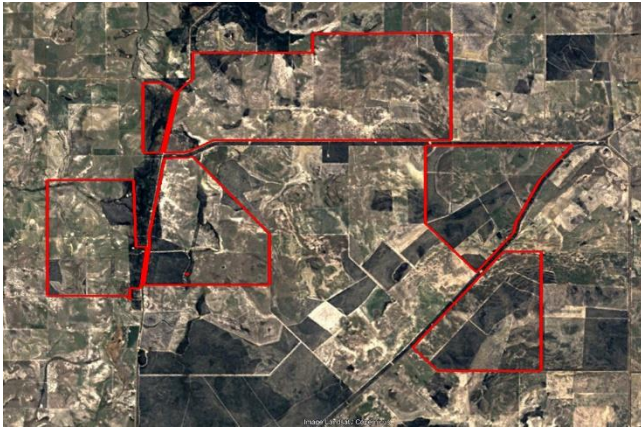


Figure 11 – Aerial image of Project Area in 1984.

Source: Google Earth Pro, 2025

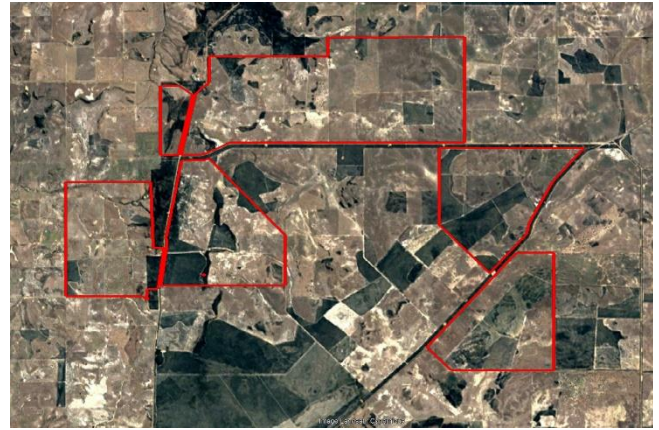


Figure 12 – Aerial image of Project Area in 2000, showing minor intensification of farming since 1984.

Source: Google Earth Pro, 2025

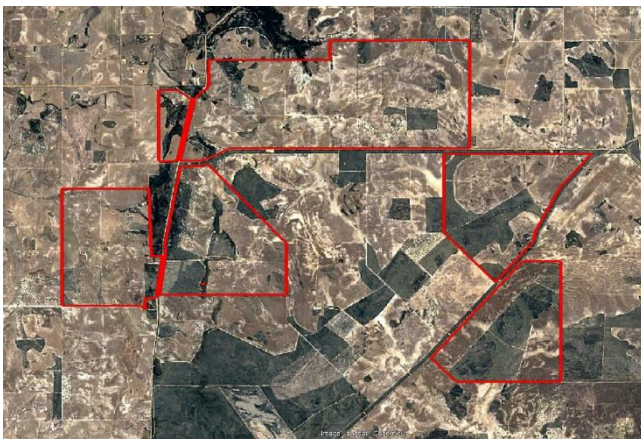


Figure 13 – Aerial image of Project Area in 2017, showing minimal changes in land use.

Source: Google Earth Pro, 2025



Figure 14 – Aerial image of Project Area in 2025, showing minimal changes in land use.

Source: Google Earth Pro, 2025

4.2 Ethnographic Context

The following is a brief summary of the recorded ethnographic history of the Amangu people and the broader Yamatji cultural bloc. It is not intended to represent a comprehensive or definitive account of the cultural history of the Project Area. An accurate and culturally appropriate ethnographic history can only be developed through direct consultation and collaboration with Traditional Owners, ensuring the centrality of their knowledge, perspectives, and authority in the process.

4.2.1 Yamatji

The Mid West region of Western Australia is home to several localised Aboriginal language groups collectively referred to as Yamatji. These groups include the Amangu, Naaguja, Wadjarri, Nanda, and Badimia peoples, as well as the Western Desert people known as the Martu.²¹

²¹ City of Greater Geraldton, "Aboriginal Culture» City of Greater Geraldton," www.cgg.wa.gov.au, 2024, <https://www.cgg.wa.gov.au/community/our-community/aboriginal.aspx>.

The Project Area lies within Yamatji Country. The term 'Yamatji,' derived from the local Wadjari language meaning 'man,' emerged as a collective reference for Aboriginal people in the region, reflecting a blend of various tribal origins. This term gained prominence as distinct social identities among tribes diminished over time.²²

Yamatji Country spans approximately 415,330.5 km², with most of the population concentrated along the western coastal strip. Aboriginal people in Yamatji country have diverse cultural and social backgrounds. Prior to European colonisation of the area, 18 distinct Aboriginal language groups existed in Yamatji Country, with traditional languages being spoken in a generalised form in recent years. Kinship structures, though altered, continue to play a crucial role in social organisation.²³

Water-related landscape features such as rivers, creeks, wetlands, and swamps hold deep cultural, spiritual, and practical significance for Yamatji people. These areas provided essential resources like food and water, served as traditional camping sites, and are often linked to creation stories and spiritual beliefs.²⁴ Major waterways were historically used as travel routes for hunting and gathering between inland and coastal camps. Seasonal wetlands and claypans also supported rich ecosystems that sustained traditional lifestyles. In many cases, ephemeral water bodies are regarded as sites of important mythological and cultural value.²⁵

The Mid West region is rich in faunal and botanical resources. Yamatji people's detailed knowledge of flora, fauna, seasonal patterns, and sustainable harvesting practices reflects a strong cultural relationship with Country. Understanding the wildlife, their habitats, and seasonal patterns was crucial for survival. The area's fauna comprises kangaroos, echidnas, birds, emus, goannas, and various lizards.²⁶ In Banksia woodlands and across the Midwest, they traditionally gathered roots, fruits, seeds, and honey, hunted diverse animal species, and used plant materials for making tools, shelters, and medicines, demonstrating a sophisticated understanding of the land and its resources.²⁷

4.2.2 Amangu People

In the Mid West region, the ethnographic record indicates a diversity of views on traditional social and linguistic boundaries, which are often defined along boundaries separating the Geraldton Coastal Region from inland Aboriginal groups.²⁸

The Project Area lies within the traditional territory of the Amangu people, recognised as part of the broader Yamatji cultural bloc and traditionally associated with the Dongara region and surrounding areas in Western Australia.²⁹ According to Tindale's mapping, the Amangu people were located "at Champion Bay; from Chapman River and the southern vicinity of Geraldton south to Hill River; inland to near Mullewa, Morawa, and

²² Sarah Prout, "Security and Belonging: Reconceptualising Aboriginal Spatial Mobilities in Yamatji Country, Western Australia," *Mobilities* 4, no. 2 (July 2009): 177–202, <https://doi.org/10.1080/17450100902905105>.

²³ Ibid.

²⁴ Damien Lafrentz, "ASSESSMENT of ABORIGINAL HERITAGE VALUES and TRADITIONAL USES," *Horizon Heritage Management*, July 2021, https://www.epa.wa.gov.au/sites/default/files/PER_documentation2/Appendix%2026_Assessment%20of%20Aboriginal%20Heritage%20Values%20and%20Traditional%20Uses.pdf.

²⁵ Ibid.

²⁶ Bruce Shaw, *Joan Martin (Yarrna): A Widi Woman: As Told to Bruce Shaw*. (Canberra, Act: Aboriginal Studies Press, 2011).

²⁷ Lafrentz, op. cit.

²⁸ Norman B Tindale, *Aboriginal Tribes of Australia: Their Terrain, Environmental Controls, Distribution, Limits and Proper Names* (1974; repr., Canberra: Australian National University Press, 1974), <https://buluwai.org/content/uploads/2018/02/ABORIGINAL-TRIBES-OF-AUSTRALIA-Their-Terrain-Environmental-Controls-Distribution-Limits-Proper-Names-Tindale.pdf>.

²⁹ Lafrentz, op. cit.

Carnamah.”³⁰ The southeastern boundary of their traditional country is not clearly defined but is generally considered to lie somewhere north of Moora.

Though Tindale and Howie-Willis both identify the Amangu as belonging to the cultural southwest of Western Australia, placing them along the coast between Geraldton and Jurien Bay, the Amangu are not categorised under the Noongar identity.^{31,32} Instead, Oates and Oates classify the Amangu language within the Kardu subgroup of the South West Group in the Pama-Nyungan language family, distinguishing them from the ‘Nyunga Subgroup’ more commonly associated with Noongar-speaking peoples.³³

The Amangu share historical and geographical ties with the Widi people, located east of Amangu territory, who are also part of the broader Yamatji cultural bloc. During early periods of European contact, Widi groups in the north were documented as moving southwest towards Geraldton along the Irwin and Greenough rivers, contributing to the complex historical relationships in the region.³⁴

Amangu society, like many Noongar groups, was structured around moieties and matrilineal clans. Two major moieties, Manitjimat (white cockatoo) and Wardangmat (crow), were observed, with at least four identified matrilineal exogamous clans: Ballarok, Dtondarap, Ngotak, and Ngananak.³⁵ These clans were linked to totemic associations and spiritual affiliations with specific sites. Knowledge of these associations was typically passed through both matrilineal and patrilineal lines and connected to both social responsibilities and ritual obligations.³⁶

³⁰ Tindale, op. cit.

³¹ Ibid.

³² Ian Howie-Willis, “Nyungar,” in *The Encyclopaedia of Aboriginal Australia: Aboriginal and Torres Strait Islander History, Society and Culture*, ed. David Horton (Canberra: Aboriginal Studies Press For The Australian Institute Of Aboriginal And Torres Strait Islander Studies, 1994).

³³ William J Oates and Lynnette F Oates, *A Revised Linguistic Survey of Australia* (Canberra: Australian Institute of Aboriginal Studies, 1970).

³⁴ Tindale, op. cit.

³⁵ Daisy Bates, *The Native Tribes of Western Australia* (Canberra: National Library of Australia, 1985).

³⁶ R.M Berndt and C.H Berndt, “Aborigines of the Southwest,” in *Aborigines of the West*, ed. D.M Salvado (Perth: University of Western Australia Press, 1980).

5 Previously Recorded Heritage

This section outlines the Aboriginal and historic heritage places which have previously been recorded within the Project Area to understand what risk, if any, the proposed activities may pose to the known Aboriginal Cultural Heritage (ACH) and historic heritage in the area.

5.1 Aboriginal Cultural Heritage Inquiry System (ACHIS)

The Register of Aboriginal Heritage Places is maintained by the Department of Planning, Lands and Heritage (DPLH), through its digital interface the Aboriginal Cultural Heritage Inquiry System (ACHIS). The ACHIS includes Registered ACH, which are places that have been assessed by the ACHC as meeting section 5 of the AHA, Historic ACH (places assessed as not sites), and Lodged ACH (places that have been lodged but not yet assessed by the Aboriginal Cultural Materials Committee (ACMC)). The ACHIS also includes information about previous heritage surveys that have been conducted, and their associated reports. A request can be made to view any unrestricted site files and reports.

It should be noted that the ACHIS is not necessarily a comprehensive record of all Aboriginal Sites or Other Heritage Places (OHP) that exist in an area. It represents what is currently known which is largely dependent on whether any heritage investigations have been conducted within the area and if that information has been submitted to DPLH.

As part of this Due Diligence Assessment, Urbis conducted a search of the ACHIS that encompassed the Project Area, a 10 km buffer from the boundary of the Project Area, and the surrounding region, to gather information about the types of Aboriginal Sites and OHPs that are currently known and recorded in these areas. The results of the ACHIS search are provided in Appendix A and described below.

Project Area

- There are zero (0) Registered ACH sites, zero (0) Lodged ACH sites, and zero (0) Historic ACH sites within the Project Area (Figure 15).

Buffer Zone

- The buffer zone extends 10 km in all directions from the Project Area boundary.
- There is one (1) Registered ACH site, one (1) Lodged ACH site, and zero (0) Historic ACH sites within the 10 km buffer zone (Table 2).
- Arrowsmith River (ACHIS ID# 30068) is located within the buffer zone to the northwest of the Project Area. The site is registered for its connection to creation and dreaming narratives, and as a water source.
- 'ET119 to ET03 Isolated Artefacts' (ACHIS ID# 29767) was lodged in 2011 and has not been formally accepted as a Registered site. It is located within the buffer zone, 7 km east of the Project Area. This site was described as containing a complete quartz flake in an area disturbed by farming, which demonstrates occupation of the area by Aboriginal people in the past and the potential of ACH material to exist on or beside disturbed ground.³⁷

³⁷ Richard Everett Cameron, "An Aboriginal Archaeological Site Identification Survey and Recording for the Karara Power Line Upgrade Project, North-eastern Wheatbelt, Western Australia: Southern Section (ET119-ET03)" (Perth: Eureka Archaeological Research and Consulting UWA, 2010).

Surrounding Region

- Significant ACH sites in the broader landscape include Yarra Yarra Lakes (ACHIS ID# 24382), located 12km east of the Project Area and registered for its connection to Creation and Dreaming Narratives and as a landscape/seascape feature. This site is associated with the Registered natural feature Bimara (ACHIS ID# 22432), part of the Yarra Yarra Lakes system. Daisy Bates notes that the word 'beemara' refers to freshwater springs in the Murchison district, which are protected by the mythological guardian spirit of a magic snake called 'jeela'.³⁸
- The presence of ACH in the surrounding region highlights the potential for unrecorded sites within the Project Area boundary, particularly considering the presence of watercourses, which are likely to contain Aboriginal sites according to the *Aboriginal Heritage Due Diligence Guidelines (2013)* and previous heritage surveys in the region.

³⁸ Guy Wright and Klim Gollan, "Ethnographic Heritage Survey Report. Amangu Traditional Owners. Karara Take-off Point to Three Springs, Central Section (ET119-TK129)" (Perth: Big Island Research PTY LTD., 2010).

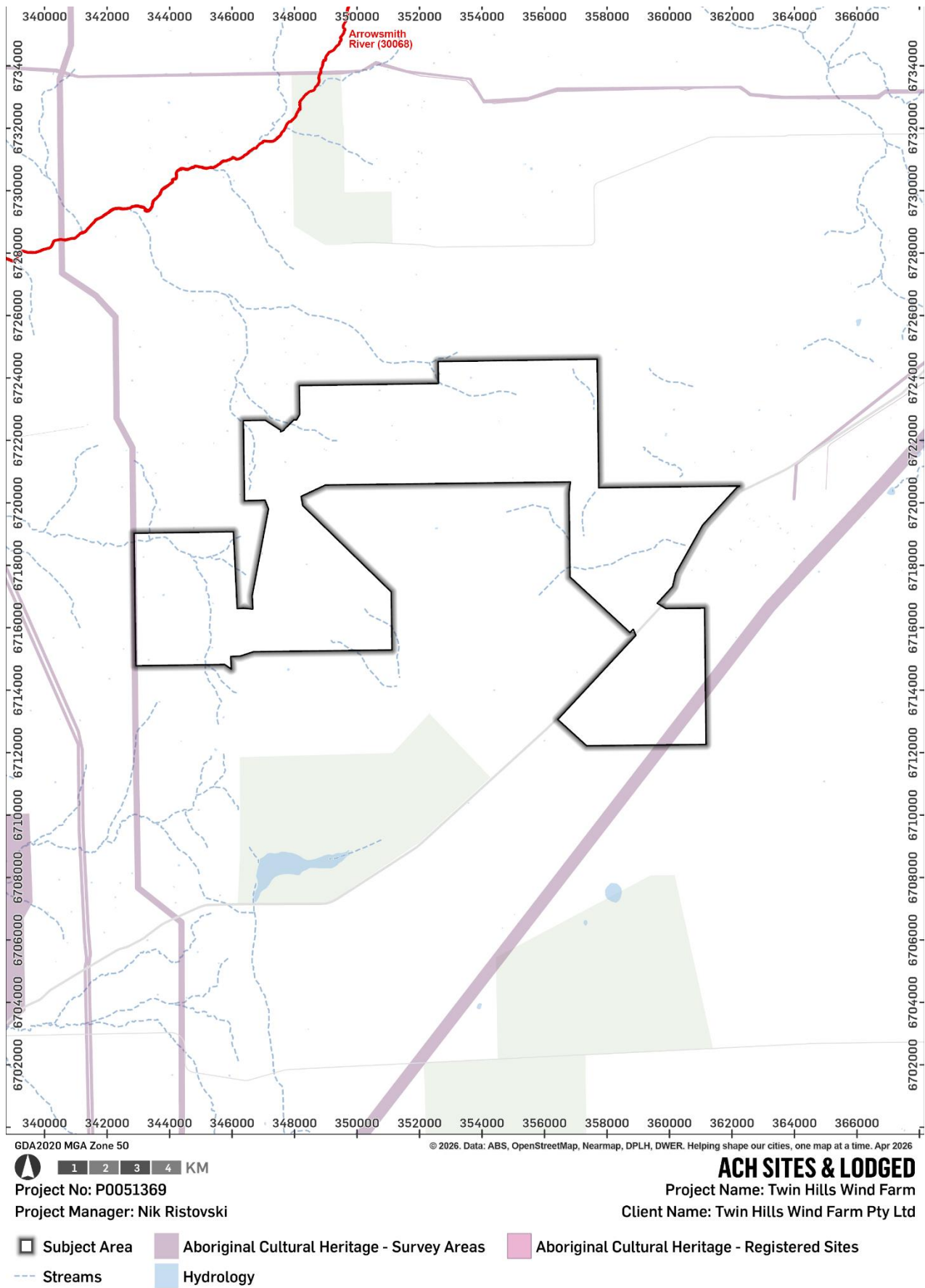


Figure 15 – Aboriginal Cultural Heritage sites and surveys within the Project Area.

Source: Urbis, 2025

Table 2 – Aboriginal Cultural Heritage sites within a 10km buffer of the Project Area

ID	Place Name	Site Type	Location	Status
30068	Arrowsmith River	Creation / Dreaming Narrative; Water Source	Within buffer, outside Project Area	Registered
29767	Et119 to ET03 Isolated Artefacts	Isolated Artefacts	Within buffer, outside Project Area	Lodged

5.2 Previous Aboriginal Heritage Surveys

A search of DPLH's Aboriginal Cultural Heritage Information System (ACHIS) shows that 26 heritage surveys have been carried out within a 10 km buffer of the Project Area (see Appendix A), with seven (7) surveys intersecting the Project Area (Table 2). These surveys target narrow corridors (up to 400 m) on the outer extents of the Project Area. The results of relevant surveys in the Project Area and surrounding region are discussed below to understand the nature and distribution of identified ACH.

Table 3 – Aboriginal heritage surveys intersecting the Project Area.

Report ID	Title	Authors	Publication Year	Survey Type
28646	Site Identification Heritage Survey Report of the Proposed Western Power Transmission Line, Koolanooka to Three Springs, Western Australia	Australian Interaction Consultants	2010	Archaeological
28647	An Aboriginal Archaeological Site Identification Survey and Recording for the Karara Power Line Upgrade Project, North-eastern Wheatbelt, Western Australia: Southern Section (ET119-ET03)	Cameron, Richard Everett	2010	Archaeological
28652	Ethnographic Heritage Survey Report- Amangu Traditional Owners- Take Off Point to Three Springs Central Section (ET119 - TK129)	Big Island Research Pty Ltd	2010	Ethnographic
23496	A report of an Ethnographic Survey of Karara Mining Limited's Karara Iron Ore Project and Mungada Iron Ore Project Proposed Linear Infrastructure Corridor with the Widi Binyardi Native Title Claimant Group	Doulman, Tony	2008	Ethnographic
23015	Aboriginal heritage study for 330kV transmission line between Eneabba Substation & Moonyoonooka Substation	Mattner, Joe	2008	Archaeological/Ethnographic

23287	A report of an Archaeological Section 18 Survey of Karara Mining Limited's Proposed Linear Infrastructure Corridor from Lake Weelhamby to Mount Karara near Morawa Western Australia	Chisholm, Scott B	2008	Archaeological
23495	A Report of an Archaeological Section 18 Survey of Karara Mining Limited's Proposed Linear Infrastructure Corridor from Lake Weelhamby to Mount Karara near Morawa Western Australia	Chisholm, Alec H.	2008	Archaeological

Scott Chisholm (2008). A Report of an Archaeological Section 18 Survey of Karara Mining Limited's Proposed Linear Infrastructure Corridor from Lake Weelhamby to Mount Karara Near Morawa Western Australia

- Yamatji Communications Pty Ltd conducted an archaeological Section 18 survey of Karara Mining Ltd's proposed power line and haul road expansion. The proposed powerline runs through the southeast extent of the Project Area.
- The corridor has previously been surveyed as part of a wider infrastructure corridor survey. Eight (8) Registered ACH sites located northeast of the Project Area, including a soak, waterway, quartz quarry, lizard traps, and artefact scatters, were further recorded and assessed. No sites were identified within the Project Area.

Tony Doulman (2008). A Report of an Ethnographic Survey of Karara Mining Limited's Karara Iron Ore Project and Mungada Iron Ore Project Proposed Linear Infrastructure Corridor with the Widi Binyardi Native Title Claimant Group.

- Yamatji Communications Pty Ltd were engaged by Karara Mining Limited to undertake an ethnographic survey, along with 6 Widi Binyardi Native Title Claimant group representatives, for their proposed linear infrastructure corridor. The survey included a proposed power line that runs through the southeast extent of the Project Area.
- One Registered and one new ethnographic site were identified, neither of which are within or near the Project Area.

Australian Interaction Consultants (2010). Site Identification Heritage Survey Report of the Proposed Western Power Transmission Line, Koolanooka to Three Springs, Western Australia.

- Australian Interaction Consultants (AIC) were engaged by Western Power to undertake ethnographic and archaeological surveys for the construction of a proposed 330 kV transmission line (50 m wide corridor) alongside the existing 132 kV transmission line between Eneabba and Koolanooka, running through the southeast extent of the Project Area.
- The archaeological surveys consisted of pedestrian and vehicle transects, targeting native vegetation, watercourses, and other significant landscape features.
- The archaeological survey identified four (4) new archaeological sites, one (1) previously recorded site, and two (2) culturally modified trees. None of the sites intersect or are in proximity to the Project Area.
- During the ethnographic survey, Widi Mob consultants emphasised the significance of all waterways, which should be managed with sensitivity. They also requested monitoring of work at areas of significance, including undisturbed bushland, waterways, and the vicinity of heritage sites.

- Widi Mob representatives did not oppose the proposed powerline but made recommendations to avoid land that has not been surveyed.

Richard Everett Cameron (2010). An Aboriginal Archaeological Site Identification Survey and Recording for the Karara Power Line Upgrade Project, North-eastern Wheatbelt, Western Australia: Southern Section (ET119-ET03).

- Eureka Archaeological Research & Consulting (UWA) was engaged by Big Island Research Pty Ltd and the Yamatji Marlpa Aboriginal Corporation (YMAC) to undertake Aboriginal archaeological Site Identification (Section 18) survey and recording of the southern section of Karara Mining Ltd's (Karara) Power Line Upgrade route, which extends from Three Springs to Eneabba.
- A total of 11 isolated artefacts were recorded, one of which ('ET119 to ET03 Isolated Artefacts,' ACHIS ID# 29767) is a Lodged site located within the 10 km buffer of the Project Area, as described in Section 5.1. This artefact was identified in an area disturbed by farming, which demonstrates both occupation of the area by Aboriginal people in the past and the potential of ACH material to exist in disturbed ground.
- Amangu Traditional Owners noted that Aboriginal archaeological sites may exist on unsurveyed existing tracks, including new tracks anticipated to cross ploughed fields.
- The report indicated a high potential for sub-surface archaeological material due to the evident depth of sediment across the survey area.
- Traditional owners recommended that Aboriginal monitors are engaged for all ground disturbance activities and that Traditional Owners are immediately notified if archaeological or skeletal material is encountered during ground disturbing work.

Guy Wright and Klim Gollan (2010). Ethnographic Heritage Survey Report. Amangu Traditional Owners. Karara Take-Off Point to Three Springs, Central Section (ET119-TK129).

- Big Island Research was engaged by Yamatji Marlpa Aboriginal Corporation (YMAC) to conduct a complementary Work Area Clearance (WAC) survey for Karara Mining Ltd. to support a Section 18 application for the construction of a powerline from Karara's substation at Eneabba to Lochada Road at Karara's mine take-off point.
- The Amangu survey team members noted that agricultural land between Eneabba and Three Springs (including the Project Area and surrounds) did not require comment from an ethnographic point of view.
- The Amangu survey team members emphasised their desire to protect archaeological sites within the powerline corridor and encouraged Karara to find engineering solutions to limit the impacts on artefact scatters within the Koolanooka Hills alignment.
- The Amangu native title claim group supported the use of the land to develop power line footings. They also recommended that Aboriginal monitors are engaged for all ground disturbance activities within the ethnographic sites northeast of the Project Area and any areas that possibly contain subsurface archaeological material.

Joe Mattner, Bob Chown, Trudy White & Tristan Bergin (2008). Aboriginal Heritage Study for 330kV Transmission Line between Eneabba Substation & Moonyoonooka Substation.

- Artefax Pty Ltd were engaged by Western Power to conduct ethnographic and archaeological surveys of a 60 m wide corridor running 175 km for a 330 kV transmission line between Eneabba Zone Substation (south of Eneabba) and the proposed Moonyoonooka Terminal Substation (east of Geraldton). This survey corridor overlaps the western edge of the Project Area.
- Ethnographic survey involved 57 Aboriginal informants across 9 different survey parties. Survey consisted of driving along roads and tracks and visiting key topographic features, with emphasis on river crossings. No new ethnographic or historical sites identified, and Traditional Owners did not know of any heritage sites close to proposed transmission line.

- Archaeological survey involved pedestrian transects and vehicle inspections, with areas of archaeological potential searched on foot. No new archaeological sites or artefacts identified within survey area, reflecting high levels of land disturbance.
- No new ethnographic or archaeological sites were recorded.
- Traditional Owners happy to proceed with works but requested that pylons be located as far from rivers, creeks and drainage lines as practical (minimum 30 m away from high water level).

G. Wright & A.M. Murphy (1992). Report of an archaeological and ethnographic survey for Aboriginal sites, AMC Mineral Sands Project, Eneabba.

- McDonald, Hales and Associated were commissioned by AMC Mineral Sands to conduct an Aboriginal cultural heritage survey prior to the proposed development of the Eneabba Mineral Sands Project. The survey area is located 6 km southwest of the Project Area and is approximately equivalent in size.
- One site was recorded: a quartz artefact scatter bordering a wetland. The proposed development was recommended to proceed, provided the site was not impacted.
- The report indicated the general absence of archaeological materials in the area. The results suggest that where ACH materials are likely to exist, they are likely to be near water sources and creek lines.
- The report concluded that there do not appear to be any features of ethnographic significance, and the areas can be considered free of sites of ethnographic significance.

Australian Interaction Consultants (2006). Report on an ethnographic survey with the Widi Mob Native Title Claimants of the Proposed Slurry and Water Pipelines between Mt Gibson and Geraldton, Western Australia.

- Australian Interaction Consultants (AIC) were engaged by Mount Gibson Iron to conduct an ethnographic survey of a proposed pipeline corridor with Widi Mob Native Title Claimants. Two field trips were conducted in August 2005 and December 2005.
- The report's target area is located to the northeast beyond the Twin Hills Wind Farm Project Area.
- The desktop assessment found that research across the region has been recent, coinciding with an increase in mining in the area. Ethnographic sites in this area focus on waterways, particularly rivers and claypans which are components of Dreamtime tracks or stories with ongoing significance for Aboriginal people. Previously, Aboriginal consultants have not usually opposed projects that unavoidably cross rivers and have been satisfied with alterations of development works to avoid important waterways and features.
- In previous reports, Aboriginal consultants have expressed concern about the possibility of burials in sandy areas, and developers should be aware that the potential for burials exists.
- Five ethnographic sites were identified in the first field trip, including two granite outcrops to be avoided, Mongers Lake Waterway, and extensive breakaway features containing rock shelters, rock holes and artefacts and strong cultural restrictions.
- The second field trip identified the Yarra Yarra Lakes system and Lockier River as ethnographic sites and reiterated the cultural importance of the Irwin River.
- Many of the ethnographic sites identified during the surveys related to watercourses, which the Widi reiterating that water supports all life and reflects physical and spiritual concerns for the world.
- The Widi Mob did not oppose the development of the pipeline but have concerns about parts of the proposed pipeline they were unable to access and thus meaningfully comment on. They noted there is the potential for further ethnographic features to exist.
- The Widi Mob representatives recommended that:
 - Newly identified sites be registered with the (former) Department of Indigenous Affairs.
 - Mount Gibson Iron apply under Section 18 to disturb several ethnographic and archaeological sites.

- Mount Gibson Iron avoid the granite outcrops and culturally sensitive breakaway feature, as well as hills with a buffer of 100 m.
- Mount Gibson Iron arranges on-site monitoring with Aboriginal representatives during ground disturbance works.
- Mount Gibson Iron makes available to Widi Mob representatives environmental reports and considers their request for further consultation to address Aboriginal cultural heritage concerns.
- Mount Gibson Iron in liaison with the Widi Mob develops heritage protocols regarding the management of sites to be impacted by the proposed pipeline corridor.

Australian Interaction Consultants (2005). Report on an archaeological survey of a proposed slurry pipeline between Mt. Gibson and Geraldton, Western Australia.

- Australian Interaction Consultants (AIC) were engaged by Mount Gibson Iron to conduct an archaeological survey of a proposed 280 km slurry pipeline from Mt Gibson to Geraldton and a 40 km water pipeline.
- The survey's target area is located to the northeast beyond the Twin Hills Wind Farm Project Area.
- Three surveys took place from May to July 2005 utilising different methodology according to conditions and site access and considered both Aboriginal and European heritage.
- Three new Aboriginal sites and 5 new historic heritage sites were located. All of the sites and isolated artefacts were found toward the far eastern end of the pipeline, between Monger's Lake and Mt. Gibson.
- The majority of the proposed pipeline route travels through farmland that has been significantly disturbed, though the report noted the potential for locating subsurface archaeological and skeletal material.
- The report noted that areas of highest archaeological potential are those closest to water sources, stone sources, breakaways, and where minimal land disturbance has occurred.
- AIC recommended that:
 - All registered and newly identified heritage sites are avoided where possible.
 - If newly identified sites cannot be avoided, then minimise impact and mitigate impact via archaeological monitoring.
 - Conduct monitoring for works undertaken along the whole pipeline route and stop works and obtain the necessary approvals under the Aboriginal Heritage Act if further archaeological sites are located in the path of the pipeline construction.

Australian Interaction Consultants (2007). Consolidation Report of Heritage Surveys Undertaken for the Proposed Extension Hill Magnetite Project and Slurry Pipeline between Mt Gibson and Geraldton Western Australia.

- Australian Interaction Consultants (AIC) were engaged by Asia Iron to review the status of archaeological and ethnographic surveys for the Extension Hill Magnetite pipeline corridor to Geraldton and Tathra bore field.
- The report's target area is located to the northeast beyond the Twin Hills Wind Farm Project Area.
- The report concluded that AIC has completed archaeological and ethnographic surveys of the Asia Iron project area under the *Aboriginal Heritage Act 1972*, with the exception of some consultation outcomes with Badimia Native Title Claim.
- A section 16 under the Aboriginal Heritage Act has been submitted to undertake archaeological mitigation prior to disturbance of two sites east of the Twin Hills Wind Farm Project Area.
- AIC recommended that Asia Iron applies under Section 18 of the *Aboriginal Heritage Act 1972* to disturb a number of sites along the proposed pipeline corridor. Additionally, Asia Iron staff and contracting personnel should be made fully aware of their obligations under the *Aboriginal Heritage Act 1972*.

5.2.1 Conclusions

- Narrow corridors on the southeastern and western extents of the Project Area have been previously surveyed.
- No archaeological sites were identified within the project boundaries and nearby surveys reported a general absence of archaeological materials in the area, with the majority of site in nearby surveys identified further east of the Project Area.
- The presence of some isolated artefacts in agricultural land east of the Project Area demonstrates the potential for archaeological material on disturbed land. One survey also noted a high potential for sub-surface archaeological material.
- The surveys generally identified a low potential for ethnographic sites in agricultural land in the surrounding area, with watercourses and water-associated features dominated significant ethnographic sites.
- Results from a larger heritage survey southwest of the Project Area identified one artefact scatter bordering a wetland, suggesting that where ACH materials are likely to exist, they are likely to be near water sources and creek lines.

5.3 Historic Heritage Listings

The purpose of identifying State Registered and Local Heritage Listed places is to identify potential impact on historic (non-Aboriginal) heritage values.

It has been assessed that there are no Heritage Areas or Local Heritage Listed places located within the Project Area. Additionally, there are no State Registered Heritage Places identified within the Project Area (Figure 16).

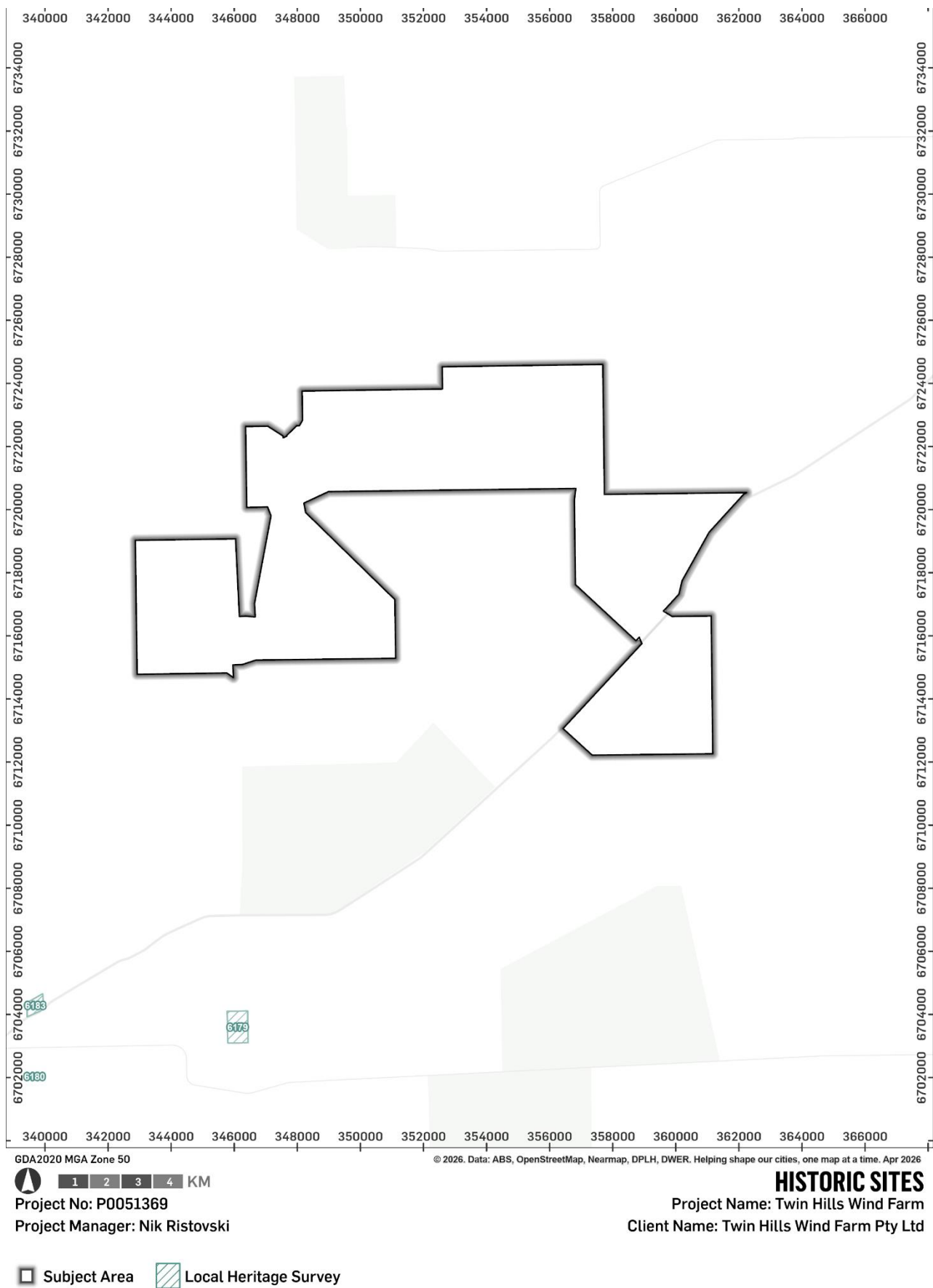


Figure 16 – Historic sites in proximity to the Project Area.

Source: Urbis, 2025

6 Heritage Potential and Risk Assessment

A predictive model is a valuable tool for archaeological survey planning by estimating the nature and distribution of Aboriginal land use evidence in a Project Area. It considers variables influencing the location, distribution, and density of sites, features, or artefacts. These variables typically include environmental and topographical factors such as soils, landscape features, slope, landform, and cultural resources.

The predictive model utilised in this section captures the Project Area as a whole and includes all land units and vegetation types within the cadastral lots where the project is located. Therefore, the model includes features such as waterways and remnant native vegetation that may have been avoided by the disturbance footprint in order to reduce the potential to harm ACH. The impact assessment as it relates to the disturbance footprint itself is discussed in Section 7.1 below.

To determine the likelihood of specific site types (e.g., artefact scatter, shelter, midden) within a Project Area, the model synthesises information on the general distribution of archaeological sites in the wider region. This includes:

- Detailed analysis of previous archaeological investigations in the region.
- Presence or absence of landscape features that may indicate potential archaeological resources, such as raised terraces near permanent water.
- Analysis of the geology and soil landscape within the Project Area to determine the types of raw materials available for artefact production (e.g., silcrete, tuff, quartz) and the potential for archaeological resource accumulation.
- Assessment of historical land use and disturbance within the Project Area, which may impact or remove potential archaeological material.
- Investigation of cultural landscapes and identification of cultural information, such as song lines, trails, mythological places, ceremonial sites, and other intangible elements.

Table 4 below outlines the process for determining the likelihood of a given site occurring within a Project Area.

Table 4 – Indicative process for determining the potential presence of ACH.

Likelihood	Indicative Project Area Context	Indicative Action
High	Low level of ground disturbance in combination with at least one archaeologically sensitive landscape feature or Aboriginal object (either registered or newly identified) within the Project Area.	Detailed archaeological investigation including but not limited to survey, shovel testing, test excavation and potentially (depending on density and/or significance of archaeological deposit) salvage excavation.
Moderate	Moderate level of ground disturbance in combination with at least one archaeologically sensitive landscape feature or Aboriginal object (either registered or newly identified) within the Project Area.	Detailed archaeological investigation including but not limited to survey, shovel testing, test excavation.
Low	High level of ground disturbance in combination with at least one archaeologically sensitive landscape feature or Aboriginal object (either registered or newly identified) within the Project Area.	Sub-surface testing via shovel testing or test excavation, depending on the particular type and depth of disturbance.

Nil	Complete ground disturbance (i.e. complete removal of natural soil landscape); or no archaeologically sensitive landscape features and no archaeological sites within Project Area.	Employ chance finds procedure, and/or monitoring, and works can continue without further archaeological investigation.
-----	---	--

6.1 Typical Aboriginal Heritage Site Types

A range of Aboriginal site types are known to occur within Western Australia. Site types that are typically encountered are described below.

Artefact Scatters are indicative of past Aboriginal habitation, characterised by the presence of concentrations of artefacts such as stone tools, grinding material and shell fragments. Found in both surface and sub-surface contexts across many different landforms, including along creek lines, gravel flats, plains and rock shelters. Artefact scatters are the most abundant archaeological site type in the Mid West region and are most frequently found on flatter low ridges and level ground.³⁹

Culturally Modified Trees are trees that have been modified through the removal of bark or other markings or modifications made by Aboriginal people for various reasons, including tool making, ceremonial practices, water capture and storage, or as landmarks. They are typically found in forested areas and serve as tangible reminders of Aboriginal cultural practices and interactions with the environment.

Potential Archaeological Deposits (PAD) are subsurface deposits with a high likelihood of containing buried artefacts or other evidence relating to past human occupation at that location, even when little or nothing is visible on the ground surface.⁴⁰ PADs could possibly be dated if sediment, charcoal or other dateable organics are present. Preservation of any organic material may vary depending on the soil type. These types of sites are generally found in sand dunes or alluvial settings in WA.

Rock Art may be in the form of engravings, including incised, pecked, grooved and abrasion. Rock art sites hold significant cultural and spiritual value for Aboriginal communities, serving as repositories of traditional knowledge and stories. This site type is found on bedrock outcrops of different sizes and formations. The surface is mainly flat. Paintings are mostly found in sheltered contexts such as rock shelters or overhangs providing good conditions for the preservation of the pigment used in the art. Engravings can be found in both open and closed contexts.

Quarries consist of stone sources, either in the form of bedrock or large nodules that are in their primary context. Quarries may be classed as stone procurement sites that usually have an associated artefact scatter containing stone reduction/knapping areas. They are located in areas where there are suitable outcrops of stone.

Burials are where Indigenous people laid their deceased to rest, often marked by burial mounds, stone arrangements, or other culturally significant features. Burials may include isolated bone fragment or could include complete individuals or multiple burials. Skeletal material generally occurs in areas where the ground is softer such as along creeks banks or in dunes.

Rock Shelters are natural caves or overhangs that were used for shelter and other purposes by Aboriginal people. They may have conducted certain activities while in a shelter, such as making stone tools, grinding, or caching items. Rock shelters often have an associated archaeological sub-surface deposit.

³⁹ Department of Planning, Lands and Heritage, "Aboriginal Cultural Heritage Inquiry System," espatial.dplh.wa.gov.au, 2024, <https://espatial.dplh.wa.gov.au/ACHIS/index.html?viewer=ACHIS>.

⁴⁰ Heather Burke and Claire Smith, *The Archaeologist's Field Handbook* (Allen & Unwin, 2008), 145.

Built Structures include structures made from stone, wood, fibre, metal, sediment or other materials, for a wide variety of purposes. Includes habitation structures or stone arrangements, such as semi-circular rings of stacked stone, lizard traps, cairns, hunting hides, walled niches, and sanding stones.

Ethnographic sites, including Mythological / Aboriginal Ceremony and Songlines are places of cultural significance to Aboriginal people and may be connected to ceremonial activities and/or spiritual stories. In addition, there may be ethnographic information related to the historic use of the area by Aboriginal people. These may be present across a range of different landscapes. Certain natural features may be considered a part of these types of sites, including specific landforms, rock formations, water sources, and plant or animal concentrations.

Water Sources include rock holes, natural springs, creeks, pools, gnamma holes, and soaks that were an important source of water for Aboriginal people and, later on, the early settlers. These are mostly located in low-lying areas where water collects among creeks and in soaks, or they may be associated with rock formations.

Historic Sites may or may not have a shared history between Aboriginal people and early settlers. Historic sites may include homesteads, stockyards, building ruins, stone walls, wells, fences, bridges, small camps, old tracks, blazed trees, and other farm infrastructure. Historic Sites can also be places of association with Aboriginal historical figures or events.

6.2 Assessment of Aboriginal Heritage Potential

This assessment of ACH potential within the Project Area considers previously recorded ACH, results from previous heritage surveys, assessment of site photos and aerial imagery, and the presence of indicative landscape features in the Project Area and surrounds. The assessment indicates a **high** potential for the presence of artefact scatters, culturally modified trees and PADs, a **moderate** potential for burials, water sources, and ethnographic and historic sites, and a **low** potential for other site types within the entire Project Area.

Site Type	Assessment	Potential
Artefact Scatters	Stone artefacts, including flakes, cores and associated debris, are a common site type that preserve well both above and below the ground surface. The presence of indicative landscape features, such as sandy and gravelly plains, remnant native vegetation, and watercourses, as well as nearby lodged sites (refer Section 5.1) indicate a high likelihood of both surface and sub-surface artefact scatters in the Project Area.	High
Culturally Modified Trees	Culturally modified trees are a rarer archaeological site type in the Mid West, though have been identified east of the Project Area (refer Section 5.2). The presence of remnant native vegetation containing isolated trees and patches of woodland indicates a high potential for culturally modified trees in the Project Area.	High
Potential Archaeological Deposits (PAD)	The Project Area contains a variety of different soil landscapes with varying depths. Sandy deposits are more likely to retain subsurface cultural material. There is therefore a high potential for PADs within the Project Area.	High
Burials	Few burials have been recorded in the surrounding region, with one lodged burial site (ACHIS ID#4788) within 40 km of the Project Area. However, the Project	Moderate

	Area contains deep sands, alluvial and colluvial sediments, and creek banks, which are indicative landscape features for this site type, suggesting an overall moderate potential for burials.	
Ethnographic sites, including Mythological / Aboriginal Ceremony and Songlines	Previous surveys in the Project Area and surrounds have identified a low potential for ethnographic sites in agricultural land. However, the presence of watercourses like Donkey and Warradardge Creek within the Project Area, as well as the registered ethnographic site Arrowsmith River (ACHIS ID# 30068) within the 10 km buffer zone, indicate the potential for similar sites. Therefore, there is a moderate potential for ethnographic sites.	Moderate
Water Sources	There is a lack of exposed bedrock in the Project Area according to aerial imagery, suggesting an absence of gnamma holes. However, the presence of streams in the Project Area, as well as springs and a lodged water source (ACHIS ID#26116) in the surrounding region indicate a moderate potential for water sources with ACH significance in the Project Area.	Moderate
Historic Sites	There is a moderate potential for historic features that relate to a shared history between Aboriginal people and non-Aboriginal settlers in the Project Area.	Moderate
Rock Art	Given the lack of stone outcrops, sheltered contexts and overhangs, there is a low chance of finding engravings or rock paintings in the Project Area.	Low
Quarries	Given the soil description and landforms present within the Project Area, the noted absence of stone outcrops in aerial images and site photos, and the lack of suitable bedrock material, there is a low potential for quarries.	Low
Rock Shelters	Rock shelters in the Mid West are typically located on ridges and breakaways in the northern extent of the region. There do not appear to be any major rock formations in the Project Area, so there is a low potential for rock shelters.	Low
Built Structures	Typically a rare site type in the Mid West and absence recorded examples within 40 km. Therefore, there is a low potential for built structures.	Low

6.3 Predictive Heat Map

A predictive map highlighting areas with potential for unrecorded ACH is presented in Figure 17. The map considers the Project Area as a whole and considers previously recorded ACH and indicative landscape features.

The predictive map was developed by overlaying various spatial layers, each assigned a weighting from 1 to 3, to reflect the potential of each landscape feature to contain ACH material. The resulting heat map visually

represents this potential, with higher values indicating areas of greater likelihood, shown in red. The specific landscape characteristics and their respective weightings are detailed in Table 5.

Table 5 – Predictive map landscape characteristics and associated weighting.

Characteristic	Weighting	Explanation
Land containing rocky outcrops	1	Generalised layer. Associated with quarries, rock shelters, and artefact scatters.
Land containing sandy soils	1	Generalised layer. Associated with PADs and burials.
Native vegetation	2	Indicates minimal disturbance. Potential to contain CMTs and other site types.
Streams (buffered 200 m)	2	Generally associated with human activity in the past, as well as ethnographic significance.
Water polygons	2	Generally associated with human activity in the past, as well as ethnographic significance.

Source: Urbis, 2025

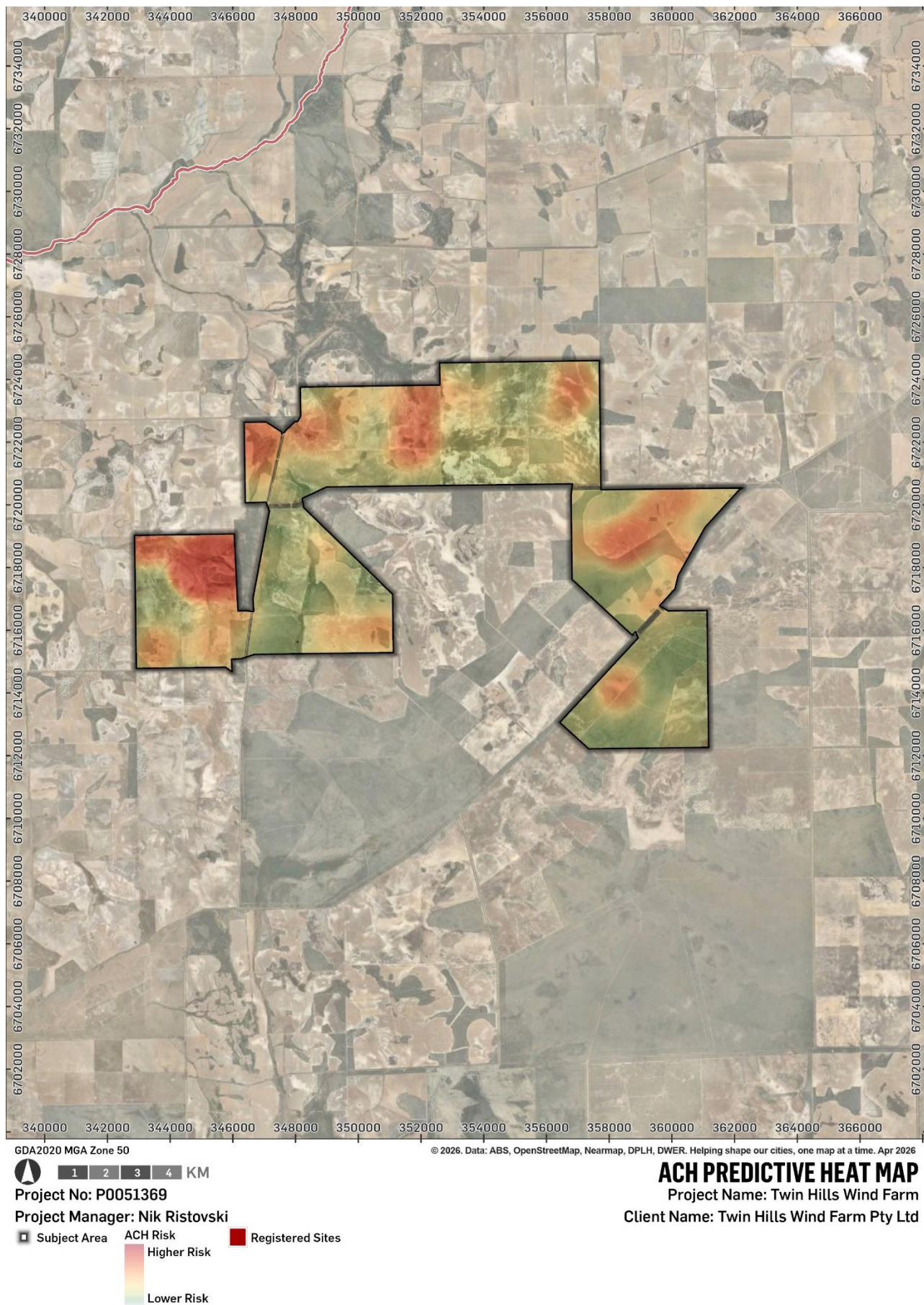


Figure 17 – ACH predictive heat map of Project Area.

Source: Urbis, 2025

6.4 Aboriginal Heritage Risk Assessment

The risk to Aboriginal heritage in the Project Area is assessed using the matrix provided in the *Aboriginal Heritage Due Diligence Guidelines (2013)*. Despite the convenience of this risk matrix, it suffers some theoretical flaws, such as the oversimplification of the characteristics of a project area and of proposed works, therefore making application of this matrix difficult for areas that have complex histories. The risk matrix is therefore used only as a guide.

Consideration has also been given to the amended *Aboriginal Heritage Act 1972* and current DPLH policy guidelines published in 2023, particularly in relation to consultation requirements and the process for determining whether section 18 consent may be required where Aboriginal sites cannot be avoided.

The assessment identified that the proposed development has a high risk of impacting Aboriginal heritage where the proposed works constitute major disturbance in a significantly altered environment (Figure 18).

Previous Land Use	LAND ACTIVITIES – CATEGORIES 1-5					
		1. Negligible disturbance	2. Minimal disturbance	3. Moderate disturbance	4. Significant disturbance	5. Major disturbance
	Built Environment - e.g. urban environment, towns, metropolitan region.	Low	Low	Low	Low	Medium
	Significantly Altered Environment - e.g. cultivated and cleared land.	Low	Low	Low	Medium	High
	Moderately Altered Environment - e.g. partially cleared lands, re-vegetated landscape.	Low	Low	Medium	Medium	High
	Minimally Altered Environment - e.g. urban bush land, regrowth areas	Low	Medium	Medium	High	High
	Unaltered Environment - e.g. protected areas or pristine environment.	Low	Medium	High	High	High
Risk Assessment		Actions				
Low Risk (Review)		Review the landscape and proposed activity (see sections 2.4 - 2.8 - assessing the landscape and the activity). Refer to the AHIS.				
Medium Risk (Review /Exercise Caution)		Review the landscape and proposed activity (as above). The precautionary principle (see page 2) applies. Refer to the AHIS and contact the DAA. A range of actions may be recommended, including: no action, consultation with the relevant Aboriginal people, an Aboriginal heritage survey or modification of the proposed activity to avoid or minimise site impact.				
High Risk (Consult / Survey / Approvals)		Refer to the AHIS. Consult with the DAA and the relevant Aboriginal people. Dependent on consultation outcomes you may need to include: an Aboriginal heritage survey, modification of the proposed activity to avoid or minimise (see sections 2.24 - 2.28) impact to the site and/or other heritage management strategies. The land user may also need to apply for approval or consent (see section 2.26) to the activity.				
For major development projects refer to sections 2.10 - 2.12 for further advice.						

Figure 18 – DPLH Aboriginal Heritage Risk Matrix. The red outline indicates the level of risk relevant to the Project Area.

Source: WA Department of Aboriginal Affairs/Premier and Cabinet, "Aboriginal Heritage Due Diligence Guidelines," (Perth: WA Government, April 30, 2013), <https://www.wa.gov.au/system/files/2019-04/Annexure%20D%20-%20Aboriginal%20Heritage%20Due%20Diligence%20Guidelines.pdf>.

6.5 Potential for Heritage Impact

There are no historic heritage listed places in the Project Area and no places that carry any statutory protection under the *Heritage Act 2018* or the Shire of Three Springs Local Planning Scheme. As such, there is no potential impact on known historic heritage places.

The proposed works have a high risk of impacting Aboriginal heritage when considered under the *Aboriginal Heritage Due Diligence Guidelines* (major disturbance works in a significantly altered environment; see Section 6.4). This assessment considers the entirety of the Project Area rather than the proposed ground disturbance footprint which is subject to change and may concentrate on lower risk areas. The potential for Aboriginal heritage impact should also be revised based on the results of recommended archaeological and ethnographic surveys with YSRC representatives. Additionally, as this assessment relies on aerial imagery and mapping software, it may not fully reflect on-site conditions. Should heritage surveys identify ACH sites within the development footprint that cannot be avoided, the need for ministerial consent under section 18 of

the *Aboriginal Heritage Act 1972* would be determined through consultation with YSRC and nominated Knowledge Holders, consistent with the *Consultation policy for section 18 applications* (November 2023).

6.5.1 Mitigation Strategies

High level mitigation strategies are provided to assist the Proponent in planning the layout of ground disturbing activities prior to engagement of Aboriginal stakeholders for a heritage survey. Priority should be placed on the outcomes of consultation with YSRC and nominated Knowledge Holders regarding ACH impact mitigation strategies.

The following preliminary strategies are recommended to mitigate potential impact to unrecorded ACH in the Project Area:

- Limit proposed ground disturbance to significantly altered environments, such as cultivated and cleared land, where practicable.
- Exclude proposed ground disturbance within 100 m of watercourses and wetlands, where practicable.
- If crossing watercourses or wetlands is necessary, use pre-existing accessways and crossing locations, where practicable.

The following steps should be taken by the Proponent regardless to mitigate the risk of impact to ACH and meet their obligations of the *Aboriginal Heritage Act 1972*:

- Consult with key Aboriginal stakeholders (Yamatji Southern Regional Corporation).
- Conduct archaeological and ethnographic surveys with nominated YSRC Knowledge Holders of the development footprint for the detailed design of the Project.

6.6 Key Considerations and Opportunities

Key considerations and opportunities for cultural heritage are outlined below, based on the above assessments of heritage potential and risk.

6.6.1 Aboriginal Heritage Considerations

- There are zero (0) Registered, Lodged or Historic ACH sites within the Project Area.
- Within a 10 km buffer zone, there is (1) Registered ACH site, the Arrowsmith River (ACHIS ID# 30068), and one (1) Lodged site containing at least stone artefact (ACHIS ID# 29767). These sites highlight the cultural significance of watercourses in the area as well as the potential of ACH material to exist on or beside disturbed ground.
- The majority of the Project Area has not been the subject of previous heritage surveys.
- Narrow corridors on the periphery of the Project Area and broader areas in the region have been previously surveyed for ACH. The survey reports indicate a general absence of archaeological materials in the area, a low potential for ethnographic sites in agricultural land in the broader area, the potential for isolated artefacts and artefact scatter (particularly near water sources and creek lines), and the potential for sub-surface archaeological material.
- The *Aboriginal Heritage Due Diligence Guidelines (2013)* risk matrix assessed that the proposed development has a high risk of impacting Aboriginal heritage where the proposed works constitute major disturbance in a significantly altered environment.
- Considering the above, Urbis has assessed a **high** potential for the presence of artefact scatters, culturally modified trees and PADs, a **moderate** potential for burials, water sources, and ethnographic and historic sites, and a **low** potential for other ACH site types within the Project Area as a whole.
- As a development footprint has not been finalised, preliminary impact mitigation strategies to lower risk to ACH include confining proposed ground disturbance to already altered areas (e.g., cultivated or

cleared land), avoiding areas within 100 m of watercourses, and using pre-existing accessways and crossing locations, where practicable.

6.6.2 Aboriginal Heritage Opportunities

- Opportunities exist for continued engagement with YSRC and its representatives through meaningful consultation to inform the future use and management of cultural heritage values within the Project Area.
- Consultation with YSRC on the development footprint for the detailed design of the Project may identify the need for archaeological and ethnographic surveys in order to identify ACH and evaluate its potential to be impacted by proposed works. Ongoing consultation with Traditional Owners presents opportunities to strengthen the relationship between the Proponent and local Aboriginal peoples to continue to create positive experiences in post-contact Australia. This type of engagement also presents opportunities for Traditional Owners to engage in continuation of their culture.

6.6.3 Historic Heritage Considerations

The subject site does not contain any historical heritage-listed places. Therefore, there are no historical heritage constraints that would impede the proposed development of the site.

7 Recommendations

Urbis has been engaged by the Proponent to conduct an Aboriginal Heritage Desktop Assessment for the proposed Twin Hills Wind Farm located in the Shire of Three Springs, Western Australia on Yamatji Country. This assessment has identified the presence and nature of previously recorded heritage in the Project Area and surrounds and summarised the potential for unrecorded ACH, as well as preliminary measures to mitigate potential impact.

7.1 Aboriginal Heritage

Narrow corridors on the periphery of the Project Area and broader areas in the region have been previously surveyed for ACH. These reports indicated a general absence of archaeological materials in the area, a low potential for ethnographic sites in agricultural land in the broader area, the potential for isolated artefacts and artefact scatters, and the potential for sub-surface archaeological material in the Project Area.

Our assessment has determined a **high** potential for the presence of artefact scatters, culturally modified trees, and PADs; and a **moderate** potential for burials, water sources, and ethnographic and historic sites in un-surveyed sections of the entire Project Area. Particularly high-risk areas include watercourses and their surrounds and areas containing remnant native vegetation.

The *Aboriginal Heritage Due Diligence Guidelines (2013)* risk matrix assessed that the proposed development has a high risk of impacting Aboriginal heritage where the proposed works constitute major disturbance in a significantly altered environment. However, a development footprint has not been finalised and is recommended to be limited to cultivated and cleared land, avoid ground disturbance within 100 m of watercourses and wetlands, and utilise pre-existing creek crossing locations to lower Aboriginal heritage impact risk, where practicable.

Prior to any ground disturbing works, Urbis recommends the following:

Recommendation 1 – Record Keeping

This assessment and its findings should be kept as evidence of the Due Diligence Process having been applied to the Project Area and the proposed development footprint.

Recommendation 2 – Submission of Activity Notice

Urbis understand that the Proponent has been engaged in consultation with YSRC and plans to enter into a heritage agreement with the YSRC after receiving planning approval for the Project. The nature and form of the proposed heritage agreement should be clarified during consultation with YSRC.

Prior to completing activities that involve low to high levels of ground disturbance, the Proponent should submit an Activity Notice letter (or equivalent notice in accordance with the heritage agreement) to YSRC describing their proposed development works and include a copy of this assessment.

Recommendation 3 – Survey of Proposed Development Footprint

Following submission of an Activity Notice, YSRC will determine whether heritage surveys will be required and negotiate a survey methodology that is fit for purpose.

A survey conducted in collaboration with YSRC representatives is recommended to identify any ACH values and risks and ensure that the Proponent does not breach section 17 of the *Aboriginal Heritage Act 1972*.

In accordance with the *Aboriginal Heritage Act 1972* and the *Consultation policy for section 18 applications (2023)*, should any unrecorded Aboriginal Cultural Heritage sites be identified during heritage surveys that cannot be avoided through design refinement, consultation with YSRC and nominated Knowledge Holders would be required to determine whether ministerial consent under section 18 is necessary, and the scope and extent of any such consent.

7.2 Historic Heritage

The Project Area has **no historical heritage constraints**. It contains no heritage listed places and does not carry any statutory protection under the *Heritage Act 2018* or the Shire of Three Springs Local Planning Scheme.

Urbis recommends the following:

Recommendation 1 – Early Engagement with Heritage Stakeholders

The site currently does not contain any heritage-listed places. However, it would be prudent to engage early with the Shire of Three Springs and other relevant historical heritage stakeholders. This will ensure that no future listings are being considered and provide clear confirmation that historical heritage will not be a constraint for future development.

8 References

- Bates, Daisy. *The Native Tribes of Western Australia*. Canberra: National Library of Australia, 1985.
- Beard, J.S., G.R Beeston, J.M Harvey, A.J.M Hopkins, and D.P Shepherd. "The Vegetation of Western Australia. 1:3,000,000 Map with Explanatory Memoir." Perth: Vegmap Productions, February 2005. <https://library.dbca.wa.gov.au/FullTextFiles/919760.pdf>.
- Berndt, R.M., and C.H Berndt. "Aborigines of the Southwest." In *Aborigines of the West*, edited by D.M Salvado. Perth: University of Western Australia Press, 1980.
- Burke, Heather, and Claire Smith. *The Archaeologist's Field Handbook*. Allen & Unwin, 2008.
- Cameron, Richard Everett. "An Aboriginal Archaeological Site Identification Survey and Recording for the Karara Power Line Upgrade Project, North-Eastern Wheatbelt, Western Australia: Southern Section (ET119-ET03)." Perth: Eureka Archaeological Research and Consulting - University of Western Australia, November 2010.
- Carnamah Historical Society and Museum. "Early History of Three Springs, Western Australia." Carnamah.com.au, 2025. <https://www.carnamah.com.au/three-springs-history>.
- City of Greater Geraldton. "Aboriginal Culture» City of Greater Geraldton." City of Greater Geraldton, 2024. <https://www.cgg.wa.gov.au/community/our-community/aboriginal.aspx>.
- Department of Planning, Lands and Heritage. "Aboriginal Cultural Heritage Inquiry System." Department of Planning, Lands and Heritage, 2024. <https://espatial.dplh.wa.gov.au/ACHIS/index.html?viewer=ACHIS>.
- Department of Planning, Lands and Heritage. *Aboriginal Heritage Act 1972 Guidelines*. November 2023.
- Department of Planning, Lands and Heritage. *Consultation policy for section 18 applications*. November 2023.
- Enright, Neal J., and Ian Thomas. "Pre-European Fire Regimes in Australian Ecosystems." *Geography Compass* 2, no. 4 (June 28, 2008): 979–1011. <https://doi.org/10.1111/j.1749-8198.2008.00126.x>.
- Howie-Willis, Ian . "Nyungar." In *The Encyclopaedia of Aboriginal Australia: Aboriginal and Torres Strait Islander History, Society and Culture*, edited by David Horton. Canberra: Aboriginal Studies Press for the Australian Institute of Aboriginal and Torres Strait Islander Studies, 1994.
- Lafrentz, Damien. "ASSESSMENT of ABORIGINAL HERITAGE VALUES and TRADITIONAL USES." *Horizon Heritage Management*, July 2021. https://www.epa.wa.gov.au/sites/default/files/PER_documentation2/Appendix%2026_Assessment%20of%20Aboriginal%20Heritage%20Values%20and%20Traditional%20Uses.pdf.
- Monks, Carly, Joe Dortch, Geraldine Jacobsen, and Alexander Baynes. "Pleistocene Occupation of Yellabidde Cave in the Northern Swan Coastal Plain, Southwestern Australia." *Australian Archaeology* 82, no. 3 (September 2016): 275–79. <https://doi.org/10.1080/03122417.2016.1244216>.
- NSW Department of Environment, Climate Change and Water. "Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales." *Department of Environment, Climate Change and Water*. Sydney: NSW Government, September 2010. <https://www.environment.nsw.gov.au/sites/default/files/due-diligence-code-of-practice-aboriginal-objects-protection-100798.pdf>.
- Oates, William J, and Lynnette F Oates. *A Revised Linguistic Survey of Australia*. Canberra: Australian Institute of Aboriginal Studies, 1970.
- Prout, Sarah. "Security and Belonging: Reconceptualising Aboriginal Spatial Mobilities in Yamatji Country, Western Australia." *Mobilities* 4, no. 2 (July 2009): 177–202. <https://doi.org/10.1080/17450100902905105>.
- Shaw, Bruce. *Joan Martin (Yarrna): A Widi Woman: As Told to Bruce Shaw*. Canberra, Act: Aboriginal Studies Press, 2011.
- Three Springs Shire Council. "The Three Springs Heritage Trail." *Three Springs Shire Council*. Three Springs: Three Springs Shire Council. Accessed August 14, 2025 https://www.threesprings.wa.gov.au/images/1121_Three_Springs_A4_Brochure_ver_B.pdf.
- Tindale, Norman B. *Aboriginal Tribes of Australia: Their Terrain, Environmental Controls, Distribution, Limits and Proper Names*. 1974. Reprint, Canberra: Australian National University Press, 1974.

<https://buluwai.org/content/uploads/2018/02/ABORIGINAL-TRIBES-OF-AUSTRALIA-Their-Terrain-Environmental-Controls-Distribution-Limits-Proper-Names-Tindale.pdf>.

WA Department of Aboriginal Affairs/Premier and Cabinet. "Aboriginal Heritage Due Diligence Guidelines." *WA Department of Aboriginal Affairs/Premier and Cabinet*. Perth: WA Government, April 30, 2013. <https://www.wa.gov.au/system/files/2019-04/Annexure%20D%20-%20Aboriginal%20Heritage%20Due%20Diligence%20Guidelines.pdf>.

WA Department of Primary Industries and Regional Development. "NRInfo (Natural Resource Information) for Western Australia." *Wa.gov.au*. Government of Western Australia, July 9, 2024. <https://www.dpird.wa.gov.au/environment-and-sustainability/nrinfo-for-western-australia/>.

Western Australia Department of Lands and Surveys, and Western Australia Department of Education. *Western Australia: An Atlas of Human Endeavour, 1829–1979*. Western Australia Department of Lands and Surveys, 1979.

Western Australian Government Department of Water. "Northern Perth Basin: Geology, Hydrogeology and Groundwater Resources." *Wa.gov.au*, January 2017. <https://www.wa.gov.au/system/files/2022-04/Northern%20Perth%20Basin%20-%20geology%2C%20hydrogeology%20and%20groundwater%20resources.pdf>.

Winton, Vicky, Vivienne Brown, Matthias Leopold, Belinda D'Ovidio, Emielda Yusiharni, Annie Carson, and Colin Hamlett. "The First Radiometric Pleistocene Dates for Aboriginal Occupation at Weld Range, Inland Mid West, Western Australia." *Australian Archaeology* 82, no. 1 (January 2, 2016): 60–66. <https://doi.org/10.1080/03122417.2016.1163952>.

Wright, Guy, and Klim Gollan. "Ethnographic Heritage Survey Report. Amangu Traditional Owners. Karara Take-off Point to Three Springs, Central Section (ET119-TK129)." Perth: Big Island Research PTY LTD., 2010.

Yamatji Southern Regional Corporation. "About Us." Yamatji Southern Regional Corporation, 2025. <https://www.ysrc.com.au/about-ysrc>.

Yamatji Southern Regional Corporation. "Our Nation." Yamatji Southern Regional Corporation, 2025. <https://www.ysrc.com.au/our-nation>.

Disclaimer

This report is dated 7 July 2026 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Ltd (**Urbis**) opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, of Twin Hills Wind Farm Pty Ltd (**Instructing Party**) for the purpose of Aboriginal Heritage Desktop Assessment (**Purpose**) and not for any other purpose or use. To the extent permitted by applicable law, Urbis expressly disclaims all liability, whether direct or indirect, to the Instructing Party which relies or purports to rely on this report for any purpose other than the Purpose, and to any other person which relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

In preparing this report, Urbis was required to make judgements which may be affected by unforeseen future events, the likelihood and effects of which are not capable of precise assessment.

All surveys, forecasts, projections and recommendations contained in or associated with this report are made in good faith and on the basis of information supplied to Urbis at the date of this report, and upon which Urbis relied. Achievement of the projections and budgets set out in this report will depend, among other things, on the actions of others over which Urbis has no control.

In preparing this report, Urbis may rely on or refer to documents in a language other than English, which Urbis may arrange to be translated. Urbis is not responsible for the accuracy or completeness of such translations and disclaims any liability for any statement or opinion made in this report being inaccurate or incomplete arising from such translations.

Whilst Urbis has made all reasonable inquiries it believes necessary in preparing this report, it is not responsible for determining the completeness or accuracy of information provided to it. Urbis (including its officers and personnel) is not liable for any errors or omissions, including in information provided by the Instructing Party or another person or upon which Urbis relies, provided that such errors or omissions are not made by Urbis recklessly or in bad faith.

This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the reasonable belief that they are correct and not misleading, subject to the limitations above.

Appendix A



Search Criteria

No Aboriginal Cultural Heritage (ACH) Register in Shapefile - Twin_Hills_boundary_new

Disclaimer

Aboriginal heritage holds significant value to Aboriginal people for their social, spiritual, historical, scientific, or aesthetic importance within Aboriginal traditions, and provides an essential link for Aboriginal people to their past, present and future. In Western Australia Aboriginal heritage is protected under the *Aboriginal Heritage Act 1972*.

All Aboriginal cultural heritage in Western Australia is protected, whether or not the ACH has been reported or exists on the Register.

The information provided is made available in good faith and is predominately based on the information provided to the Department of Planning, Lands and Heritage by third parties. The information is provided solely on the basis that readers will be responsible for making their own assessment as to the accuracy of the information. If you find any errors or omissions in our records, including our maps, it would be appreciated if you provide the details to the Department via <https://achknowledge.dplh.wa.gov.au/ach-enquiry-form> and we will make every effort to rectify it as soon as possible.

Copyright

Copyright in the information contained herein is and shall remain the property of the State of Western Australia. All rights reserved. This includes, but is not limited to, information from the Register established and maintained under the *Aboriginal Heritage Act 1972*.

Location information data licensed from Western Australian Land Information Authority (WALIA) trading as Landgate. Copyright in the location information data remains with WALIA. WALIA does not warrant the accuracy or completeness of the location information data or its suitability for any particular purpose.



Coordinates

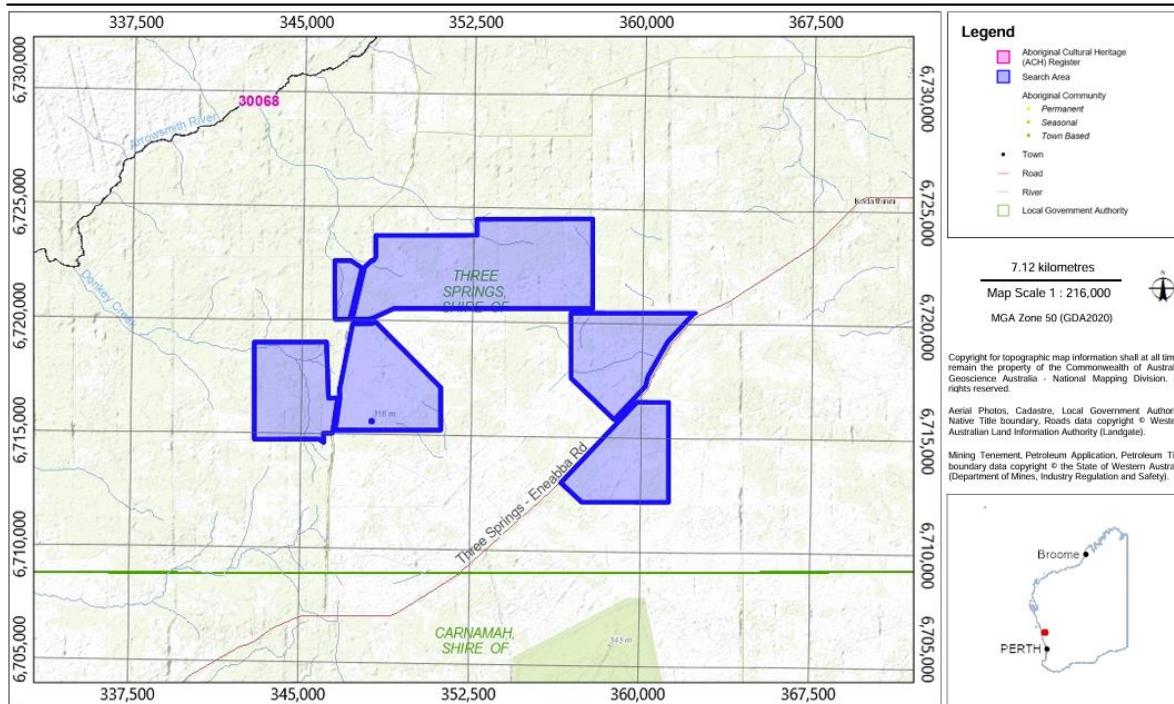
Map coordinates are based on the GDA 2020 Datum.

Basemap Copyright

Map was created using ArcGIS software by Esri. ArcGIS and ArcMap are the intellectual property of Esri and are used herein under license. Copyright © Esri. All rights reserved. For more information about Esri software, please visit www.esri.com.

Satellite, Hybrid, Road basemap sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, HERE, DeLorme, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community.

Topographic basemap sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community.



Search Criteria

No Aboriginal Cultural Heritage (ACH) Lodged in Shapefile - Twin_Hills_boundary_new

Disclaimer

Aboriginal heritage holds significant value to Aboriginal people for their social, spiritual, historical, scientific, or aesthetic importance within Aboriginal traditions, and provides an essential link for Aboriginal people to their past, present and future. In Western Australia Aboriginal heritage is protected under the *Aboriginal Heritage Act 1972*.

All Aboriginal cultural heritage in Western Australia is protected, whether or not the ACH has been reported or exists on the Register.

The information provided is made available in good faith and is predominately based on the information provided to the Department of Planning, Lands and Heritage by third parties. The information is provided solely on the basis that readers will be responsible for making their own assessment as to the accuracy of the information. If you find any errors or omissions in our records, including our maps, it would be appreciated if you provide the details to the Department via <https://achknowledge.dplh.wa.gov.au/ach-enquiry-form> and we will make every effort to rectify it as soon as possible.

Copyright

Copyright in the information contained herein is and shall remain the property of the State of Western Australia. All rights reserved. This includes, but is not limited to, information from the Register established and maintained under the *Aboriginal Heritage Act 1972*.

Location information data licensed from Western Australian Land Information Authority (WALIA) trading as Landgate. Copyright in the location information data remains with WALIA. WALIA does not warrant the accuracy or completeness of the location information data or its suitability for any particular purpose.



Coordinates

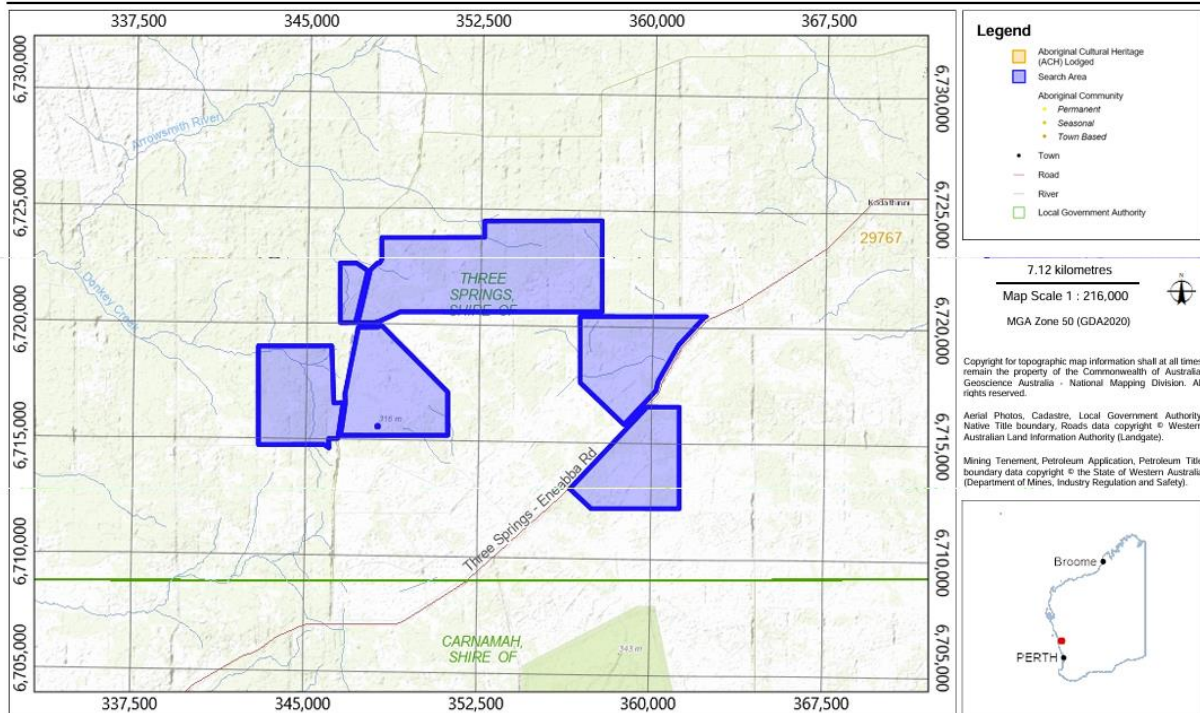
Map coordinates are based on the GDA 2020 Datum.

Basemap Copyright

Map was created using ArcGIS software by Esri. ArcGIS and ArcMap are the intellectual property of Esri and are used herein under license. Copyright © Esri. All rights reserved. For more information about Esri software, please visit www.esri.com.

Satellite, Hybrid, Road basemap sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, HERE, DeLorme, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community.

Topographic basemap sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community.





Aboriginal Cultural Heritage Inquiry System

List of Aboriginal Cultural Heritage (ACH) Historic

For further important information on using this information
please see the WA.gov.au website's Terms of Use at
<https://www.wa.gov.au/terms-of-use>

Search Criteria

No Aboriginal Cultural Heritage (ACH) Historic in Shapefile - Twin_Hills_boundary_new

Disclaimer

Aboriginal heritage holds significant value to Aboriginal people for their social, spiritual, historical, scientific, or aesthetic importance within Aboriginal traditions, and provides an essential link for Aboriginal people to their past, present and future. In Western Australia Aboriginal heritage is protected under the *Aboriginal Heritage Act 1972*.

All Aboriginal cultural heritage in Western Australia is protected, whether or not the ACH has been reported or exists on the Register.

The information provided is made available in good faith and is predominately based on the information provided to the Department of Planning, Lands and Heritage by third parties. The information is provided solely on the basis that readers will be responsible for making their own assessment as to the accuracy of the information. If you find any errors or omissions in our records, including our maps, it would be appreciated if you provide the details to the Department via <https://achknowledge.dplh.wa.gov.au/ach-enquiry-form> and we will make every effort to rectify it as soon as possible.

Copyright

Copyright in the information contained herein is and shall remain the property of the State of Western Australia. All rights reserved. This includes, but is not limited to, information from the Register established and maintained under the *Aboriginal Heritage Act 1972*.

Location information data licensed from Western Australian Land Information Authority (WALIA) trading as Landgate. Copyright in the location information data remains with WALIA. WALIA does not warrant the accuracy or completeness of the location information data or its suitability for any particular purpose.



Aboriginal Cultural Heritage Inquiry System

List of Aboriginal Cultural Heritage (ACH) Historic

For further important information on using this information
please see the WA.gov.au website's Terms of Use at
<https://www.wa.gov.au/terms-of-use>

Coordinates

Map coordinates are based on the GDA 2020 Datum.

Basemap Copyright

Map was created using ArcGIS software by Esri. ArcGIS and ArcMap are the intellectual property of Esri and are used herein under license. Copyright © Esri. All rights reserved. For more information about Esri software, please visit www.esri.com.

Satellite, Hybrid, Road basemap sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, HERE, DeLorme, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community.

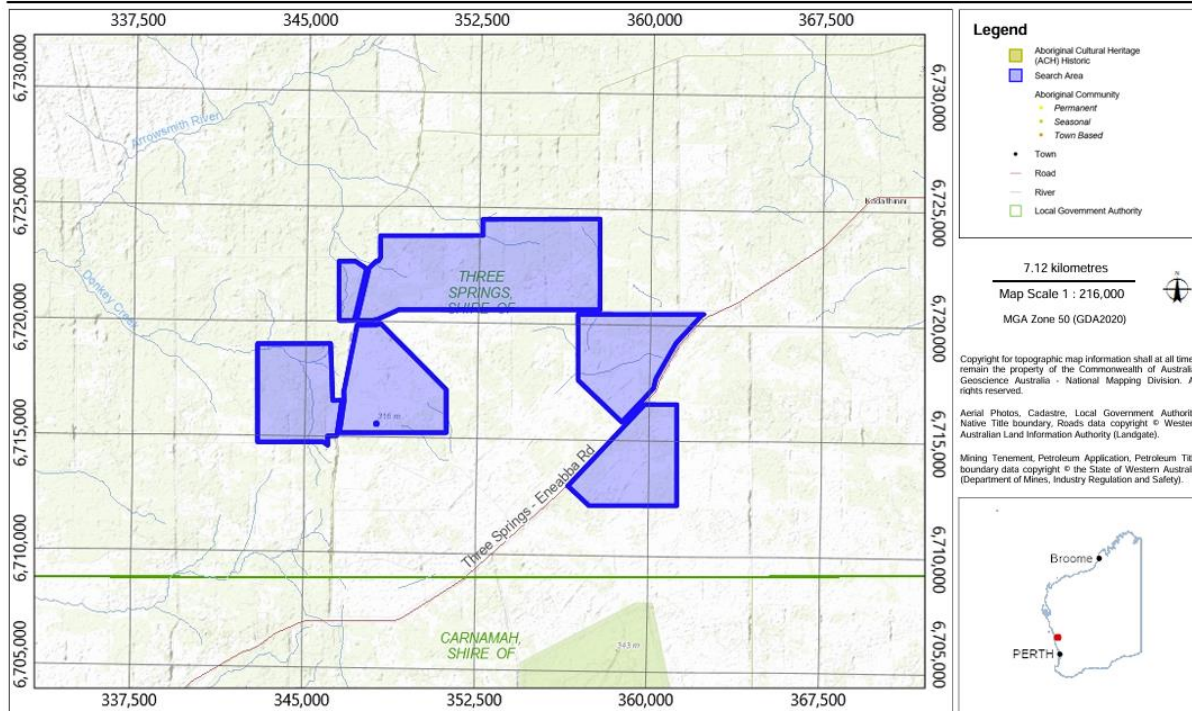
Topographic basemap sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community.



Aboriginal Cultural Heritage Inquiry System

Map of Aboriginal Cultural Heritage (ACH) Historic

For further important information on using this information
please see the WA.gov.au website's Terms of Use at
<https://www.wa.gov.au/terms-of-use>



Aboriginal Cultural Heritage Inquiry System

List of Heritage Surveys

For further important information on using this information
please see the WA.gov.au website's Terms of Use at
<https://www.wa.gov.au/terms-of-use>

Search Criteria

7 Heritage Surveys containing 7 Survey Areas in Shapefile - Twin_Hills_boundary_new

Disclaimer

Heritage Surveys have been mapped using information from the reports and / or other relevant data sources. Heritage Surveys consisting of small discrete areas may not be visible except at large scales. Reports shown may not be held at the Department of Planning, Lands and Heritage (DPLH). Please consult report holder for more information. Refer to <https://www.wa.gov.au/organisation/departments/departments-of-planning-lands-and-heritage/aboriginal-heritage> for information on requesting reports held by DPLH.

The information provided is made available in good faith and is predominately based on the information provided to the Department of Planning, Lands and Heritage by third parties. The information is provided solely on the basis that readers will be responsible for making their own assessment as to the accuracy of the information. If you find any errors or omissions in our records, including our maps, it would be appreciated if you provide the details to the Department via <https://achknowledge.dplh.wa.gov.au/ach-enquiry-form> and we will make every effort to rectify it as soon as possible.

Copyright

Copyright in the information contained herein is and shall remain the property of the State of Western Australia. All rights reserved. This includes, but is not limited to, information from the Register established and maintained under the *Aboriginal Heritage Act 1972*.

Location information data licensed from Western Australian Land Information Authority (WALIA) trading as Landgate. Copyright in the location information data remains with WALIA. WALIA does not warrant the accuracy or completeness of the location information data or its suitability for any particular purpose.

Access

Some reports are restricted.

Spatial Accuracy

The following legend strictly applies to the spatial accuracy of heritage survey boundaries as captured by DPLH.

Very Good	Boundaries captured from surveyed titles, GPS (2001 onwards) submitted maps georeferenced to within 20m accuracy.
Good / Moderate	Boundaries captured from GPS (pre 2001) submitted maps georeferenced to within 250m accuracy.
Unreliable	Boundaries captured from submitted maps georeferenced to an accuracy exceeding 250m.
Indeterminate	Surveys submitted with insufficient information to allow boundary capture.



Aboriginal Cultural Heritage Inquiry System

List of Heritage Surveys

For further important information on using this information
please see the WA.gov.au website's Terms of Use at
<https://www.wa.gov.au/terms-of-use>

Basemap Copyright

Map was created using ArcGIS software by Esri. ArcGIS and ArcMap are the intellectual property of Esri and are used herein under license. Copyright © Esri. All rights reserved. For more information about Esri software, please visit www.esri.com.

Satellite, Hybrid, Road basemap sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, HERE, DeLorme, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community.

Topographic basemap sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community.

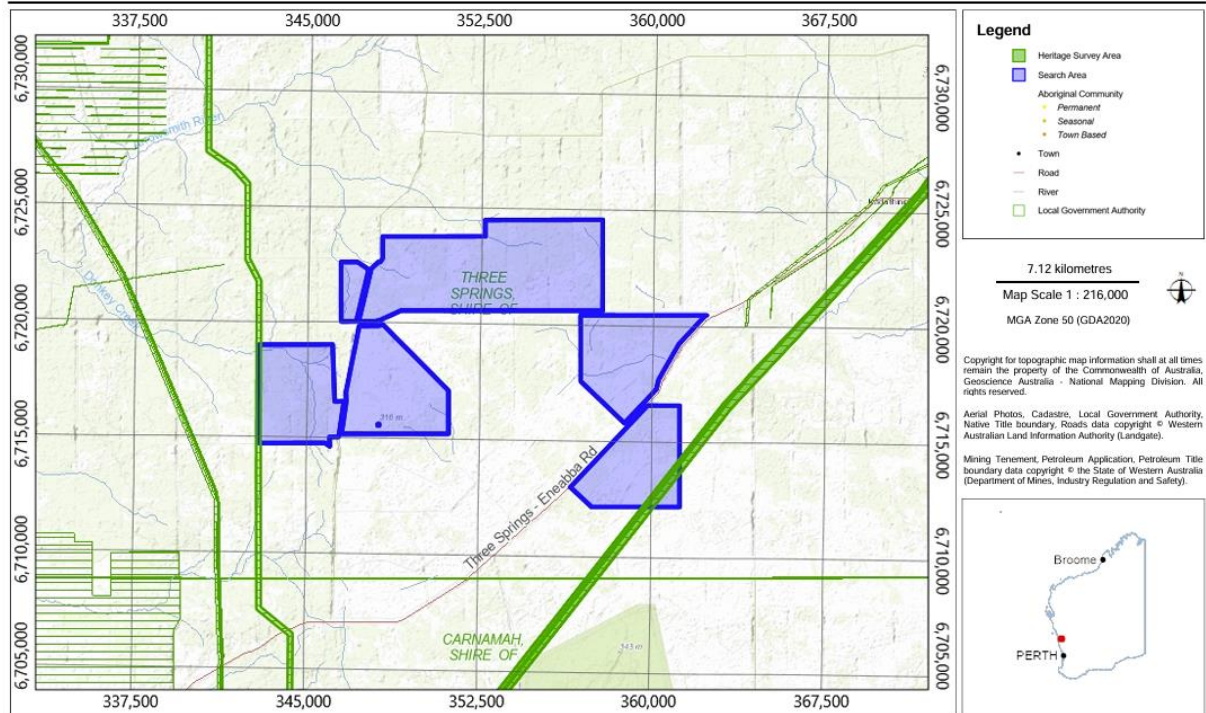


Aboriginal Cultural Heritage Inquiry System

List of Heritage Surveys

For further important information on using this information
please see the WA.gov.au website's Terms of Use at
<https://www.wa.gov.au/terms-of-use>

Survey Report ID	Survey Area ID	Report Title	Report Authors	Year of Publication	Survey Program	Survey Type	Area Description	Spatial Accuracy	Field / Desktop
23015	15814	Aboriginal heritage study for 330kV transmission line between Eneabba Substation & Moonyoonooka Substation	Mattner, Joe			Archaeological/ Ethnographic	Transmission line between Eneabba SZone ubstation (south of Eneabba) & Moonyoonooka Terminal Substation (east of Geraldton).	Moderate	Field and Desktop
23287	19755	A report of an Archaeological Section 18 Survey of Karara Mining Limited's Proposed Linear Infrastructure Corridor from Lake Weelhamby to Mount Karara near Morawa Western Australia	Chisholm, Scott B			Archaeological	Karara mining Ltd's proposed power line and haul road expansion		Field and Desktop
23495	19324	A Report of an Archaeological Section 18 Survey of Karara Mining Limited's Proposed Linear Infrastructure Corridor from Lake Weelhamby to Mount Karara near Morawa Western Australia	Chisholm, Alec H.			Archaeological	A Report of an Archaeological Section 18 Survey of Karara Mining Limited's Proposed Linear Infrastructure Corridor from Lake Weelhamby to Mount Karara near Morawa Western Australia		Field and Desktop
23496	19679	A report of an Ethnographic Survey of Karara Mining Limited's Karara Iron Ore Project and Mungada Iron Ore Project Proposed Linear Infrastructure Corridor with the Widi Binyardi Native Title Claimant Group	Doulman, Tony			Ethnographic	Proposed Linear Infrastructure Corridor, NE of Morawa to Karara.		Field and Desktop
28646	19663	Site Identification Heritage Survey Report of the Proposed Western Power Transmission Line, Koolanooka to Three Springs, Western Australia	Australian Interaction Consultants	2010		Archaeological	Koolanooka to Three Springs, Western Australia		Field only
28647	18744	An Aboriginal Archaeological Site Identification Survey and Recording for the Karara Power Line Upgrade Project, North-eastern Wheatbelt, Western Australia: Southern Section (ET119-ET03)	Cameron, Richard Everett			Archaeological	Karara Mining Ltd's (Karara) Power Line Upgrade between Three Springs and Eneabba	Moderate	Field and Desktop
28652	20388	Ethnographic Heritage Survey Report- Big Island Research Amangu Traditional Owners- Take Off Point to Three Springs Central Section (ET119 - TK129)	Pty Ltd			Ethnographic	Take Off Point to Three Springs Central Section (ET119 - TK129)		Field only





**Shaping cities
and communities
for a better future.**

urbis.com.au