



Desktop due diligence assessment of
the proposed AGL power station
expansion project for Western
Energy Pty Ltd

December 2024



Acknowledgement of Country

Terra Rosa acknowledge the Gnaala Karla Booja people, who are the Traditional Custodians of the Country described in this document, and to the Whadjuk Noongar people, who are the Traditional Custodians of the Country in which Terra Rosa's office is situated.

We pay our respects to their Elders past, present, and emerging, and recognise the continued cultural and spiritual connections to their lands.

TRC ref

GKB2402

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INTRODUCTION

Western Energy Pty Ltd (Western Energy) intends to use land within Gnaala Karla Booja area of the South West Native Title Settlement (WCD2021/010) which is covered by Indigenous Land Use Agreement ILUA (WI2015/005) in the South West region of Western Australia for the Kwinana Swift Power Station (KSPS) Project Expansion.

To minimise the likelihood of breaching the *Aboriginal Heritage Act 1972 (WA)* (the Act), Western Energy commissioned a heritage desktop due diligence over this project area.

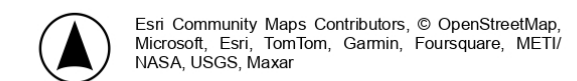
The purpose of such a desktop review is to identify any knowledge gaps pertaining to heritage works within the project area, the results of which will highlight any areas requiring further archaeological and ethnographic survey and consultation with appropriate Traditional Owners and Knowledge Holders.

The KSPS Expansion project area covers 3.55 ha, encompassing Lot 13 at Burton Place in Kwinana. The project area is located in an existing industrial area about 1.9 km inland from the Indian Ocean and 1.1 km southwest of the Kwinana Motorplex.



1:7,109

- Low Resolution 15m Imagery
- High Resolution 60cm Imagery
- High Resolution 30cm Imagery
- Citations
- 2.4m Resolution Metadata



GNAALA KARLA BOOJA

COUNTRY

Gnaala Karla Booja Country straddles the coastline running between Kwinana and Capel in Western Australia. This Country is bordered by the Ballardong People to the east, the Wagyl Kaip People to the south, and the Whadjuk People to the north. Gnaala Karla Booja land comprises one territory of the Noongar Peoples located in the southwest of Western Australia and, “refers to the Noongar language or dialectical groups of the **Binjareb / Pinjarup**, **Wilman**, and **Ganeang**” (Gnaala Karla Booja Aboriginal Corporation 2023).

In terms of rough spatial reference, the northeastern corner of Gnaala Karla Booja territory is located near Corrigin, and travels in a south-westerly direction past the western side of Wagin to Kojonup. The boundary then moves west across Boyup Brook and Greenbushes, then northwest towards Capel. The boundary extends from Capel west out into the ocean, then follows north along the coast, terminating due west of Byford over Kwinana and Garden Island.

As such, Gnaala Karla Booja Country features a large stretch of coastline in the southwest of Western Australia including Yalgorup National Park, as well as large swaths of native forests and woodlands further inland.

Gnaala Karla Booja Country is currently administered and managed under an Indigenous Land Use Agreement (ILUA), which was entered into on 17 October 2018 with the Federal Court (WI2015/005).

Previously, Gnaala Karla Booja Country was administered under a Native Title Claim (WC1998/058), granted in 1998 by the Federal Court (WAD 6274/1998 – Federal Court number). This claim was originally lodged on 17 September 1998 by the Noongar Land Council on behalf of Gnaala Kaala Booja applicants (Native Title Tribunal, 2000). This application was amended twice, and passed

the registration test under s190A of the Native Title Act 1993 on 3 March 1999 (Native Title Tribunal 2000).

This Native Title Claim was active until 2021, when Gnaala Karla Booja representatives entered into the South West Settlement Claim (WCD2021/010) with other Noongar Nations. The Act of entering this overarching claim rendered the original Native Title Claim established in 1998 void.

The South West Settlement Claim (also known as *Bennell v State of Western Australia*) affected the following Native Title Claims and Noongar Nations that signed onto the joint agreement:

- Harris Family (WC1996/041)
- Southern Noongar (WC1996/109)
- Yued (WC1997/071)
- Gnaala Karla Booja (WC1998/058)
- Wagyl Kaip (1998/070)
- Ballardong People (WC2000/007)
- Single Noongar Claim (Area 1) (WC2003/006)
- Single Noongar Claim (Area 2) (WC2003/007)
- South West Boojarah #2 (WC2006/004)
- Wagyl Kaip – Dillon Bay (WC2007/001); and
- Whadjuk People (WC2011/009)

In signing onto the joint claim, these respective Noongar Nations with their associated Native Title Claims agreed to extinguish their Native Title rights to their respective Native Title Claim areas (Federal Court of Australia, 2021). As such, the official decision handed down by the Federal Court was that Native Title does not exist in the claim area.

The ILUA that Gnaala Karla Booja hold over their Country (WI2015/005) has superseded their official Native Title Rights, however, it provides Gnaala Karla Booja with additional and ongoing management and community opportunities, as well as greater control over the activities that occur on Gnaala Karla Booja County.

This ILUA (in addition to those of the Noongar Nations mentioned above) binds State Government Departments and certain State

Government agencies to, “enter into a Noongar Standard Heritage Agreement (NSHA) when conducting Aboriginal Heritage Surveys in the ILUA areas, unless they have an existing heritage agreement. It is also intended that other State agencies and instrumentalities (resource development) enter into the NSHA when conducting Aboriginal Heritage Surveys in ILUA areas” (DPLH AHIS 2023). The negotiation of a NSHA prior to any ground disturbance works provides the Gnaala Karla Booja People with critical information regarding the nature of these works and therefore allows the Gnaala Karla Booja People to make informed decisions regarding the projects occurring on their Country.

Landscape and waterways

The traditional lands of the Gnaala Karla Booja People are diverse and extend from the coast south of Kwinana approximately 200 km inland towards Wagin. Due to the diversity of the landscape within Gnaala Karla Booja Country, the traditional lands of the Gnaala Karla Booja People cross several of the Interim Biogeographic Regionalisation for Australia (IBRA) bioregions as defined by Thackway and Cresswell (1995). These IBRA bioregions include: SWA02 (Swan Coastal Plain), JAF01 (Northern Jarrah Forest), JAF02 (Southern Jarrah Forest), and AVW02 (Avon Wheatbelt) (TR ArcGIS 2023).

The project area discussed in this report is situated in the Swan Coastal Plain, which features a complex series of seasonal wetlands but is typified by a low-lying landscape covered with woodland. This bioregion covers an area of approximately 15,257 km² and spreads across a 30 km wide strip adjacent to the Indian Ocean and west of the Darling Scarp, running from the city of Perth to Cape Naturaliste in the south (Chisholm et al. 2016).

The ground surface within the Swan Coastal Plain varies, but includes colluvial and aeolian sands, alluvial river flats, and coastal limestone. The plain rises to the east to duricrusted Mesozoic sediments dominated by Jarrah (*Eucalyptus marginata*) woodland (Thackway and Cressell 1995). The outwash plains, once dominated by *A. obesa-marri* woodlands and Melaleuca shrublands, are extensive only to the south and Paperbark trees (*Melaleuca raphiophylla*) can typically be found in swampy areas (Thackway and Cresswell 1995). Heathlands and / or Tuart

(*Eucalyptus gomphocephala*) woodlands can be found situated over areas featuring limestone, while various *Banksia spp.* or Tuart tend to dominate the sandy soils (Thackway and Cresswell 1995).

Prior to European settlement, the Swan Coastal Plain comprised a series of freshwater wetlands, the majority of which have been drained, filled, or cleared since 1832 (Chisholm et al. 2016). Wetlands, estuary systems, and waterways existing in the Swan Coastal Plain and that are of significance to the Gnaala Karla Booja People include: the Serpentine River (DPLH ID 3582), Harvey Estuary / Peel Inlet (DPLH OHP ID 32696), Lake Clifton, Lake Yalgorup, Lake Preston (DPLH OHP ID 5614), Kooallup Lagoon, the Collie River / Leschenault Inlet (DPLH ID: 16713: Collie River Waugal), as well as the coastline along this stretch of land itself.

Watersources are of a high cultural and spiritual significance to the Gnaala Karla Booja Traditional Owners as they are often associated with specific creation stories. The health of these waterways also often directly reflects the health of these creation spirits, and therefore the health of Country and the Gnaala Karla Booja People as a whole (Barber and Jackson 2011).

In addition to the Collie and Serpentine Rivers, one of the primary geographic features of this bioregion is the Swan River (DPLH ID 3536) which drains into the Indian Ocean near Perth. Although not located directly within Gnaala Karla Booja territory, the Swan River is a place of high mythological significance to the Noongar Nations of the southwest of Western Australia. Both the Swan and Canning Rivers are believed to have been created by the Rainbow Serpent or *Waugal*, a dreamtime being. The *Waugal* is said to have created the creeklines, waterholes, lakes, and valleys while on its journey to the ocean, and many First Nations People believe that permanent water sources contain a resting *Waugal* that usually bears the same name as the site it is associated with (Hughes-Hallet 2010; Kingsford 1982; Shaw and Martin 2011).

As such, water sources continue to play a crucial role in Gnaala Karla Booja culture, not just for their role as a subsistence source, but for being intrinsically tied to the very creation of the world as the Gnaala Karla Booja people know it.

Noongar culture and connection to Country

As previously discussed, the Gnaala Karla Booja People form one of Noongar Nations of the southwest of Western Australia. These Noongar Nations maintain a strong connection to Country, and each have their own customs, beliefs, and traditional practices still utilised today to ensure knowledge of Country is passed on to the younger generations, and that the overall health of Country is maintained.

Oral histories and lore are one of the key mechanisms utilised to maintain this knowledge. These lore stories speak of the connection between Country and the Noongar Peoples, and of how the Country was originally created by spirit beings. Noel Nannup, a Noongar man, speaks of how Noongar spirituality is intrinsically tied to Country by saying:

“Noongar spirituality lies in the belief of a cultural landscape and the connection between the human and spiritual realms. Everything in our vast landscape has meaning and purpose. Life is a web of inter-relationships where *maam* and *yok* (men and women) and nature are partners, and where *kura* (long ago, the past) is always connected to *yey* (present). Through our paintings, music, and *koroboree/kobori* (dance) we are paying respect to our ancestral creators, and at the same time, strengthening our belief systems. Noongar connection with nature and *boodja* (country) signified a close relationship with spiritual beings associated with the land. We express this through our caring for *boodja* and observing Noongar lore through an oral traditional of story-telling. Noongar spirituality is one of many *kaartdijin* (knowledge) systems within Aboriginal Australia, and like other knowledge systems, there is diversity in our Noongar interpretations.”

(Nannup sourced from SWALSC 2023a)

The beliefs, stories, and customs surrounding the Dreamtime are of a high cultural significance to the Gnaala Karla Booja Traditional Owners, and are intrinsic to Noongar spirituality, as Nannup mentioned above. The following excerpts and information regarding Noongar beliefs surround the Dreaming and Dreamtime spirits have been taken directly from SWALSC’s website (2023a) as one of the representative bodies for the Gnaala Karla Booja People.

“The Nyitting or Dreaming means ‘cold,’ ‘cold time’ or ‘ancestral times.’ Noongar people know it as the Creation time. It is the time before time when spirits rose from the earth and descended from the sky to create the land forms and all living things. Nyitting stories laid down the lore for social and moral order and established cultural patterns and customs. Our Noongar Elders have the ability to comprehend the knowledge and to maintain it in an unchanging way. Noongar creation stories can vary from region to region but they are part of the connection between all living things.”

“Waugal or waug means soul, spirit, or breath. The Waugal is the major spirit for Noongar people and central to our beliefs and customs. Waugal has many different spellings, including Waakal, Wagyl, Wawgal, Waugal, Wogggal, and Waagal. The Waugal is a snake or rainbow serpent recognised by Noongar as the giver of life, maintaining all fresh water sources. It was the Waugal that made Noongar people custodians of the land. Noongar people believe that the Waugal dominates the earth and the sky and makes the koondarnangor (thunder), babanginy (lightning), and boroong (rain).”

“During the Nyitting, it created the fresh waterways such as the bilya/beelier (river), pinjar (swamps, lakes), and ngamma (waterhole). The Darling Scarp represents the body of the Waugal, which created the curves and contours of the hills and gullies. As the Waugal slithered over the land, its track shaped the sand dunes, its body scoured out the course of the rivers, where it occasionally stopped for a rest, and created bays and lakes. The Waugal rose up from Ga-ra-katta (Mt Eliza at the foot of Kings Park), and formed the Derbarl Yerrigan and the Djarlgarro Beelier (the Swan and Canning Rivers). It also created other waterways and landforms around Perth and the south-west of Western Australia. The Waugal also joins up with wetlands such as Herdsman Lake and Lake Monger, and resides deep beneath underground springs.”

“When the great Waugal created the boodja, he ensured that there was wirrin or spirits to look after the land and all that it encompassed. Some places such as the karda (hills), and ngamar (waterholes), boya (rocks), bilya/beelier (rivers) and boorn (trees) were created as sacred sites and hold wirn (spirits), both wara/mambaritj (bad) and kwop (good).”

“Noongar spiritual obligations to our spirit ancestors are maintained according to the totems that live in our environment. Some examples of Noongar totems are jirda (birds), kwooyar (frogs), gooljak, kooljark, koolyak (swans), yoon/yoondarn (goannas) and karda/caarda (lizards). Every individual has a spirit totem or an animal which we have a responsibility for and must treat them with respect. We do not eat the animal of our totem. Children are still given totem animals today to look after and preserve. It is part of maintaining our cultural traditions and a connection to all living things.”

As Noel Nannup explains, some regional variation exists within these beliefs amongst the different Noongar Nations. The importance of Country, however, and the intrinsic connection between Country, spirituality, and the People, is ever present and highly significant.

Legacy post-contact

Perth was officially settled in 1829, and the early contact between Aboriginal people and European settlers had mixed outcomes (WAM 1979). Some interactions were positive, with Aboriginal People often assisting Europeans during the early years of settlement, guiding pastoralists and settlers to various water sources and resources (Hughes-Hallet 2010). Certain supplies, such as tea, tobacco, and sugar were used as payment for the assistance of the Noongar Nations (Chisholm et al 2016). Berndt (1979) notes that the practise of paying Aboriginal People with supplies or rations altered traditional lifestyles resulting in increased interaction of both populations and an exchange of knowledge and culture.

Many interactions, however, were not positive. Several conflicts occurred over land seizure and dispossession between southwest Aboriginal populations and European settlers which resulted in extreme violence towards Aboriginal populations, including several massacres. One such massacre occurred at Pinjarra on Gnaala Karla Booja Country on 28 October 1834.

The Pinjarra massacre resulted in the deaths of 15 to 80 Binjareb People and one British colonist (Harris 2010). The encounter was led by Captain James Stirling who gathered a party of policemen,

soldiers, and settlers, and headed out to Pinjarra in retaliation against Binjareb resistance to the spread of European colonisation in the area (Curthoys and Konishi 2022). Stirling led his party to surround a Binjareb camp, where they surrounded and ambushed Binjareb People along a river, resulting in the deaths of anywhere from 15 to 80 Binjareb men, women and children (Cuthoys and Konishi 2022). Several other massacres occurred in the southwest of Western Australia but were not as well documented as the one that occurred at Pinjarra in 1834 after backlash from the British Parliament against the actions of Stirling and his men.

As European populations continued to grow, Aboriginal populations were slowly pushed off their traditional lands, and a greater demand for labour saw Traditional Owners often employed at various settlements such as pastoral stations (Berndt 1979). Noongar men often became wage labourers such as station hands and drovers while Noongar women typically performed unpaid or poorly paid domestic tasks within the household or camp (Chisholm et al. 2016; Hodson 1993).

Additionally, the establishment of various government policies saw a large number of Noongar children forced onto missions such as New Norcia to the north-northeast of Perth (Chisholm et al. 2016). Missions were run in conjunction with government legislation, ensuring the removal of children from their parents and placement in institutions for educational purposes that would ultimately feed viable workers back into the labour market (Chisholm et al. 2016; Kidd 1997). Many of the missions were marred by abuse, still functioning up until the 1960s in some areas (Chisholm et al 2016; Kidd 1997).

Margaret Gentle, a Noongar woman, recalls her experiences of the Wandering Mission:

“There’s a lot of old people who have been through there (Wandering Mission) over the years and their spirits will come back to that place. Sometimes, we will talk about that...we won’t talk about that in

the night time though. Yes, it had everything. Wandering has everything and there was sadness there too... Yes, there was that too and there's those old people who died and who keep coming back to see their children. Their spirits keep coming back. A lot of children were there before I went there [with Joe Walley in the 1970s]... Yeah, God only knows what happened before me and Joe got there."

(SWALSC 2023)

These Acts and policies were designed to remove Noongar People from their culture and traditions, and continue to have far-reaching effects on Noongar identity and society today. Various programs are in place, however, to re-generate cultural and intergenerational learning amongst the Gnaala Karla Booja People. The South West Land and Sea Council is currently working in collaboration with the Association of Independent Schools of WA to develop learning materials to be introduced into the curriculum surrounding Noongar knowledge, stories, culture, and history (SWALSC 2023c).

SWALSC has also been working in collaboration with Noongar Elders to form the Noongar Leadership Business Unit which has five core branches being the Noongar Leadership Directory, Walk with Us – Partnerships, Program Development and Delivery, Accreditation, and Evaluation (SWALSC 2023d). This business unit delivers a range of community programs aimed at transferring knowledge surrounding Noongar culture and traditional practices. These programs also focus on training Noongar People in leadership and specific community-based roles that serve to strengthen the community overall and provide Noongar People with a stronger voice when making decisions about the works and activities that are occurring on their Country.

DESKTOP METHOD

Registered Aboriginal sites are heritage places that have been assessed by the ACHC as constituting **sites** under sections 5 and 39 of the Act.

Other heritage places include places for which data has been **lodged** with the DPLH but are pending assessment by the ACHC, and places that have already been assessed by the ACHC as not constituting an Aboriginal site under the meaning of the Act (listed as **historic data / not a site**).

A desktop assessment was completed to understand the extent of heritage research undertaken to date within the project area. This research relies largely on the Aboriginal Cultural Heritage Directory maintained by the DPLH, which is a catalogue of previously recorded heritage places and prior heritage surveys within the area and submitted to the DPLH.

A shapefile of the scoped project area (Lot 13) was entered into the DPLH's Aboriginal Cultural Heritage Inquiry System (ACHIS) to learn whether any heritage surveys have previously been conducted and whether any sites are known to exist in the area.

Relevant site files and survey reports were requested from the DPLH for review, and where possible were reviewed and summarised to provide an understanding of the cultural landscape context of the project area. These reviews considered the following points:

- Whether Traditional Owners were present during the survey;
- the year a heritage survey took place;
- the scope of works informing the purpose of the survey;
- the fieldwork methodology applied during the survey;
- the results of the fieldwork; and
- the recommendations made for management of any heritage values identified.

Some of the information held by the DPLH was not accessible due to file restriction or delays due to the DPLH's administrative processes. In such cases, the inability to access information is noted in the heritage assessment results for the relevant ACH.

Any other relevant unpublished material (such as heritage reports not registered with the DPLH) was also reviewed where available and included in the heritage assessment results where relevant.

The results of the desktop assessment are provided in the 'Desktop Assessment Outcomes' section below.

Assessing risk

Following an examination of previous works conducted in the area and the heritage places known to exist in the area, the project area was designated with a 'risk rating', to indicate if the area had low, moderate, or high likelihood of containing cultural materials.

A predictive modelling technique was utilised to inform this risk rating, combining the body of archaeological and ethnographic research undertaken in the region with geological data, historical vegetation data, and hydrological information. Information about historical disturbance to the project area was also taken into consideration.

Common site types in the landscape surrounding the project area include artefact scatters (commonly comprising quartz artefacts and commonly recorded surrounding permanent or ephemeral water sources), scarred trees, historic camp or reserve areas, and landforms associated with dreaming narratives.

Areas defined as being of **high risk** were determined by proximity to known sites and landforms associated with known site types. Areas are also of a higher risk of containing cultural material if they have been relatively undisturbed or if there is recorded ethnographic commentary relating to specific historic use of the area, associated stories, or dreaming narratives.

Moderate risk areas were defined by their proximity to high risk areas, as well as by the potential for these areas to represent spaces where ancestral Gnaala Karla Booja people moved between key landscape features. Additionally, weight was given to areas situated within flood ways, where objects may have collected following inundation events.

Low risk areas were defined by their low likelihood of containing cultural material. These areas are located further from key landscape features or have been heavily disturbed by historic industry or development.

The results of this risk assessment are presented in the results maps in the 'Desktop assessment outcomes' section of this report and are explained further in the 'Discussion' section below.



[Aboriginal Heritage Act
1972](#)

[Aboriginal and Torres
Strait Islander Heritage
Protection Act 1984](#)

LEGISLATION

Information contained within this report has been developed in primary consideration of the amended [Aboriginal Heritage Act 1972](#). The AH Act provides statutory protection to Aboriginal heritage places in Western Australia, as well as a statutory pathway for development activities that may cause harm to Aboriginal heritage sites.

Consideration is also given to the [Aboriginal and Torres Strait Islander Heritage Protection Act 1984](#) (ATSIHPA), which is Federal legislation that may provide additional protection for areas and objects of particular significance to Aboriginal and Torres Strait Islander people.

DESKTOP ASSESSMENT

OUTCOMES

At the completion of the desktop survey, the following results were identified in relation to the Project Area:

- **No** ACHIS registered Aboriginal sites are located within the Project Area;
- **no** other places of Aboriginal cultural heritage are currently known to exist within the Project Area;
- **five** ACHIS registered previous surveys were found to intersect the Project Area and of these,
 - **four** were broad scale reports covering a large portion of the Perth Metro area that did not contain specific reference to the Project Area, and
 - **one** survey (regarding Kwinana Quay) was fine grain but unable to be accessed at the time of reporting; and
- **one** identified heritage report not listed on ACHIS is deemed relevant to the Project Area.

Several environmental reports supplied by Western Energy were also reviewed for consideration of heritage values for this report. These results are illustrated in the below maps of the KSPS Project Area. Following from analysis of these results, the Lot 13 KSPS project area was determined to be at **low risk** of containing Aboriginal cultural heritage. An examination and discussion of these results and their associated implications in relation to the project area are extrapolated in the Discussion and Recommendations sections below.

Limitations

Western Energy should note that previously identified heritage sites may exist within the Project Area that have not been registered on ACHIS, and as such, are not reflected in the ACHIS search results. Heritage sites may also exist within the Project Area that have not

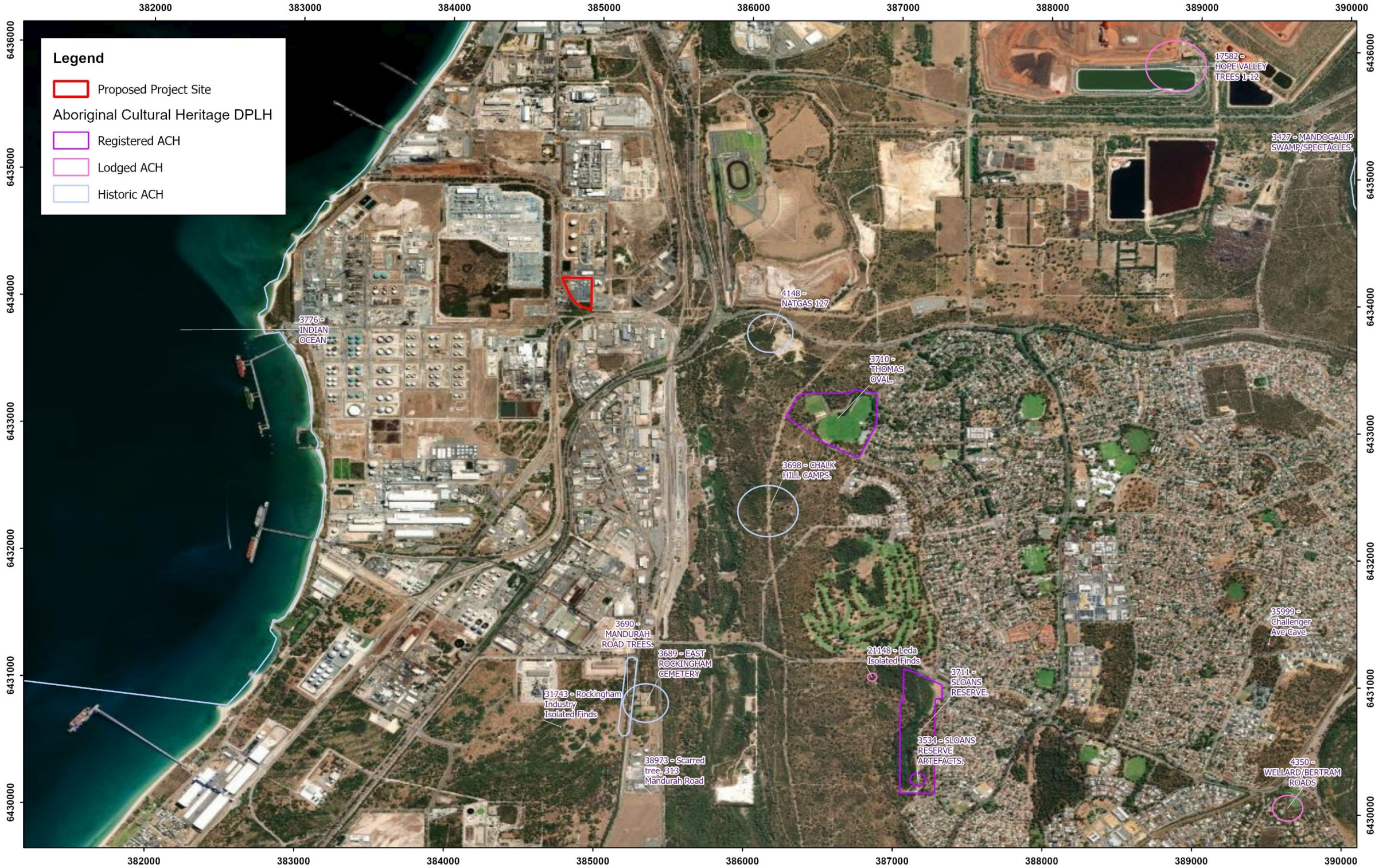
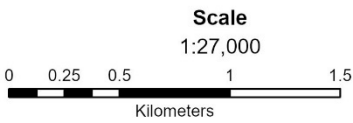
yet been identified. As such, Western Energy should note that the results of this desktop assessment are not infallible and have been provided in good faith with the knowledge available at the time of assessment.

The identification of heritage sites is also often directly related to areas where targeted heritage surveys have taken place. As such, if survey coverage has been 'patchy' or too broadscale, there is increased likelihood that there are heritage sites present within the survey area that are not reflected in the ACHIS search results.

The predictive modelling techniques used to predict risk can be a powerful planning tool but carry several intrinsic limitations. First, the availability and quality of existing archaeological site data is likely to be biased toward more easily discovered or studied sites. For example, surface artefact scatters may be the most commonly encountered site type in the region because subsurface cultural material is rarely unearthed except for accidental disturbance. Secondly, past archaeological research was often undertaken without consulting the relevant Traditional Owner group on whose land sites were located. Ignoring the input and expertise of Indigenous communities' risks producing models that lack cultural sensitivity or relevance. A collaborative approach involving Indigenous communities and centred on the principle of informed consent can mitigate some of this risk.


Known Heritage Sites in Surrounding Area of Proposed Project Area

Job №: GKB2402 Coordinate System: GDA94 MGA Zone 50
Date: 29/11/2024 Author: HernandoTangjaya
Disclaimer: The information in this map is accurate as at the date of issue. Spatial accuracy level of +/- 15m unless otherwise noted.



Proposed Project Site Map

Job №: GKB2402 Coordinate System: GDA94 MGA Zone 50
Date: 29/11/2024 Author: HernandoTangjaya
Disclaimer: The information in this map is accurate as at the date of issue. Spatial accuracy level of +/- 15m unless otherwise noted.




Scale

1:7,000

0 0.25 0.5

Kilometers





DISCUSSION

Of the different survey reports reviewed for this report, the 2008 ethnographic investigation undertaken by O'Connor and archaeological investigation undertaken by Quartermaine in the same year are the most directly relevant. These reports were not listed on the ACHIS database and were supplied to Terra Rosa by Western Energy. These investigations were undertaken prior to the initial construction of the Power Station and noted the high level of previous ground surface disturbance visible at Lot 13. O'Connor reviewed previous publications, including those of early anthropologists Hammond, Bates, and Tindale, and found no direct references to the project area. The site was physically inspected by Quartermaine, who noted that the extensive ground disturbance would leave little likelihood for any Aboriginal cultural material to remain in situ. Neither O'Connor nor Quartermaine consulted with Gnaala Karla Booja people during their investigations and both recommended that no further heritage investigation be required prior to construction of the Power Station due to the low likelihood for the presence of Aboriginal sites or cultural material.

Review of the heritage reports listed on ACHIS found five that intersect the project area. Of these, two relate to the same broadscale ethnographic investigation undertaken by Machin in 1994, covering the area from Rockingham to Two Rocks and extending into the Indian Ocean to the west and the Darling Scarp to the east (Machin 1994a, Machin 1994b). Two other reports are similarly broad in scope, covering much of the Perth Metropolitan area, and don't contain any specific references to the project area (O'Connor 1985, University of Western Australia 1971). One report (Fisher 2008) covers a roughly six km stretch of the coast, extending back to Rockingham Road, with the Lot 13 project area being situated in its southernmost extent. This report was unable to be accessed at the time of reporting due to administrative delays associated with requesting files from the DPLH. The Fisher report may contain relevant contextual information for the broader area, but as it was published in the same year as the Quartermaine and O'Connor investigations and covered a much broader area, it's unlikely to supply any directly relevant information not explored by Quartermaine and O'Connor.

No registered sites or OHPs (lodged sites or historic data) were found to intersect the Project Area when the Lot 13 shapefile was input to ACHIS. There are, however, several OHPs and registered places within two kilometres of the Project Area. NATGAS127 (DPLH OHP ID 4148) is located 1.1 km east-southeast of Lot 13 and was discussed in Quartermaine's 2008 analysis of the project area. At the time of recording, the site comprised calcrete artefacts situated in a quarry area, but due to the site's historic status it is unclear whether those features have been impacted or are still in situ. Further to the southeast is registered site Thomas Oval (DPLH ID 3710), a camping ground utilised by local Aboriginal people in the 1920s, located 1.6 km from the project area. Another historic site, Chalk Hills Camp (DPLH OHP ID 3698), is located 1.8 km southeast of the project area. This camping ground was utilised in the 1950s and 1960s

during a period of relocation from farms to urban environments and is also of note as one of the last places that a local council bulldozed an Aboriginal family's accommodation and property (c. 1960s). Notably, the Chalk Hill Camp is associated with a string of freshwater lakes. 1.9 km to the west of the project area, a section of the Indian Ocean is represented by historic site Indian Ocean (DPLH OHP ID 3776).

Analysis of pre-contact vegetation and significant landforms can speak to the ways that ancestral Gnaala Karla Booja people utilised and moved across the landscape and can inform predictions of where cultural material may persist. Historic vegetation data indicates that around the time of European contact, the project area existed as a mixed coastal heath landscape scattered with tall shrubs (*Acacia spp.*, *Proteaceae*, and *Myrtaceae*). Beginning roughly half a kilometre further inland from the project area, taller *Myrtaceae* like Jarrah and Marri would have become more dominant. Ancestral Gnaala Karla Booja people moved between seasonally available resources in the hills and coastal plains, often following stream courses between nodal camping places centred around sources of permanent water (Hallam 1975). Ethnohistorical accounts from the early 1800s describe local Aboriginal groups coming down from a winter season in the hills and gathering in larger groups to camp around permanent or semi-permanent fresh water sources on the coastal plain in the summer (University of Western Australia 1971). There are no such fresh water sources immediately proximate to the project area- the closest significant water sources are Paperbark Swamp (5 km to the east), Bollard Bulrush Swamp (6 km southeast), and Long Swamp (7.7 km northeast). These places are far more likely to have supported the lifeways of Aboriginal people moving through the landscape, and it is unlikely that long-term habitation would have been supported at the project area.

The ground's surface within the project area comprises a white, calcareous, fine to medium-grained sand known as Safety Bay Sand (Golder Associates 2007). Gnaala Karla Booja people have memories and oral histories of burials in coastal sand dunes, and there is some limited possibility that one such internment exists within the project area. There are several known burials of this type in the area at the registered Thomas Road site (DPLH ID 38661) 7 km to the east of the project area and the lodged Rockingham burial site (DPLH ID 22889, file unable to be accessed) located 9.5 km to the southwest. If a burial is encountered during the course of the proposed works, an immediate stop-works procedure should be triggered and both the Western Australian Police (in following with state law) and the Gnaala Karla Booja Aboriginal Corporation should be notified.

The environmental reports provided by Western Energy supply a detailed history of land use within the project area and describe significant disturbance to the ground's surface. Unsealed roads are visible in aerial photographs as early as 1953, and the project area was utilised for the crushing of blast furnace slag by CSR Readymix between 1970 and up to at least 1997 (Golder 2007). Quartermaine also notes the extensive disturbance in his 2008 report, reporting that the full extent of Lot 13 has experienced surface disturbance. Following his conclusions, it is highly improbable that any Aboriginal cultural material remains that may have once existed

on the ground's surface. As the level of subsurface disturbance is unclear, however, there is still some level of risk for subsurface cultural material to remain.

Due to the extensive levels of historic and recent disturbance, the lack of accessible fresh water or other significant landforms, and the lack of remnant vegetation, the Lot 13 project area has been designated as **low risk** for containing Aboriginal cultural heritage that may be harmed by the proposed power station upgrades. To mitigate the remaining risk of accidental disturbance to subsurface materials or a burial place, a comprehensive stop-works procedure should be drafted and any contractors or employees working at the site be made aware of potential risks to Aboriginal cultural heritage. The Gnaala Karla Booja Aboriginal Corporation should also be contacted before any works begin and supplied with details of the proposed works to ensure clear and open communication as the project moves forward.

RECOMMENDATIONS

Western Energy is advised that following review of available data, the Lot 13 project area is considered to be at low risk of containing Aboriginal cultural material or sites

1

The desktop analysis for the KSPS expansion project weighed available archaeological, ethnographic, and environmental reports alongside geological, hydrological, and historic vegetation data to find a very low likelihood of the presence of cultural material at the project area. No further archaeological or ethnographic investigation is considered to be necessary. While low, risk is not non-existent, and the following recommendations outline further risk management and mitigation to be implemented.

Western Energy is advised to liaise with Gnaala Karla Booja Aboriginal Corporation (GKBAC) prior to the commencement of the proposed works

2

As no direct consultation with Gnaala Karla Booja occurred during the initial heritage investigation for the KSPS, it is recommended that Western Energy contacts GKBAC to supply information about the planned works and provide opportunity for comment. The establishment of an open line of communication prior to the beginning of works will greatly assist in the event cultural material is encountered during works.

3

Western Energy is advised to design and implement a comprehensive stop-works procedure to be triggered if any cultural heritage material is encountered during the course of the proposed works

This stop-works procedure will ensure that any accidentally uncovered or disturbed cultural materials are appropriately identified and managed. In the case of discovery of human remains, both the Western Australia Police and GKBAC should immediately be notified.

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APPENDICES

Appendix A – Project contacts

Appendix B – Acronyms and definitions

Appendix A – Project contacts

The contact details of the heritage project stakeholders are provided below.

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Appendix B – Acronyms and definitions

The following terms and acronyms are used in this report. Definitions are provided below for reference

Term / abbreviation	Definition
Aboriginal object	An object that is a tangible element of Aboriginal cultural heritage, to which the AH Act applies under section 6.
Aboriginal place / heritage place / heritage site	An area in which tangible elements of Aboriginal cultural heritage are present. Note: heritage place / heritage site may be used interchangeably with Aboriginal place throughout this report.
ACH	Aboriginal Cultural Heritage
AH Act	<i>Aboriginal Heritage Act 1972 (WA)</i>
ACHC	Aboriginal Cultural Heritage Council
ACHIS	Aboriginal Cultural Heritage Information System
ACHknowledge	The DPLH's online submission portal for their Directory of ACH.
CHMP	Cultural heritage management plan.
Cultural landscape	A group of areas interconnected through tangible and/or intangible elements of Aboriginal cultural heritage.
DPLH	Department of Planning, Lands and Heritage
GIS	Geographic information system
GPS	Global positioning system
Historic ACH	Historic ACH are heritage places classified by the DPLH as: <ul style="list-style-type: none"> • An archived boundary for a heritage place; or • A heritage place that did not meet the definition of an Aboriginal site under the meaning of s5 of the <i>Aboriginal Heritage Act 1972</i>. This evaluation may have been undertaken regardless of the significance placed on the site by the Traditional Owners. In some instances, where no developmental works have impacted on or destroyed those places, heritage values associated with stored OHPs may still remain in situ.
Isolated artefacts	Cultural material with insufficient density or context to constitute a Aboriginal place / heritage place / heritage site, but is recorded at the request of the Traditional Owners.
Lodged ACH	Lodged ACH are heritage places that have been submitted to the DPLH for consideration under s5 and s39 of the AH Act, but have not yet been evaluated by the ACHC for registration.
MGA	Map grid of Australia
NNTT	National Native Title Tribunal
Registered ACH	Registered ACH are heritage places that have been evaluated by the ACHC and have been assessed as meeting the requirements for registration under s5 and s39 of the AH Act.
Terra Rosa	Terra Rosa Consulting
Traditional Owners	Marlinyu Ghoorlie native title claimants (NNTT no WC2017/007) and invited survey participants / representatives. Marlinyu Ghoorlie members include Karlamaya, Karlaku and/or Kapurn people, and may also be referenced in this way throughout this document.

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