



# Pottinger Wind Farm

Aboriginal Cultural Heritage  
Assessment Report

PREPARED FOR



RPS on behalf of Pottinger  
Renewables Pty Ltd

DATE

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# Pottinger Wind Farm

## Aboriginal Cultural Heritage Assessment Report

0707548



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## ACRONYMS AND ABBREVIATIONS

Acronyms	Description
AAR	Aboriginal Ancestral Remains
AC	Alternating Current
ACHAR	Aboriginal Cultural Heritage Assessment Report
ACHMP	Aboriginal Cultural Heritage Management Plan
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit
AMSL	Above Mean Sea Level
ATSIHP Act	<i>Aboriginal and Torres Strait Islander Heritage Protection Act 1984</i>
BESS	Battery Energy Storage System
CMT	Culturally Modified Tree
EIS	Environmental Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>NSW Environmental Planning and Assessment Regulation 2000</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
ERM	Environmental Resources Management Australia Pty Ltd
ESD	Ecologically Sustainable Development
DC	Direct Current
FTE	Full Time Equivalent
GDA	Geocentric Datum of Australia
GPS	Global Positioning System
GWh	Gigawatt hours
ha	Hectares
ICOMOS	International Council on Monuments and Sites
IHO	Interim Heritage Order
ka	One thousand years ago (kilo annum)
km	Kilometres
kV	Kilovolt
LALC	Local Aboriginal Land Council

Acronyms	Description
LEP	Local Environmental Plan
LGA	Local Government Area
m	Metres
MW	Megawatt
NPW Act	<i>National Parks and Wildlife Act 1974</i>
NSW	New South Wales
NTS Corp	Native Title Services Corporation
O&M	Operations and Maintenance
PAD	Potential Archaeological Deposit
PCU	Power conversion unit
PV	Photovoltaic
RAP	Registered Aboriginal Party
REZ	Renewable Energy Zone
RNE	Register of National Estate
RPS	RPS AAP Consulting Pty Ltd
SEARs	Secretary's Environmental Assessment Requirements
SSD	State Significant Development
SU	Survey Unit
WTG	Wind Turbine Generator

## TERMINOLOGY LIST

Term	Definition
Project	A wind farm as described in Section 3 in the EIS to which this Application applies
Project Area	Red boundary shown on key figures to which the Application applies (unless otherwise stipulated)
Applicant	Someva Pty Ltd
Pottinger Energy Park	Combination of the Solar Farm and Wind Farm projects for which separate Applications are being made
Application	Application for Development Consent under Part 4.7 of the EP&A Act; and Determination under Part 9 of the EPBC Act
Due Diligence	Environmental assessment process by which minor Project components may be located within the Project Area but external to the Survey Area as stipulated in Section 3 of the EIS during the detailed design (post-approval) phase.
Survey Area	Area surveyed within the Project Area within which detailed assessment has been consistently undertaken for all field studies. The Project components may be moved and/or micrositied within this boundary during detailed design.
Disturbance Footprint	Direct maximum Project-related disturbance in hectares. Largely within the Survey Area except where detailed in Section 3 of the EIS.

*ERM would like to acknowledge the Traditional Owners of the Hay and Deniliquin regions and pay respects to their Elders past, present, and emerging. We acknowledge and respect their Indigenous knowledge systems and recognise continuing connection to lands, waters, culture, and community.*

## EXECUTIVE SUMMARY

Environmental Resources Management Australia Pty Ltd was engaged by RPS AAP Consulting Pty Ltd to conduct an Aboriginal Cultural Heritage Assessment Report (ACHAR) for the Pottinger Wind Farm (the Project) for Pottinger Renewables Pty Ltd.

The Project includes the construction, operation and decommissioning of a wind farm and associated infrastructure with a targeted electricity generation capacity of 1.3 gigawatt. The Project Area covers 26,400 hectares. It is located 60 kilometres south of Hay in the rural locality of Booorooban in south-western New South Wales, entirely within the South West Renewable Energy Zone.

The Project will be assessed as a State Significant Development application under Part 4, Division 4.7 of the *Environmental Planning and Assessment Act 1979* (SSD-59235464), as an appendix to the Environmental Impact Statement for the Project.

This ACHAR has been prepared to identify, assess, and develop management recommendations for any identified Aboriginal cultural heritage within the Project Area. This ACHAR provides details of the proposed assessment and survey methodology for the Project. Preparation has included Aboriginal community consultation with the Registered Aboriginal Parties (RAPs) who have expressed interest in the overall Project. RAPs were provided with the methodology, and this ACHAR, for review and comment.

The following is a summary of the findings of this ACHAR:

- Three previously registered Aboriginal sites are located within the Project Area;
- A total of 111 new Aboriginal sites were identified within the Project Area during the development of this ACHAR (comprising Artefacts, Hearths, Potential Archaeological Deposits (PAD), Culturally Modified Trees (CMT) and Earth Mounds);
- Based on the current disturbance footprint harm to 53 sites (both site extents and their buffer, if applied) has been identified; and
- Of these 53 sites, 17 will be directly impacted (High impact) by the disturbance footprint:
  - AHIMS #48-6-0166: Artefact, Hearth;
  - PSF 04: Artefact;
  - PSF 05: Artefact, Hearth, PAD;
  - PSF 12: Artefact;
  - PWF SUB 01: Artefact;
  - PWF SUC 04: Artefact, Hearth, PAD;
  - PWF SUC 12: Artefact, Hearth;
  - PWF SUD 04: PAD, CMT
  - PWF SUD 06: CMT;
  - PWF SUG 08: Artefact, Hearth, PAD;
  - PWF SUG 09: Artefact, Hearth, PAD;
  - PWF SUG 10: Artefact, Hearth, PAD;
  - PWF SUG 13: Artefact, Hearth;
  - PWF SUG 18: Artefact;

- PWF SUG 20: Artefact, Hearth, PAD;
- PWF SUG 31: Artefact, Hearth, PAD; and
- PWF SUG 35: Artefact.

Proposed key measures to manage and mitigate impacts by the Project to identified heritage sites are summarised below:

**Project Redesign and Micro-siting:**

- Preservation and management of Aboriginal sites and heritage values will form a key objective of development controls for the Project. It should be noted that substantial amendments to the project disturbance footprint in February 2024 have reduced direct impact to fifteen sites; ten sites from high to moderate and five sites from high to low. Indirect impacts (where the disturbance footprint was within site buffers) has also been reduced to a further six sites;
- ERM recommends further changes to the Project design to avoid impacting 17 Aboriginal sites identified above, in particular PAD, Hearth and CMT sites; and
- Micro-siting of project elements should be used as a mitigation measure to avoid disturbing Aboriginal cultural heritage sites. Micro-siting should occur within the boundary of the area previously surveyed; this area is referred to as the 'survey area' throughout the report. If micro-siting was to occur within any areas that have not been previously surveyed, additional survey will need to be undertaken.

**Site Buffers:**

- As per discussions and a request from Hay Local Aboriginal Land Council and Deniliquin Local Aboriginal Land Council, a buffer of 200 m has been provided to recorded PADs and Earth Mounds, a buffer of 100 m has been provided to recorded hearths, and a buffer of 50 m has been provided to CMTs.

**Salvage works and Monitoring:**

- Twenty-two recorded PADs and one Earth Mound are within the current proposed disturbance footprint and will be subject to varying levels of impact. PSF 02 (PAD), PWF SUB 12 (PAD), and PWF SUD 04 (PAD, CMT) have unknown heritage significance (as they were not associated with visible archaeological material such as hearths, or artefacts); therefore, test excavation is recommended to assess the potential deposit for these three sites. Any artefacts uncovered during test excavation should be salvaged. Hay LALC, Nari Nari Tribal Council, and Deniliquin LALC, during the consultation process, requested that this test or salvage excavation should be completed under the authorisation of the Minister's Conditions of Approval, to avoid unnecessary impact to sites. This request was supported by ERM and Someva, in accordance with *Leading Practice Principles: First Nations and Renewable Energy Projects*, namely Principles 1 and 3, which focus on respectful engagement and the preservation and protection of cultural heritage. Should test excavation determine that sites are significant, micro-siting of project elements should occur to avoid impact to these sites;

- Salvage excavation is recommended for the remaining twenty PAD and Earth Mound sites, as visible archaeological material was identified during the survey:
  - PSF 03: Artefact, PAD;
  - PSF 05: Artefact, Hearth, PAD;
  - PSF 06: Artefact, Hearth, PAD;
  - PSF 10: Artefact, PAD;
  - PSF 11: Artefact, PAD;
  - PWF SUC 04: Artefact, Hearth, PAD;
  - PWF SUB 09: Artefact, Hearth, PAD;
  - PWF SUD 12: Earth Mound, Hearth;
  - PWF SUG 01: Artefact, PAD;
  - PWF SUG 02: Artefact, PAD;
  - PWF SUG 06: Artefact, PAD;
  - PWF SUG 07: Artefact, PAD;
  - PWF SUG 08: Artefact, Hearth, PAD;
  - PWF SUG 09: Artefact, Hearth, PAD;
  - PWF SUG 10: Artefact, Hearth, PAD;
  - PWF SUG 15: Artefact, Hearth, PAD;
  - PWF SUG 20: Artefact, Hearth, PAD;
  - PWF SUG 23: Artefact, PAD;
  - PWF SUG 31: Artefact, Hearth, PAD; and
  - PWF SUG 32: Artefact, Hearth, PAD.
- Micro-siting of the proposed site entrance to avoid site PSF 12 and buffers of sites PSF 10 and PSF 11 is not recommended. Consideration should be given to building up the access road (within the site extents and buffers), in preference to grading or scraping the road. It was requested by Hay LALC that, should any subsurface disturbance associated with the site entrance construction occur within the buffers of PSF 10 and PSF 11, or site extent of PSF 12, monitoring by their representatives should be undertaken to mitigate impacts to these sites.

**Aboriginal Cultural Heritage Management Plan:**

- An Aboriginal Cultural Heritage Management Plan (ACHMP) should be developed to record and describe the processes and procedures required to be implemented regarding Aboriginal cultural heritage prior and during the construction and operational phases of the Project. This should be developed in partnership with the Traditional Owners and should at a minimum include:
  - Where harm to sites is unavoidable through micro-siting of turbines and other infrastructure, archaeological test excavation or salvage excavation should be undertaken for areas of PADs or Earth Mounds which may be subject to harm as part of clearing of the disturbance footprint. A detailed test and salvage excavation methodology would be included within the ACHMP. Hay LALC, Nari Nari Tribal Council, and Deniliquin LALC requested that this test or salvage excavation should be completed under the authorisation of the Minister's Conditions of Approval, to avoid unnecessary impact to sites.
  - Measures to manage archaeological material that needs to be relocated away from development activities;
  - Measures such as fencing or signage be installed during and possibly post the construction phase to protect and conserve archaeological material that will not be impacted by development activities;
  - The requirements regarding heritage training and inductions for employees and contractors;
  - Any requirements regarding monitoring of ground disturbance activities by Traditional Owners;
  - The development and provision of cultural awareness training by Traditional Owners; and
  - An Unexpected Finds Protocol that includes mechanisms for managing the expected finds of additional Aboriginal cultural material being found during construction activities.

- The Applicant should consider the appointment and training of a Traditional Owner liaison/s to provide cultural awareness training and assist with the implementation of the ACHMP;
- No mitigation measures are recommended for twenty-eight newly recorded sites within the Project Area as they have low potential to be impacted by the current disturbance footprint:
  - PSF 07: Artefact;
  - PWF SUB 02: Artefact;
  - PWF SUB 03: Artefact;
  - PWF SUB 05: Artefact;
  - PWF SUB 06: Artefact;
  - PWF SUB 08: Artefact;
  - PWF SUB 10: Artefact;
  - PWF SUB 11: Artefact;
  - PWF SUC 05: Artefact;
  - PWF SUC 06: Artefact;
  - PWF SUC 07: Artefact;
  - PWF SUC 09: Artefact;
  - PWF SUC 11: Artefact;
  - PWF SUD 09: Artefact;
  - PWF SUE 01: Artefact;
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  - PWF SUG 26: Artefact;
  - PWF SUG 28: Artefact;
  - PWF SUG 29: Artefact;
  - PWF SUG 33: Artefact; and
  - PWF SUG 34: Artefact.

## 1. INTRODUCTION

Environmental Resources Management Australia Pty Ltd (ERM) was engaged by RPS AAP Consulting Pty Ltd (RPS) to conduct an Aboriginal Cultural Heritage Assessment Report (ACHAR) for the Pottinger Wind Farm (the Project) for Pottinger Renewables Pty Ltd (the Applicant).

The Project includes the construction, operation and decommissioning of a wind farm and associated infrastructure with a targeted electricity generation capacity of 1.3 gigawatt (GW). The Project Area covers 26,400 hectares (ha) as shown on *Figure 1.1*. It is located 60 kilometres (km) south of Hay in the rural locality of Booorooban in south-western New South Wales (NSW), entirely within the South West Renewable Energy Zone (REZ).

The impacts and proposed mitigation for heritage values from the proposed construction, operation and decommissioning phases of the Project are addressed in this report in accordance with relevant regulatory requirements and guidelines (this assessment).

This report supports a State Significant Development (SSD) Development Consent application under Part 4, Division 4.7 of the *Environmental Planning and Assessment Act 1979* (SSD-59235464), as an appendix to the Environmental Impact Statement (EIS) for the Project. Each is listed in *Table 1.2* which also indicates where each is addressed.

The following guidelines have been considered in this assessment:

- *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010a) (Consultation Requirements);
- *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010b) (Code of Practice);
- *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011) (ACHAR Guide);
- *Leading Practice Principles: First Nations and Renewable Energy Projects* (Clean Energy Council 2024); and
- *The Australia International Council on Monuments and Sites, Charter for Places of Cultural Significance* (also known as the Burra Charter, Australia ICOMOS 2013) and relevant Practice Notes.

### 1.1 OBJECTIVES

This report aims to:

- Identify Aboriginal heritage resources within the Project Area, including archaeological and intangible cultural heritage values;
- Present the results of Aboriginal community consultation undertaken during the preparation of this report;
- Review relevant Aboriginal heritage databases;
- Review historical and environmental contextual data;
- Utilise sourced background information to develop predictive models for the presence of Aboriginal heritage within the Project Area;
- Document the results of an Aboriginal heritage field survey;

- Assess the significance of identified Aboriginal heritage values;
- Evaluate the impact of the proposed works on any identified Aboriginal heritage resources; and
- Provide recommendations for the mitigation of impacts and management of identified Aboriginal heritage resources.

## 1.2 DESCRIPTION OF THE PROPOSED DEVELOPMENT

The Applicant seeks in perpetuity approval for the construction, operation and decommissioning of a 1.3 GW wind farm, electrical infrastructure, other infrastructure and ancillary activities generally including the following components:

- Up to 247 Wind Turbine Generators (WTGs) of which each has a tip height of up to 280 m and capacity up to 8 megawatt (MW);
- Electrical reticulation network:
  - Up to six substations and 13 transformers;
    - One Battery Energy Storage System (BESS) 33/330 kilovolt (kV) substation with three transformers;
    - Internal 33 kV, 66 kV, 132 kV, or 330 kV electrical reticulation network and infrastructure connecting to the 330 kV Project EnergyConnect line via a switchyard and collector station; and
  - Approximately 500 MW / 2 gigawatt hours (GWh) BESS;
- Other temporary and permanent infrastructure including:
  - Operations and Maintenance (O&M) facility and infrastructure including site office, control room, storage facilities, car parking and fencing;
  - Accommodation facilities;
  - Construction and operational compounds;
  - Hardstands for WTGs and other infrastructure;
  - Internal access tracks and road turning head connecting Project infrastructure;
  - Meteorological masts; and
  - Concrete batching plants, crushing facilities, gravel / borrow pits, construction laydown areas;
- Ancillary activities including sourcing of materials and equipment for construction; sourcing of water for construction; subdivision and boundary adjustments, visual screening and associated ancillary works;
- Access road use via four locations and Project-required upgrades:
  - Project Area access: via the Cobb Highway from Jerilderie Road in the north east, from Wargam Road in the west, from East West road in the south and West Burrabogie Road in the west, as well as emergency access; and
  - Wind farm major components transported via Port Adelaide;
- Operational workforce of up to 50 Full Time Equivalent (FTE) and construction up to 900 FTE;
- Construction generally within standard construction hours and operations 24 hours per day seven days per week; and

- Disturbance footprint of up to 1,066 ha.

No external transmission lines or associated easements are currently anticipated for the Project. Some of the Project-associated infrastructure will be shared with the Pottinger Solar Farm (the subject of a separate application) as generally shown within the white dashed boundary on *Figure 1.2*.

### 1.3 METHODOLOGY

This ACHAR examines Aboriginal heritage values within the Project Area. This report has been prepared in accordance with the guidelines listed in *Section 1*.

Preparation of this report includes:

- Desktop research and archaeological site database searches;
- Review of previous assessment for the Project Area, and within the local area;
- Consultation with the local Aboriginal community;
- Field surveys to inform this ACHAR were undertaken by ERM and RAP representatives between 6-10 November 2023, 4-8 December 2023, 29 January to 9 February 2024, and 23 February 2024.
- Assessment of heritage significance;
- Impact assessment; and
- Preparation of management and mitigation recommendations.

On 27 February 2024 a meeting was attended by Angela Rozali and James Nicholas (Someva); Dianne Munro (RPS), Erin Finnegan, Lorien Perchard and Victoria Gleeson (ERM); and Nicola Roche and Alison Lamond (Heritage NSW) to discuss the heritage constraints of the Project and draft recommendations. Several requests from Heritage NSW for the inclusion of additional information were actioned throughout this report, summarised in *Table 1.1*.

**TABLE 1.1 SUMMARY OF HERITAGE NSW REQUESTS FOR INFORMATION AND WHERE ADDRESSED IN REPORT**

Heritage NSW Request	Section addressed in this report
Description of how site and PAD boundaries were defined (considering entirety of the landscape)	<i>Section 3.4.2 and Section 3.4.3</i>
Detailed methodology for proposed test and salvage excavation, including capacity for any Project redesign	<i>Section 10.1 and Section 11</i>
Hay LALC and Deniliquin LALC's preferred test and salvage excavation approach in writing	Preferred approach was not provided in writing at the time of report finalisation.
Commitment by the Proponent to additional survey where detailed Project design microsites outside the designated survey area	<i>Section 11.2</i>

## 1.4 SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS (SEARS)

The SEARs (SSD-59235464) for the Project were issued on 10 July 2023. The requirements for Aboriginal heritage assessment and where they have been addressed is summarised in *Table 1.2*.

**TABLE 1.2 SUMMARY OF SEARS REQUIREMENTS FOR ABORIGINAL CULTURAL HERITAGE AND WHERE ADDRESSED IN THE CURRENT REPORT**

SEAR	Section addressed in this report
An assessment of the impact to Aboriginal cultural heritage items (archaeological and cultural) in accordance with the <i>Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW</i> (OEH, 2011) and the <i>Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW</i> (DECCW 2010), including results of archaeological test excavations (if required); and	Whole report
Provide evidence of consultation with Aboriginal communities in determining and assessing impacts, developing options, and selecting options and mitigation measures (including the final proposed measures), having regard to the <i>Aboriginal Cultural Heritage Consultation Requirements for Proponents</i> (DECCW 2010).	Section 4 and Section 11

## 1.5 AUTHORSHIP

A summary of the ERM staff involved in the preparation of this report and their relevant qualifications is provided in *Table 1.3* below.

**TABLE 1.3 SUMMARY OF AUTHORS AND REVIEWER'S QUALIFICATIONS**

Name	Title	Role	Relevant Qualifications and years of experience in cultural heritage management
Lorien Perchard	Managing Consultant - Heritage	Fieldwork, Data manager, Author	<ul style="list-style-type: none"> <li>Bachelor of Arts (Archaeology; Ancient History), University of Queensland, 2010</li> <li>Bachelor of Archaeology Honours, University of Queensland</li> <li>Thirteen years' professional experience</li> </ul>
Victoria Gleeson	Senior Consultant - Heritage	Fieldwork, Data manager, Author	<ul style="list-style-type: none"> <li>Bachelor of Archaeology (Anthropology), Macquarie University, 2017</li> <li>Five years' professional experience</li> </ul>
Mia Linton-Smith	Consulting Senior Associate – Heritage	Fieldwork, Data manager	<ul style="list-style-type: none"> <li>Bachelor of Arts (Archaeology), University of Queensland</li> <li>Two years professional experience</li> </ul>

Name	Title	Role	Relevant Qualifications and years of experience in cultural heritage management
Erin Finnegan	Technical Consulting Director - Heritage	Technical Review	<ul style="list-style-type: none"> <li>• Bachelor of Arts (Cultural Anthropology), Macalester, 1998</li> <li>• Post Graduate Diploma – Museum and Heritage Studies, University of Cape Town 2003</li> <li>• Master of Philosophy (Archaeology), University of Cape Town, 2006</li> <li>• 19 years' professional experience</li> </ul>
Lucy Baker	Partner	Quality Assurance Review	<ul style="list-style-type: none"> <li>• Master of Environmental Engineering Management, University of Technology Sydney, Australia, 2008</li> <li>• Graduate Diploma of Management, Deakin University, Australia,</li> <li>• Bachelor of Engineering Civil, University of Technology Sydney, Australia, 1990</li> <li>• Registered Planner with Planning Institute of Australia</li> <li>• 30 years' professional experience</li> </ul>

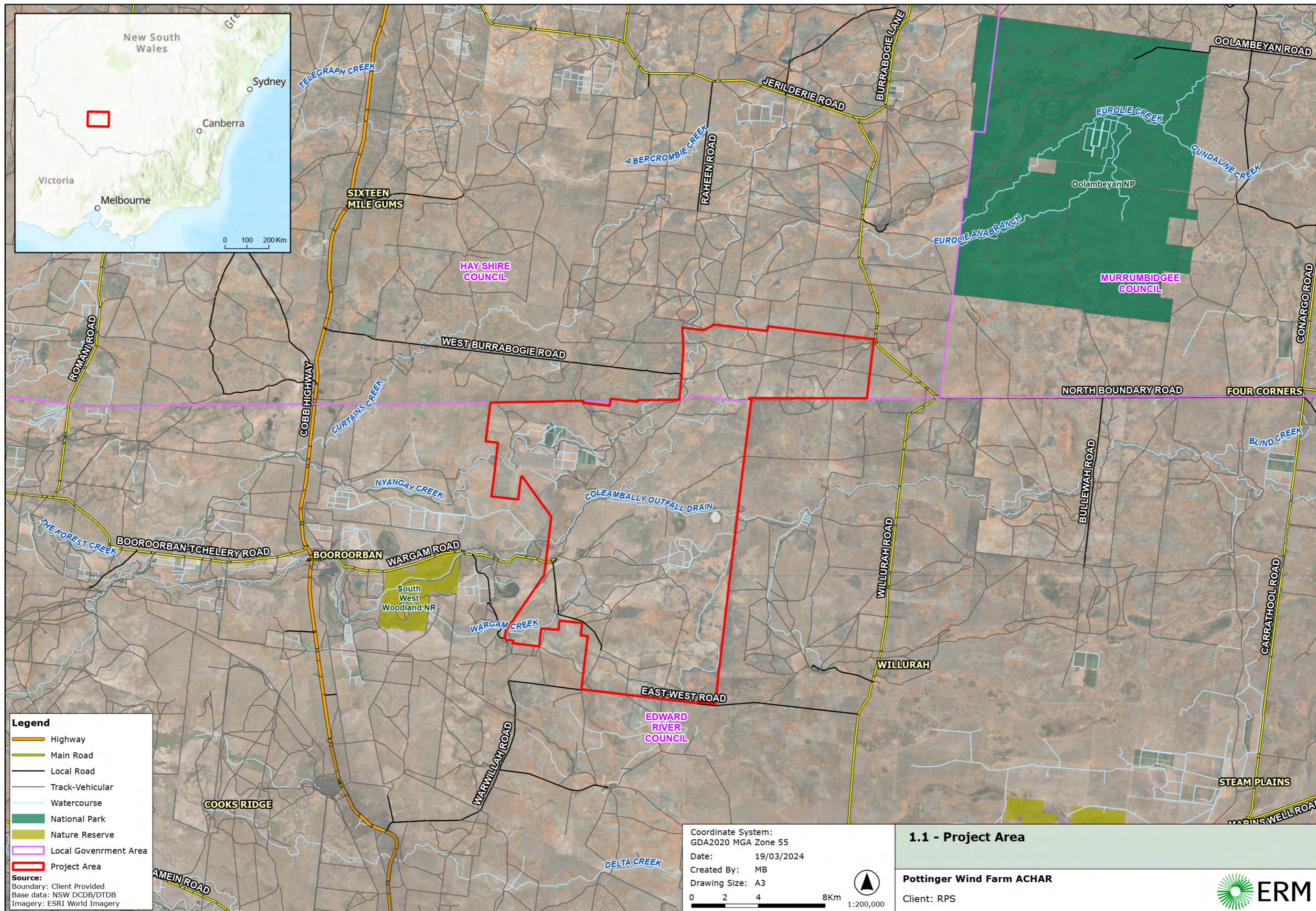
## 1.6 LIMITATIONS

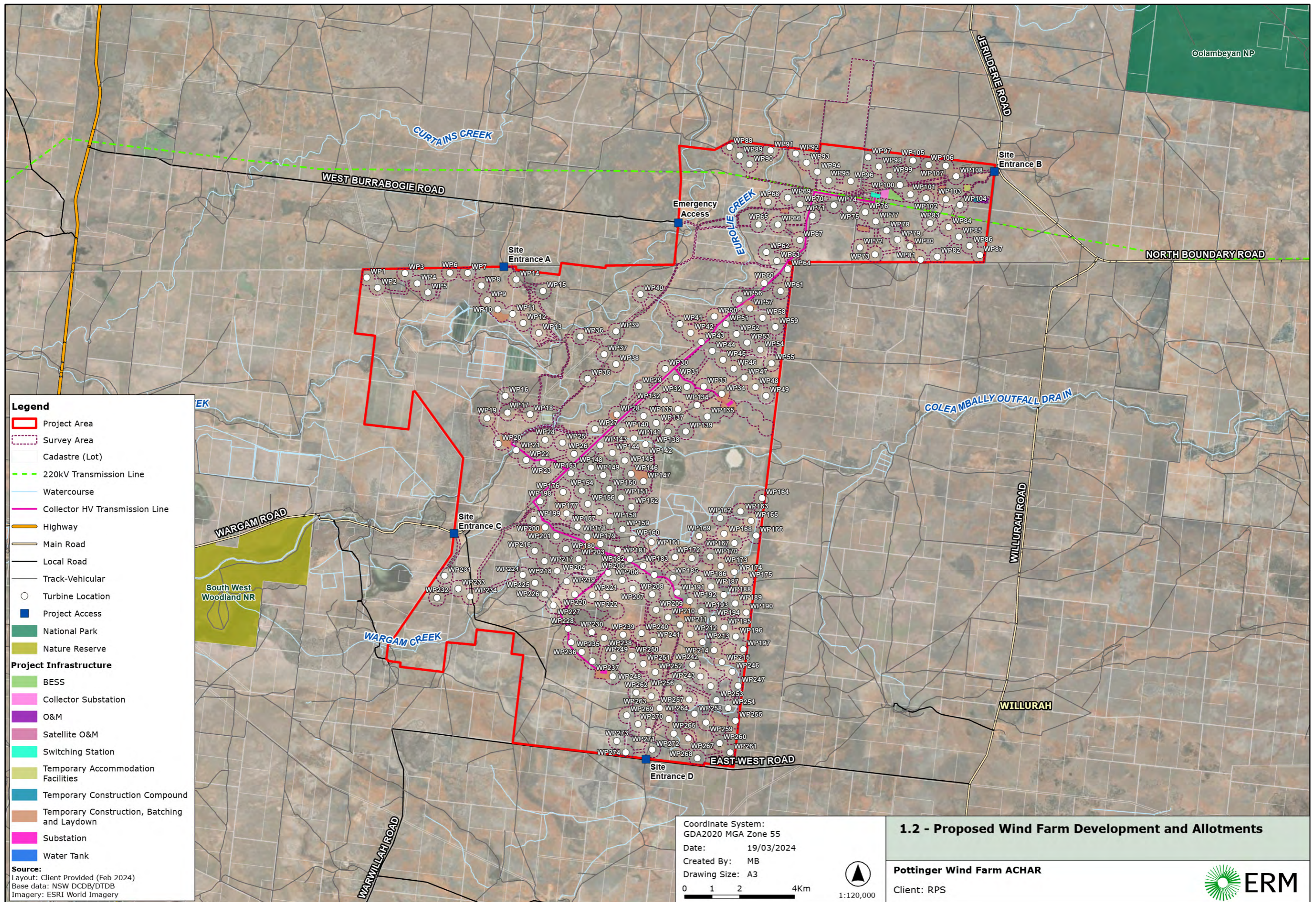
A representative sample of landforms was surveyed which resulted in 80-85% coverage of the Wind Farm disturbance footprint. Landforms associated with palaeochannel environments as delineated by gently raised red sandy landforms were identified as areas of high potential and were the focus of the survey. The determination of the archaeological potential of the Project Area is discussed in *Sections 8.3 and 8.4*.

Based on the number and type of sites recorded across the Project Area, ERM believes this survey coverage to be sufficient to provide a clear understanding of the cultural landscape, and to determine appropriate management recommendations for the Project Area.

## 1.7 ACKNOWLEDGEMENTS

ERM gratefully acknowledges the support and input from the Deniliquin and Hay Local Aboriginal Land Councils (LALCs) and all the Representative Aboriginal Party's (RAPs), and their representatives, who participated in the fieldwork, and the information provided during the consultation period, as well as review of the draft ACHAR.





## 2. LEGISLATION

The following section provides an overview of the relevant legislation under which this assessment has been prepared.

### 2.1 COMMONWEALTH LEGISLATION

#### 2.1.1 ENVIRONMENTAL PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act; as amended 2004) provides the framework for the Commonwealth Government's environmental legislation. The EPBC Act outlines a legal framework for the protection and management of nationally and internationally important flora, fauna, ecological communities and heritage places. Several heritage listings were established under the EPBC Act including the Commonwealth Heritage List (CHL), National Heritage List (NHL), and Register of National Estate (RNE) (now repealed).

There are no items listed on the CHL, NHL, or RNE within the Project area.

#### 2.1.2 ABORIGINAL AND TORRES STRAIT ISLANDER HERITAGE PROTECTION ACT 1984

The *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (ATSIHP Act) assists in the protection of places, areas, and objects that 'are of particular significance to Aboriginals in accordance with Aboriginal tradition'.

The ATSIHP Act is designed to deal with Aboriginal cultural property (intangible heritage), which are not currently protected under the *NSW National Parks and Wildlife Act 1974* (NPW Act).

The Commonwealth Minister can make declarations to protect these areas and objects from specific threats of injury or desecration. The responsible Minister may make a declaration under Section 10 of the ATSIHP Act in situations where state or territory laws do not provide adequate protection of intangible heritage.

While no formal database of Section 10 applications or declarations is publicly available, this information is registered in gazettal notices within the Federal Register of Legislation. A search of this register did not identify any Section 10 applications or declarations relevant to the Project Area.

## 2.2 NSW LEGISLATION

### 2.2.1 NSW NATIONAL PARKS AND WILDLIFE ACT 1974

Part 6 of the NPW Act provides specific protection for Aboriginal objects and places by making it an offence to destroy, deface, damage, or move them from the land. All Aboriginal objects within NSW are protected under Part 6, and particularly Section 90, of the NPW Act. Under Section 5 of the NPW Act, "Aboriginal Object" means any deposit, object, or material evidence (not being a handicraft made for sale) relating to the Indigenous habitation of the area that comprises NSW, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction and includes Aboriginal remains.

Under Section 86 of the NPW Act, a person who, without first obtaining the consent of the Director-General, knowingly harms or desecrates an Aboriginal object or Aboriginal place is guilty of an offence. In most circumstances, it is required that an Aboriginal Heritage Impact Permit (AHIP) be obtained for any impact to an Aboriginal object or place. Heritage NSW is the responsible authority, with the Director General of that department the consent authority. However, as the Project is assessed as a SSD, an AHIP is not required under Part 4.7 clause 4.41 (1)(d) of the *Environmental Planning and Assessment Act 1979* (EP&A Act). Instead, Aboriginal cultural heritage will be managed by an Aboriginal Cultural Heritage Management Plan (ACHMP) that will be developed following Project approval. The ACHMP will contain the recommendations of this ACHAR, as well as an unexpected finds protocol, results of artefact salvage or archaeological excavations, procedures to manage unexpected discoveries or human remains, and any other policies agreed with the Aboriginal community.

Sites of traditional significance that do not necessarily contain archaeological materials may be gazetted as 'Aboriginal places' and are protected under Section 84 of the NPW Act. This protection applies to all sites, regardless of their significance or land tenure.

Aboriginal objects and places are recorded on the Aboriginal Heritage Information Management System (AHIMS) database. The results of a search of the AHIMS database for registered Aboriginal objects and places is detailed in *Section 6.1*.

### 2.2.2 NATIVE TITLE ACT 1994

The *Native Title Act 1994* was introduced to work in conjunction with the *Commonwealth Native Title Act 1993*. The *Native Title Act 1994* recognises and protects the traditional and continuing rights and interests of Aboriginal and Torres Strait Island people in NSW. This may include the right to protect places and areas that are important under traditional law where Native Title has been determined.

The Project Area is not located within the boundaries of a native title claim or determination.

### 2.2.3 ABORIGINAL LAND RIGHTS ACT 1983

The *Aboriginal Land Rights Act 1983* established Aboriginal Land Councils (at a State and Local Level). In relation to Aboriginal culture and heritage these bodies have a statutory obligation under Section 52 of the *Aboriginal Land Rights Act 1983* to:

- a) take action to protect the culture and heritage of Aboriginal persons in the council's area, subject to any other law; and

- b) promote awareness in the community of the culture and heritage of Aboriginal persons in the council's area.

The Project Area is within the boundary of the Deniliquin LALC and Hay LALC.

A letter containing the Project details was sent to Office of the Registrar requesting land claim information (dated 8 August 2023, *Appendix C*). Details are provided in *Section 4.1*.

## 2.3 NON-STATUTORY CONSIDERATIONS

### 2.3.1 LEADING PRACTICE PRINCIPLES: FIRST NATIONS AND RENEWABLE ENERGY PROJECTS (CLEAN ENERGY COUNCIL 2024)

The Clean Energy Council's *Leading Practice Principles: First Nations and Renewable Energy Projects* is the first comprehensive national Guide on First Nations engagement, participation and benefit sharing for renewable energy projects. The Guide was co-designed with First Nations peoples and is an important link between community and industry. The Guide established ten principles that are practical and culturally appropriate:

1. Engage respectfully;
2. Prioritise clear, accessible and accurate information;
3. Ensure cultural heritage is preserved and protected;
4. Protect Country and environment;
5. Be a good neighbour;
6. Ensure economic benefits are shared;
7. Provide social benefits for community;
8. Embed land stewardship;
9. Ensure cultural competency; and
10. Implement, monitor and report back.

The purpose of the Guide is to facilitate the adoption and implementation of these principles by industry, through the identification of minimum and leading practice standards, as well as practical information and guidance on how to appropriately and effectively engage with First Nations peoples and communities. This will support the industry to deliver better engagement and outcomes for First Nations peoples.

A copy of the guidelines can be accessed at:

<https://assets.cleanenergycouncil.org.au/documents/resources/reports/Leading-Practice-Principles-First-Nations-and-Renewable-Energy-Projects.pdf>

This ACHAR has been prepared in accordance with the relevant principles of this guidance and to the standard it describes.

### 3. ASSESSMENT METHODOLOGY

#### 3.1 DESKTOP INVESTIGATION

Desktop investigation included completion of a comprehensive review of existing background information to gain a contextual understanding of the cultural landscape associated with the Project. Review of background information included assessment of environmental information (*Section 5*), former historic land use, available ethnographic information, as well as existing registered Aboriginal heritage sites, AHIPs, and reports.

#### 3.2 ABORIGINAL COMMUNITY CONSULTATION

Aboriginal community consultation was undertaken in accordance with the consultation requirements as is detailed in *Section 4*.

In accordance with the Consultation Requirements, consultation with Aboriginal people formed an essential part of the heritage assessment process to:

- Determine potential harm on Aboriginal cultural heritage from proposed activities; and
- Inform management and mitigation measures where it is determined that harm cannot be avoided.

#### 3.3 ABORIGINAL HERITAGE SURVEY

Four rounds of Aboriginal heritage survey were undertaken to inform this ACHAR. The initial survey of the Project was undertaken from the 06 November to 10 November 2023 by ERM Heritage Consultants Lorien Perchard and Victoria Gleeson. Representatives of Hay LALC also participated in the survey.

A second field survey of the Project Area was undertaken from 4 December to 8 December by ERM Heritage Consultants Brent Koppel and Mia Linton-Smith. Representatives of Deniliquin LALC, Yarkuwa Indigenous Knowledge Centre, Pappin Family Aboriginal Corporation and Wakool Indigenous Corporation, as well as individuals, Neville Whayman and Nicholas Smith, participated in this survey.

The third field survey of the Project Area was undertaken from 29 January to 9 February 2024 by ERM Heritage Consultants Victoria Gleeson and Mia Linton-Smith, Damian Wall and Maggie Cronin of Red-gum Environmental Consulting, as well as RAP representatives. An additional survey of the site entrance in the north-eastern portion of the Project Area was undertaken on 23 February 2024 by ERM Heritage Consultants Lorien Perchard and Victoria Gleeson, accompanied by three representatives from Hay LALC.

The survey methodology targeted representative samples of each landform type within the Project Area with the sampling methodology focusing on areas of archaeological potential that coincided with areas of proposed ground disturbance. The archaeological potential of the Project Area is detailed in *Sections 8.3* and *8.4*.

GPS-enabled devices were carried by the survey team and used to direct the survey, track log areas covered throughout the survey, and record new sites. A photographic record was kept of all survey units. Photographs were taken to document the existing environment and landform context of each survey unit.

During the survey a total of 111 Aboriginal heritage features were identified within the Project Area. No locations with potential Aboriginal Ancestral Remains (AAR) were identified. Results of the initial Aboriginal heritage survey were used to refine the predictive modelling completed for the Project (*Section 6.4.3*).

## 3.4 RECORDING AND ASSESSMENT METHODOLOGY

### 3.4.1 PREVIOUSLY RECORDED ABORIGINAL SITES

Where accessible, previously recorded Aboriginal sites within, or in proximity to, the disturbance footprint were visited during the survey to assess their current condition and confirm the spatial extent of the registered site. More detail on these sites can be found in *Section 6.4.2.1*.

### 3.4.2 NEWLY IDENTIFIED SITES

Newly identified sites were recorded in accordance with the requirements in Sections 6-8 of the Code of Practice and the Guide to completing the AHIMS Site Recording Form (OEH 2012).

Details recorded for each newly identified site included:

- The spatial extent of the site as delineated by either:
  - The spatial extent of the visible objects;
  - Obvious physical boundaries where present;
  - Landscape features (such as slight rises, exposed red sands, or other); or
  - Identification by the Aboriginal community based on cultural information;
- A photographic record with scale at an appropriate distance to record both the site feature and its context;
- Geospatial information of the site recorded using ArcGIS mapping; and
- Enough detail to enable registration of the site on AHIMS.

### 3.4.3 ASSESSMENT OF ARCHAEOLOGICAL POTENTIAL

Areas which were identified as having the potential to contain subsurface deposits of Aboriginal objects or the potential for Aboriginal objects to otherwise be obscured by surface conditions were recorded as areas of Potential Archaeological Deposit (PAD).

The assessment of areas of PAD was based primarily on an assessment of:

- Whether Aboriginal objects were likely to have been deposited within the subsurface of a location as a result of Aboriginal occupation or through post-depositional processes;
- Defined geomorphological / landscape features (such as rises, palaeochannel margins, lunettes, or exposed red sands' and / or soil mapping see *Section 5.4*) which indicates higher potential for intact subsurface deposits to be present (see predictive model in *Section 6.4.3*); and
- Whether historic land use or disturbances was likely to resulted in impact or removal of any Aboriginal objects that may have been present within the assessment area.

### 3.4.4 CULTURAL HERITAGE VALUES ASSESSMENT

Aboriginal heritage sites, objects and places hold value for communities in many ways. The nature of those heritage values is an important consideration when deciding how to manage a heritage site, object or place and balance competing land use options.

Assessment of the Aboriginal cultural heritage significance of the Project Area has been completed in accordance with the requirements of the ACHAR Guide. Assessment has included identification of social, historic, scientific, and aesthetic values which are discussed below:

- *Social or cultural value* (assessed only by Traditional Owners/First Nations People) refers to the spiritual, traditional, historical, or contemporary associations and attachments the place or area has for Aboriginal people. Social or cultural value is how people express their connection with a place and the meaning that place has for them;
- *Historic value* (assessed by Traditional Owners/First Nations People and/or non-Aboriginal historical specialists) refers to the associations of a place with a historically important person, event, phase, or activity in an Aboriginal community. Historic places do not always have physical evidence of their historic importance (such as structures, planted vegetation or landscape modifications). They may have 'shared' historic values with other (non-Aboriginal) communities and include places of post-contact Aboriginal history;
- *Scientific (archaeological) value* (assessed by professional archaeologists) refers to the importance of a landscape, area, place or object because of its rarity, representativeness, and the extent to which it may contribute to further understanding and information; and
- *Aesthetic value* (assessed by Traditional Owners and/or non-Aboriginal specialists) refers to the sensory, scenic, architectural, and creative aspects of the place. It is often closely linked with social values. It may consider form, scale, colour, texture and material of the fabric or landscape, and the smell and sounds associated with the place and its use.

Cultural heritage values for the Project Area were identified through a combination of desktop assessment and consultation undertaken during the preparation of this report. This information was collected by the ERM heritage team.

### 3.5 IMPACT ASSESSMENT

Following the identification of Aboriginal cultural values, an impact assessment would be completed to identify whether any Aboriginal objects, places, or cultural values have the potential to be harmed through development of the preferred scenario.

The impact assessment for the proposal is guided by the definition of harm under the NPW Act, which is limited to impact which ‘...destroys, defaces, damages an object or place or in relation to an object – moves the object from land on which it has been situated’ (*Section 5*).

‘Direct harm’ may occur as a result of activities which disturb the ground surface or identified cultural values including site preparation activities, and the installation of services and infrastructure.

‘Indirect harm’ for Aboriginal heritage refers to impacts that may affect sites or features located immediately beyond or within the area of the proposed work. Indirect harm may include impacts from vibration, increased visitation, increased erosion, or changing access to resources. The impact assessment evaluates the potential archaeological impacts for the Project. It assessed the type of harm, the degree of harm, and the consequence of harm for any known Aboriginal sites or areas of potential.

The direct and indirect impact associated with the Project is assessed in *Section 10*.

## 4. ABORIGINAL COMMUNITY CONSULTATION

This chapter contains details of the Aboriginal community consultation undertaken regarding the Aboriginal cultural heritage of the Project Area. Fulfilment of these requirements for this project is outlined below. All correspondence is recorded in the Aboriginal Heritage Consultation Log, included as *Appendix A*.

### 4.1 STAGE 1: NOTIFICATION OF PROJECT PROPOSAL AND REGISTRATION OF INTEREST

The aim of Stage 1 of the consultation process is to identify, notify, and register the interest of Aboriginal people who hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and/or places in the area of the proposed project.

On behalf of the Applicant, ERM actively sought to fulfil this aim and identify stakeholder groups or people wishing to be consulted about the Project and invite them to register their interest. It was determined that there was no approved determination of Native Title over the Project Area (per 4.1.1 of the guidelines).

To identify people with a potential interest in the project (as per 4.1.2 of the Consultation Requirements), two public advertisements stating the location and nature of the Project and seeking registration of interested Aboriginal parties was run in the Riverine Grazier on 15 August and 27 September 2023, as well as the Pastoral Times on 16 August and 26 September 2023 (*Appendix B*)

In addition, a letter containing the Project details (dated 8 August 2023, *Appendix C*) was sent to the following agencies:

- Griffith LALC;
- Hay LALC;
- Deniliquin LALC;
- Office of the Registrar, *Aboriginal Land Rights Act 1983*;
- Edward River Council;
- Hay Shire Council;
- Riverina Local Land Services;
- Murray Local Land Services;
- Heritage NSW; and
- National Native Title Tribunal.

Responses received from these agencies indicated a total of 37 Aboriginal individuals or organisations may have an interest in the Project (*Appendix D*). An invitation to register letter was sent to each of these identified parties on 5 October 2023 and a period of 14 days was provided for the parties to respond. A copy of this letter is provided as *Appendix E*.

On 1 December 2023, a Section 4.1.6 notification letter was sent to the Hay LALC, Deniliquin LALC, and Heritage NSW to notify them of the interested registered parties for the project (*Appendix F*).

A full list of the RAPs can be found in *Table 4.1*, and copies of relevant registrations can be found at *Appendix G*.

**TABLE 4.1 REGISTERED ABORIGINAL PARTIES**

<b>Organisation/Individual</b>
Deniliquin Local Aboriginal Land Council
Girragirra Murun Aboriginal Corporation
Griffith Local Aboriginal Land Council
Hay Local Aboriginal Land Council
John Winch
Moama Local Aboriginal Land Council
Neville Whayman
Nicholas Smith
Pappin Family Aboriginal Corporation
Patricia Winch
Southern West Yiradyuri Clans, Land, Water and Sky Country Aboriginal Corporation
Thomas Dahlstrom
Verna Pappin (late registration)
Wakool Indigenous Corporation
Wingarra Wilay
Yarkuwa Indigenous Knowledge Centre

## 4.2 STAGE 2: PRESENTATION OF INFORMATION ABOUT THE PROPOSED PROJECT

The aim of Stage 2 of the consultation process was to provide RAPs with information about the scope of the Project and the proposed cultural heritage assessment process.

The proposed survey and assessment methodology was sent to each of the RAPs between 3 and 24 October providing 28 days in which to respond (*Appendix H*). The letter included:

- An outline of the proposed works;
- The proposed assessment and survey methodology including methodology if AAR were identified; and
- A request for RAPs to identify areas of cultural significance or interest within the Project Area.

Interest in participating in the survey program was received from several RAPs. Wakool Indigenous Corporation commented on the assumption of mounds being predicted to occur within the Project Area. They suggest that mounds are unlikely to be encountered as that specific archaeological feature is associated with another neighboring Indigenous Nation. Rather, in *Muthi Muthi* and *Wati Wati* tribal lands, Culturally Modified Trees (CMT) are more likely to occur.

No further comments on the methodology or cultural values were received during the review period of the methodology.

#### 4.3 STAGE 3: GATHERING INFORMATION ABOUT CULTURAL SIGNIFICANCE

Stage 3 of the consultation process involved discussion on cultural values and intangible elements of significance. Feedback on the cultural heritage significance of the Project Area was requested as part of the survey and assessment methodology.

Cultural values, including intangible Aboriginal heritage significance of the Project Area, were also discussed with all RAP groups during the multiple heritage surveys from November 2023 to February 2024. A total of eight RAPs were invited to participate in the site survey each day.

As part of the consultation process, discussions were had with Hay LALC during the November 2023 survey, where they requested a buffer of 200 m should be provided to recorded PADs, a buffer of 100 m should be provided to recorded hearths, and a buffer of 50 m provided to CMTs. Hay LALC requested this to protect all sites, in particular PADs, as the full extents of these sites are unknown. Deniliquin LALC also agreed with these buffers during consultation undertaken as part of the Draft reporting phase; as such, these buffers were requested to also be applied to sites within the Deniliquin LALC boundary.

It is also noted that Hay LALC, Nari Nari Tribal Council and Deniliquin LALC have requested that no test excavations should occur prior to the authorisation of the Minister's Conditions of Approval of the project, to avoid unnecessary damage to sites. This request was supported by ERM and Someva, in accordance with *Leading Practice Principles: First Nations and Renewable Energy Projects*, namely Principles 1 and 3 which focus on respectful engagement and the preservation and protection of cultural heritage. The process of test excavation and the capacity for project redesign is further discussed in *Section 10*.

An additional survey of the site entrance in the north-eastern area was undertaken on 23 February 2024, to assess impact to sites PSF 10 and PSF 11. During this survey, discussions were had with Hay LALC regarding their suggested mitigation measures for these sites. Despite the proposed access road traversing the site extent of newly recorded PSF 12, and buffers of sites PSF 10 and PSF 11, it was clear that Hay LALC approved the use of this access road. They stated that they would prefer disturbance to occur on an existing track, instead of micro-siting around the sites and creating a new road through undisturbed Country. Hay LALC also stated that consideration should be given to building up the access road (in area of site extents and buffers), in preference to grading or scraping the road. It was requested by Hay LALC that, should any subsurface disturbance associated with the site entrance construction occur within the buffers of PSF 10 and PSF 11, monitoring by their representatives should be undertaken to mitigate impacts to these sites. These mitigation measures are detailed in *Section 11.2*.

#### 4.4 STAGE 4: REVIEW OF DRAFT ACHAR

The draft ACHAR was provided to RAPs on 28 March 2024, via email. Each of the RAPs was provided 28 days to provide comments on the report and any recommended management and mitigation measures, prior to finalisation. No comments were received during the review period.

## 5. ENVIRONMENTAL BACKGROUND

The nature and distribution of Aboriginal cultural values and materials in a landscape are strongly influenced by environmental factors such as topography, geology, landforms, climate, geomorphology, hydrology, and the associated soils and vegetation (Hughes and Sullivan 1984). These factors influence the availability of plants, animals, water, and raw materials; the location of suitable camping places, ceremonial grounds, and burials; and suitable surfaces for the application of rock art. As site locations may differ between landforms due to differing environmental constraints that result in the physical manifestation of different spatial distributions and forms of archaeological evidence, these environmental factors are used in constructing predictive models for Aboriginal site locations.

Environmental factors also affect the degree to which cultural materials have survived in the face of both natural and human influences and affect the likelihood of sites being detected during ground surface survey. Site detection is dependent on several environmental factors including surface visibility (which is determined by the nature and extent of ground cover including grass and leaf litter etc.) and the survival of the original land surface and associated cultural materials. It is also dependent on the exposure of the original landscape and associated cultural materials (by water, sheet and gully erosion, ploughing, vehicle tracks etc.) (Hughes and Sullivan 1984). Combined, these processes and activities are used in determining the likelihood of both surface and subsurface cultural materials being deposited, surviving, and being detected during archaeological surveys.

### 5.1 BIOREGION

Interim Biogeographic Regionalisation for Australia (IBRA) represents a landscape-based approach to classifying the land surface of Australia. Eighty-nine biogeographic regions and 419 sub-regions have been delineated, each reflecting a unifying set of major environmental influences which shape the occurrence of flora and fauna and their interaction with the physical environment across Australia and its external territories (excluding Antarctica).

The Project Area is located within the Riverina Plain of the Murrumbidgee Province, Riverina Bioregion (IBRA 5.1 [Chapter 8; NSW NPW 2003]). The Riverina Bioregion lies in southwest NSW, extending into central-north Victoria. The Riverina Bioregion extends from Ivanhoe in the Murray Darling Depression Bioregion south to Bendigo, and from Narrandera in the east to Balranald in the west. Within its boundaries lie the towns of Hay, Coleambally, Deniliquin, Leeton, Mossgiel, Hillston, Booligal, and Wentworth, while Griffith, Ivanhoe, Narrandera, and Albury lie just outside its boundary in neighbouring bioregions. The bioregion also includes outlying remnants of the Murray Darling Depression Bioregion in its western boundary, and the Victorian Midlands Bioregion in the south.

The Murray and Murrumbidgee Rivers, and their major tributaries, the Lachlan and Goulburn Rivers, flow from the highlands in the east, westward across the Riverina Plain (NSW NPW 1999 and 2003). The Murrumbidgee Province is generally comprised of a naturally flat landscape largely consisting of clays, silts, and sands which historically have been subject to a consistent cycle of annual flooding. The Murrumbidgee Province is characterised by extensive coarse deposits, low lying source bordering dunes, and occasional sand dunes created by ancient rivers (Pardoe 2001: 14).

The Riverina Bioregion has a semi-arid climate, with low winter rainfall and relatively hot summers. The temporally averaged median rainfall from 1890–2005, is 272 mm per annum.

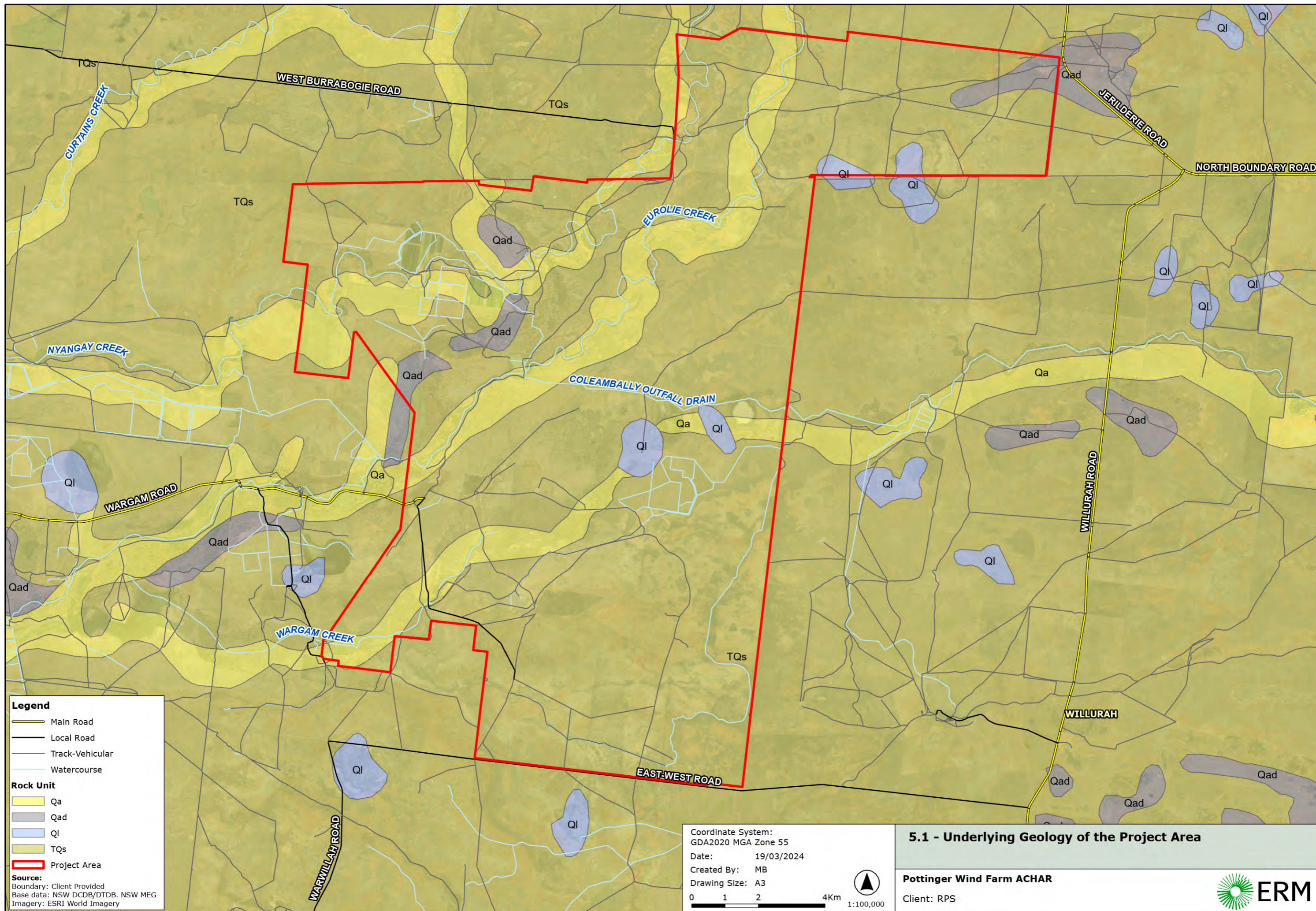
## 5.2 GEOLOGY AND GEOMORPHOLOGY

This Riverina Bioregion is dominated by river channels, floodplains, swamps, lakes, and lunettes that are all of Quaternary age (NSW NPW 2003). The evolutionary story of these channels and plains is one of decreasing discharge through time. Different phases of stream discharge have been linked to prior and ancestral stream patterns each with different form and different bed load characteristics. Between 15- 30,000 years ago (kya), prior streams carried sand far onto the clay plains in wide channels with long meanders. Ancestral streams are more like the modern channels, with tighter meanders and carrying only clay. Alluvial sediments become deeper and older in the western half of the basin, reaching a maximum thickness of about 500 m. Basement rocks are the early Palaeozoic sediments and granites of the Lachlan Fold belt, but almost no outcrops exist in the Riverina (NSW NPW 2003).

The Riverina Plain consists of flat-lying fluvio-lacustrine and aeolian sediments, and much of the surface consists of Pliocene to recent Shepparton Formation (Aap), and the younger incised ancestral rivers of the Coonambidgal Formation (Aam). Pisolitic ferruginous soils (ironstone) identified within the older parts of the Shepparton Formation are equivalent to the Karoonda Surface (Kotsonis and Joyce 2003).

Geologically the Project Area is part of this extensive alluvial plain, known as the Hay Plain, which developed following a period of land subsidence in the tertiary period. Following the period of subsidence, sediments began to be deposited across the alluvial plain through a series of prior stream systems (palaeochannels) which are present within the Project Area. The alluvial deposit (Shepparton Formation - Aap) varies in depth between 50-125 m and covers a series of significantly older alluvial and marine sediments. The Shepparton Formation has a variable presentation which includes areas of surface ironstone, unconsolidated to poorly consolidated mottled clays, silty clays, coarse to fine sand and gravels, as well as intercalated red-brown palaeosols. Carbon dating of the Shepparton Formation indicates that the upper and most recent deposits of the formation date to between 20-30 kya (Australian Stratigraphic Units Database 2019).

Following the deposition associated with the Shepparton Formation, a period of stream incision occurred. These incised areas were filled with coarser sediments which form the late quaternary Coonambidgal Formation.



### 5.3 LANDFORM

The Project Area is located within the Riverina and Hay Plain which is one of the world's flattest places. Landforms in the region are identifiable on a micro level only with landform development associated directly with former and current distributary channels and the effect of flooding.

Key landforms across the Riverina and Hay Plains include the Murrumbidgee River Floodplain, palaeochannels, alluvial plains, and lakes. These landform types are described in *Table 5.1* below.

**TABLE 5.1 SUMMARY OF KEY LANDFORMS WITHIN THE RIVERINA AND HAY PLAIN**

Landform	Description
Murrumbidgee River floodplain	The modern Murrumbidgee River is characterised by its narrow and incised nature. Water within the river is notable for its suspended load of clay and silt. The modern stream channel is located within a belt of alluvium which extends between 1-5 km wide. The alluvium is located slightly below the height of the surrounding plain. In proximity to the Project Area there is a general lack of source bordering dunes surrounding the Murrumbidgee River with sand in this region limited to palaeochannels.
Palaeochannels	Palaeochannels are former streams which carried water during the last glacial period. In the present they are delineated by wide channels of sand which are often slightly raised above the average level of the plain. Palaeochannels are associated with source bordering dunes and shallow channels which carry modern floodwaters. Several palaeochannels in the Murrumbidgee have been dated with their development extending as far back as 105 ka. Palaeochannels within and surrounding the Project Area include the Gum Creek System and the Yanco System which have been associated with the Yanco system which had enhanced fluvial activities between 41 -18 ka (Mueller <i>et al</i> 2018).
Alluvial Plains	The majority of the Murrumbidgee province is comprised of broad alluvial plains which developed as palaeo floodplains.
Lakes	Lakes develop in areas where surface water accumulates on existing flood plains. Surface water accumulations are pushed by wind scour the underlying surface resulting in deeper water basin. Lakes are associated with lunette landforms which form as a result of wind action across the lake surface.

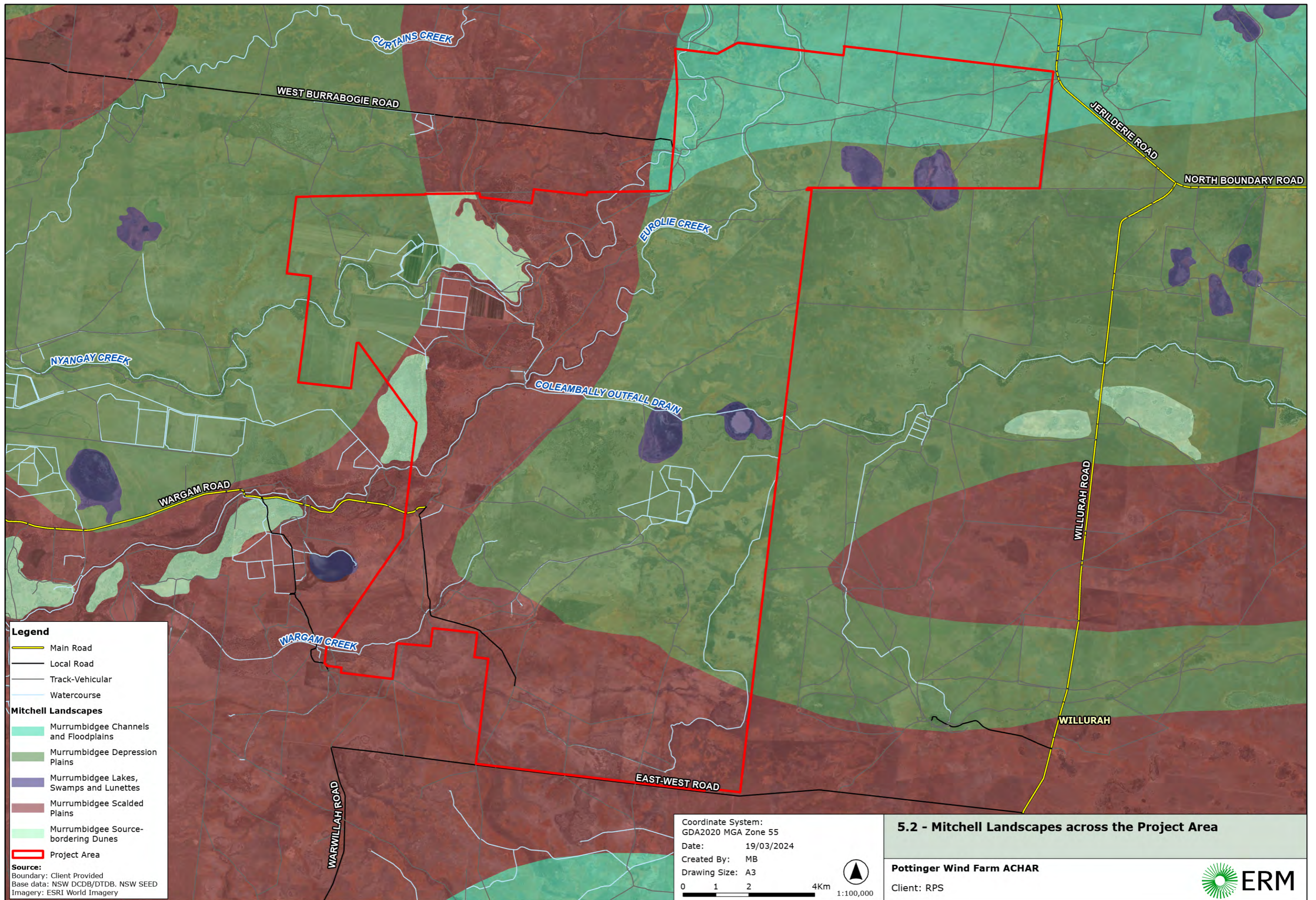
Palaeochannel landforms are identified as demonstrating archaeological sensitivity based on several factors including:

- Their raised nature is more suitable for occupation particularly during flood events;
- Modern ephemeral lakes and water sources are often associated with palaeochannel landforms; and
- The coarser nature of the soil deposits supports a wider variety of land uses and the conservation of a wider range of archaeological deposits including AAR, hearths, and PAD sites.

State level landscape mapping completed by Peter Mitchell in 2002 ('Mitchell Landscapes') delineated the Pottinger Energy Park into four broad landscapes. The majority of the Wind Farm is comprised of the Murrumbidgee Depression Plains (Mud) and Murrumbidgee Scalded Plains (Mbd). These Mitchell Landscapes were based on geological, geomorphic, and pedologic criteria to describe spatially distinct ecosystems. A summary of the Mitchell Landscapes within and surrounding the Project Area is summarised in *Table 5.2* and shown in *Figure 5.2*.

**TABLE 5.2 MITCHELL LANDSCAPES WITHIN THE PROJECT AREA**

Landscape	Description	Located
The Murrumbidgee Depression Plains (Mud)	The Murrumbidgee Depression Plains present as numerous circular depressions interpreted as high floodplains or low terraces beyond the reach of average floodwaters. Elsewhere sandy rises and levees trace ancestral streams standing above the general plain, with relief ranging 1 to 10 m (Mitchell 2002:104).	Within Project Area
The Murrumbidgee Scalded Plains (Mbd)	The Murrumbidgee Scalded Plains are quaternary alluvial plains with extensive scalding interpreted as relic floodplains or terraces with little relief, often generally <1 m and up to 5 m on associated pans, swamps, and lunettes (Mitchell 2002:105).	Within Project Area
The Murrumbidgee Channels and Floodplains (Mbc)	The Murrumbidgee Channels and Floodplains are quaternary alluvium on seasonally inundated floodplains, active and inactive channels, billabongs, levees, and swamps of the Murrumbidgee River and its effluent streams with relief up to 10m. Includes scalded alluvial flats, broad elevated floodplains and associated relict channels; isolated sandy rises, with relief up to 5 m. Grey and brown clay with occasional areas of low sandy rise (Mitchell 2002:104).	Within Project Area
Murrumbidgee Source-bordering Dunes (Mrd)	The Murrumbidgee Source-bordering Dunes are sandy rises adjacent to river channels and along streambeds. They are deep red and brown sands and loams with relief ranging 3 to 12 m. This landscape is often heavily grazed and subject to wind erosion (Mitchell 2002:105).	Within Project Area
The Murrumbidgee Lakes Swamps and Lunettes (Mbl)	The Murrumbidgee Lakes Swamps and Lunettes largely consists active freshwater lakes and swamps which are frequently flooded by the river. The lakes and billabongs are sometimes near permanent, generally round or kidney shaped. They are often nested within larger relic Quaternary lake features. They are sometimes adjacent areas of saline plains. Beaches, sand and clay pellet lunettes and sand hills exist on the eastern margins. Relief of lakes and channels is to 8 m, with lunettes to 15 m (Mitchell 2002:105).	Within Project Area



## 5.4 SOILS

State level soil mapping of the region (DECCW 2002: 104-105) shows that the Project Area is largely made up of chromosols vertosols, and rudosols which comprise grey, brown, and red clays; siliceous sands; and red and brown earths. Soils are closely related to the current and previous hydrological regimes, with areas of lower relief typically comprised of grey cracking clays associated with flood environments. The majority of the Wind Farm is comprised of level plains of Quaternary alluvium of sands and clays.

Broad soil mapping for the region completed at a scale of 1:500 000 is available from the Department of Natural Resources which identifies four broad soil landscapes within and surrounding the Project Area.

These soils with their associated landscape are described in *Table 5.3* below.

**TABLE 5.3 SOIL LANDSCAPES**

Soils	Landform	Soils
Plain Zone C (PZC)	Level plains of Cainozoic/ Quaternary alluvium of the Riverine Plains	Soils related to the prior stream network. In general levee landscapes and localised high points are comprised of red and brown earths. Further into the plain landscape soils are comprised of red brown earths and brown podzolic soils. Soils developed from parent material of clays, silts, and sands from past flow regimes.  Moderate to severe scalding occurs on Red Sodic soils, which usually occur near the levees of prior streams. Topsoils are fragile and overgrazing often damages the surface crust
Prior Stream Variant B (PSB)	Landform is comprised of prior stream sand ridges. In general, the sand ridges exhibit narrow and sinuous characteristics. Landscape is characterised by shrublands and low rainfall.	Siliceous Sands on higher sandy ridges–60%, Red Earths on some less distinct rises–20%, Red Brown Earths with sandy topsoils on levees–20%.  Soils are dominated by non-cohesive sands, so wind and sheet erosion are potential problems especially on crest and upper slopes.
Western Edge Complex (WX)	Level to gently undulating plains.	Higher undulating rises are dominated by red earths which grade into red/brown earths which are often scalded. Lower lying plains are often comprised of grey cracking clay deposits.
Sandy Prior Stream Ridge (PS)	Linear prior stream sand ridges blown out of coarse sand deposits of relict palaeochannels. Mostly cleared but previously dominated by pine forest and sand-hill shrub species.	Unit is dominated by siliceous sands which occasionally grade to red earths. Adjacent levees/ lower slopes commonly support scalded red earths.

In general, soil development in the region is largely reported to be associated with former stream landforms with soils comprised of a finer substrate with increasing distance from the prior stream deposits (see *Figure 5.3*). This transition is significant archaeologically with clay-based soils in conjunction with flood deposits demonstrating limited potential to support the development of archaeological deposits. It is noted that the effect of flooding may either preserve or disturb archaeological deposits depending on the velocity of flood and the underlying soil types. Clay based soils are considered less likely to support artefact deposition and archaeological site development due to the general impermeable nature of clay soils. Red earth and sandy soils by comparison are considered more likely to support the development of in-situ archaeological deposits. It is however noted that both the PZC and PSB soil profile are reported to be fragile and subject to impact through grazing and wind and sheet erosion, which are a common occurrence within the region.

Vertisols (*Figure 5.4*) are found across the majority of the Project Area and are the predominant soil matrix, characterised by shrink-swell and cracking clay soils. Water can accumulate seasonally in depressions, and they can form deep cracks from the surface downwards when they dry out. Chromosol soil is present within the east of the Project Area and is comprised of bright red and brown earths.

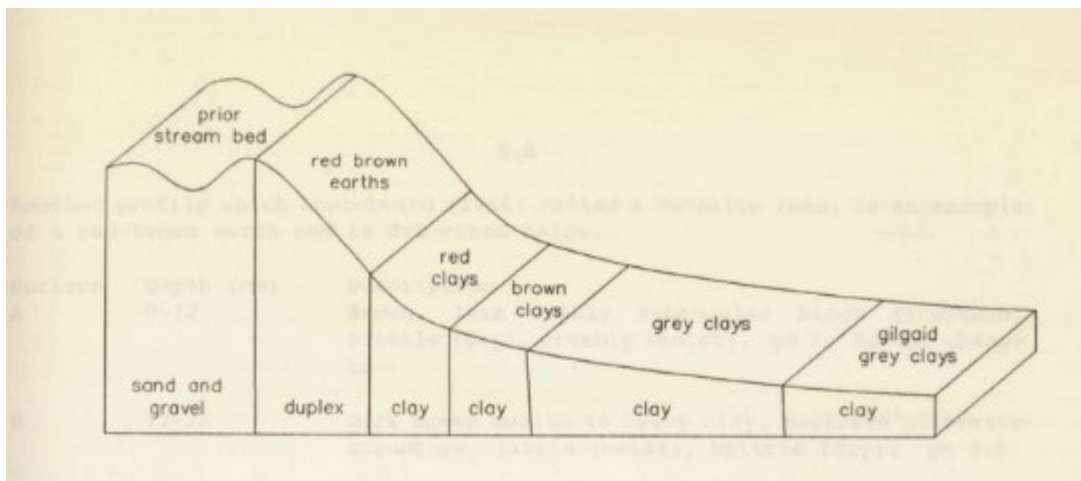
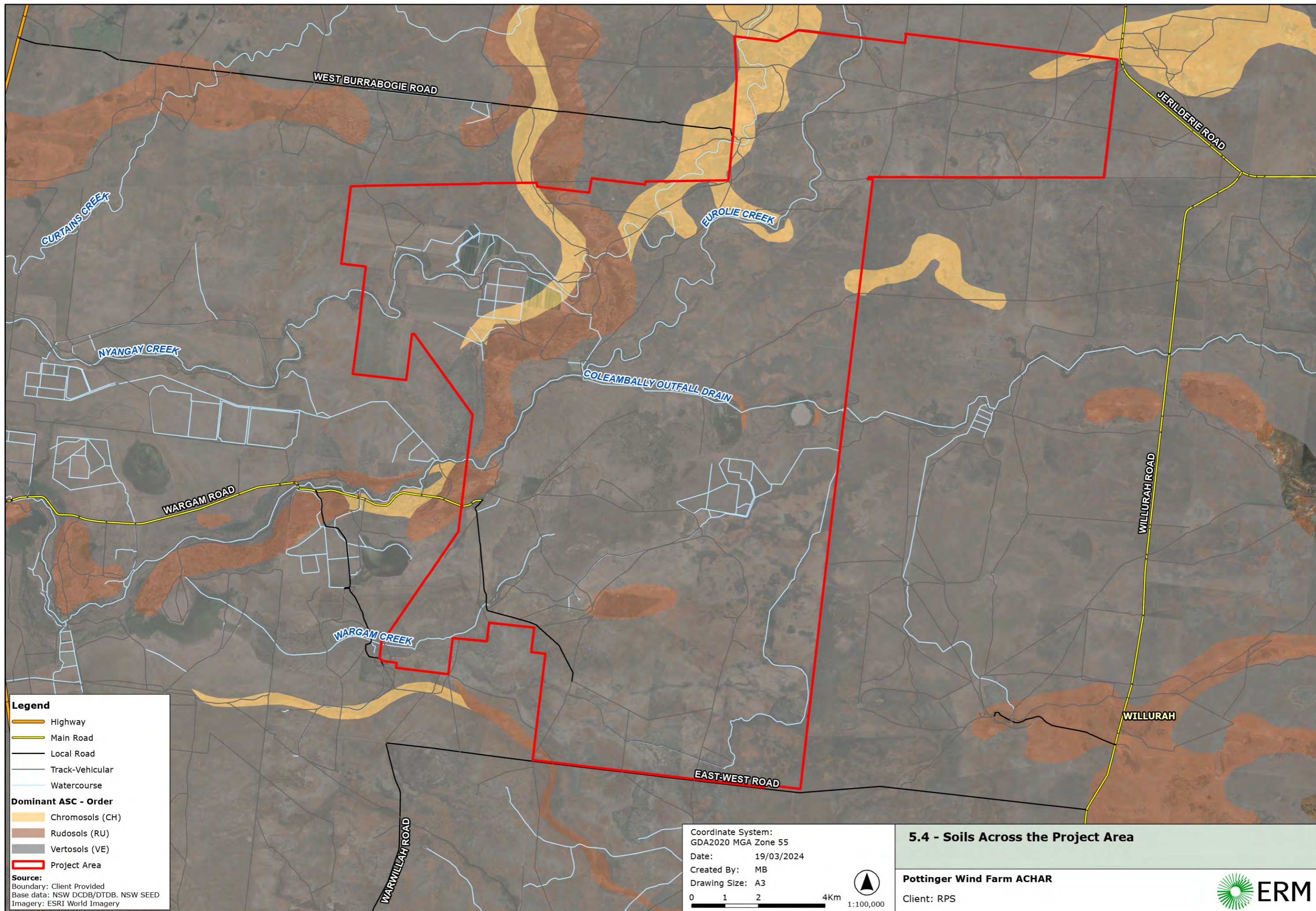


FIGURE 5.3 ILLUSTRATION OF SOIL DEVELOPMENT WITH INCREASING DISTANCE FROM PALAEOCHANNEL LANDFORMS (SOIL CONSERVATION SERVICES OF NSW 1990: 64)

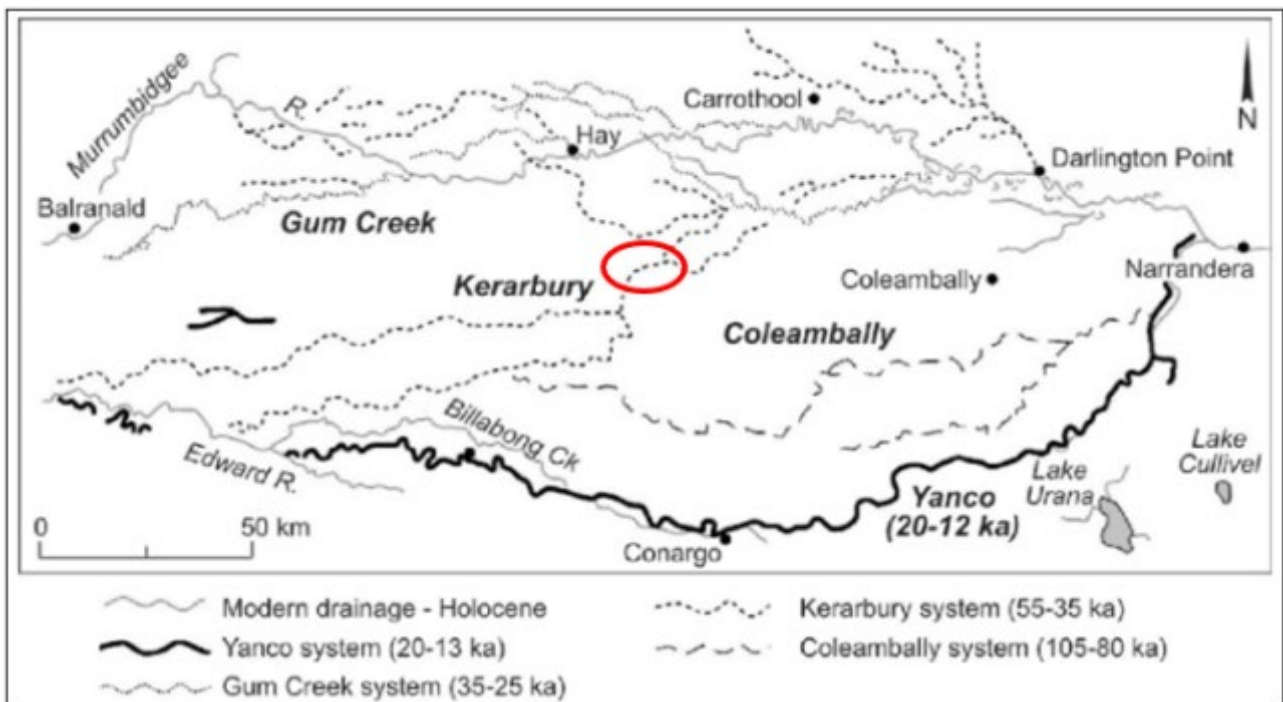


## 5.5 HYDROLOGY

Today the Murray-Darling Basin comprises a network of rivers forming Australia's largest river system. The Project Area is located within part of the vast Murray-Darling Basin which extends across 14% of Australia's land mass (MDBA 2022). The Murray-Darling Basin is split into two catchment areas (the Northern and Southern basin catchments).

The Southern Murray Darling Basin is generally associated with two large geomorphic forms – the Mallee Plains in the West and the Riverina Plain in the east (including the Project Area). The Riverina Plain is encompassed in the Southern Murray Darling Basin and comprised of a complex network of river channels and floodplains which overlay ancient river systems (see *Section 5.2*). The streams in the Riverina are characterised by low gradients with significant variability in river flow (Williams 2011: 9).

The oldest of the ancient river systems in the Riverina Plain are currently comprised of deeply buried channels which have been filled by sand and gravels and date to 15-30 kya (NSW NPW 2003). These 'prior streams' are identified by their slightly raised nature above the existing floodplain (Williams 2011 :9). More recent 'ancestral rivers' are more closely associated with current drainage networks which are found as winding depressions across the landscape.



**FIGURE 5.5 PHASES OF PALAEOCHANNELS ACROSS THE RIVERINA, APPROXIMATE LOCATION OF POTTINGER ENERGY PARK SHOWN IN RED (PAGE ET AL 2009: 22)**

Significant changes to the hydrological landscape occurred between the Pleistocene and Holocene periods which coincided with a period of increased aridity. This increased aridity restricted the flow of palaeochannels with the modern drainage regime for the Riverina Plain estimated to have developed between 15 to 10 kya.

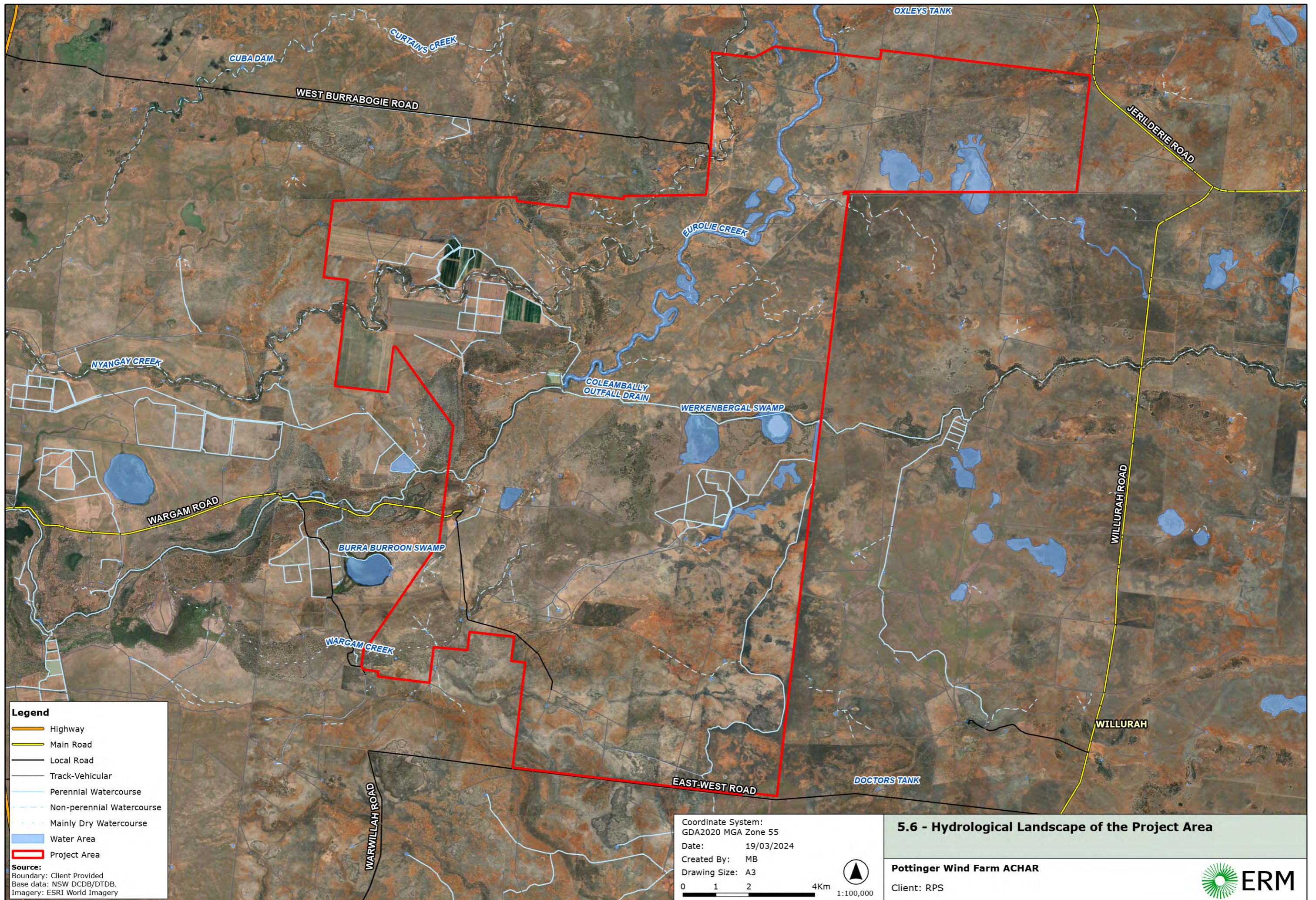
Past Aboriginal occupation is likely to have focused on resources associated with these palaeochannels. This indicates that archaeological evidence is likely to be based in the areas surrounding these palaeochannel resources. Impacts of recent flooding in 2022 and stream activity are noted to have impeded the potential to identify earlier phases of Aboriginal occupation through cycles of erosion, sedimentation and accretion as described by Klaver (1998: 71). It is noted that the high level of clay soils within the Project Area limit drainage across the landscape resulting in large areas of standing water following rain events such as those that occurred in 2022.

At its closest, the Murrumbidgee River is located about 32 km north of the Project Area. The Murrumbidgee River has a catchment of approximately 84,000 km<sup>2</sup>. Rising in the Snowy Mountains, the river flows generally westwards to its confluence with the Murray River, 1,600 km from the river source. The catchment includes 14 dams plus eight large weirs, with its downstream irrigation areas containing over 10,000 km of irrigation canals (Watts 2010: 199).

Water flow along the rivers and creeks in the region have been regulated by major structures predominantly constructed from 1912 through to 1968. The river changes form along its path with the area downstream (west) of Hay, described as the Lower Murrumbidgee floodplain, exhibiting the most extensive wetland area of the catchment.

The natural flow regime of the Murrumbidgee River prior to regulation was characterised by low average flows in summer and autumn, and higher average flows in winter and spring (Page et al. 2005, in Watts 2010: 200). Flows would have naturally been variable, with rainfall events in the upper and mid catchment creating flow pulses that would have travelled down the river, potentially as far as the downstream reaches of the river. River regulation has substantially altered these characteristics as a result of upstream off-takes for irrigation purposes. River regulation has significantly reduced the magnitude of relatively frequent flooding events in the Murrumbidgee floodplains, with impacts to vegetation and fauna diversity and development.

Waterbodies within the Project Area include the Nyangay Creek, Eurolie Creek, Wargam Creek, and the Coleambally Outfall Drain, and their tributaries which all form part of the Murrumbidgee River Catchment.



## 5.6 FLORA AND FAUNA

The availability of flora and fauna resources are primary factors influencing patterns of past Aboriginal land use and occupation. Flora resources have been used by Aboriginal peoples as food, medicine, ceremony, as well as in the construction of tools, shelter and fire.

While the current landscape has been heavily influenced by clearing related to historic farming uses, the Project Area does contain several flora species which demonstrate Aboriginal cultural values.

River red gum (*Eucalyptus camaldulensis*) and river cooba (*Acacia stenophylla*) communities can be found along the river channels in sandy soils. Herbaceous perennial, annual, and post-flooding ephemeral species make up the understorey in these areas. River cooba was used by Aboriginal people as a source of food (the seeds ground for bread), as well as utilitarian uses (the bark was used as a poison for fishing, and the hard wood, *Yumang*, was used for boomerangs) (Williams and Sides 2008:18). These flora communities, also including cooba (*Acacia salicina*), lignum (*Muehlenbeckia cunninghamii*), nitre goosefoot (*Chenopodium nitrariaceum*), are typical of the Murrumbidgee Channels and Floodplains (Mbc) Mitchell Landscape (see Section 5.4) which encompasses the majority of the Project Area. Wood and resin from cooba were used by Aboriginal people to make and repair tools, whilst the tree was also considered medicinal with known uses being a mouth wash and body cleansing (Williams and Sides 2008:10).

The riverine forest communities of the Riverina Bioregion (IBRA 5.1) provide habitat for significant fauna including the superb parrot (*Polytelis swainsonii*), sugar glider (*Petaurus breviceps*), feathertail glider (*Acrobates pygmaeus*), squirrel glider (*Petaurus norfolcensis*), brush-tailed phascogale (*Phascogale tapoatafa*), koala (*Phascolarctos cinereus*), carpet python (*Morelia spilota*), freckled duck (*Stictonetta naevosa*) and peregrine falcon (*Falco peregrinus*) (Eardley 1999 in NPWS 2003:93).

Black box (*Eucalyptus largiflorens*) dominated woodlands with an accompanying understorey consisting of salt-tolerant grasses, saltbushes, and daisies and can be found in the grey and black clays on higher land. On land above the flood level, yellow box (*Eucalyptus melliodora*) communities can be found with both cypress pine and grey box (*Eucalyptus microcarpa*) in evidence. The bark of Black box, or Pulty, was used by Aboriginal people in making coolamons and canoes, whilst hollowed branches were fashioned into didgeridoos. Other parts of the tree were used for toolmaking, including the suckers which were used for spear making. Leaves and flowers were commonly used as adornments, especially during ceremonies (Williams and Sides 2008:30).

Stands of Black box offer habitat to a diversity of bird species including the bush thickknee (*Burhinus magnirostris*) and the superb parrot, which rely on box woodland and selected nest trees, typically river red gum. The shrublands and grasslands provide habitat to species such as the plains-wanderer (*Pedionomus torquatus*), bush thickknee, striped legless-lizard (*Delmar impar*) and fat-tailed dunnart (*Sminthopsis crassicaudata*).

Moving away from the rivers and streams the plain country is relatively treeless, supporting saltbush scrubland with old man saltbush (*Atriplex nummularia*), bladder saltbush (*Atriplex vesicaria*), ruby saltbush (*Enchylaena tomentosa*), nardoo (*Marsilea drummondii*) and cotton bush (*Maireana aphylla*) interspersed among the native grasslands (*Danthonia* spp. and *Stipa* spp.) (Williams and Sides 2008: 57) (Figure 5.7). Old man saltbush is used for medicinal purposes and in areas lacking wood supplies, old man saltbush can also be used as a source of wood for fires (per comms. with RAPs during ERM consultation 2023, Table 9.1). This species was present across most of the Project Area. Several native animals were sighted during the survey of the Project Area which included emu, kangaroo, quail, eagles, goannas and other small reptiles, and a range of small insects.

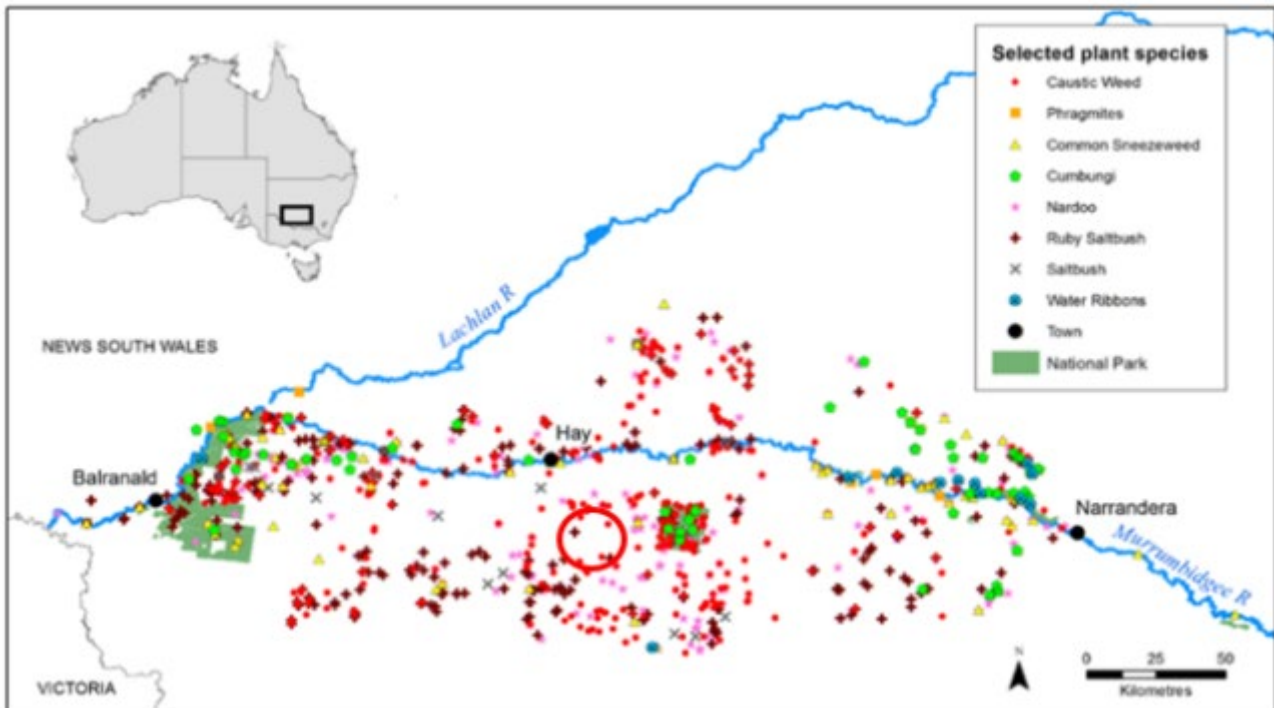


FIGURE 5.7 DISTRIBUTION OF SELECTED CULTURALLY IMPORTANT WETLAND SPECIES (DUFFY 2016 IN CHARLES STURT UNIVERSITY 2016) WITH APPROXIMATE LOCATION OF THE PROJECT AREA CIRCLED IN RED

## 5.7 HISTORIC LAND USES AND DISTURBANCES

The historical development of the Project Area is detailed in the *Pottinger Wind Farm, Historical Heritage Assessment* (ERM, 2024). The following has been taken from that report.

The Project Area is located within the pastoral runs of Burrabogie Block A and Burrabogie Block B, and Wirkenbengal Block and Wirkenbengal Block A (Figure 5.8). Large blocks of land in this region between the Murrumbidgee and Billabong Rivers were released by the Government c.1850s (Empire 1865:5). The Pottinger Energy Park, including the Project Area, spans the historic parishes of Bedarbidgal, Wirkenberjal, Euroley, Werkenbergal, Palmer and Wargam within the counties of Waradgery and Townsend. The Project Area lies within the historical parishes of Bedarbidgal and Wirkenberjal of Waradgery County, and Palmer, Euroley, Wargam and Werkenbergal of Townsend County.

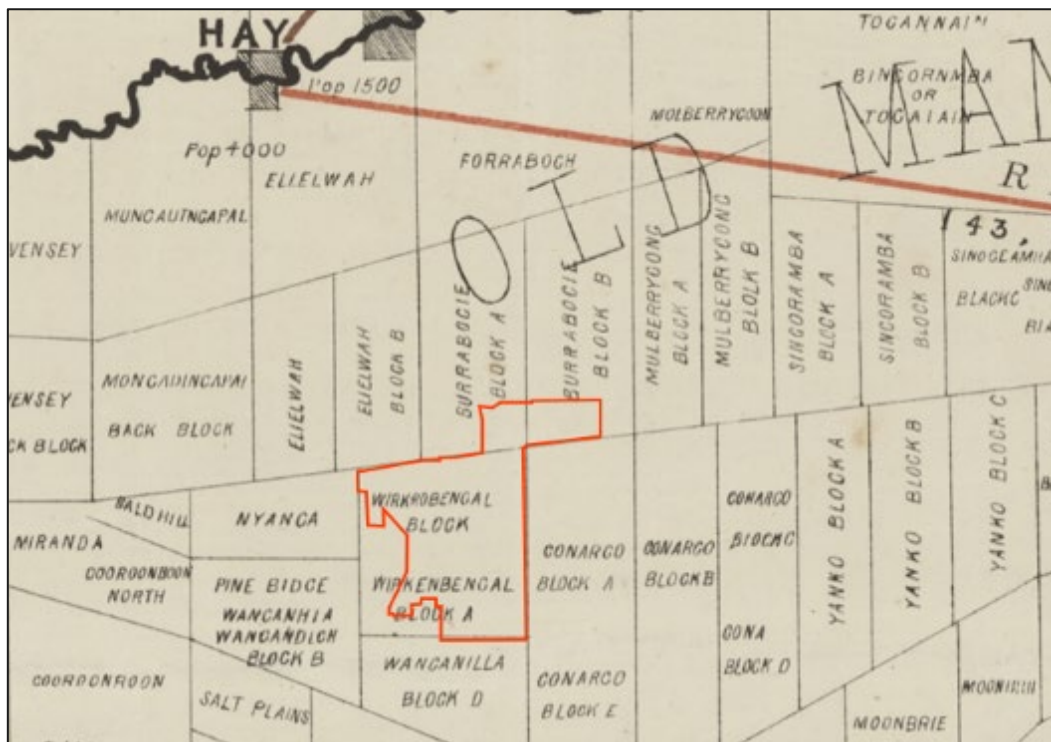


FIGURE 5.8 DETAIL OF 'DIRECT ROUTE TO HAY FROM WAGGA WAGGA', C.1881, SHOWING PROJECT AREA WITHIN THE PASTORAL RUNS OF BURRABOGIE BLOCK B AND CONARGO BLOCK A (SLNSW, M2 814.2/1881/1)

Burrabogie is believed to have been derived from the Indigenous words "Burra" meaning quick, and "bogie" swim (Australian Town and Country 1875:21). Burrabogie Blocks A and B later became encompassed by the larger Burrabogie Station, comprising six individual leaseholds totaling approximately 320,000 acres (Australian Town and Country Journal 1875:21). By 1875, Burrabogie Station was well established, with the Burrabogie House and associated outbuildings erected to the east of the Project Area. Besides the head station there were eight out-stations and twenty accommodation huts for the people employed. The station required about fifty constant farm hands, and at the time of shearing, about 200 men were employed. The property contained twenty-four dams, fourteen wells, and other agricultural equipment including a 'boiling down establishment' for melting sheep. The station ran 140,000 pure merino sheep and 200 head of short horn cattle at this time (Australian Town and County Journal 1875:21; Kapunda Herald and Northern Intelligencer, 1875: 4).

In 1885, the 'Burrabogie Resumed Area No.347', and Wargam Holding No.90' were gazetted following the introduction of the *Crown Lands Act 1884* (New South Wales Government Gazette 1890: 2378; New South Wales Government Gazette 1887:3615). In c.1886, the leasehold area of Burrabogie totaled 145,000 acres and the resumed area totaled 232,000 acres (NSW HLRV, 2023). In c.1886, the leasehold area of Wargam totaled 27,000 acres and the resumed area totalled 44,000 acres. By this time, a 'Home Station' along with a well and tank had been constructed in the south-western portion of the Project Area, and a hut, yards and tank had been erected in the central portion of the Project Area. A series of fenced yards, wells and tanks were also dispersed across the property (Figure 5.9).

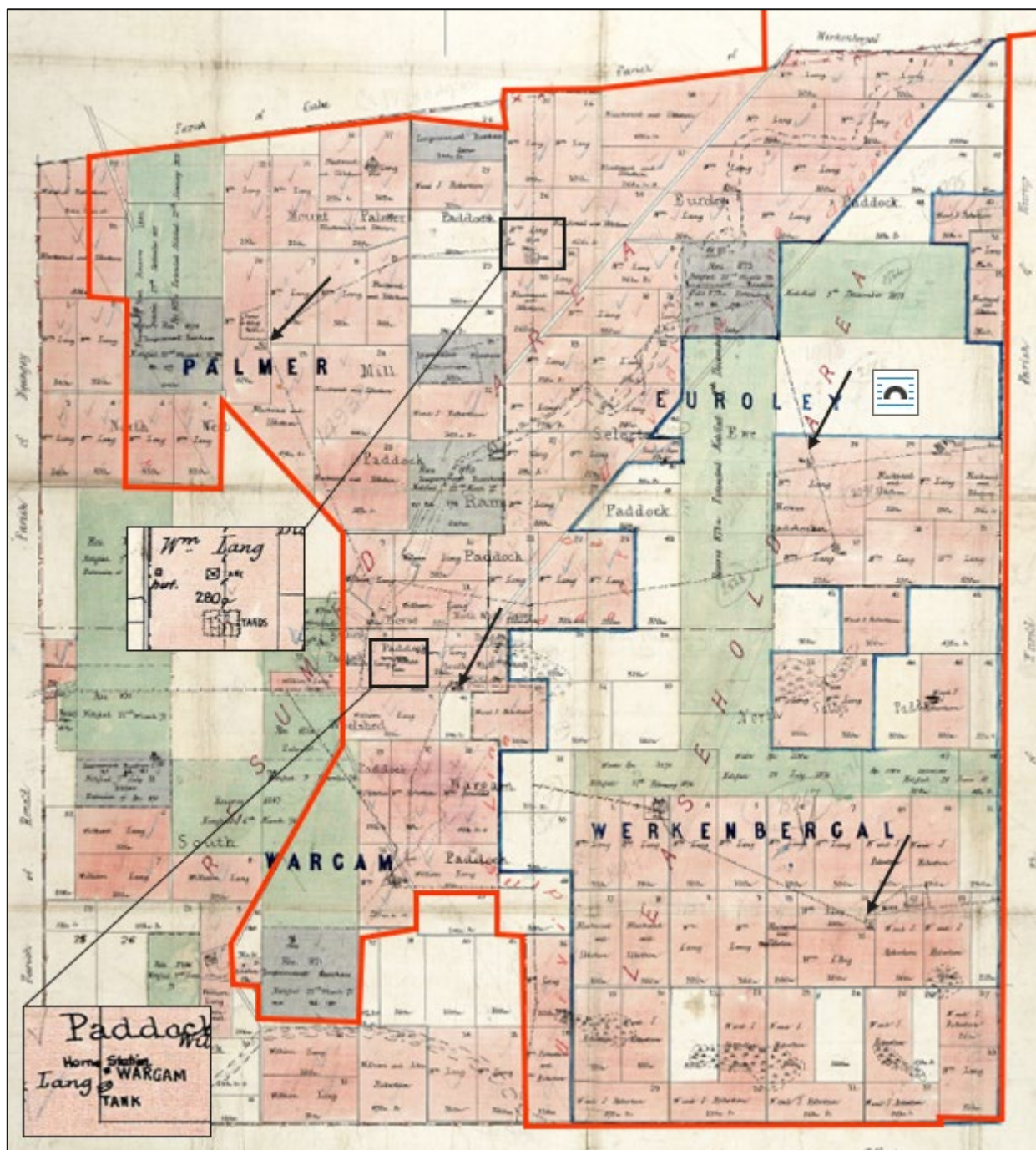


FIGURE 5.9 PASTORAL MAP OF 'WARGAM', C.1886, SHOWING DIVISION OF LEASEHOLD (EAST) AND RESUMED AREAS (WEST). THE PROJECT AREA IS BOXED. HUT (NORTH) AND HOME STATION (SOUTH) ARE INDICATED. LOCATIONS OF WELLS ARE ARROWED (NSW HISTORICAL LAND RECORDS VIEWER, [HTTPS://HLRV.NSWLRS.COM.AU/](https://HLRV.NSWLRS.COM.AU/))

Burrabogie Station was later subdivided and sold in the early twentieth century. However, the southern portion of the property was retained and became known as Burrabogie South Estate, comprising 59,088 acres. In 1924 Burrabogie South Estate was subdivided into seven farms ranging in size from approximately 5,000 to 15,000 acres. The Project Area is encompassed within Blocks 4 & 5. The subdivision plan indicates that the Project Area comprised rich red loamy soil and black soil, and was fenced (*Figure 5.10*). A cottage (that remains extant) was present in the north-western area, as well as a woolshed, tanks and yards. Two additional tanks were located in the northern portion of the Project Area, as well as one bore and two wells with attached mills. The wells on the property were reported to contain an abundant supply of fresh water (The Riverine Grazier, 1924: 2).

The Wargam Estate was purchased in c.1920-1923 by Messrs. Matthews and Ross (The Riverine Grazier 1937:2). By this time, the improvements on the property comprised a *homestead, woolshed, manager's house, stabling and numerous outbuildings* (The Australasian 1923:33).

Little has changed in the use of the properties encompassing the Project Area, as pastoral grazing of sheep and cattle remains the principal industry.

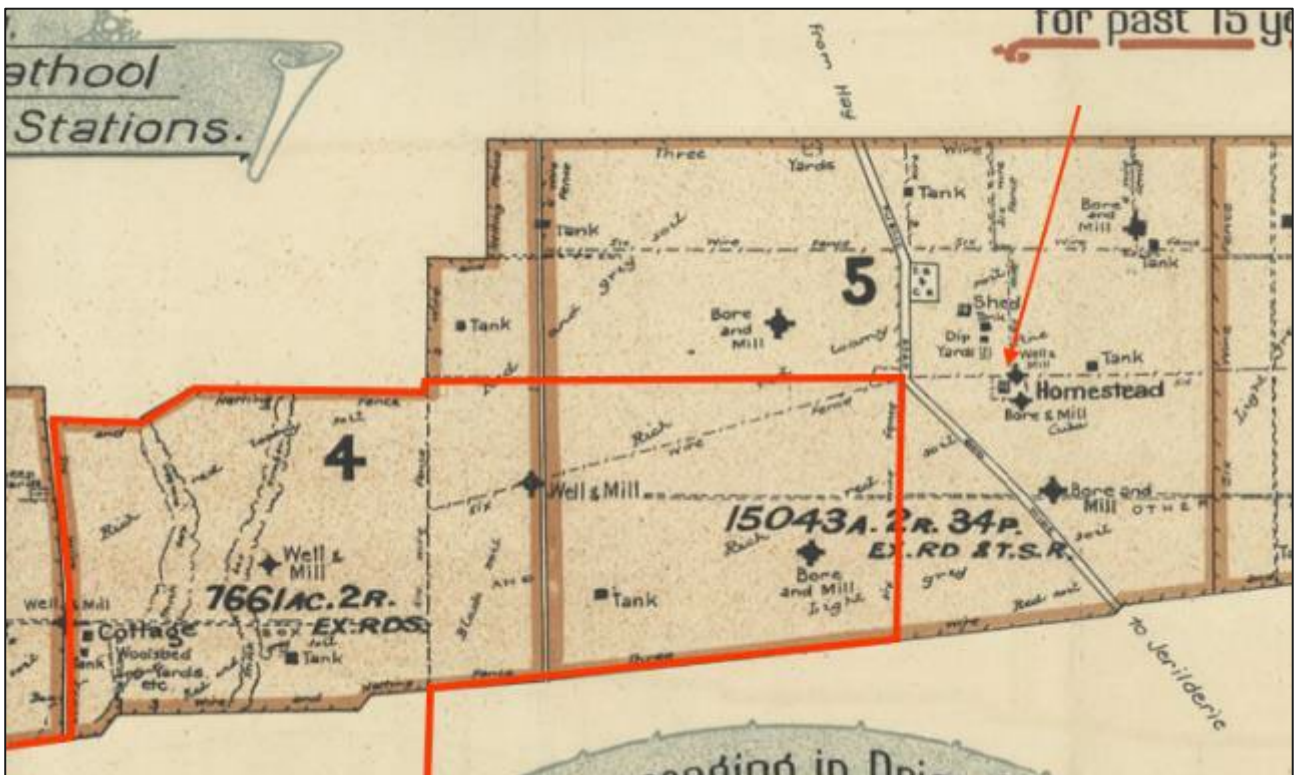


FIGURE 5.10 DETAIL OF BURRABOGIE SOUTH ESTATE SUBDIVISION PLAN, C.1924, SHOWING COTTAGE, WOOLSHED, TANKS, BORE, WELLS AND MILLS WITHIN THE PROJECT AREA (BOXED RED). THE HOMESTEAD IS ARROWED (SLNSW, CP/T4,Z/CP/T4)

## 6. ABORIGINAL ARCHAEOLOGICAL BACKGROUND

### 6.1 ETHNOGRAPHIC HISTORY

The Project Area is located around 210 km south-east of Lake Mungo, one of the most famous archaeological sites in Australia that has been dated back as far as 45,000 years (Hiscock 2000: 21-22). According to Pardoe & Martin (2001) in their Murrumbidgee Province Aboriginal Cultural Heritage Study, the Project Area is within the boundaries of the Kulin language group of the Western Murrumbidgee, encompassing the Nari Nari, Mathi Mathi, Wathi Wathi, and Wemba Wemba language groups, the boundaries of which are difficult to define and often overlap. Anthropologist Norman Tindale's 1940s map which shows the distribution and diversity of Aboriginal tribes and language groups across Australia maps the Wind Farm within the Nari Nari and Barapa Barapa groups (Figure 6.1).



FIGURE 6.1 TINDALE 1940 MAP OF ABORIGINAL TRIBES AND LANGUAGE GROUPS. RED CIRCLE SHOWING THE APPROXIMATE LOCATION OF THE PROJECT AREA (SL.NSW.GOV.AU)

The first encounter that many of the Nari Nari and Barapa Barapa people would have had with Europeans was in the early 1800s when explorers first entered the Riverine Plain and surveyed land within the Murray, Murrumbidgee, Lachlan, and Darling River catchments. The accounts of these early explorers provide valuable insight into the customs and culture of some of the Aboriginal groups of these areas. John Oxley surveyed the Riverina in 1817, accompanied by botanist Charles Cunningham. He followed the Lachlan River downstream below Booligal, but dense swamps prevented progress further west (Eardley 1999).

Between 1828 and 1831, Charles Sturt explored the Murrumbidgee and lower Murray Rivers. Sturt noted that as he travelled downstream along the Murrumbidgee, the population increased. He stated that near the Murrumbidgee-Lachlan junction there was a large tribe of natives...one hundred and twenty in number (Sturt 1833, in Pardoe & Martin 2001).

Sir Thomas Livingstone Mitchell (1792-1855) explored the Lower Murrumbidgee region in 1836. Mitchell kept journals of his expeditions, detailing observations of Aboriginal people in the region prior to European settlement of the area. Mitchell noted that the staple food crop, bulrush root or balyan was often roasted in features now known as earth mounds or hearths (Mitchell 1839: 134). In reference to these mounds, he stated;

*One artificial feature, not observed by me in other places, distinguishes the localities principally frequented by the natives, and consists in the lofty mounds of burnt clay, or ashes used by them in cooking. The common process of natives in dressing their provisions, is to lay the food between layers of heated stones; but here, where there are no stones, the calcined clay seems to answer the same purpose, and becomes better or harder, the more it is used. Hence the accumulation of heaps resembling small hills (Mitchell 1839: 80-81).*

Beveridge in his 1884 ethnography described the communities of the Murray, Murrumbidgee, Lachlan, and Darling areas as being family oriented. The mounds of the plains across the landscape represented territorial markers; the communities were patriarchal, led by elders (Beveridge 1884; Pardoe 1988; Martin 2006). Daily life often consisted of hunting or gathering, cooking, or preparing food, preparing tools such as canoes, and telling stories or playing games.

The rivers were central to the Aboriginal way of life, providing a rich concentration of food resources; Pardoe (1988) suggested that communities living along the rivers would have controlled access to the water and its resources, the rights to this occupation handed down from ancestors (Eardley 1999). For some eight months of the year, resources in the region were available in abundance; however, for the remaining four months of the year, it was substantially more difficult to forage for food. For this reason, the Aboriginal communities participated in a semi-sedentary lifestyle, moving periodically based on the availability of local resources, setting up temporary villages along the way. During the summer when the river systems were abundant, Aboriginal communities would remain in the vicinity for weeks or months (Beveridge 1884). Diet was largely determined by the seasonal availability of resources; the food that sustained them consisted primarily of fish, and of other animals including kangaroo, emu, and possum. Fish traps and weirs were used extensively in the Murrumbidgee region, built across the mouths of swamps and reed beds; these systems were likely used to store fish for months after the floods had passed (Pardoe & Martin 2001).

There is less detail about how Aboriginal people lived on the plains, more than 20 km from a main river channel. The plains were predominantly used in winter when there was usually more surface water resulting from winter rainfall and/or floodwaters pushed out from the rivers along the normally dry creeks. The Aboriginal people within the plains to the west of the lower Murrumbidgee (encompassing the Project Area) were said to retire to the Murrumbidgee and Lachlan Rivers as soon as the water on the plains dried up (Pardoe & Martin 2001).

One of the prominent physical features of the Aboriginal campsites were the ovens and/or mounds that were left behind. These features often formed central components within the campsite, most likely to have been used to cook (ovens) and potentially grow food (mounds) (Beveridge 1884; Pardoe & Martin 2001).

Beveridge noted that some mounds discovered in the area contained several and even dozens of burials within; he noted:

*Aboriginal skeletons are frequently found in the cooking mounds...the reason for the position of these skeletons, however, can easily be explained...as grave-digging is very arduous when hands are few and the implements merely yam sticks, the easiest method...is simply enough done by scraping a hole in the friable soil of the mound (Beveridge, 1884: 21-22).*

Even before European settlement in the region, diseases had spread from their handful of colonial holdings along the coastline. By the time explorers had reached the region, disease had ravaged the population. Beveridge described being involved in exhuming twenty-eight skeletons from a mound; when consulting the elders, he discovered that they were the remains of small-pox victims (Beveridge 1884: 22).

The groups within the Murray, Murrumbidgee, Lachlan, and Darling region were commercially connected. Trade for certain items would have been vital, as some resources, such as that used for stone tool production, were difficult or impossible to source locally. It also would have been an important method to access food during times of drought or hardship. Beveridge described the importance of certain members of society, the Ngalla Wattow, in facilitating trade links between Aboriginal communities; these men were able to communicate in the languages of the surrounding communities and provided the means to transport goods between these communities. These men were the lifeblood of their respective communities, and no harm was inflicted upon them from rival communities (Beveridge 1884).

## 6.2 ABORIGINAL HERITAGE INFORMATION MANAGEMENT SYSTEM

The AHIMS database provides information concerning previously recorded Aboriginal sites in NSW. An extensive search of the AHIMS database relevant to the Project was conducted on 28 September 2023 by shapefile. The search was conducted using the parameters provided in Table 6.1 . The AHIMS search results are provided in Appendix I.

**TABLE 6.1 AHIMS DATABASE SEARCH PARAMETERS (SEPTEMBER 2023)**

Parameters	Parameter Detail
Client Service ID	824233
Datum	GDA Zone 55
Buffer	0 m
Number Sites <sup>1</sup>	3

A total of three sites were identified within the Project Area. Sites within the Project Area included Artefact, Hearth and Culturally Modified Tree features. The presence of a variety of site types across the Project Area indicate a variety of complex land uses.

The results of the full AHIMS searches are summarised in *Table 6.2*.

**TABLE 6.2 AHIMS REGISTERED SITE TYPES (SEPTEMBER 2023)**

Site Type	Number of Sites within Project Area
Artefact	1
Artefact, Hearth	1
Artefact, Hearth, Modified Tree (Carved or Scarred)	1
<b>Total</b>	<b>3</b>

An additional search using a shapefile was completed on 29 November 2023 to encompass a change to the boundary of the Project Area. The search was conducted using the parameters provided in *Table 6.3* (encompassing the Pottinger Wind and Solar Farms).

**TABLE 6.3 AHIMS DATABASE SEARCH PARAMETERS (NOVEMBER 2023)**

Parameters	Search 1
Client Service ID	844350
Datum	GDA Zone 55
Buffer	1000 m
Number Sites <sup>2</sup>	57

A total of 57 valid sites are located within the Project Area. It should be noted that 42 of these identified sites were recorded by ERM during the archaeological surveys for the Pottinger Energy Park in November 2023 (encompassing both Wind and Solar Farm footprints). As such, there are 15 previously recorded sites within the search parameters. The results of the full AHIMS search are summarised in *Table 6.4*.

<sup>1</sup> Number of sites registered following data download on 28 September 2023.

<sup>2</sup> Number of sites registered following data download on 29 November 2023.

TABLE 6.4 AHIMS REGISTERED SITE TYPES (NOVEMBER 2023)

Site Type	Total Number of Site types across Search parameters	Number of previously recorded sites within Project Area
Culturally Modified Tree (Carved or Scarred)(CMT)	21	0
Artefact	11	1
Artefact, Hearth	9	1
Artefact, Hearth, Potential Archaeological Deposit (PAD)	5	0
Artefact, PAD	4	0
Hearth	4	0
PAD	1	0
Hearth, PAD	1	0
Artefact, Hearth, CMT	1	1
<b>Total</b>	<b>57</b>	<b>3</b>

### 6.3 AHIP REGISTER

A review of the following public AHIP registers was undertaken during the preparation of this report:

- AHIP public register 2021-2023 (as accessed on 29 November 2023); and
- AHIP public register archive 2010-2021 (as accessed 29 November 2023).

No AHIPs have been registered within the Project Area.

### 6.4 REGIONAL ARCHAEOLOGICAL BACKGROUND

#### 6.4.1 EXISTING REGIONAL PREDICTIVE MODELS

A localised landscape based predictive model was developed by Colin Pardoe for the 'Murrumbidgee Province' as part of the Murrumbidgee Province Aboriginal Cultural Heritage Study (Pardoe and Martin 2011). This predictive model has focused on the localised landform features and their relationship to site identification and includes assessment of the Project Area. Pardoe's assessments considered the relationship between several landform features and the location of sites making the following conclusions:

- Water – The pattern of site distribution was identified as having its greatest concentration within proximity to watercourses. Some variation in site distribution based on water source type was also noted:
  - Major Streams – No site was located more than 12 km from a major river channel with most sites found within a short distance of this channel (75% of sites were within 3.3 km of a major stream). For the purposes of predictive modelling all land within 5 km of a major stream was considered moderately sensitive, all lands within 3 km of a major river were considered highly sensitive;

- Minor Streams – No site was located more than 12 km from a minor stream (75% were within 2.2 km). For the purposes of predictive modelling all land within 5 km of a minor stream was considered moderately sensitive, all lands within 2 km of a minor stream were considered highly sensitive;
- Lakes – More than 82% of sites are found within 8 km of a lake. For the purposes of predictive modelling all land within 8 km of a lake was considered highly sensitive; and
- Swamps – No obvious pattern of distribution was identified which was attributed to variations in the way swamps are described in official mapping data.
- Landforms – Plains made up 93% of the Murrumbidgee Province, and as such minor variations in landform were noted to be significant as an impetus to the flow of water and location of resources. While sites were identified across most landform patterns; channelled plain and confined trace landforms were identified as containing a disproportionate number of sites. These landforms were most often associated with the modern active floodplain. Comparatively, burials were most often associated with scalded, channelled, and depressed plains associated with palaeo environments. Based on the Mitchell landform mapping, the majority of the Project Area is located within the Murrumbidgee Depression Plains and Murrumbidgee Scalded Plains. This landform would be considered likely to include most sites within the Project Area (*Figure 5.2*); and
- Soils – Soil type was noted for its association with water resources and vegetation communities. Based on this association, varying soil types were identified to be associated more closely with site features (hearths, mounds etc.) rather than overall site distribution.

The Hay Plain is generally located south of Hay and north of Deniliquin and sits within the Murrumbidgee Province. Additional large-scale reviews of archaeological site types were completed by Martin in her review of the Hay Plain (Martin 2007 and Martin 2010). Martin noted several patterns in site distribution related to environmental features:

- The narrow floodplains or confined traces of the Murrumbidgee and Lachlan, the Lowbidgee distributary system, the Gum Creek palaeochannel, and the Abercrombie Creek system in the Hay Plain have the highest density of sites. Large open water lakes also have a high density of sites;
- Sites are widely spread over different geomorphic categories across the Hay Plain with certain site types most likely to be identified in specific soil types. Confined traces (including the Murrumbidgee River), plains with channels, plains with depressions, and channelled plains contained a higher density of sites. Localised landforms including lunettes and lakes were also identified to have a higher-than-average site density;
- Mounds were identified to be located to parts of the Hay Plain and not directly related to geomorphology. Mounds were noted however to be particularly dense along confined traces, the Lowbidgee and Hay Plain Southeast;
- Middens were identified to be largely located along the confined traces of the major rivers and on large water lakes and lunettes;
- Open sites were more commonly found away from riverine grey cracking clays;
- Burials appeared to cluster in the western portion of the Hay Plain in similar locations to mounds. These sites were not identified to be connected to geomorphology;
- Artefact sites and ground ovens were recorded to have been spread widely across the Hay Plain; and

- All archaeological site types are considered likely to occur on slightly raised sandier palaeochannel features.

Martin noted that on a wider scale that the gently west sloped topography of the Hay Plain was identified to have an influence on the overall presence of sites. Martin suggested this may have been related to earlier water retention environments. Prior to modern water control systems, it was noted that the western half of the Hay Plain would have acted as a sump which collected seasonal floodwater and excess rainfall and would have provided appropriate resources for the growth of a number of plant and animal resources. Mound sites in the area surrounding Gum Creek and the Abercrombie Creek System were noted to be focused on palaeochannel features and around ephemeral lakes and swamps (Martin 2007: 199).

Most of the Project Area is comprised of landform types which were identified by Pardoe and Martin as having the potential to contain Aboriginal sites.

### 6.4.2 LOCAL ARCHAEOLOGICAL CONTEXT

A summary of the local archaeological context has been developed using the results of publicly available archaeological reporting and registered AHIMS sites within and in the vicinity of the Project Area. The result of this review helps to provide an indication of the range, nature, and distribution of archaeological sites within the local area.

#### 6.4.2.1 WITHIN THE PROJECT AREA

##### **Project EnergyConnect (NSW Eastern Section), Buronga to Wagga Wagga NSW (Navin Officer Heritage Consultants, 2022)**

Navin Officer Heritage Consultants prepared an ACHAR to support the EIS and Submissions Report for Project EnergyConnect, a new High Voltage interconnector between NSW and SA. Project EnergyConnect comprises several sections, the NSW Eastern Section would involve the installation of transmission lines between Buronga and Wagga Wagga. The Aboriginal heritage study area was generally a one-kilometre-wide corridor (500 m either side of the proposed alignment) between the Buronga substation and the Wagga Wagga substation, totalling approximately 540 kms and traversing nine Local Government Areas (LGA) being Wentworth Shire, Balranald Shire, Murray River, Edward River, Hay Shire, Murrumbidgee, Federation, Lockhart Shire, and Wagga Wagga LGAs. The proposed 330 kV transmission line traverses the southern portion of the Project Area, as shown in *Figure 6.2*.

Survey commenced in 2021 and by 2022 was completed for approximately 97% of the proposed alignment. During the surveys, 105 new Aboriginal sites and 45 areas of PAD were identified. In 2022 test excavations were completed for the PADs that were proposed to be impacted. The most common new site types identified were isolated finds (n=45) and artefact scatters (n=23).

Of these recorded sites, three sites are within the boundary of the Project Area; PEC-E-35 (AHIMS # 48-6-0164; Artefact), PEC-E-36 (AHIMS # 48-6-0165; Artefact Scatter, Hearth and Modified Tree) and PEC-E-37 (AHIMS # 48-6-0166; Artefact Scatter and Hearth). PEC-E-36 and PEC-E-37 also included a PAD; PEC-E-PAD22 and PEC-E-PAD23, respectively (*Figure 6.3*). The details of these sites are provided in *Section 8.1*. The landform of the survey unit (SUs) that was within the current Project Area was described as Alluvial Plain.

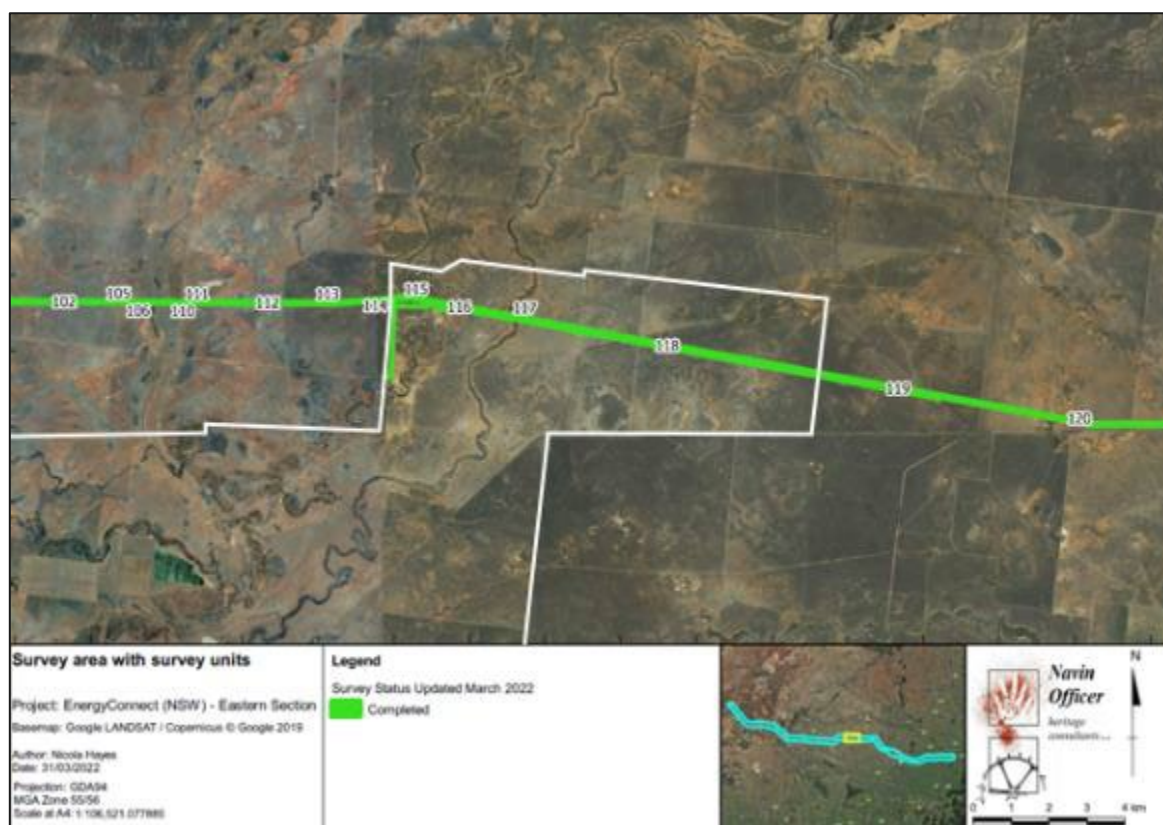


FIGURE 6.2 SURVEY AREA OF EASTERN SECTION OF ENERGYCONNECT TRAVERSING CURRENT PROJECT AREA (BOXED IN WHITE) (NAVIN OFFICER HERITAGE CONSULTANTS, 2022: 433, APPENDIX 5)



FIGURE 6.3 PEC-E-PAD22 AND PEC-E-PAD23 ASSOCIATED WITH SITES RECORDED WITHIN THE PROJECT AREA, MARKED WHITE (NAVIN OFFICER HERITAGE CONSULTANTS, 2022: 38)

#### 6.4.2.2 WITHIN THE VICINITY OF THE PROJECT AREA

##### **The Plains Renewable Energy Park (ERM 2023)**

In 2022, ERM prepared the individual Scoping reports for the Wind Farm and Solar Farm components of The Plains Renewable Energy Park, located approximately 12 km south of Hay (and 5 km west of the current Project Area). The two EIS reports for the project are currently being prepared. The proposed Plains Wind Farm will include up to 188 wind turbines and associated infrastructure. The proposed Solar Farm will comprise approximately 900,900 solar photovoltaic panels and associated infrastructure. A total of 41 valid AHIMS registered sites were identified as being within The Plains Renewable Energy Park.

The Plains Renewable Energy Park Project Area is comprised of a landscape which is predominantly flat with small rises generally adjacent to clay pans, ephemeral lakes, and small ponds. Some of these rises are natural dunes formed along palaeochannels or lake lunettes, and others are culturally created earth mounds, or a combination of both. These rises have been identified as suitable to retain archaeological deposits as they were the focus of Aboriginal occupation to have easy access to the nearby retained water during dry seasons, and to stay dry when much of the surrounding area was underwater during wet seasons.

##### **Keri Keri Wind Farm (ERM 2023)**

In 2021 and 2022, ERM prepared the individual Scoping reports for the proposed Keri Keri Wind and Solar Farm projects, located approximately 75 km west of Hay (and approximately 70 km west of the current Project Area). ERM is currently preparing two ACHARs for the site of the proposed Keri Keri Wind Farm (KKWF).

The KKWF encompasses approximately 18,081 ha of land and is proposed to include up to 159 wind turbine generators and associated infrastructure.

The KKWF Project Area is comprised of a landscape which is predominantly flat with small rises generally adjacent to clay pans, ephemeral lakes, and small ponds. Some of these rises are natural dunes formed along palaeochannels or lake lunettes, and others are culturally created earth mounds, or a combination of both. These rises have been identified as suitable to retain archaeological deposits as they were the focus of Aboriginal occupation to have easy access to the nearby retained water during dry seasons, and to stay dry when much of the surrounding area was underwater during wet seasons.

##### **Bullawah Wind Farm (Umwelt, 2022)**

In 2022, Umwelt prepared the Scoping Report and Preliminary Heritage Constraints Assessment for the Bullawah Wind Farm, located approximately 28 km south of Hay (and immediately adjacent to the current Project Area) (*Figure 6.4*). The EIS for the project is currently being prepared. The proposed Bullawah Wind Farm will include approximately 170 wind turbines and associated infrastructure.

The reports identified that 115 registered AHIMS sites were located within 10 km of the project boundary, with 13 located within the Bullawah Wind Farm project area. The majority of the sites (96 in total) were identified in the vicinity of waterways within the Oolambeyan National Park. Impacts to these sites were noted as being unlikely due to a 300 m buffer being applied to the Oolambeyan National Park.

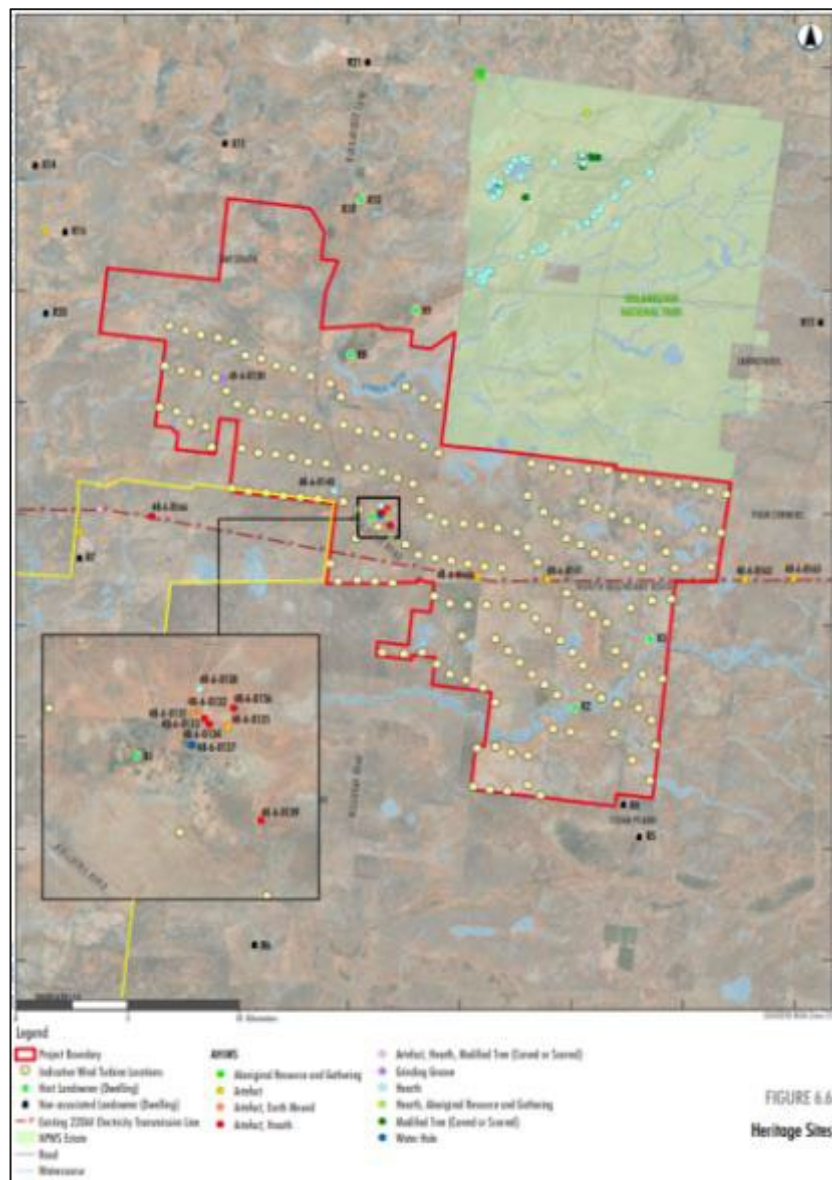


FIGURE 6.4 AHIMS SITES WITHIN BULLAWAH WIND FARM (UMWELT, 2022: 79).  
LOCATION OF CURRENT PROJECT AREA INDICATED IN YELLOW.

### Burial and Occupation at Dry Lake and Tchelery, Via Hay (Littleton and Johnston 1993)

Littleton and Johnston prepared a heritage report to summarise two burial sites located as part of the Burial Conservation Program undertaken in conjunction with Hay LALC. The report details the identification of two burial sites located at Dry Lake and Tchelery located approximately 75 km west of the Project Area.

Dry Lake west was described as containing a series of nine mounds with burial and hearth features comprised of mound and hearth features. The site was identified at the western side of Dry Lake which is notable for scalds of coarse red sands. Notably, several of the burials in this location were associated with hearth or clay ball features. Mound features were reported to be spaced approximately 200 m apart with the mounds exhibiting evidence of different land uses including stone artefact production and shellfish consumption. Littleton observed that burials were most often identified in the western half of a mound feature and noted that this may reflect primarily a pattern of erosion.

The Tchelery location was identified approximately 300 m west of Dry Lake in an isolated stand of blackbox and saltbush surrounding an indistinct depression. It was assessed that this depression may have formed a water source in the past. Three mound features were identified at this location including one large mound extending approximately 80 x 120 m. As with Dry Lake, several burials were located across these mound features in association with heat retainer hearth features.

Littleton and Johnson concluded that the sites support a pattern being identified across the Hay Plain associated burials with occupation mound sites. Burials were noted to be common and sometimes numerous in mounds were often associated with campfire debris. Littleton further notes that burials in the Hay Plain have been identified to demonstrate several unique features including a variability of burial position and posture, the inclusion of children's remains and the density of burials.

### **Abercrombie Water Efficiency Project Balranald, Murrumbidgee River and Hay LGAs (OzArk 2017)**

Between 2014 and 2016, OzArk Environmental & Heritage Management Pty Ltd (OzArk) conducted surveys and assessments of the Abercrombie Water Efficiency Project (AWEP), which consisted of a 10 m wide corridor along approximately 276 km of pipeline as well as small areas of ancillary water infrastructure. The AWEP study area is approximately 115 km west of the Project Area. Initial investigation by OzArk had identified seven sites, three of which being open campsites. An AHIP application was recommended for two isolated finds (WAIF1, a grinding stone fragment; and WA-IF3, a flaked piece of silcrete), but was refused based on lack of survey coverage. Re-assessment was undertaken including pedestrian transects and an AHIP application was subsequently approved by the OEH, allowing for the harm (removal) to the two previously mentioned objects and the management of a further 42 Aboriginal objects or 'no harm' areas. The 42 'no harm' sites within the Project Area contained a variety of different features including PADs, modified trees, isolated artefacts, artefact scatters, and oven artefacts. The variety in site types found throughout the Keri Keri area suggests that the region was seasonally inhabited by Aboriginal people.

### **Darlington Point Solar Farm Aboriginal Cultural Heritage Assessment (Kelleher Nightingale Consulting Pty Ltd 2018)**

In 2017, Kelleher Nightingale Consulting surveyed 1,050 ha of land for the Darlington Point Solar Farm located approximately 7.5 km south-east of the Darlington Point township (approximately 90 km east of the Project Area). There were four previously registered sites within the study area (cCMTs, earth mounds and one hearth). The survey identified five new Aboriginal sites (four CMTs, and one artefact scatter), as well as one potential CMT.

The archaeological evidence indicated that a range of activities were undertaken within the study area; the nature of the scars on the CMTs indicated that the bark was being acquired for several different purposes. The sites were located on flat landforms, with the majority being located within one kilometre of an unnamed drainage line. The survey identified that most of the study area contained no potential for subsurface archaeology due to the unfavourable location, tree clearance and the presence of vertosols across the area.

### **Aboriginal Cultural Heritage Assessment Sunraysia Solar Farm Balranald (NGH Environmental 2016)**

In 2016, NGH Environmental surveyed 800 ha of land for the proposed Sunraysia Solar Farm near Balranald, located approximately 145 km west of the Project Area. Most of the survey area was within the Condoulpe land system, consisting of sand plains and dune fields with dense to scattered mallee near Balranald. A small portion of the proposed transmission line alignment is within the Perekertin land system consisting of transitional riverine plains. The landforms were generally the same across the survey area, that is, dunes of varying heights and swales, with gentle slopes in between. The low gradient, gently sloping terrain did not provide any marked differentiation in the soils, vegetation or other variable that may have led to different Aboriginal site use of the environment.

No Aboriginal sites had been previously recorded within or adjacent to the study area. Despite the variable visibility encountered during the survey (with some land cultivated and uncultivated), three sites comprising two clusters of burnt clay recorded as ovens were recorded, as well as a site complex of seven stone artefacts and three hearths. Most of the cultural material was recorded with the Perekertin landscape system and relatively undisturbed areas. It was stated that the recorded sites were not in proximity to water sources, reflecting the opportunistic use and broader movement of people. NGH Environmental noted that lack of scarred trees in the assessment area was likely due to historic clearance across the assessment area and the lack of permanent water within the assessment area. It was stated as possible that additional artefacts and hearths could occur within the disturbance footprint; however, based on the land use history of the area, there was low potential for the presence of intact subsurface deposits. NGH Environmental interpreted the nature of the archaeological material within this landscape to suggest that Aboriginal use of the landscape was intermittent.

### **Balranald Mineral Sands Project Aboriginal Cultural Heritage Assessment (Niche 2015)**

Between 2012 and 2014, Niche undertook a survey of approximately 2,120 ha of land for the Balranald Mineral Sands Project (totalling 9,964 ha), located approximately 160 km north-west of the Project Area. A total of 548 sites were identified over the course of the project, 383 of which were located within the study area. A database of sites for the project was created that is referred to as the Balranald Project Aboriginal Heritage Database. During the field survey an emphasis was placed on visually inspecting alluvial plains, playas, and basins while sand plains, sand dunes, and areas with reduced archaeological visibility had less focus. While 11 land systems were identified and surveyed within the Balranald Mineral Sands Project, a moderate number of Aboriginal sites were in the Rata landform.

The study area contained landscapes with a high and moderate archaeological value, but most was considered to have low archaeological value and was assessed as being of fair to poor condition; this was reflective of the impacts of grazing and historic land use.

Stone artefact occurrences as isolated finds and clusters were the most common site types identified, followed by hearths. Niche noted that there was a strong correlation between the location of sites and dunes, rises, lunettes, and exposures associated with depressions or a decrease in elevation in the landscape. Silcrete artefacts dominated the assemblage and accounted for 93.5% of the recorded artefacts. The bulk of the stone artefacts recorded were complete flakes, broken flakes, and angular fragments. Retouched flakes or tools formed a small percentage of the assemblage with several tool types identified including burins, burrens, piecers, and assorted scrapers. Niche (2015) concluded that within the study area sites fell into either short-term occupation or single activity sites, or specific long term seasonal nodal sites.

### **Balranald Sun Farming Project, NSW (Biosis 2017)**

In 2017, Biosis surveyed approximately 2,058 ha of land for the Limondale Sun farm, near Balranald, located approximately 145 km west of the Project Area. The study area had poor ground surface visibility and was comprised of fields of wheat and other crops. The agricultural use of the study area caused extensive disturbance, including vegetation clearance, ploughing, fencing, and the creation of vehicle tracks and access roads. The two main landforms within the study area were Murrumbidgee scalded plain and Mallee cliff sandplain.

Five previously registered Aboriginal sites were located within the study area; the survey relocated all sites and found them to be in good condition. Additionally, 11 previously unrecorded sites were identified within the study area, one of which was associated with a new PAD. Most of these sites, particularly hearths and earth mound complexes, were located on red earth within Murrumbidgee scalded plain land systems. The sites located within the Mallee Cliff sandplains land system indicated much lower intensity of use than those located within the Murrumbidgee scalded plains. All stone artefacts were silcrete. The large number of hearth sites, as well as the presence of four earth mounds within the study area suggest it was likely used extensively by Aboriginal groups in the past. The presence of two examples of mixed historical and Aboriginal sites (hearths with associated historic material) demonstrate that the land continued to be used by Aboriginal people following European settlement.

### **6.4.3 PRELIMINARY PREDICTIVE MODEL**

There are several factors which have the potential to bias the results and interpretations of former archaeological studies. These factors include elements such as:

- The landform on which a site is observed is not necessarily the site's origin. Post-depositional processes including impacts from flooding and bioturbation are likely to have resulted in the movement of archaeological deposits;
- Biases in landforms investigated are limited by proposed development locations or areas of interest to the archaeologist. Further variation in type, accuracy and level of reporting exist; and
- Site interpretation can be skewed by level of ground surface visibility and fragmentation of the archaeological record.

The following statements provide a summary of identified archaeological site patterning in the Project Area:

- Stone artefact sites are likely to be located across a variety of soil and geomorphological areas within the Project Area;
- Aboriginal occupation sites are likely to be concentrated in proximity to current or former watercourses (palaeochannels);
- Aboriginal sites within the Project Area are likely to include instances of mounds, hearth, artefact, burial, and PAD features;
- Mound, hearth, burial, and PAD features are likely to be concentrated in areas associated with palaeochannel landforms and in areas of ephemeral lakes and swamps;
- AAR sites are likely to be located within raised sandy landforms found in association with palaeochannel features as well as within mound features;
- Archaeological remains associated with low lying clay-based environments within the Project Area are likely to be limited to surface artefact sites;
- CMTs may be present across the Project Area in areas of mature vegetation. Due to the limited presence of tree species across the Project Area, CMTs are likely to be rare within the Project Area; and
- Disturbance to Aboriginal sites across the Project Area is likely to be associated with the impact of stock grazing (refer to *Section 5.7* for description of historical land use), flooding, erosion, and wind. These post-depositional forces are considered likely to have had a significant impact on the geographic distribution and intactness of archaeological material.

The Project Area is considered to demonstrate moderate to high potential to contain Aboriginal sites.

## 7. SURVEY METHODOLOGY

### 7.1 AIMS

The aims of the cultural heritage survey were to:

- Cover a representative sample of landforms across the Project Area with a focus on areas with potential to be impacted by the Wind Farm development;
- To consult with RAPs over the course of the project life and provide the RAPs an opportunity to provide feedback on the cultural values and elements of cultural heritage significance within the Project Area; and
- Record all Aboriginal objects or sites identified during survey.

### 7.2 METHODOLOGY AND COVERAGE

Survey comprised the completion of linear transects across the footprint of the proposed wind farm, proposed access tracks, and associated infrastructure. Survey was complete with discrete transects to sample both high and low potential landforms. Landforms associated with palaeochannel environments as delineated by gently raised red sandy landforms were a particular focus of survey.

The Project Area was defined as several survey units, based on landform features (*Figure 7.1*). Transects were completed across the survey area (encompassing the disturbance footprint), using a combined method of pedestrian and driving survey. Survey of each transect was undertaken with a survey team of between seven and ten people with the team spaced approximately 10 - 50 m apart. Where areas of exposure or visible potential archaeological features were identified members of the transect team temporarily deviated from their assigned transect to inspect in closer detail.

Sites were defined in accordance with the methodology defined in *Sections 3.4.2* and *3.4.3*.

A GPS track log was used to track the path of the members of the survey team, as seen in *Figure 7.1*, record the coordinates of survey transects as well as the location of Aboriginal sites.

A photographic record was kept during the survey. Photographs were taken to record aspects of each survey unit including landform, surface exposures, vegetation, areas of disturbance, and any identified Aboriginal site or area of archaeological potential. Scales were used for photographs where required, as specified in the Code of Practice.

### 7.3 PARTICIPANTS

The first survey across the Project Area was undertaken between 6 November and 10 November 2023. The second was undertaken between 4 December to 8 December 2023, and the third was completed between 29 January and 9 February 2024. An additional survey of the site entrance in the north-eastern portion of the Project Area was undertaken on 23 February 2024. Excellent survey conditions meant that the field program did not have any delays or cancellations. The survey was undertaken concurrently with another Project Area; the majority of time was spent surveying the Wind Farm Project Area.

Participants in each survey day is shown in *Table 7.1*.

TABLE 7.1 SURVEY ATTENDANCE

Name	Organisation	Role	Date
Lorien Perchard	ERM	Survey supervisor	<b>First Survey:</b> 06/11/2023 - 10/11/2023  <b>Fourth Survey:</b> 23/02/2024
Victoria Gleeson	ERM	Archaeologist	<b>First Survey:</b> 06/11/2023 - 10/11/2023  <b>Third Survey:</b> 29/01/2024 - 02/02/2024  <b>Fourth Survey:</b> 23/02/2024
Mia Linton-Smith	ERM	Archaeologist	<b>Second Survey:</b> 04/12/2023 - 8/12/2023  <b>Third Survey:</b> 05/02/2024 - 09/02/2024
Brent Koppel	ERM	Survey supervisor	<b>Second Survey:</b> 04/12/2023 - 8/12/2023
Damian Wall	ERM Subcontractor (Red-Gum Environmental Consulting Pty Ltd)	Archaeologist	<b>Third Survey:</b> 29/01/2024 - 02/02/2024
Maggie Cronin	ERM Subcontractor (Red-Gum Environmental Consulting Pty Ltd)	Archaeologist	<b>Third Survey:</b> 05/02/2024 - 09/02/2024
[removed from public display]	Hay LALC/ Nari Nari Tribal Council	RAP site officer	<b>First Survey:</b> 06/11/2023 - 10/11/2023  <b>Fourth Survey:</b> 23/02/2024
[removed from public display]	Hay LALC/ Nari Nari Tribal Council	RAP site officer	<b>First Survey:</b> 06/11/2023 - 07/11/2023; 10/11/2023  <b>Fourth Survey:</b> 23/02/2024
[removed from public display]	Hay LALC/ Nari Nari Tribal Council	RAP site officer	<b>First Survey:</b> 06/11/2023 - 10/11/2023
[removed from public display]	Hay LALC/ Nari Nari Tribal Council	RAP site officer	<b>First Survey:</b> 06/11/2023 - 07/11/2023
[removed from public display]	Hay LALC/ Nari Nari Tribal Council	RAP site officer	<b>First Survey:</b> 06/11/2023 - 10/11/2023
[removed from public display]	Hay LALC/ Nari Nari Tribal Council	RAP site officer	<b>First Survey:</b> 06/11/2023 - 09/11/2023
[removed from public display]	Hay LALC/ Nari Nari Tribal Council	RAP site officer	<b>First Survey:</b> 08/11/2023 - 09/11/2023

Name	Organisation	Role	Date
[removed from public display]	Hay LALC/ Nari Nari Tribal Council	RAP site officer	<b>First Survey:</b> 06/11/2023 - 10/11/2023
[removed from public display]	Hay LALC/ Nari Nari Tribal Council	RAP site officer	<b>First Survey:</b> 08/11/2023; 10/11/2023
[removed from public display]	Hay LALC/ Nari Nari Tribal Council	RAP site officer	<b>First Survey:</b> 07/11/2023 - 09/11/2023
[removed from public display]	Hay LALC/ Nari Nari Tribal Council	RAP site officer	<b>First Survey:</b> 06/11/2023; 09/11/2023 - 10/11/2023
[removed from public display]	Barapa Barapa Nation	RAP site officer	<b>Second Survey:</b> 04/12/2023 - 8/12/2023
[removed from public display]	-	RAP site officer	<b>Second Survey:</b> 04/12/2023 - 7/12/2023
[removed from public display]	Deniliquin LALC	RAP site officer	<b>Second Survey:</b> 04/12/2023 - 7/12/2023  <b>Third Survey:</b> 29/01/2024 - 2/02/2024;
[removed from public display]	Deniliquin LALC	RAP site officer	<b>Second Survey:</b> 04/12/2023 - 8/12/2023  <b>Third Survey:</b> 29/01/2024 - 2/02/2024;
[removed from public display]	Yarkuwa Indigenous Knowledge Centre	RAP site officer	<b>Second Survey:</b> 04/12/2023 - 8/12/2023  <b>Third Survey:</b> 29/01/2024 - 31/01/2024
[removed from public display]	Wakool Indigenous Corporation	RAP site officer (work experience)	<b>Second Survey:</b> 04/12/2023 - 8/12/2023
[removed from public display]	Wakool Indigenous Corporation	RAP site officer	<b>Second Survey:</b> 04/12/2023 - 8/12/2023
[removed from public display]	Pappin Family Aboriginal Corporation	RAP site officer	<b>Second Survey:</b> 05/12/2023 - 8/12/2023  <b>Third Survey:</b> 29/01/2024 - 2/02/2024
[removed from public display]	Pappin Family Aboriginal Corporation	RAP site officer	<b>Third Survey:</b> 29/01/2024 - 2/02/2024
[removed from public display]	Yarkuwa Indigenous Knowledge Centre	RAP site officer	<b>Third Survey:</b> 29/01/2024 - 31/01/2024
[removed from public display]	Wakool Indigenous Corporation	RAP site officer	<b>Third Survey:</b> 29/01/2024 - 31/01/2024
[removed from public display]	Wakool Indigenous Corporation	RAP site officer	<b>Third Survey:</b> 29/01/2024 - 31/01/2024
[removed from public display]	Pappin Family Aboriginal Corporation	RAP site officer	<b>Third Survey:</b> 2/02/2024; 05/02/2024 - 09/02/2024

Name	Organisation	Role	Date
[removed from public display]	Pappin Family Aboriginal Corporation	RAP site officer	<b>Third Survey:</b> 05/02/2024 – 09/02/2024
[removed from public display]	Southern West Yiradyuri Will Carter Clans	RAP site officer	<b>Third Survey:</b> 05/02/2024 – 09/02/2024
[removed from public display]	Southern West Yiradyuri Will Carter Clans	RAP site officer	<b>Third Survey:</b> 05/02/2024 – 06/02/2024
[removed from public display]	Southern West Yiradyuri Will Carter Clans	RAP site officer	<b>Third Survey:</b> 07/02/2024 – 09/02/2024
[removed from public display]	Deniliquin LALC	RAP site officer	<b>Third Survey:</b> 05/02/2024; 08/02/2024 – 09/02/2024
[removed from public display]	Hay LALC/ Nari Nari Tribal Council	RAP site officer	<b>Fourth Survey:</b> 23/02/2024

## 7.4 SURVEY COVERAGE

An assessment of survey coverage was completed to quantitatively assess the effectiveness of the survey at identifying Aboriginal objects. The assessment of effective survey coverage provides a measure of whether Aboriginal objects are readily visible, buried or otherwise obscured. The conditions which effect the detection of Aboriginal objects are referred to as exposure and visibility.

**Visibility** is the amount of bare ground that is present across a survey area. Visibility is lowered by elements which conceal the ground surface such as leaf litter, vegetation, stony ground of introduced materials.

**Exposure** estimates the percentage of land for which erosional processes and exposure was sufficient to reveal archaeological evidence on the ground.

In accordance with the Code of Practice, a summary of the survey coverage as delineated into SUs and landform is provided in *Table 7.2* and *Table 7.3*. The landforms have been designated according to their Aboriginal heritage sensitivity (see *Section 8.4*). The below survey coverage information relates to the current layout of the Project Area.

**TABLE 7.2 SURVEY COVERAGE SUMMARY – SURVEY UNITS**

Survey Unit	Survey Unit Area (m <sup>2</sup> )	Landform	Visibility (%)	Exposure (%)	Effective Coverage (m <sup>2</sup> )	Effective Coverage (%)
A	63,381	Prior Stream (Paleochannel Landform), Nyangay Creek	80%	85%	43,099	68%
B	30,461,800	Flood plain (Palaeochannel Landform) / Hay Plain	30%	25%	2,284,635	7.5%

Survey Unit	Survey Unit Area (m <sup>2</sup> )	Landform	Visibility (%)	Exposure (%)	Effective Coverage (m <sup>2</sup> )	Effective Coverage (%)
C	162,132	Prior Stream (Paleochannel Landform), Eurolie Creek	80%	85%	110,250	68%
D	5,558,120	Flood plain (Palaeochannel Landform) / Hay Plain	15%	10%	83,372	1.5%
E	4,614,580	Flood plain (Palaeochannel Landform) / Hay Plain	25%	10%	115,365	2.5%
F	232,468	Modified, Coleambally Outfall Drain	20%	10%	4,649	2%
G	41,608,100	Flood plain (Palaeochannel Landform) / Hay Plain	40%	50%	8,321,620	20%
H	49,746	Prior Stream (Paleochannel Landform), Wargam Creek	10%	20%	995	2%

**TABLE 7.3 SURVEY COVERAGE SUMMARY – LANDFORMS (AS DESCRIBED BY ABORIGINAL HERITAGE SENSITIVITY)**

Landform	Landform Area (m <sup>2</sup> )	Area Surveyed (m <sup>2</sup> )	Percentage of Landform Surveyed (%)	Area Effectively Surveyed (m <sup>2</sup> )	Percentage of Landform Effectively Surveyed (%)	Number of Sites
High (total)	107,296,590	19,313,386	18%	4,345,512	22.5	73
High (in Survey Area)	24,724,506	19,779,605	80%	4,450,411	22.4	44
Moderate (total)	153,971,600	47,731,196	31%	4,276,715	8.9	38
Moderate (in Survey Area)	57,450,102	48,832,588	85%	4,375,400	9	24
Low (total)	2,415,010	458,852	19%	9,177	1.9%	0
Low (in Survey Area)	574,686	459,749	80%	9,195	2	0

## 7.5 SURVEY UNITS

A summary of the survey unit is provided in *Table 7.4* and shown in *Figure 7.1*.

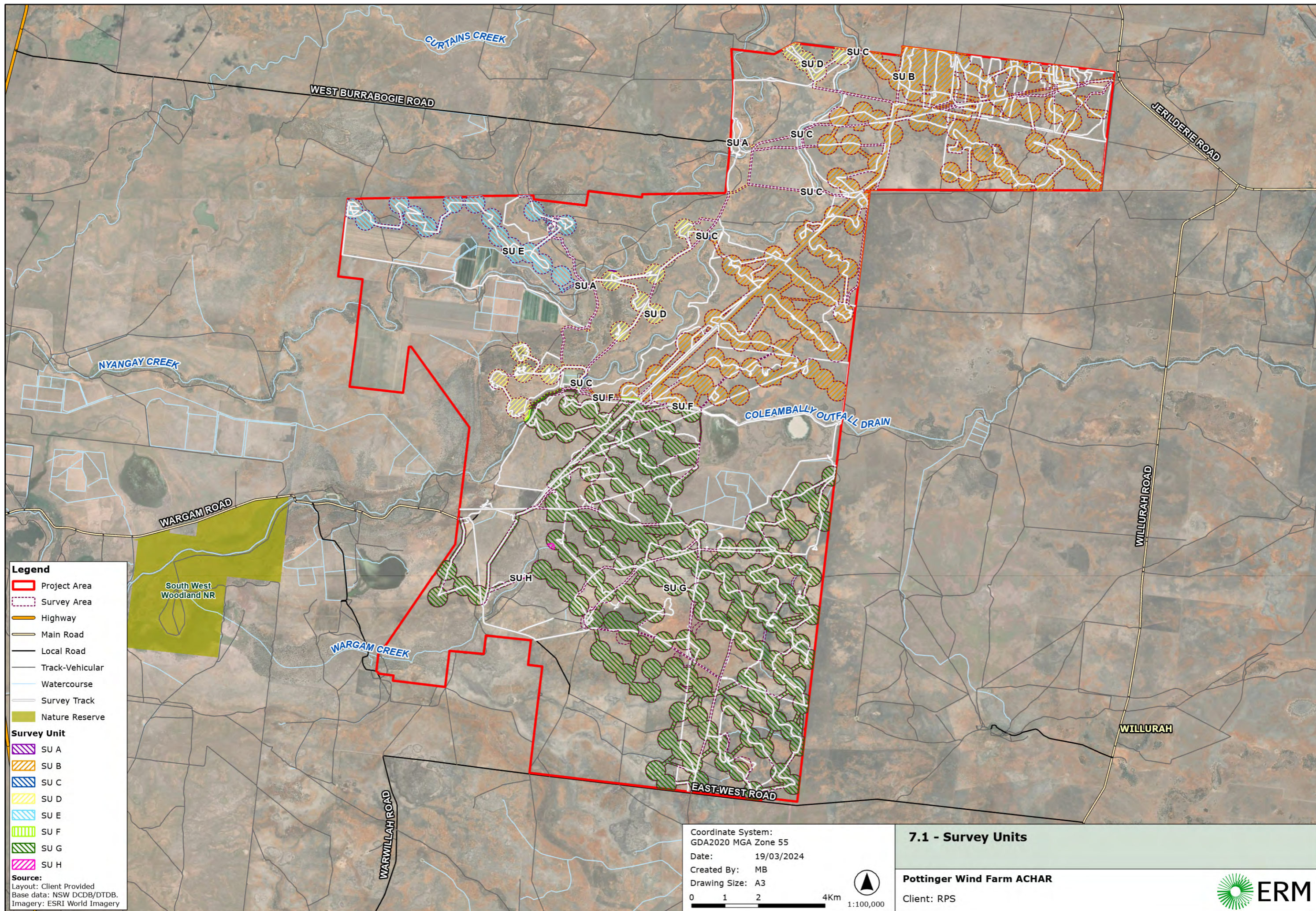










TABLE 7.4 PROJECT AREA SURVEY UNITS

Survey Unit	Description	Identified cultural features	Photograph
<p><b>Survey Unit A</b></p> <p><b>Landform features:</b> Prior Stream (Paleochannel Landform), Nyangay Creek</p> <p><b>Size:</b> 6 ha</p> <p><b>Visibility:</b> 80%</p> <p><b>Exposure:</b> 85%</p>	<p>SU A comprises Nyangay Creek and a 100 m buffer either side encompassing the creek banks. The creek generally runs in a north-south direction through the western portion of the Project Area. The creek bed is generally dry (and has not run for several years) with silty and clay sands. The riverbed also contains dense Black box trees. The adjacent creek banks are slightly raised approx. 1m, and generally comprise red, well-draining sands. Several hearths were recorded on the elevated banks adjacent to the creek line.</p>	<p><b>Aboriginal heritage values:</b></p> <ul style="list-style-type: none"><li>• Artefact;</li><li>• Hearth;</li><li>• PAD; and</li><li>• CMT.</li></ul> <p><b>Historic heritage values:</b></p> <ul style="list-style-type: none"><li>• None</li></ul>	<div></div> <p>PHOTOGRAPH 7.1 VIEW NORTH OF SU A SHOWING DISCARDED EQUIPMENT AND RUBBISH ADJACENT TO NYANGAY CREEK (ERM 2023)</p>



Survey Unit	Description	Identified cultural features	Photograph
<p><b>Survey Unit B</b></p> <p><b>Landform features:</b> Flood plain (Palaeochannel Landform) / Hay Plain</p> <p><b>Size:</b> 3,046 ha <b>Visibility:</b> 30% <b>Exposure:</b> 25%</p>	<p>SU B was defined as the area to the east of Eurolie Creek and north of the Coleambally Outfall Drain.</p> <p>SU B was a flat plain with varying height in terrain due to water movement. Grasses and saltbushes were extremely dense in the slight depressions (~50-80cm). Areas of exposed red sands and clays were present throughout.</p> <p>Further south through the SU, seemed to have more scored surfaces and other archaeological features, and past activity areas. The southern-most area of the SU was characterised by dense vegetation including cotton bush, resulting in very low ground visibility. It should be noted that some WTG locations were not accessible due to dense vegetation.</p> <p>Grasses (foxtail, wallaby), salt bush, and native flowers were generally thick throughout.</p> <p>Fauna noted throughout SU B were emu, brown kite, wild rabbits, magpies, and magpie-larks.</p>	<p><b>Aboriginal heritage values:</b></p> <ul style="list-style-type: none"> <li>• Artefact;</li> <li>• Hearth;</li> <li>• PAD; and</li> <li>• CMT.</li> </ul> <p><b>Historic heritage values:</b></p> <ul style="list-style-type: none"> <li>• None</li> </ul>	 <p>PHOTOGRAPH 7.2 VIEW NORTH-WEST ACROSS SU B TOWARDS LOCATION OF WTG 43 (ERM 2023)</p>  <p>PHOTOGRAPH 7.3 VIEW ACROSS SU B IN THE SOUTHERN AREA (ERM 2023)</p>



Survey Unit	Description	Identified cultural features	Photograph
<p><b>Survey Unit C</b></p> <p><b>Landform features:</b> Prior Stream (Paleochannel Landform), Eurolie Creek</p> <p><b>Size:</b> 16 ha <b>Visibility:</b> 80% <b>Exposure:</b> 75%</p>	<p>SU C comprises Eurolie Creek and a 100m buffer on either side, encompassing the creek banks. The creek generally runs in a north to south direction within the northern portion of the Project Area, before joining the Coleambally Outfall Drain.</p> <p>The creek bed is generally dry (and has not run for several years) with silty and clay sands. The riverbed also contains dense Black box trees. Adjacent to the creek line the banks generally consist of red well-draining sands. Several hearths were recorded on the elevated banks adjacent to the creek line.</p>	<p><b>Aboriginal heritage values:</b></p> <ul style="list-style-type: none"> <li>• Artefact;</li> <li>• Hearth;</li> <li>• PAD; and</li> <li>• CMT.</li> </ul> <p><b>Historic heritage values:</b></p> <ul style="list-style-type: none"> <li>• None</li> </ul>	 <p>PHOTOGRAPH 7.4 VIEW WEST ACROSS SU C IN NORTHERN AREA (ERM 2023)</p>  <p>PHOTOGRAPH 7.5 VIEW WEST ACROSS SU C SHOWING TRANSGRID TRANSMISSION LINE (ERM 2023)</p>



Survey Unit	Description	Identified cultural features	Photograph
<p><b>Survey Unit D</b></p> <p><b>Landform features:</b> Flood plain (Palaeochannel Landform) / Hay Plain</p> <p><b>Size:</b> 556 ha <b>Visibility:</b> 15% <b>Exposure:</b> 10%</p>	<p>SU D was defined as the area between Nyangay and Eurolie Creeks, which are approximately 1.2 km to 3.5 km apart.</p> <p>The SU is an area of red sands and clays and comprises a plain with gentle undulating features, due to water movement patterns. The area has potential for standing bodies of water and is a slow draining plain. located between Nyangay and Eurolie Creeks.</p> <p>There were meadows of spear grasses in the central portion of the SU (<i>Austrostipa scabra</i>), and tumbleweeds (<i>Enteropogon ramosus</i>), wallaby grass (<i>Austrodanthonia spp.</i>), and other clumping grasses, and saltbushes were present throughout. Small areas of exposed red sands and clays were present throughout.</p> <p>Fauna that were noted on site included sheep, wild rabbits, black and brown kites, whistling kite, and wedgetail eagles.</p>	<p><b>Aboriginal heritage values:</b></p> <ul style="list-style-type: none"> <li>• Artefact;</li> <li>• Hearth;</li> <li>• PAD;</li> <li>• CMT; and</li> <li>• Earth Mound.</li> </ul> <p><b>Historic heritage values:</b></p> <ul style="list-style-type: none"> <li>• None</li> </ul>	 <p>PHOTOGRAPH 7.6 VIEW NORTH ACROSS SOUTHERN AREA OF SU D NORTH OF WTG 18 (ERM 2023)</p>  <p>PHOTOGRAPH 7.7 VIEW SOUTH IN APPROXIMATE LOCATION OF WTG 35 (ERM 2023)</p>

Survey Unit	Description	Identified cultural features	Photograph
<p><b>Survey Unit E</b></p> <p><b>Landform features:</b> Flood plain (Palaeochannel Landform) / Hay Plain</p> <p><b>Size:</b> 461 ha <b>Visibility:</b> 25% <b>Exposure:</b> 10%</p>	<p>SU E was defined as the area to the north-west of Nyangay Creek.</p> <p>SU E was a plain with gentle undulating features, due to ancient water movement patterns. It was characterised by red sands and clays. Majority of the SU, particularly the north-western portion, was severely disturbed due to irrigation and ploughing activities.</p> <p>North-east area of SU saw increased prevalence of scored surfaces dominated by red sands, and increased vegetation in form of yellow box trees (remnant native vegetation), and cypress pine (native to Australasia arid localities). Towards the center of the SU, an increased prevalence of foxtail grasses with scattered saltbush shrubs. Progress further east, were dense saltbush closer to remnant waterbodies.</p> <p>Overall, very little ground exposure, where stock tracks through vegetation were often the only source of ground visibility.</p> <p>All sites recorded in the SU were found around one hill adjacent to a paleochannel.</p> <p>There were meadows of spear grasses (<i>Austrostipa scabra</i>), tumbleweeds (<i>Enteropogon ramosus</i>), wallaby grass (<i>Austrodanthonia spp.</i>), and other clumping grasses, and saltbushes were present throughout. Paterson's curse (<i>Echium plantagineum</i>) was prominent in the eastern portion of SU.</p> <p>Fauna that were noted on site included sheep, wild rabbits, black and brown kites, whistling kite, emus, goannas, cormorants, and ducks.</p>	<p><b>Aboriginal heritage values:</b></p> <ul style="list-style-type: none"> <li>• Artefact; and</li> <li>• CMT.</li> </ul> <p><b>Historic heritage values:</b> None</p>	 <p>PHOTOGRAPH 7.8 VIEW SOUTH-EAST FROM NORTH-WESTERN CORNER OF SU (ERM 2023)</p>  <p>PHOTOGRAPH 7.9 VIEW EAST FROM APPROXIMATE LOCATION OF WTG 2 (ERM 2023)</p>

Survey Unit	Description	Identified cultural features	Photograph
			<div></div> <div>PHOTOGRAPH 7.10 VIEW FROM APPROXIMATE LOCATION OF WTG 15 (ERM 2023)</div>

Survey Unit	Description	Identified cultural features	Photograph
<p><b>Survey Unit F</b></p> <p><b>Landform features:</b> Modified, Coleambally Outfall Drain</p> <p><b>Size:</b> 23 ha <b>Visibility:</b> 20% <b>Exposure:</b> 10%</p>	<p>SU F encompasses the Coleambally Outfall Drain as well as a 25 m buffer on either side. This SU comprises a modified landscape; the channel is man-made and includes built-up banks, concrete crossings, and access tracks.</p> <p>There was dense vegetation such as, low saltbush, juncus grass, and trees varying between 8-12 m tall, and crawling grasses throughout the SU.</p>	<p><b>Aboriginal heritage values:</b> None</p> <p><b>Historic heritage values:</b> None</p>	<div></div> <p>PHOTOGRAPH 7.11 VIEW NORTH-WEST OF COLEAMBALLY OUTFALL DRAIN FROM LOCATION OF WTG 21 (ERM 2023)</p> <div></div> <p>PHOTOGRAPH 7.12 VIEW EAST OF CROSSING OVER COLEAMBALLY OUTFALL DRAIN (ERM 2024)</p>

Survey Unit	Description	Identified cultural features	Photograph
<p><b>Survey Unit G</b></p> <p><b>Landform features:</b> Flood plain (Palaeochannel Landform) / Hay Plain</p> <p><b>Size:</b> 4,160 ha <b>Visibility:</b> 40% <b>Exposure:</b> 50%</p>	<p>SU G was defined as the area to the south of the Coleambally Outfall Drain.</p> <p>The northern area of the SU consisted of dense vegetation including saltbush, wallaby grasses, goosefoot, and cotton bush, as well as a large area of black box regrowth. This resulted in very minimal ground exposure. The area was predominantly characterised by grey cracking clay.</p> <p>The southern area of the SU was largely densely grassed. The area was predominantly characterized by red sands and red clays, with some areas of exposure present. It should be noted that some WTG locations within the south-western area were not accessible due to the dense vegetation.</p> <p>Several dams and irrigation channels were present throughout the SU.</p> <p>Fauna that were noted on site included wild rabbits, kangaroos, black and brown kites, emus, and brown snakes.</p>	<p><b>Aboriginal heritage values:</b></p> <ul style="list-style-type: none"> <li>• Artefact;</li> <li>• Hearth;</li> <li>• PAD.</li> </ul> <p><b>Historic heritage values:</b> None</p>	 <p>PHOTOGRAPH 7.13 VIEW NORTH TOWARDS WTG 148 SHOWING DENSE BLACK BOX REGROWTH IN NORTHERN AREA (ERM 2024)</p>  <p>PHOTOGRAPH 7.14 VIEW NORTH TOWARD LOCATION OF WTG 220 SHOWING DENSE GRASSES AND AREA OF EXPOSED RED SAND IN SOUTHERN AREA (ERM 2024)</p>

Survey Unit	Description	Identified cultural features	Photograph
<p><b>Survey Unit H</b></p> <p><b>Landform features:</b> Prior Stream (Paleochannel Landform), Wargam Creek</p> <p><b>Size:</b> 5 ha <b>Visibility:</b> 10% <b>Exposure:</b> 20%</p>	<p>SU H encompassed Wargam Creek and a 100 m buffer either side, encompassing the creek banks.</p> <p>The creek was contained a large amount of black box trees, including large trees as well as regrowth. Cane grass and weeds were also prevalent throughout the SU. A dam was present within the disturbance footprint to the east of Wargam Creek, as well as a built-up irrigation pipeline from the dam through the creekline.</p>	<p><b>Aboriginal heritage values:</b></p> <ul style="list-style-type: none"><li>• CMT</li></ul> <p><b>Historic heritage values:</b></p> <p>None</p>	<div></div> <p>PHOTOGRAPH 7.15 VIEW EAST TOWARD WARGAM CREEK (ERM 2024)</p> <div></div> <p>PHOTOGRAPH 7.16 DAM WITHIN DISTURBANCE FOOTPRINT, TO EAST OF WARGAM CREEK (ERM 2024)</p>

## 8. SURVEY RESULTS – ABORIGINAL HERITAGE VALUES

### 8.1 REGISTERED ABORIGINAL HERITAGE SITES

Heritage NSW provides the AHIMS database which holds information concerning previously recorded Aboriginal sites in NSW. A total of 3 valid previously recorded sites were identified within the search parameters (including a 1000 m buffer of the Project Area). The sites are varied in type, consisting of artefacts, hearths, and CMTs.




The details of these sites are summarised in *Table 8.1*, and illustrated in *Figure 8.1*. The results of the full AHIMS search are summarized in *Appendix I*.




**TABLE 8.1 AHIMS REGISTERED SITES WITHIN THE PROJECT AREA**




Site ID	Name	Site Type	Relation to Disturbance Footprint
48-6-0164	PEC-E-35	Artefact	Outside
48-6-0165	PEC-E-36	Artefact, Hearth, Modified Tree (Carved or Scarred)	Outside
48-6-0166	PEC-E-37	Artefact, Hearth	Within

The sites within the Project Area were revisited as part of the survey. The details of these sites are summarised below in *Table 8.2*.

TABLE 8.2 SUMMARY OF PREVIOUSLY IDENTIFIED SITES WITHIN THE PROJECT AREA

Site Name	Site Name & Description	Photograph (original identification)	Photograph (current inspection)
AHIMS # 48-6-0164 (PEC-E-35)	<p><b>Site type:</b> Artefact  <b>Registered Coordinates:</b> GDA Zone  [removed from public display]  <b>Current Site Assessment:</b> Valid</p> <p>The site was originally recorded as a low-density artefact scatter across a 2 x 2 m area. Survey at the time identified three artefacts comprising flakes and flaked pieces with material types including quartz and silcrete.</p> <p>The site was recorded adjacent to an unsealed access track. Impacts to the site were noted as sheet erosion. It was stated that there was low potential for stone artefacts to be present in the subsurface context.</p> <p>This site was revisited as part of the current survey, and its location was verified. No artefacts were successfully rediscovered due to low ground visibility.</p>	 <p>PHOTOGRAPH 8.1 VIEW SOUTH OF SITE (NAVIN OFFICER 2022:312)</p>  <p>PHOTOGRAPH 8.2 ARTEFACTS OF SITE (NAVIN OFFICER 2022:312)</p>	 <p>PHOTOGRAPH 8.3 VIEW WEST OF APPROXIMATE LOCATION OF AHIMS # 48-6-0164 (ERM 2023)</p>

Site Name	Site Name & Description	Photograph (original identification)	Photograph (current inspection)
AHIMS # 48-6-0165 (PEC-E-36)	<p><b>Site type:</b> Artefact, Hearth, Modified Tree (Carved or Scarred)  <b>Registered Coordinates:</b> GDA Zone [removed from public display]  <b>Current Site Assessment:</b> Valid</p> <p>The site was originally recorded as a complex of three CMTs, over 30 hearths and over 100 artefacts, across a broad 1,600 x 1,600 m area. Artefact types comprised flakes, flaked pieces, retouched flakes, cores, hammerstones and a grindstone. The material types included quartz, quartzite and silcrete.</p> <p>The hearths varied in size; however, they typically comprised moderately concentrated clay heat retainers with broader scatters of heat retainers.</p> <p>Impacts to the site were noted as sheet erosion, wind and stock damage. It was stated that there was a high potential for stone artefacts to be present in the subsurface context. The site was associated with a recorded PAD (PEC-E-PAD22).</p> <p>This site was revisited as part of the current survey, and its location was verified. One CMT was successfully rediscovered.</p>	 <p>PHOTOGRAPH 8.4 VIEW WEST ACROSS SITE (NAVIN OFFICER 2022:314)</p>  <p>PHOTOGRAPH 8.5 VIEW OF CMT (NAVIN OFFICER 2022:317)</p>	 <p>PHOTOGRAPH 8.6 VIEW WEST OF ONE CMT OF AHIMS # 48-6-0165 (ERM 2023)</p>

Site Name	Site Name & Description	Photograph (original identification)	Photograph (current inspection)
AHIMS # 48-6-0166 (PEC-E-37)	<p><b>Site type:</b> Artefact, Hearth  <b>Registered Coordinates:</b> GDA Zone [removed from public display]  <b>Current Site Assessment:</b> Valid</p> <p>The site was originally recorded as a complex of 12 artefacts and over 10 hearths, across a broad 700 x 500 m area. Artefact types comprised flakes and flaked pieces, with material types including quartz, quartzite and silcrete.</p> <p>The hearths varied in size; however, they typically comprised moderately concentrated clay heat retainers with broader scatters of heat retainers.</p> <p>Impacts to the site were noted as sheet erosion, and wind damage. It was stated that there was a high potential for stone artefacts to be present in the subsurface context. The site was associated with a recorded PAD (PEC-E-PAD23).</p> <p>This site was revisited as part of the current survey, and its location was verified. No archaeological material was successfully rediscovered due to low ground visibility.</p>	 <p>PHOTOGRAPH 8.7 VIEW EAST OF SITE (NAVIN OFFICER 2022:318)</p>  <p>PHOTOGRAPH 8.8 ARTEFACT OF SITE (NAVIN OFFICER 2022: 318)</p>	 <p>PHOTOGRAPH 8.9 VIEW NORTH OF APPROXIMATE LOCATION OF AHIMS # 48-6-0166 (ERM 2023)</p>

## 8.2 NEWLY IDENTIFIED ABORIGINAL SITES

A total of 111 new sites were discovered during the survey programs from November and December 2023, and January and February 2024. All these sites have now been registered on AHIMS (*Appendix I*) and *Table 8.3* presents their details. *Appendix J* presents detailed descriptions of the newly identified sites, and their locations are illustrated in *Figure 8.1*.

No AAR were recorded within the Project Area.

**TABLE 8.3 NEWLY IDENTIFIED SITES AND AHIMS DETAILS**

Site Type	Number
Artefact	35
CMT	31
Artefact, Hearth, PAD	15
Artefact, PAD	10
Artefact, Hearth	11
Hearth	4
PAD	2
PAD, CMT	1
Earth Mound, Hearth	1
Hearth, CMT	1
<b>TOTAL</b>	<b>111</b>

## FIGURE 8.1 ABORIGINAL HERITAGE SITES WITHIN THE PROJECT AREA

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### 8.3 ABORIGINAL ARCHAEOLOGICAL POTENTIAL

The archaeological potential of an area is determined by several factors including its landform, soil features and level of disturbance. Certain landforms are conducive to both Aboriginal occupation and the survivability of subsurface deposits. The location of these landforms in proximity to natural resources including water and resources increase the likelihood that these landforms would have been used by Aboriginal people in the past.

The Project Area is comprised of a landscape which is predominantly flat with small rises generally adjacent to creek lines, clay pans, ephemeral lakes, and small ponds. Some of these rises are natural dunes formed along palaeochannels or lake lunettes, and others are culturally created earth mounds, or a combination of both. These rises have been identified as suitable to retain archaeological deposits as they were the focus of Aboriginal occupation, providing easy access to the nearby retained water during dry seasons, and to use to stay dry when much of the surrounding area was underwater during wetter seasons.

A total of twenty-seven new areas of PAD and one Earth Mound were recorded within the Project Area, twenty-five of which were associated with visible archaeological material such as hearths, or artefacts. The remaining PADs (PSF 02, PWF SUB 12 and PWF SUD 04) were recorded as such due to the presence of landform features such as earth mounds with similar characteristics to those with visible archaeological material present.

### 8.4 DISCUSSION

The distribution of recorded sites is consistent with the predictive model discussed in *Section 6*, which has been refined to determine the Aboriginal heritage sensitivity mapping discussed below and is illustrated in *Figure 8.2*:

- 73 sites (artefacts, hearths, PADs, CMTs, earth mounds) were identified in the scalded red earths, red brown earth and siliceous sand associated with the bordering dunes and lunettes of palaeochannels (prior streams) (high sensitivity);
- 38 sites (artefacts, hearths, PADs, CMTs) were identified in the red-brown earth or grey-brown cracking clays associated with Murrumbidgee Channels and Floodplains landscape (moderate sensitivity); and
- No sites were identified in modified and disturbed landscapes (low sensitivity).

## FIGURE 8.2 ABORIGINAL HERITAGE SENSITIVITY MAPPING

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## 9. SIGNIFICANCE ASSESSMENT – ABORIGINAL HERITAGE

The Aboriginal heritage significance of the project has been assessed based on the comments received from RAPs and the LALC during consultation throughout the life of the project, the background research, the archaeological field survey programs and the results of this report.

### 9.1 ABORIGINAL CULTURAL HERITAGE SIGNIFICANCE ASSESSMENT FRAMEWORK

Aboriginal heritage sites, objects and places hold value for communities and cultural knowledge-holders in many ways. The nature of those heritage values is an important consideration when deciding how to manage a heritage site, object or place and balance competing land use options.

Assessment of the Aboriginal cultural heritage significance of the Project Area has been completed in accordance with the requirements of the ACHAR Guide (OEH 2011). Assessment has included identification of social, historic, scientific, and aesthetic values which are discussed below:

Scientific values were graded with a basic ranking of high, moderate, or low. The grading is based on the rarity, representativeness, and research (educational) potential for each value:

- High significance is usually attributed to sites, which are so rare or unique that the loss of the site would affect our ability to understand aspects of past Aboriginal use/occupation for an area;
- Moderate significance can be attributed to sites which provide information on an established research question; and
- Low significance is attributed to sites which cannot contribute new information about past Aboriginal use/occupation of an area. This may be due to disturbance of the nature of the site's contents.

### 9.2 IDENTIFYING CULTURAL VALUES

Cultural heritage values for the Project Area were identified through a combination of desktop assessment and consultation undertaken during the preparation of the ACHAR (see *Section 3*). This information was collected by ERM Heritage Consultants.

The Burra Charter states:

*cultural significance is embodied in the place—in its fabric, setting, use, associations and meanings. It may exist in: objects at the place or associated with it; in other places that have some relationship to the place; and in the activities and traditional and customary practices that may occur at the place or that are dependent on the place.*

Table 9.1 summarises the cultural heritage values identified for the Project Area and the surrounding region.

**TABLE 9.1 CULTURAL HERITAGE VALUES IDENTIFIED FOR THE PROJECT AREA AND SURROUNDS**

<b>Cultural heritage value</b>	<b>Description</b>	<b>Distance from Project Area</b>	<b>Source</b>
Freshwater	The Murrumbidgee River is currently located approximately 34 km north of the Project Area. This river system and the palaeochannels present across the Project Area would have provided an important source of fresh water. Nyangay, Eurolie, and Wargam Creeks and their tributaries, as well as the Coleambally Outfall Drain, are located within the Project Area.	Within and surrounding	Pardoe & Martin 2011; ERM 2023
Cultural Landscapes	<p>The palaeochannel landforms present across the Project Area and beyond are generally associated with the Kerarbury system (~55-35 kya) and the Yanco system which formed between 20-13 yka, a peak time for Aboriginal occupation of the area, however several palaeochannels in the Murrumbidgee have been dated with their development extending as far back as 105 yka and could contain much early evidence. Burials are most often associated with scalded, channelled, and depressed plains associated with palaeochannels and they hold great cultural value to the Nari Nari accordingly.</p> <p>The Project Area and its surrounds are a part of a song-line, starting at the Blue Mountains extending west and south-west towards the area now known as Swan Hill. This songline is closely tied to the creation story of The Three Sisters.</p>	Within and surrounding	<p>Pardoe &amp; Martin 2011</p> <p>[removed from public display]; [removed from public display] (per comms 2023).</p>
Aboriginal heritage sites	Of value to the Aboriginal community as a tangible connection between the traditional lands and past Aboriginal occupation and use.	Within	AHIMS; ERM 2023; Hay LALC (per comms 2023)

Cultural heritage value	Description	Distance from Project Area	Source
Food and raw materials	<p>Pre-colonial contact, the local area would offer hunting and gathering opportunities. During the November 2023 field survey, several plant species were identified by the Hay LALC as being native bush tucker and medicinal. Of note were the native Saltbush that was abundant across the Project Area.</p> <p>CMTs in the local archaeological record attest to gathering. Although few trees are currently present within the Project Area due to land clearing, it can be assumed that they would have been present pre-colonisation.</p> <p>During the December 2023 field survey, RAPs shared some of the diet and hunting habits of the area. These included, climbing larger trees to hunt possums in hollows, used reeds for nets/ baskets to catch yabbies, turtles and mussels, and hunting emus and goannas for larger subsistence. These hunting habits relied on water availability, either through rainfall or bodies of water throughout the area.</p> <p>It was also shared by RAPs the saltbush berries are used to make jam, and have a salty, tangy flavor used to enhance meals.</p> <p>During the February 2024 field survey, RAPs shared the Cypress Pine tree is of cultural importance, used as boundary markers between the two clans of the area (<i>Bidji</i> in the northern area of site). The tree resin was also used as glue for creating stone tools.</p>	Within	<p>Hay LALC (per comms 2023)</p> <p>[removed from public display]; [removed from public display] (Per comms 2023)</p> <p>[removed from public display] (Per comms 2024)</p>
Animal Totems	<p>Landscape is reported to have been associated with bat and owl animal totems for Neville's grandparents. The bat totem is associated with men, and the owl totem is associated with women.</p>	Within	[removed from public display] (per comms 2023)

### 9.2.1 SOCIAL OR CULTURAL SIGNIFICANCE

The Consultation Requirements specify that the social or cultural value of a place must be identified through consultation with Aboriginal people. All Aboriginal sites are considered to have cultural significance to the Aboriginal community as they provide physical evidence of past Aboriginal use and occupation of the area.

### 9.2.2 HISTORIC SIGNIFICANCE

Historic values refer to the association of the place with aspects of Aboriginal history. Historic values are not necessarily reflected in physical objects, but may be intangible and relate to memories, stories, or experiences.

The current assessment has not identified a specific person or event of historic value associated with the Project Area.

The Project Area has been assessed to demonstrate low historic significance.

### 9.2.3 SCIENTIFIC SIGNIFICANCE

Scientific (archaeological) value refers to the importance of the landscape, area, place or object because of its rarity, representativeness, and the extent to which it may contribute to further understanding and information (Australian ICOMOS 2013b).

In assessing significance consideration should be given the following criteria:

- **Research potential:** does the evidence suggest any potential to contribute to an understanding of the area and/ or region and/or state's natural and cultural history?
- **Representativeness:** how much variability (outside and/or inside the site) exists, what is already conserved, how much connectivity is there?
- **Rarity:** is the subject area important in demonstrating a distinctive way of life, custom, process, land-use, function, or design no longer practiced? Is it in danger of being lost or of exceptional interest?
- **Educational potential:** does the site contain teaching sites or sites that may have teaching potential?

A scientific significance assessment of each site type is summarised in *Table 9.2*.

A discussion of the defining characteristics of the sites assessed to demonstrate moderate and unknown scientific significance is provided below.

**TABLE 9.2 SCIENTIFIC SIGNIFICANCE ASSESSMENT OF ABORIGINAL SITES PRESENT**

Site Type	Research potential	Rarity	Representativeness	Educational potential	Overall
Artefact	Moderate	Low	Low	Moderate	Low to Moderate
Hearth	High	Moderate	Moderate	Moderate	Moderate
PAD	Moderate	Unknown	Unknown	Unknown	Unknown
CMT	Moderate	Low	Low	Low	Low
Earth Mound	Moderate	Unknown	Unknown	Unknown	Unknown

#### 9.2.3.1 SITES OF LOW SCIENTIFIC SIGNIFICANCE

**Isolated stone artefacts, low-density artefact scatters, and CMTs** within the Project Area have been assessed to demonstrate low archaeological significance. Single isolated finds were largely identified in areas which demonstrate clear evidence of water movement or other post depositional processes. Artefacts located in the flat clay landforms are considered to demonstrate low research potential due to their limited connection to the original phase of deposition and are equally not considered to be representative of a specific type of phase of land use.

The presence of trees is not uncommon across the Project Area or within the region and the thirty-three modified trees recorded in this ACHAR are not considered to exhibit high rarity values and would provide limited research potential.

### 9.2.3.2 SITES OF MODERATE SCIENTIFIC SIGNIFICANCE

Sites of moderate scientific significance include **artefact sites** and **hearth features**.

Most artefact sites recorded within the Project Area are artefact scatters. The artefacts recorded are considered to exhibit moderate rarity values; this is due to there being limited lithic resources across the landscape. Discussion with RAP Ian Woods from Hay LALC suggests that lithics were possibly imported from the Upper Lachlan River region. Due to the rarity of lithics across the landscape, the site has educational or scientific potential; analysis of the material would provide insight into local occupational use of the landscape. Additionally, the recorded grinding dish (PWF SUC 13) is a rare example of its type and has moderate research potential.

Hearth features have research potential, are relatively rare across the national archaeological record, and are representative at the Project Area level.

### 9.2.3.3 SITES OF UNKNOWN SCIENTIFIC SIGNIFICANCE

Areas of **PAD** and an **Earth Mound** within the Project Area have been assessed to demonstrate unknown scientific significance. These sites would require further investigation through archaeological test excavation to adequately assess their significance.

### 9.2.4 AESTHETIC SIGNIFICANCE

Aesthetic values refer to the sensory, scenic, architectural and creative aspects of the place. These values may be related to the landscape and are often closely associated with social/cultural values.

While the Project Area has some aesthetic values associated with being part of one of the flattest landscapes in Australia, it has been assessed as having low aesthetic significance due to absence of landmark features within the landscape.

### 9.2.5 ABORIGINAL HERITAGE STATEMENT OF SIGNIFICANCE

The Project Area forms a component of a cultural landscape associated with Aboriginal use of the Riverina Murray Region for several cultural and subsistence-based activities. The sites vary in type and density, but predominantly represent evidence of residential and subsistence areas.

Sites within the Project Area have been evaluated as being of low to moderate and unknown scientific significance. Sites with low scientific significance include isolated finds and low-density artefact scatters, and CMTs. These sites are likely to represent movement through the landscape rather than continued or intensive occupation. Research potential of these sites is low, as they have a low likelihood of contributing to our understanding of past Aboriginal land use practices.

Sites with moderate scientific significance include hearth features. These sites may represent occupation or activity areas subject to repeated use.

Assessment of social/cultural significance can only be undertaken by the local Aboriginal community. No specific areas of social or cultural significance have been identified; however, it is understood that all Aboriginal heritage sites retain significance for the Aboriginal community and the cultural landscape of the Project Area.

## 10. IMPACT ASSESSMENT

### 10.1 MITIGATION MEASURES

The guiding principle for cultural heritage management is that where possible Aboriginal sites would be protected and preserved. If conservation is not practical, measures would be taken, in agreement with the LALCs and RAPs, to mitigate impacts to Aboriginal sites. Mitigation measures vary depending on the significance of each individual site and the severity of the impact (as assessed throughout *Sections 9 and 10*). Some of the most common mitigation measures include micro-siting of project elements, as well as salvage works including artefact collection, detailed artefact analysis of Aboriginal objects, archaeological salvage excavations, and when appropriate the reburial of Aboriginal objects at a location determined with the LALC. This should be conditioned through the Minister's Conditions of Approval.

The application of buffers to sites is also an effective mitigation measure. The buffers applied to the defined site extents further protects potential archaeological features, that extend beyond the visible boundary of the sites. A buffer of 200 m should be provided to recorded PADs and Earth Mounds, a buffer of 100 m should be provided to recorded hearths, and a buffer of 50 m provided to CMTs (as per discussions with Hay LALC and Deniliquin LALC, detailed in *Section 4.3*). The specific buffers relating to each site are detailed in *Table 10.2* and illustrated in *Figure 10.1*.

It is also noted that test excavation is not a mitigation measure. The purpose of test excavation is to assess the nature, extent and archaeological significance of areas of PAD. Hay LALC, Nari Nari Tribal Council and Deniliquin LALC have requested that no test excavations should occur prior to the authorisation of the Minister's Conditions of Approval of the project, to avoid unnecessary damage to sites. Therefore, the final design for the project should be informed by the results of test excavation. Should the test excavation reveal sites of significance, micro-siting of project elements should be used as a mitigation measure to avoid impacting these Aboriginal cultural heritage sites. This is further discussed in *Section 11.2*.

#### 10.1.1 PROJECT REDESIGN

In February 2024, Someva undertook substantial design refinements, involving micro-siting Project infrastructure within the survey area to avoid impacting Aboriginal heritage sites. These amendments to Project infrastructure are summarised below in *Table 10.1*.

**TABLE 10.1 SUMMARY OF DESIGN REFINEMENTS (FEBRUARY 2024)**

Infrastructure Type/ID	Amendment	Reduced Impact to Site
WTG97 WP97	<ul style="list-style-type: none"> <li>Rotated the hardstand</li> <li>Clipped road infrastructure</li> </ul>	PSF 03 – High to Moderate
WTG99 WP99	<ul style="list-style-type: none"> <li>Rotated the hardstand</li> <li>Shifted road slightly north</li> </ul>	PSF 04 - Impact remains High* PSF 05 – Impact remains High*
WTG107 WP107	<ul style="list-style-type: none"> <li>Moved WTG and roads</li> </ul>	PSF 06 – High to Moderate
Jerilderie Road access track south of site entrance	<ul style="list-style-type: none"> <li>Removed</li> </ul>	PSF 11 – High to Moderate

Infrastructure Type/ID	Amendment	Reduced Impact to Site
Road between WP80 and WP81	<ul style="list-style-type: none"> <li>• Microsited road to north-east</li> </ul>	PWF SUB 02 – High to Low PWF SUB 03 – High to Low
WTG81 WP81	<ul style="list-style-type: none"> <li>• Moved 100 m to south-east</li> </ul>	PWF SUB 02 – High to Low
Substation and Temporary Construction, Batching and Laydown area	<ul style="list-style-type: none"> <li>• Reduced area of ancillary infrastructure</li> </ul>	PWF SUB 12 – High to Moderate
WTG128-130 WP128-131	<ul style="list-style-type: none"> <li>• Removed four WTGs</li> </ul>	PWF SUB 12 - High to Moderate
Road creek crossing	<ul style="list-style-type: none"> <li>• Removed southern road crossing</li> <li>• Removed road to west</li> <li>• Shifted road to east</li> </ul>	PWF SUC 01 – Moderate to Low PWF SUC 02 – Moderate to Low PWF SUC 03 – Moderate to Low PWF SUC 04 – Impact remains High*
Road creek crossing	<ul style="list-style-type: none"> <li>• Shifted road to north</li> </ul>	PWF SUC 10 – High to Moderate
Road	<ul style="list-style-type: none"> <li>• Shifted road south</li> </ul>	PWF SUC 12 – Impact remains High*
Road boundary between Hay & Deniliquin LALCs	<ul style="list-style-type: none"> <li>• Shifted road</li> </ul>	PWF SUC 17 – High to Moderate
WTG176 WP176	<ul style="list-style-type: none"> <li>• Moved 100 m north</li> </ul>	PWF SUG 04 – Moderate to Low
WTG18 WP18	<ul style="list-style-type: none"> <li>• Shifted road</li> <li>• Shifted hardstand, internal retic and road</li> </ul>	PWF SUD 04 – Impact remains High*
Road	<ul style="list-style-type: none"> <li>• Minor road change</li> </ul>	PWF SUE 05 – Moderate to Low PWF SUE 06 – Moderate to Low
Road	<ul style="list-style-type: none"> <li>• Minor road change</li> </ul>	PWF SUG 02 – High to Moderate
WTG228 WP228	<ul style="list-style-type: none"> <li>• Shifted 600 m south into road corridor</li> </ul>	PWF SUG 08 – Impact remains High* PWF SUG 09 - Impact remains High*
WTG229 WP229	<ul style="list-style-type: none"> <li>• Removed</li> </ul>	PWF SUG 08 PWF SUG 09
WTG223 WP223	<ul style="list-style-type: none"> <li>• Removed and associated roads and IR</li> </ul>	PWF SUG 09 PWF SUG 10
WTG222 WP222	<ul style="list-style-type: none"> <li>• Moved north 264 m</li> </ul>	PWF SUG 10 – Impact remains High*
Roads	<ul style="list-style-type: none"> <li>• All roads removed unless connecting WTGs</li> </ul>	PWF SUG 08 – Impact remains High* PWF SUG 09 – Impact remains High* PWF SUG 10 – Impact remains High*
WTG230 WP230	<ul style="list-style-type: none"> <li>• Moved WTG south 246 m</li> </ul>	PWF SUG 08 – Impact remains High*
Road	<ul style="list-style-type: none"> <li>• Moved road west</li> </ul>	PWF SUG 17 – High to Low
Road between WP258 and WP266	<ul style="list-style-type: none"> <li>• Removed</li> </ul>	PWF SUG 23- High to Moderate
WTG238 WP238	<ul style="list-style-type: none"> <li>• Re-orientated hardstand</li> </ul>	PWF SUG 31 – Impact remains High*

Infrastructure Type/ID	Amendment	Reduced Impact to Site
Road near WP273	<ul style="list-style-type: none"> <li>Minor road shift</li> </ul>	PWF SUG 32 – High to Moderate
Road between WP55 and WP59	<ul style="list-style-type: none"> <li>Road moved to east</li> </ul>	PWF SUB 07 – High to Low
Road between WP241 and WP251	<ul style="list-style-type: none"> <li>Road moved to west</li> </ul>	PWF SUG 28 – High to Low

*\*Impacts to these sites have been reduced; however, disturbance footprint remains within site extents (High impact).*

## 10.2 POTENTIAL IMPACTS

Section 1.2 provides a summary of the elements of the Project.

A summary of potential impacts to identified Aboriginal heritage values has been developed based on the revised disturbance footprint of the Project and are summarised in *Table 10.2* and *Figure 10.1*. Assessed impacts were defined as follows:

- High: Site extent is within disturbance footprint;
- Moderate: Buffer of site extent is within the disturbance footprint; and
- Low: Site (including buffer) is outside of the disturbance footprint.

Those sites that will be directly impacted by the disturbance footprint (High impact, as detailed in *Table 10.1* and *Table 10.2*) are presented in *Appendix K*. These include sites:

- PSF 04: Artefact;
- PSF 05: Artefact, Hearth, PAD;
- PSF 12: Artefact<sup>3</sup>;
- PWF SUB 01: Artefact<sup>4</sup>;
- PWF SUC 04: Artefact, Hearth, PAD;
- PWF SUC 12: Artefact, Hearth;
- PWF SUD 04: PAD, CMT
- PWF SUD 06: CMT<sup>5</sup>;
- PWF SUG 08: Artefact, Hearth, PAD;
- PWF SUG 09: Artefact, Hearth, PAD;
- PWF SUG 10: Artefact, Hearth, PAD;
- PWF SUG 13: Artefact, Hearth<sup>6</sup>;
- PWF SUG 18: Artefact<sup>7</sup>;
- PWF SUG 20: Artefact, Hearth, PAD<sup>8</sup>;
- PWF SUG 31: Artefact, Hearth, PAD; and

<sup>3</sup> Project re-design was not undertaken to reduce impact to this site.

<sup>4</sup> As above.

<sup>5</sup> As above.

<sup>6</sup> As above.

<sup>7</sup> As above.

<sup>8</sup> Project re-design was not undertaken to reduce impact to this site.

- PWF SUG 35: Artefact<sup>9</sup>.

Further changes to the Project design (within the micro-siting corridor) are recommended to avoid impacting these sites, in particular PAD, Hearth and CMT sites, as presented in *Table 10.2*.

**TABLE 10.2 POTENTIAL IMPACTS TO ABORIGINAL CULTURAL HERITAGE SITES ASSOCIATED WITH PROPOSED DISTURBANCE FOOTPRINT**

Aboriginal heritage site	Site Type	Significance	Potential for impact based on Wind disturbance footprint	Mitigation Measure
48-6-0164	Artefact (multiple)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>• No mitigation required.</li> </ul>
48-6-0165	Artefact, Hearth, Modified Tree (Carved or Scarred)	Moderate	Low – easy to avoid	<ul style="list-style-type: none"> <li>• Buffer of 100 m to be applied.</li> </ul>
48-6-0166	Artefact, Hearth	Moderate	High	<ul style="list-style-type: none"> <li>• Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>• Buffer of 100 m to be applied.</li> </ul>
PSF 02	PAD	Unknown	Moderate	<ul style="list-style-type: none"> <li>• Test excavation to inform scientific value and determine management and mitigation measures; and</li> <li>• Buffer of 200 m to be applied.</li> </ul>
PSF 03	Artefact (multiple), PAD	Moderate	Moderate	<ul style="list-style-type: none"> <li>• Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>• Buffer of 200 m to be applied.</li> </ul>

<sup>9</sup> As above.

Aboriginal heritage site	Site Type	Significance	Potential for impact based on Wind disturbance footprint	Mitigation Measure
PSF 04	Artefact (multiple)	Moderate	High	<ul style="list-style-type: none"> <li>Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval</li> </ul>
PSF 05	Artefact (multiple), Hearth, PAD	Moderate	High	<ul style="list-style-type: none"> <li>Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>Buffer of 200 m to be applied.</li> </ul>
PSF 06	Artefact (multiple), Hearth, PAD	Moderate	Moderate	<ul style="list-style-type: none"> <li>Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>Buffer of 200 m to be applied.</li> </ul>
PSF 07	Artefact (isolated)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>No mitigation required</li> </ul>
PSF 08	Artefact (multiple), Hearth, PAD	Moderate	Low – easy to avoid	<ul style="list-style-type: none"> <li>Buffer of 200 m to be applied.</li> </ul>
PSF 09	Artefact (multiple), Hearth	Moderate	Low – easy to avoid	<ul style="list-style-type: none"> <li>Buffer of 100 m to be applied.</li> </ul>
PSF 10	Artefact (multiple), PAD	Low/Unknown	Moderate	<ul style="list-style-type: none"> <li>Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>Buffer of 200 m to be applied.</li> </ul>

Aboriginal heritage site	Site Type	Significance	Potential for impact based on Wind disturbance footprint	Mitigation Measure
PSF 11	Artefact (multiple), PAD	Moderate	Moderate	<ul style="list-style-type: none"> <li>Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>Buffer of 200 m to be applied.</li> </ul>
PSF 12	Artefact (multiple)	Low	High	<ul style="list-style-type: none"> <li>Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval</li> </ul>
PSF 13	Artefact (multiple)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>No mitigation required</li> </ul>
PWF SU A 01	Artefact (multiple), Hearth	Moderate	Low – easy to avoid	<ul style="list-style-type: none"> <li>Buffer of 100 m to be applied</li> </ul>
PWF SU A 02	Hearth, CMT	Moderate	Moderate	<ul style="list-style-type: none"> <li>Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>Buffer of 100 m to be applied</li> </ul>
PWF SU A 03	Artefact (multiple), Hearth, PAD	Moderate	Low – easy to avoid	<ul style="list-style-type: none"> <li>Buffer of 200 m to be applied.</li> </ul>
PWF SU A 04	Artefact (multiple), Hearth	Moderate	Moderate	<ul style="list-style-type: none"> <li>Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>Buffer of 100 m to be applied</li> </ul>
PWF SU A 05	CMT	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>Buffer of 50 m to be applied</li> </ul>

Aboriginal heritage site	Site Type	Significance	Potential for impact based on Wind disturbance footprint	Mitigation Measure
PWF SU B 01	Artefact (multiple)	Moderate	High	<ul style="list-style-type: none"> <li>Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval</li> </ul>
PWF SU B 02	Artefact (multiple)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>No mitigation required</li> </ul>
PWF SU B 03	Artefact (multiple)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>No mitigation required</li> </ul>
PWF SU B 04	CMT	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>Buffer of 50 m to be applied</li> </ul>
PWF SU B 05	Artefact (isolated)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>No mitigation required</li> </ul>
PWF SU B 06	Artefact (isolated)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>No mitigation required</li> </ul>
PWF SU B 07	Artefact (isolated)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>No mitigation required</li> </ul>
PWF SU B 08	Artefact (multiple)	Low-Moderate	Low – easy to avoid	<ul style="list-style-type: none"> <li>No mitigation required</li> </ul>
PWF SU B 09	Artefact (multiple), Hearth, PAD	Moderate	Moderate	<ul style="list-style-type: none"> <li>Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>Buffer of 200 m to be applied.</li> </ul>
PWF SU B 10	Artefact (multiple)	Low-Moderate	Low – easy to avoid	<ul style="list-style-type: none"> <li>No mitigation required</li> </ul>
PWF SU B 11	Artefact (multiple)	Low-Moderate	Low – easy to avoid	<ul style="list-style-type: none"> <li>No mitigation required</li> </ul>
PWF SU B 12	PAD	Unknown	Moderate	<ul style="list-style-type: none"> <li>Test excavation to inform scientific value and determine management and mitigation measures; and</li> <li>Buffer of 200 m to be applied.</li> </ul>
PWF SUC 01	CMT	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>Buffer of 50 m to be applied.</li> </ul>

Aboriginal heritage site	Site Type	Significance	Potential for impact based on Wind disturbance footprint	Mitigation Measure
PWF SUC 02	CMT	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>• Buffer of 50 m to be applied.</li> </ul>
PWF SUC 03	CMT	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>• Buffer of 50 m to be applied.</li> </ul>
PWF SUC 04	Artefact (multiple), Hearth, PAD	Moderate	High	<ul style="list-style-type: none"> <li>• Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>• Buffer of 200 m to be applied.</li> </ul>
PWF SUC 05	Artefact (isolated)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>• No mitigation required</li> </ul>
PWF SUC 06	Artefact (isolated)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>• No mitigation required</li> </ul>
PWF SUC 07	Artefact (isolated)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>• No mitigation required</li> </ul>
PWF SUC 08	CMT	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>• Buffer of 50 m to be applied.</li> </ul>
PWF SUC 09	Artefact (multiple)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>• No mitigation required</li> </ul>
PWF SUC 10	Artefact (multiple), Hearth	Moderate	Moderate	<ul style="list-style-type: none"> <li>• Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>• Buffer of 100 m to be applied</li> </ul>
PWF SUC 11	Artefact (multiple)	Moderate	Low – easy to avoid	<ul style="list-style-type: none"> <li>• No mitigation required</li> </ul>
PWF SUC 12	Artefact (multiple), Hearth	Moderate	High	<ul style="list-style-type: none"> <li>• Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>• Buffer of 100 m to be applied</li> </ul>

Aboriginal heritage site	Site Type	Significance	Potential for impact based on Wind disturbance footprint	Mitigation Measure
PWF SUC 13	Artefact (multiple), Hearth	Moderate	Moderate	<ul style="list-style-type: none"> <li>Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>Buffer of 100 m to be applied</li> </ul>
PWF SUC 14	CMT	Low	Moderate	<ul style="list-style-type: none"> <li>Buffer of 50 m to be applied.</li> </ul>
PWF SUC 15	CMT	Low	Moderate	<ul style="list-style-type: none"> <li>Buffer of 50 m to be applied.</li> </ul>
PWF SUC 16	CMT	Low	Moderate	<ul style="list-style-type: none"> <li>Buffer of 50 m to be applied.</li> </ul>
PWF SUC 17	CMT	Low	Moderate	<ul style="list-style-type: none"> <li>Buffer of 50 m to be applied.</li> </ul>
PWF SUC 18	CMT	Low	Moderate	<ul style="list-style-type: none"> <li>Buffer of 50 m to be applied.</li> </ul>
PWF SUC 19	CMT	Low	Moderate	<ul style="list-style-type: none"> <li>Buffer of 50 m to be applied.</li> </ul>
PWF SUC 20	CMT	Low	Moderate	<ul style="list-style-type: none"> <li>Buffer of 50 m to be applied.</li> </ul>
PWF SUC 21	CMT	Low	Moderate	<ul style="list-style-type: none"> <li>Buffer of 50 m to be applied.</li> </ul>
PWF SUC 22	Artefact (multiple), Hearth	Moderate	Low – easy to avoid	<ul style="list-style-type: none"> <li>Buffer of 100 m to be applied</li> </ul>
PWF SUC 23	Hearth	Moderate	Low – easy to avoid	<ul style="list-style-type: none"> <li>Buffer of 100 m to be applied</li> </ul>
PWF SUD 01	CMT	Low	Moderate	<ul style="list-style-type: none"> <li>Buffer of 50 m to be applied.</li> </ul>
PWF SUD 03	CMT	Low	Moderate	<ul style="list-style-type: none"> <li>Buffer of 50 m to be applied.</li> </ul>
PWF SUD 04	PAD, CMT	Low/Unknown	High	<ul style="list-style-type: none"> <li>Test excavation to inform scientific value and determine management and mitigation measures; and</li> <li>Buffer of 200 m to be applied.</li> </ul>
PWF SUD 05	CMT	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>Buffer of 50 m to be applied.</li> </ul>

Aboriginal heritage site	Site Type	Significance	Potential for impact based on Wind disturbance footprint	Mitigation Measure
PWF SUD 06	CMT	Low	High	<ul style="list-style-type: none"> <li>• Buffer of 50 m to be applied.</li> </ul>
PWF SUD 08	CMT	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>• Buffer of 50 m to be applied.</li> </ul>
PWF SUD 09	Artefact (isolated)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>• No mitigation required.</li> </ul>
PWF SUD 10	CMT	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>• Buffer of 50 m to be applied.</li> </ul>
PWF SUD 11	CMT	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>• Buffer of 50 m to be applied.</li> </ul>
PWF SUD 12	Earth Mound, Hearth	Moderate	Moderate	<ul style="list-style-type: none"> <li>• Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>• Buffer of 200 m to be applied.</li> </ul>
PWF SUD 13	CMT	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>• Buffer of 50 m to be applied.</li> </ul>
PWF SUD 14	Artefact (multiple), Hearth	Moderate	Low – easy to avoid	<ul style="list-style-type: none"> <li>• Buffer of 100 m to be applied</li> </ul>
PWF SUD 16	Hearth	Moderate	Moderate	<ul style="list-style-type: none"> <li>• Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>• Buffer of 100 m to be applied</li> </ul>
PWF SUD 18	CMT	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>• Buffer of 50 m to be applied.</li> </ul>
PWF SUD 19	CMT	Low	Moderate	<ul style="list-style-type: none"> <li>• Buffer of 50 m to be applied.</li> </ul>
PWF SUD 20	CMT	Low	Moderate	<ul style="list-style-type: none"> <li>• Buffer of 50 m to be applied.</li> </ul>
PWF SUE 01	Artefact (isolated)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>• No mitigation required</li> </ul>
PWF SUE 02	CMT	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>• Buffer of 50 m to be applied.</li> </ul>

Aboriginal heritage site	Site Type	Significance	Potential for impact based on Wind disturbance footprint	Mitigation Measure
PWF SUE 03	CMT	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>• Buffer of 50 m to be applied.</li> </ul>
PWF SUE 04	CMT	Low	Moderate	<ul style="list-style-type: none"> <li>• Buffer of 50 m to be applied.</li> </ul>
PWF SUE 05	CMT	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>• Buffer of 50 m to be applied.</li> </ul>
PWF SUE 06	CMT	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>• Buffer of 50 m to be applied.</li> </ul>
PWF SUG 01	Artefact (multiple), PAD	Low	Moderate	<ul style="list-style-type: none"> <li>• Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>• Buffer of 200 m to be applied.</li> </ul>
PWF SUG 02	Artefact (multiple), PAD	Low	Moderate	<ul style="list-style-type: none"> <li>• Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>• Buffer of 200 m to be applied.</li> </ul>
PWF SUG 03	Artefact (multiple)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>• No mitigation required.</li> </ul>
PWF SUG 04	Artefact (multiple), PAD	Moderate	Low – easy to avoid	<ul style="list-style-type: none"> <li>• Buffer of 200 m to be applied.</li> </ul>
PWF SUG 05	Artefact (multiple), PAD	Moderate	Low – easy to avoid	<ul style="list-style-type: none"> <li>• Buffer of 200 m to be applied.</li> </ul>
PWF SUG 06	Artefact (multiple), PAD	Moderate	Moderate	<ul style="list-style-type: none"> <li>• Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>• Buffer of 200 m to be applied.</li> </ul>

Aboriginal heritage site	Site Type	Significance	Potential for impact based on Wind disturbance footprint	Mitigation Measure
PWF SUG 07	Artefact (multiple), PAD	Low	Moderate	<ul style="list-style-type: none"> <li>Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>Buffer of 200 m to be applied.</li> </ul>
PWF SUG 08	Artefact (multiple), Hearth, PAD	Moderate	High	<ul style="list-style-type: none"> <li>Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>Buffer of 200 m to be applied.</li> </ul>
PWF SUG 09	Artefact (multiple), Hearth, PAD	Moderate	High	<ul style="list-style-type: none"> <li>Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>Buffer of 200 m to be applied.</li> </ul>
PWF SUG 10	Artefact (multiple), Hearth, PAD	Moderate	High	<ul style="list-style-type: none"> <li>Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>Buffer of 200 m to be applied.</li> </ul>
PWF SUG 11	Hearth	Moderate	Low – easy to avoid	<ul style="list-style-type: none"> <li>Buffer of 100 m to be applied</li> </ul>
PWF SUG 12	Artefact (multiple)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>No mitigation required.</li> </ul>

Aboriginal heritage site	Site Type	Significance	Potential for impact based on Wind disturbance footprint	Mitigation Measure
PWF SUG 13	Artefact (multiple), Hearth	Moderate	High	<ul style="list-style-type: none"> <li>Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>Buffer of 100 m to be applied</li> </ul>
PWF SUG 14	Artefact (isolated)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>No mitigation required.</li> </ul>
PWF SUG 15	Artefact (multiple), Hearth, PAD	Moderate	Moderate	<ul style="list-style-type: none"> <li>Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>Buffer of 200 m to be applied.</li> </ul>
PWF SUG 16	Artefact (multiple)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>No mitigation required.</li> </ul>
PWF SUG 17	Artefact (multiple)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>No mitigation required</li> </ul>
PWF SUG 18	Artefact (multiple)	Low	High	<ul style="list-style-type: none"> <li>Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval</li> </ul>
PWF SUG 19	Artefact (multiple)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>No mitigation required.</li> </ul>
PWF SUG 20	Artefact (multiple), Hearth, PAD	Moderate	High	<ul style="list-style-type: none"> <li>Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>Buffer of 200 m to be applied.</li> </ul>
PWF SUG 21	Artefact (multiple)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>No mitigation required.</li> </ul>

Aboriginal heritage site	Site Type	Significance	Potential for impact based on Wind disturbance footprint	Mitigation Measure
PWF SUG 22	Artefact, Hearth	Moderate	Moderate	<ul style="list-style-type: none"> <li>Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>Buffer of 100 m to be applied</li> </ul>
PWF SUG 23	Artefact (multiple), PAD	Low	Moderate	<ul style="list-style-type: none"> <li>Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>Buffer of 200 m to be applied.</li> </ul>
PWF SUG 24	Hearth	Moderate	Moderate	<ul style="list-style-type: none"> <li>Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>Buffer of 100 m to be applied</li> </ul>
PWF SUG 25	Artefact (multiple)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>No mitigation required.</li> </ul>
PWF SUG 26	Artefact (isolated)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>No mitigation required.</li> </ul>
PWF SUG 27	Artefact (multiple), Hearth	Moderate	Low – easy to avoid	<ul style="list-style-type: none"> <li>Buffer of 100 m to be applied</li> </ul>
PWF SUG 28	Artefact (multiple)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>No mitigation required</li> </ul>
PWF SUG 29	Artefact (isolated)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>No mitigation required.</li> </ul>
PWF SUG 30	Artefact (multiple), Hearth, PAD	Moderate	Low – easy to avoid	<ul style="list-style-type: none"> <li>Buffer of 200 m to be applied.</li> </ul>

Aboriginal heritage site	Site Type	Significance	Potential for impact based on Wind disturbance footprint	Mitigation Measure
PWF SUG 31	Artefact (multiple), Hearth, PAD	Moderate	High	<ul style="list-style-type: none"> <li>Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>Buffer of 200 m to be applied.</li> </ul>
PWF SUG 32	Artefact (multiple), Hearth, PAD	Moderate	Moderate	<ul style="list-style-type: none"> <li>Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval; and</li> <li>Buffer of 200 m to be applied.</li> </ul>
PWF SUG 33	Artefact (isolated)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>No mitigation required.</li> </ul>
PWF SUG 34	Artefact (isolated)	Low	Low – easy to avoid	<ul style="list-style-type: none"> <li>No mitigation required.</li> </ul>
PWF SUG 35	Artefact (isolated)	Low	High	<ul style="list-style-type: none"> <li>Impacts avoided where possible. If impacts cannot be avoided, salvage works should occur prior to impact occurring. Salvage works should be conditioned by the Minister's Conditions of Approval</li> </ul>
PWF SUH 01	CMT	Low	Moderate	<ul style="list-style-type: none"> <li>Buffer of 50 m to be applied</li> </ul>

### 10.3 ECOLOGICALLY SUSTAINABLE DEVELOPMENT PRINCIPLES

In accordance with the ACHAR Guide, Ecologically Sustainable Development (ESD) principles have also been considered in the preparation of this Heritage Report.

The ESD principles as relevant to Aboriginal and historic cultural heritage when considered in the context of the preparation of the current disturbance footprint of the Project are considered below.

### 10.3.1 THE PRECAUTIONARY PRINCIPLE

The precautionary principle states that lack of full scientific certainty about the threat of harm should never be used as a reason for not taking measures to prevent harm from occurring. The current assessment has included detailed heritage investigation incorporating review of former studies, in depth field surveys and the identification of areas of heritage constraint which would require further investigation to ensure scientific certainty.

### 10.3.2 THE PRINCIPLE OF INTERGENERATIONAL EQUITY

The principle of intergenerational equity holds that the present generation should make every effort to ensure the health, diversity, and productivity of the environment – which includes cultural heritage – is available for the benefit of future generations.

Heritage values have formed a key assessment criterion in the development of the current disturbance footprint.

The completion of the current detailed assessment at the proposed disturbance footprint stage has resulted in the development of a uniform and detailed understanding of the Project Area. This will enable an accurate understanding of potential heritage impacts at a side-wide level and allow for appropriate management of the cumulative impacts to heritage associated with the Project ensuring that appropriate management and mitigation strategies can be developed as part of future development stages and ongoing site management.

## 10.4 CUMULATIVE IMPACTS

The ACHAR guide identifies that a consideration of the ESD principles should include an understanding of the cumulative impacts of the proposal in relation to other identified sites in the region.

*Cumulative impacts are a result of incremental, sustained and combined effects of human action and natural variations over time and can be both positive and negative. They can be caused by the compounding effects of a single project or multiple projects in an area, and by the accumulation of effects from past, current and future activities as they arise (DPIE 2022).*

As the Project contains Aboriginal objects, there are cumulative impacts associated with any land uses which would result in impacts to these elements. This is particularly noteworthy due to the general lack of registered AHIMS sites otherwise registered within the region. It is also acknowledged that continued development within the Riverina Murray Region has the potential to result in a cumulative impact on the cultural values of the local area when impacts overlap with impacts from other projects, which can result in a greater overall effect.

This effect is dependent on the scale and timing of the impacts and generally occurs when projects are constructed concurrently or consecutively and are based on their location. *Section 6.4.2* discusses a number of existing and/ or proposed renewable energy projects adjacent to or in the vicinity of the Project Area, of which all have a potential for cumulative impacts to occur.

*Table 10.3* identifies and describes four projects that are within or adjacent to the Pottinger Wind Farm. The Project Area borders Bullawah Wind Farm immediately to the east, and The Plains Wind and Solar Farm to the north and west. The Project EnergyConnect (NSW eastern section) traverses the northern area of the Wind Farm Project Area. The EnergyConnect Project comprises the complete construction of a high voltage interconnector. As described in *Section 6.4.2* a total of 142 sites were identified with direct harm likely to occur to 94 of them. Design refinements to the EnergyConnect Project occurred to minimise impact where possible.

**TABLE 10.3 NEARBY RENEWABLE ENERGY PROJECTS**

Project	Distance to Project Area	Description	Current Status
Bullawah Wind Farm	<1 km (adjacent)	<ul style="list-style-type: none"> <li>170 wind WTGs</li> <li>~1,000 MW capacity</li> </ul>	EIS to be prepared
The Plains Solar Farm	<1 km (adjacent)	<ul style="list-style-type: none"> <li>900,900 PV panels</li> <li>500 MW capacity</li> <li>BESS</li> </ul>	EIS to be prepared
The Plains Wind Farm	<1 km (adjacent)	<ul style="list-style-type: none"> <li>226 WTGs</li> <li>1,800 MW capacity</li> </ul>	EIS to be prepared
Project EnergyConnect (NSW – Eastern Section)	<1 km (within Project Area)	<ul style="list-style-type: none"> <li>330 kV transmission line</li> </ul>	Determination

During this assessment, potential harm has been identified to archaeological sites in *Table 10.2*, and archaeological sites are a non-renewable resource, thus any harm to an Aboriginal object/site constitutes an irreversible and cumulative impact. It is noted in *Section 10* that all sites have inherent cultural value to the Aboriginal community as a tangible connection between the traditional lands and past Aboriginal occupation and use. However, harm as result of this Project will be overall minimal and not negatively affect the cultural and scientific values across the region.

As previously discussed in *Section 10.1.1*, substantial changes to the project disturbance footprint have reduced direct impact to fifteen sites; ten sites from high to moderate and five sites from high to low. Indirect impacts (where the disturbance footprint was within site buffers) has also been reduced to a further six sites.

Additionally, suggested future changes to the Project design to avoid Aboriginal heritage sites, where possible, would result in a minimal contribution to the cumulative impacts across the region. These suggested future changes are discussed in *Section 11*.

For the above reasons it is assessed that cumulative impacts as a result of this Project are low.

**FIGURE 10.1 POTENTIAL IMPACTS TO ABORIGINAL CULTURAL HERITAGE SITES**

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## 11. RECOMMENDATIONS AND MANAGEMENT STRATEGIES

### 11.1 ABORIGINAL HERITAGE SUMMARY

- Three previously registered AHIMS sites are located within the Project Area;
- A total of 111 new Aboriginal sites were identified within the Project Area during the development of this ACHAR (comprising Artefacts, Hearths, PADs, CMTs and Earth Mounds);
- Based on the current disturbance footprint, harm to 53 sites (both site extents and their buffer, if applied) has been identified; and
- Of these 53 sites, 17 will be directly impacted (High impact) by the disturbance footprint. Detailed Figures of the newly recorded sites are provided in *Appendix K*:
  - AHIMS #48-6-0166: Artefact, Hearth;
  - PSF 04: Artefact;
  - PSF 05: Artefact, Hearth, PAD;
  - PSF 12: Artefact;
  - PWF SUB 01: Artefact;
  - PWF SUC 04: Artefact, Hearth, PAD;
  - PWF SUC 12: Artefact, Hearth;
  - PWF SUD 04: PAD, CMT
  - PWF SUD 06: CMT;
  - PWF SUG 08: Artefact, Hearth, PAD;
  - PWF SUG 09: Artefact, Hearth, PAD;
  - PWF SUG 10: Artefact, Hearth, PAD;
  - PWF SUG 13: Artefact, Hearth;
  - PWF SUG 18: Artefact;
  - PWF SUG 20: Artefact, Hearth, PAD;
  - PWF SUG 31: Artefact, Hearth, PAD; and
  - PWF SUG 35: Artefact.

### 11.2 RECOMMENDATIONS

#### ***Project Redesign and Micro-siting:***

- Preservation and management of Aboriginal sites and heritage values will form a key objective of development controls for the Project. It should be noted that substantial amendments to the project disturbance footprint in February 2024 have reduced direct impact to fifteen sites; ten sites from high to moderate and five sites from high to low. Indirect impacts (where the disturbance footprint was within site buffers) has also been reduced to a further six sites;
- ERM recommends further changes to the Project design to avoid impacting 17 Aboriginal sites identified above, in particular PAD, Hearth and CMT sites (*Figure 10.1*).

- Micro-siting of project elements should be used as a mitigation measure to avoid disturbing Aboriginal cultural heritage sites. Micro-siting should occur within the boundary of the area previously surveyed; this area is referred to as the 'survey area' throughout the report. If micro-siting was to occur within any areas that have not been previously surveyed, additional survey will need to be undertaken.

#### **Site Buffers:**

- As stated above in *Section 10.1*, as per discussions and a request from Hay LALC and Deniliquin LALC, a buffer of 200 m has been provided to recorded PADs and Earth Mounds, a buffer of 100 m has been provided to recorded hearths, and a buffer of 50 m has been provided to CMTs). As such the following newly recorded sites have a buffer as they contain PADs, Earth Mounds, CMTs, and Hearth features:
  - PSF 02: PAD;
  - PSF 03: Artefact, PAD;
  - PSF 05: Artefact, Hearth, PAD;
  - PSF 06: Artefact, Hearth, PAD;
  - PSF 08: Artefact, Hearth, PAD;
  - PSF 09: Artefact, Hearth;
  - PSF 10: Artefact, PAD;
  - PSF 11: Artefact, PAD;
  - PWF SUA 01: Artefact, Hearth;
  - PWF SUA 02: Hearth, CMT
  - PWF SUA 03: Artefact, Hearth, PAD;
  - PWF SUA 04: Artefact, Hearth;
  - PWF SUA 05: CMT;
  - PWF SUB 04: CMT;
  - PWF SUB 09: Artefact, Hearth, PAD;
  - PWF SUB 12: PAD;
  - PWF SUC 01: CMT;
  - PWF SUC 02: CMT;
  - PWF SUC 03: CMT;
  - PWF SUC 04: Artefact, Hearth, PAD;
  - PWF SUC 08: CMT;
  - PWF SUC 10: Artefact, Hearth;
  - PWF SUC 12: Artefact, Hearth;
  - PWF SUC 13: Artefact, Hearth;
  - PWF SUC 14: CMT;
  - PWF SUC 15: CMT;
  - PWF SUC 16: CMT;
  - PWF SUC 17: CMT;
  - PWF SUC 18: CMT;

- PWF SUC 19: CMT;
- PWF SUC 20: CMT;
- PWF SUC 21: CMT;
- PWF SUC 22: Artefact, Hearth;
- PWF SUC 23: Hearth;
- PWF SUD 01: CMT;
- PWF SUD 03: CMT;
- PWF SUD 04: PAD, CMT;
- PWF SUD 05: CMT;
- PWF SUD 06: CMT;
- PWF SUD 08: CMT;
- PWF SUD 10: CMT;
- PWF SUD 11: CMT;
- PWF SUD 12: Earth Mound, Hearth;
- PWF SUD 13: CMT;
- PWF SUD 14: Artefact, Hearth;
- PWF SUD 16: Hearth;
- PWF SUD 18: CMT;
- PWF SUD 19: CMT;
- PWF SUD 20: CMT;
- PWF SUE 02: CMT;
- PWF SUE 03: CMT;
- PWF SUE 04: CMT;
- PWF SUE 05: CMT;
- PWF SUE 06: CMT;
- PWF SUG 01: Artefact, PAD;
- PWF SUG 02: Artefact, PAD;
- PWF SUG 04: Artefact, PAD;
- PWF SUG 05: Artefact, PAD;
- PWF SUG 06: Artefact, PAD;
- PWF SUG 07: Artefact, PAD;
- PWF SUG 08: Artefact, Hearth, PAD;
- PWF SUG 09: Artefact, Hearth, PAD;
- PWF SUG 10: Artefact, Hearth, PAD;
- PWF SUG 11: Hearth;
- PWF SUG 13: Artefact, Hearth;
- PWF SUG 15: Artefact, Hearth, PAD;
- PWF SUG 20: Artefact, Hearth, PAD;
- PWF SUG 22: Artefact, Hearth;

- PWF SUG 23: Artefact, PAD;
- PWF SUG 24: Hearth;
- PWF SUG 27: Artefact, Hearth;
- PWF SUG 30: Artefact, Hearth, PAD;
- PWF SUG 31: Artefact, Hearth, PAD;
- PWF SUG 32: Artefact, Hearth, PAD; and
- PWF SUH 01: CMT.

### **Salvage Works and Monitoring:**

- Twenty-two recorded PADs and one Earth Mound are within the current proposed disturbance footprint and will be subject to varying levels of impact. As described in *Table 10.2*, PSF 02 (PAD), PWF SUB 12 (PAD), and PWF SUD 04 (PAD, CMT) have unknown heritage significance (as they were not associated with visible archaeological material such as hearths, or artefacts); therefore, test excavation is recommended to assess the potential deposit for these three sites. Any artefacts uncovered during test excavation should be salvaged.

Hay LALC, Nari Nari Tribal Council, and Deniliquin LALC, during the consultation process, requested that this test or salvage excavation should be completed under the authorisation of the Minister's Conditions of Approval, to avoid unnecessary impact to sites. This request was supported by ERM and Someva, in accordance with *Leading Practice Principles: First Nations and Renewable Energy Projects*, namely Principles 1 and 3, which focus on respectful engagement and the preservation and protection of cultural heritage. Should test excavation determine that sites are significant, micro-siting of project elements should occur to avoid impact to these sites.

- Salvage excavation is recommended for the remaining nineteen PAD and Earth Mound sites, as visible archaeological material was identified during the survey:
  - PSF 03: Artefact, PAD;
  - PSF 05: Artefact, Hearth, PAD;
  - PSF 06: Artefact, Hearth, PAD;
  - PSF 10: Artefact, PAD;
  - PSF 11: Artefact, PAD;
  - PWF SUC 04: Artefact, Hearth, PAD;
  - PWF SUB 09: Artefact, Hearth, PAD;
  - PWF SUD 12: Earth Mound, Hearth;
  - PWF SUG 01: Artefact, PAD;
  - PWF SUG 02: Artefact, PAD;
  - PWF SUG 06: Artefact, PAD;
  - PWF SUG 07: Artefact, PAD;
  - PWF SUG 08: Artefact, Hearth, PAD;
  - PWF SUG 09: Artefact, Hearth, PAD;
  - PWF SUG 10: Artefact, Hearth, PAD;
  - PWF SUG 15: Artefact, Hearth, PAD;

- PWF SUG 20: Artefact, Hearth, PAD;
- PWF SUG 23: Artefact, PAD;
- PWF SUG 31: Artefact, Hearth, PAD; and
- PWF SUG 32: Artefact, Hearth, PAD.
- Based on discussions with Hay LALC during survey of site entrance in February 2024, micro-siting of the proposed site entrance to avoid site PSF 12 and buffers of sites PSF 10 and PSF 11 is not recommended (*Figure 10.1*). Consideration should be given to building up the access road (within the site extents and buffers), in preference to grading or scraping the road. It was requested by Hay LALC that, should any subsurface disturbance associated with the site entrance construction occur within the buffers of PSF 10 and PSF 11, or site extent of PSF 12, monitoring by their representatives should be undertaken to mitigate impacts to these sites.

### ***Aboriginal Cultural Heritage Management Plan:***

- An ACHMP should be developed to record and describe the processes and procedures required to be implemented regarding Aboriginal cultural heritage prior and during the construction and operational phases of the Project. This should be developed in partnership with the Traditional Owners and should at a minimum include:
  - Where harm to sites is unavoidable through micro-siting of turbines and other infrastructure, archaeological test excavation or salvage excavation should be undertaken for areas of PADs or Earth Mounds which may be subject to harm as part of clearing of the disturbance footprint. A detailed test and salvage excavation methodology would be included within the ACHMP. Hay LALC, Nari Nari Tribal Council, and Deniliquin LALC, during the consultation process, requested that this test or salvage excavation should be completed under the authorisation of the Minister's Conditions of Approval, to avoid unnecessary impact to sites.
  - Measures to manage archaeological material that needs to be relocated away from development activities;
  - Measures such as fencing, or signage be installed during and possibly post the construction phase to protect and conserve archaeological material that will not be impacted by development activities;
  - The requirements regarding heritage training and inductions for employees and contractors;
  - Any requirements regarding monitoring of ground disturbance activities by Traditional Owners;
  - The development and provision of cultural awareness training by Traditional Owners; and
  - An Unexpected Finds Protocol that includes mechanisms for managing the expected finds of additional Aboriginal cultural material being found during construction activities.
- The Applicant should consider the appointment and training of a Traditional Owner liaison/s to provide cultural awareness training and assist with the implementation of the ACHMP.

- No mitigation measures are recommended for twenty-eight newly recorded sites within the Project Area as they have low potential to be impacted by the current disturbance footprint:
  - PSF 07: Artefact;
  - PWF SUB 02: Artefact;
  - PWF SUB 03: Artefact;
  - PWF SUB 05: Artefact;
  - PWF SUB 06: Artefact;
  - PWF SUB 08: Artefact;
  - PWF SUB 10: Artefact;
  - PWF SUB 11: Artefact;
  - PWF SUC 05: Artefact;
  - PWF SUC 06: Artefact;
  - PWF SUC 07: Artefact;
  - PWF SUC 09: Artefact;
  - PWF SUC 11: Artefact;
  - PWF SUD 09: Artefact;
  - PWF SUE 01: Artefact;
  - PWF SUG 03: Artefact;
  - PWF SUG 12: Artefact;
  - PWF SUG 14: Artefact;
  - PWF SUG 16: Artefact;
  - PWF SUG 17: Artefact;
  - PWF SUG 19: Artefact;
  - PWF SUG 21: Artefact;
  - PWF SUG 25: Artefact;
  - PWF SUG 26: Artefact;
  - PWF SUG 28: Artefact;
  - PWF SUG 29: Artefact;
  - PWF SUG 33: Artefact; and
  - PWF SUG 34: Artefact.

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## APPENDIX A      CONSULTATION LOG



## CONSULTATION LOG – POTTINGER ENERGY PARK

Date	Method	Addressee	Organisation	Sender	Sender Organisation	Details
<b>Agency Letters Out</b>						
8/08/2023	Email	-	Griffith Local Aboriginal Land Council	Imogen Crome	OzArk	Stage 1 agency letter requesting potential stakeholders by 22 August 2023.
8/08/2023	Email	-	Hay Local Aboriginal Land Council	Imogen Crome	OzArk	Stage 1 agency letter requesting potential stakeholders by 22 August 2023.
8/08/2023	Email	-	Deniliquin Local Aboriginal Land Council	Imogen Crome	OzArk	Stage 1 agency letter requesting potential stakeholders by 22 August 2023.
8/08/2023	Email	-	Office of the Registrar, ALRA	Imogen Crome	OzArk	Stage 1 agency letter requesting potential stakeholders by 22 August 2023.
8/08/2023	Email	-	Edward River Council	Imogen Crome	OzArk	Stage 1 agency letter requesting potential stakeholders by 22 August 2023.
8/08/2023	Email	-	Hay Shire Council	Imogen Crome	OzArk	Stage 1 agency letter requesting potential stakeholders by 22 August 2023.
8/08/2023	Email	-	Riverina Local Land Services	Imogen Crome	OzArk	Stage 1 agency letter requesting potential stakeholders by 22 August 2023.
8/08/2023	Email	-	Murray Local Land Services	Imogen Crome	OzArk	Stage 1 agency letter requesting potential stakeholders by 22 August 2023.
8/08/2023	Email	-	Heritage NSW	Imogen Crome	OzArk	Stage 1 agency letter requesting potential stakeholders by 22 August 2023.

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Date	Method	Addressee	Organisation	Sender	Sender Organisation	Details
9/08/2023	Email	-	National Native Title Tribunal	Imogen Crome	OzArk	Stage 1 agency letter requesting potential stakeholders by 22 August 2023.
3/10/2023	Email	--	Heritage NSW	Elspeth Mackenzie	ERM	Resent OzArk Stage 1 agency letter requesting potential stakeholders and advised that consultation process was being completed by ERM.
<b>Response to Agency Letters</b>						
8/08/2023	Email	Imogen Crome	OzArk	Stephen Young	Griffith Local Aboriginal Land Council	Registered their interest in the project with a comment noting the high Aboriginal Ancestral Cultural Heritage value of the project area. Responded with thanks.
09/08/2023	Email	Imogen Crome	OzArk		Moama Local Aboriginal Land Council	Registered their interest in the project. Responded with thanks.
	Phone		Someva	Ian Woods	Hay Local Aboriginal Land Council	Registered their interest in the project.
14/08/2023	Email	Imogen Crome	OzArk	Geospatial Searches	National Native Title Tribunal	Provided Native Title information relevant to the project area.
12/09/2023	Email	Imogen Crome	OzArk	Dana McNally	Edward River Council	Provided name of Mr David Crew, Yarkuwa Indigenous Knowledge Centre, on David.crew@yarkuwa.org.au as the most appropriate contact.
4/10/2023	Email	Elspeth Mackenzie	ERM	Barry Gunther	Heritage NSW	Provided a list of 32 potential stakeholders.

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Date	Method	Addressee	Organisation	Sender	Sender Organisation	Details
<b>Advert</b>						
15/08/2023	Public advert	Riverine Grazier		ERM		Advert placed on Wednesday 15th August 2023 with closing date of 30th August 2023.
16/08/2023	Public advert	Pastoral Times		ERM		Advert placed on 16th August 2023 with closing date of 30th August 2023.
26/09/2023	Public advert	Riverine Grazier		ERM		Advert placed on Wednesday 27th September 2023 with closing date of 25th October 2023.
27/09/2023	Public advert	Pastoral Times		ERM		Advert placed on 26th September 2023 with closing date of 25th October 2023.
<b>Invitation to register</b>						
5/10/2023	Email	John "Gubba" Woods	Hay Aboriginal Community Working Party	Elspeth Mackenzie Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
5/10/2023	Email	Robert Young	Konanggo Aboriginal Cultural Heritage Services	Elspeth Mackenzie Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
5/10/2023	Email Post	Marie (Sissy) Havea	-	Elspeth Mackenzie Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October. Email bounced back so hard-copy letter sent.
5/10/2023	Email	Robert Carroll	Miyagan Culture & Heritage	Elspeth Mackenzie	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.

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Date	Method	Addressee	Organisation	Sender	Sender Organisation	Details
				Lorien Perchard		
5/10/2023	Email	Daryl, Jason & Mary Pappin	Pappin Family Aboriginal Corporation	Elspeth Mackenzie Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
5/10/2023	Email	Patricia Winch	-	Elspeth Mackenzie Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
5/10/2023	Email	Thomas Dahlstrom	-	Elspeth Mackenzie Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
5/10/2023	Email	Cynthja & Gary Pappin	Wakool Indigenous Corporation	Elspeth Mackenzie Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
5/10/2023	Email	Diana Astin	Girragirra Murun Aboriginal Corporation	Elspeth Mackenzie Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
5/10/2023	Email	Raymond Moon	Wingarra Wilay Aboriginal Corporation	Elspeth Mackenzie Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.

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Date	Method	Addressee	Organisation	Sender	Sender Organisation	Details
5/10/2023	Email	Will Carter	Southern West Yiradyuri Clans, Land, Water and Sky Country Aboriginal Corporation	Elspeth Mackenzie Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
5/10/2023	Email	John Winch	-	Elspeth Mackenzie Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
5/10/2023	Email	Kevin Atkinson	Bangerang Aboriginal Corporation	Elspeth Mackenzie Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
5/10/2023	Email	John Jackson	-	Elspeth Mackenzie Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
5/10/2023	Email	David Crew	Yarkuwa Indigenous Knowledge Centre	Elspeth Mackenzie Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
6/10/2023	Post	Alice Pettit	-	Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
6/10/2023	Post	Alvira Wighton	-	Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.

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Date	Method	Addressee	Organisation	Sender	Sender Organisation	Details
6/10/2023	Post	Brian Gash Jnr	-	Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
6/10/2023	Post	Cherokee Dixon	-	Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
6/10/2023	Post	Corey Hughes	-	Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
6/10/2023	Post	Daryl Singh	-	Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
6/10/2023	Post	Galen Pettit	-	Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
6/10/2023	Post	Gary Pappin	-	Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
6/10/2023	Post	Geraldine Johnson	-	Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
6/10/2023	Post	Jamie Woods	-	Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
6/10/2023	Post	Josephine Goulding	-	Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
6/10/2023	Post	Kerrie Parker	-	Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
6/10/2023	Post	Mabel Fitzpatrick	-	Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.

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Date	Method	Addressee	Organisation	Sender	Sender Organisation	Details
6/10/2023	Post	Marie Murray	-	Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
6/10/2023	Post	Richard Dixon	-	Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
6/10/2023	Post	Rod Pettit	-	Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
6/10/2023	Post	Tara Dixon	-	Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
6/10/2023	Post	Terence Singh	-	Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
6/10/2023	Post	Tiem Wilson	-	Lorien Perchard	ERM	Stage 1 invitation to register interest in the project with closing date of 19 October.
10/10/2023	Email	John Jackson	-	Victoria Gleeson	ERM	Victoria re-issued invitation to register interest in the project (to correct email address).
11/10/2023	Email	Tiem Wilson	-	Elspeth Mackenzie Lorien Perchard	ERM	Re-issued invitation to register interest in the project (to email address found as postal address did not include street number).
<b>Registration of Interest from advert or letter</b>						
26/09/23	Email	Lorien Perchard	ERM	Tracey Hamilton	Yarkuwa Indigenous Knowledge Centre	Tracey emailed to ask for copy of map. Lorien responded 28/09/23 with detailed map of project area.

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Date	Method	Addressee	Organisation	Sender	Sender Organisation	Details
28/09/23	Text	Lorien Perchard	ERM	Nicholas Smith	-	Nicholas texted to ask about being included in fieldwork for the project. Lorien texted back and will update with project methodology when complete and inform about planned fieldwork.
28/09/23	Phone	Lorien Perchard	ERM	Neville Wayman	-	Neville called to register his interest in the project. Lorien will update with project methodology when complete and inform about planned fieldwork.
5/10/2023	Email	Elspeth Mackenzie	ERM	Will Carter	Southern West Yiradyuri Clans Land, Water and Sky Country Aboriginal Corporation	Registered interest in the project. Responded with thanks.
6/10/2023	Email	Elspeth Mackenzie	ERM	Mary Pappin	Pappin Family Aboriginal Corporation	Registered interest in the project.
9/10/2023	Email	Elspeth Mackenzie	ERM	John Winch Patricia Winch	-	John registered interest in the project for both himself and his mother.
10/10/2023	Email	Elspeth Mackenzie	ERM	Ray Moon	Wingarra Wilay	Registered interest in the project.
10/10/2023	Email	Lorien Perchard	ERM	Diana Astin	Girragirra Murun	Registered interest in the project.

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Date	Method	Addressee	Organisation	Sender	Sender Organisation	Details
					Aboriginal Corporation	Lorien responded and ERM will update with project methodology when complete and inform about planned fieldwork.
11/10/2023	Email	Elspeth Mackenzie	ERM	Thomas Dahlstrom	-	Registered interest in the project.
23/10/2023	Email	Elspeth Mackenzie	ERM	Cynthja & Gary Pappin	Wakool Indigenous Corporation	Registered an interest in the project.
21/11/2023	Email	Kevin Atkinson	Bangerang Aboriginal Corporation	Elspeth Mackenzie Lorien Perchard	ERM	Lorien sent email to BACCH as no response received to registration letter.

### Issuing Project Methodology

3/10/2023	Email	Rose Dunn	Deniliquin Local Aboriginal Land Council	Victoria Gleeson	ERM	Victoria issued ACHAR Project Methodology, with close of response period 31 October.
3/10/2023	Email	John Patrick Kerr	Moama Local Aboriginal Land Council	Victoria Gleeson	ERM	Victoria issued ACHAR Project Methodology, with close of response period 31 October.
3/10/2023	Email	Ian Woods	Hay Local Aboriginal Land Council	Victoria Gleeson	ERM	Victoria issued ACHAR Project Methodology, with close of response period 31 October.
3/10/2023	Email	Stephen Young	Griffith Local Aboriginal Land Council	Victoria Gleeson	ERM	Victoria issued ACHAR Project Methodology, with close of response period 31 October.

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Date	Method	Addressee	Organisation	Sender	Sender Organisation	Details
6/10/2023	Email	Will Carter	Southern West Yiradyuri Clans Land, Water and Sky Country Aboriginal Corporation	Victoria Gleeson	ERM	Victoria issued ACHAR Project Methodology, with close of response period 3 November.
6/10/2023	Email	Tracey Hamilton	Yarkuwa Indigenous Knowledge Centre	Victoria Gleeson	ERM	Victoria issued ACHAR Project Methodology, with close of response period 3 November.
6/10/2023	Email	Mary Pappin	Pappin Family Aboriginal Corporation	Victoria Gleeson	ERM	Victoria issued ACHAR Project Methodology, with close of response period 3 November.
10/10/2023	Email	Nicholas Smith	-	Victoria Gleeson	ERM	Victoria issued ACHAR Project Methodology, with close of response period 7 November.
10/10/2023	Email	John Winch	-	Victoria Gleeson	ERM	Victoria issued ACHAR Project Methodology, with close of response period 7 November.
10/10/2023	Email	Patricia Winch	-	Victoria Gleeson	ERM	Victoria issued ACHAR Project Methodology, with close of response period 7 November.
10/10/2023	Email	Neville Wayman	-	Victoria Gleeson	ERM	Victoria issued ACHAR Project Methodology, with close of response period 7 November.
10/10/2023	Email	Ray Moon	Wingarra Wilay	Victoria Gleeson	ERM	Victoria issued ACHAR Project Methodology, with close of response period 7 November.
10/10/2023	Email	Diana Astin	Girragirra Murun Aboriginal Corporation	Victoria Gleeson	ERM	Victoria issued ACHAR Project Methodology, with close of response period 7 November.



Date	Method	Addressee	Organisation	Sender	Sender Organisation	Details
13/10/2023	Email	Thomas Dahlstrom	-	Victoria Gleeson	ERM	Victoria issued ACHAR Project Methodology, with close of response period 10 November.
24/10/2023	Email	Cynthja & Gary Pappin	Wakool Indigenous Corporation	Lorien Perchard	ERM	Lorien issued ACHAR Project Methodology, with close of response period 21 November.
4/12/2023	Phone and email	Lorien Perchard	ERM	Verna Pappin	Individual	Verna called Lorien with concerns about the project survey as it had started without her knowledge. Lorien let Verna know that her name was not identified on the Heritage NSW list and therefore wasn't included in the initial registration process. Lorien collected her details and sent her the project methodology and let her know she will be consulted moving forward.
4/12/2023	Email	Lorien Perchard	ERM	Verna Pappin	Individual	Verna replied to Lorien's email saying she will send through her abn and details soon.
<b>Section 4.1.6 Letter</b>						
1/12/2023	Email	-	Heritage NSW	Mia Linton-Smith	ERM	Mia issued Section 4.1.6 letter identifying registered RAPs.
1/12/2023	Email	Rose Dunn	Deniliquin LALC	Mia Linton-Smith	ERM	Mia issued Section 4.1.6 letter identifying registered RAPs.
1/12/2023	Email	Ian Woods	Hay LALC	Mia Linton-Smith	ERM	Mia issued Section 4.1.6 letter identifying registered RAPs.



Date	Method	Addressee	Organisation	Sender	Sender Organisation	Details
<b>Comments on Project Methodology</b>						
3/10/2023	Email	Victoria Gleeson	ERM	John Patrick Kerr	Moama Local Aboriginal Land Council	John responded and stated that Moama LALC were interested in participating in all aspects of the project.
4/10/2023	Email	Victoria Gleeson	ERM	Irene Woods	Hay Local Aboriginal Land Council	Irene responded and stated that Hay LALC wished to participate in fieldwork for the project and provided their availability. She also provided their rates.
5/10/2023	Email	Victoria Gleeson	ERM	Stephen Young	Griffith Local Aboriginal Land Council	Confirmed interest in participating in the project and supplied insurances and rates.
6/10/2023	Email	Victoria Gleeson	ERM	Will Carter	Southern West Yiradyuri Clans Land, Water and Sky Country Aboriginal Corporation	Responded with thanks.
13/10/2023	Email	Victoria Gleeson	ERM	Nicholas Smith	-	Confirmed interest in participating in the project and supplied rates.
19/10/2023	Email	Victoria Gleeson	ERM	Ray Moon	Wingarra Wilay	Confirmed interest in participating in the project and supplied rates and insurances.
1/11/2023	Email	Lorien Perchard	ERM	Gary Pappin	Wakool Indigenous Corporation	Gary responded and confirmed interest in participating in the project and supplied rates.



Date	Method	Addressee	Organisation	Sender	Sender Organisation	Details
						He stated " <i>there is an error in expectation in that mounds will not be found in the location as these are specific to the Kulin nation, in this region the Muthi Muthi and Wati Wati tribes. As the project site is in Wiradjuri country you will expect instead to see carved trees.</i> "
1/11/2023	Email	Gary Pappin	Wakool Indigenous Corporation	Lorien Perchard	ERM	Lorien responded with thanks and provided further information on fieldwork timing. She noted comments on methodology and stated ERM would incorporate into ACHAR.
<b>Fieldwork Prep</b>						
11/10/2023	Email	Ian and Irene	Hay LALC	Lorien Perchard	ERM	Lorien contacted Hay LALC about upcoming field work and proposed survey dates.
12/10/2023	Email	Lorien Perchard	ERM	Irene	Hay LALC	Irene responded Hay LALC would have RAPS available for the dates.
17/11/2023	Phone and Email	Rose Dunn	Deni LALC	Lorien Perchard	ERM	Lorien phoned Rose at Deni LALC. They discussed upcoming fieldwork dates. Rose confirmed 2 RAPS would be available. Lorien sent email confirming survey dates and details.
17/11/2023	Email	Gary Pappin	Wakool	Lorien Perchard	ERM	Lorien contacted Gary about upcoming field work and proposed survey dates. Gary replied they would have 2 RAPs available for the proposed dates.
17/11/2023	Email	Tracey/Jeanette/David	Yarkuwa	Lorien Perchard	ERM	Lorien contacted Yarkuwa about upcoming field work and proposed survey dates.

## APPENDIX A



Date	Method	Addressee	Organisation	Sender	Sender Organisation	Details
17/11/2023	Phone	Neville Wayman	-	Lorien Perchard	ERM	Lorien phoned Neville and discussed the proposed survey dates. Neville confirmed he would attend.
17/11/2023	Phone	Nicholas Smith	-	Lorien Perchard	ERM	Lorien phoned Nicholas and discussed the proposed survey dates. Neville confirmed he would attend.
22/11/2023	Email	Neville Wayman	-	Lorien Perchard	ERM	Lorien emailed Neville with survey details as discussed on phone.
22/11/2023	Email	Nicholas Smith	-	Lorien Perchard	ERM	Lorien emailed Nicholas with survey details as discussed on phone.
4/12/2023	Phone and email	Lorien Perchard	ERM	Mary Pappin	PFAC	Lorien received a call from Mary requesting information regarding project info and survey. Lorien resent the project methodology and let her know the proposed fieldwork program for Jan 2024. Lorien offer PFAC a RAP position for the remained of the current survey week (4-8 Dec 2023).
5/01/2024	Phone	Victoria Gleeson	ERM	John Winch	-	John called Victoria and requested information regarding upcoming fieldwork. Victoria said he would be contacted when fieldwork is being organised over the next couple of weeks.
9/01/2024	Phone	Rose Dunn	Deni LALC	Lorien Perchard	ERM	Lorien phoned Rose to confirm availability to attend upcoming heritage survey. Rose confirmed availability.
9/01/2024	Phone	Mary Pappin	PFAC	Lorien Perchard	ERM	Lorien phoned Mary, no answer. Left Voicemail.

## APPENDIX A



Date	Method	Addressee	Organisation	Sender	Sender Organisation	Details
9/01/2024	Email	Tracey Hamilton	Yarkuwa	Victoria Gleeson	ERM	Victoria contacted Yarkuwa about upcoming fieldwork and proposed survey dates.
9/01/2024	Email	Mary Pappin	PFAC	Victoria Gleeson	ERM	Victoria contacted Mary about upcoming fieldwork and proposed survey dates.
9/01/2024	Email	Gary and Cynthja Pappin	Wakool	Victoria Gleeson	ERM	Victoria contacted Gary and Cynthja about upcoming fieldwork and proposed survey dates.
9/01/2024	Email	John and Patricia Winch	-	Victoria Gleeson	ERM	Victoria contacted John and Patricia about upcoming fieldwork and proposed survey dates.
9/01/2024	Email	Will Carter	Southern West Yiradyuri Clans Land, Water and Sky Country	Victoria Gleeson	ERM	Victoria contacted Will about upcoming fieldwork and proposed survey dates.
02/01/2024 08/01/2024 09/01/2024	Phone	Neville Wayman	-	Lorien Perchard	ERM	Lorien had two missed calls from Neville on the 2nd and 8th January. Lorien phoned Neville back on 9th January, no answer. Lorien sent text acknowledging calls and asking how she could assist him.
9/01/2024	Email	Victoria Gleeson	ERM	John and Patricia Winch	-	John confirmed two RAPs would be able to attend second week of survey.
9/01/2024	Email	Victoria Gleeson	ERM	Will Carter	Southern West Yiradyuri Clans Land, Water and Sky Country	Will confirmed two RAPs would be able to attend second week of survey.

## APPENDIX A



Date	Method	Addressee	Organisation	Sender	Sender Organisation	Details
10/01/2024	Email	Victoria Gleeson	ERM	Gary Pappin	Wakool	Gary confirmed two RAPs would be able to attend first week of survey.
16/01/2024	Email	Victoria Gleeson	ERM	Mary Pappin	PFAC	Mary confirmed two RAPs would be able to attend first week of survey.
22/01/2024	Phone	Victoria Gleeson	ERM	Tracey Hamilton	Yarkuwa	Tracey called to confirm that two RAPs would be able to attend survey.
29/01/2024	Phone	Mia Linton-Smith	ERM	Ray Woods	Southern West Yiradyuri Clans Land, Water and Sky Country	Ray called to confirm survey details for 5th – 9th February
29/02/2024	Phone and Email	Rose Dunn	Deniliquin Local Aboriginal Land Council	Victoria Gleeson	ERM	Victoria called Rose to discuss Draft ACHAR recommendations regarding application of buffers to sites and test/salvage methodology. Rose agreed with the proposed recommendations.  Victoria emailed the recommendations to Rose.
<b>Issuing Draft Solar ACHAR</b>						
29/02/2024	Email	Thomas Dahlstrom		Lorien Perchard	ERM	Lorien issued Draft Solar ACHAR for review. She advised the close of the response period would be 28 March.
29/02/2024	Email	Rose Dunn	Deniliquin Local Aboriginal Land Council	Lorien Perchard	ERM	Lorien issued Draft Solar ACHAR for review. She advised the close of the response period would be 28 March.

## APPENDIX A



Date	Method	Addressee	Organisation	Sender	Sender Organisation	Details
						No response received.
29/02/2024	Email	John Patrick Kerr	Moama Local Aboriginal Land Council	Lorien Perchard	ERM	Lorien issued Draft Solar ACHAR for review. She advised the close of the response period would be 28 March.  No response received.
29/02/2024	Email	Ian Woods	Hay Local Aboriginal Land Council	Lorien Perchard	ERM	Lorien issued Draft Solar ACHAR for review. She advised the close of the response period would be 28 March.  No response received.
29/02/2024	Email	Stephen Young	Griffith Local Aboriginal Land Council	Lorien Perchard	ERM	Lorien issued Draft Solar ACHAR for review. She advised the close of the response period would be 28 March.  No response received.
29/02/2024	Email	Will Carter	Southern West Yiradyuri Clans Land, Water and Sky Country Aboriginal Corporation	Lorien Perchard	ERM	Lorien issued Draft Solar ACHAR for review. She advised the close of the response period would be 28 March.  Responded with thanks. No comments received.
29/02/2024	Email	Tracey Hamilton	Yarkuwa Indigenous Knowledge Centre	Lorien Perchard	ERM	Lorien issued Draft Solar ACHAR for review. She advised the close of the response period would be 28 March.  No response received.

## APPENDIX A



Date	Method	Addressee	Organisation	Sender	Sender Organisation	Details
29/02/2024	Email	Mary Pappin	Pappin Family Aboriginal Corporation	Lorien Perchard	ERM	Lorien issued Draft Solar ACHAR for review. She advised the close of the response period would be 28 March.  No response received.
29/02/2024	Email	John Winch	-	Lorien Perchard	ERM	Lorien issued Draft Solar ACHAR for review. She advised the close of the response period would be 28 March.  No response received.
29/02/2024	Email	Patricia Winch	-	Lorien Perchard	ERM	Lorien issued Draft Solar ACHAR for review. She advised the close of the response period would be 28 March.  No response received.
29/02/2024	Email	Neville Wayman	-	Lorien Perchard	ERM	Lorien issued Draft Solar ACHAR for review. She advised the close of the response period would be 28 March.  Responded with thanks. No comments received.
29/02/2024	Email	Ray Moon	Wingarra Wilay	Lorien Perchard	ERM	Lorien issued Draft Solar ACHAR for review. She advised the close of the response period would be 28 March.  No response received.

## APPENDIX A



Date	Method	Addressee	Organisation	Sender	Sender Organisation	Details
29/02/2024	Email	Cynthja & Gary Pappin	Wakool Indigenous Corporation	Lorien Perchard	ERM	Lorien issued Draft Solar ACHAR for review. She advised the close of the response period would be 28 March.  No response received.
29/02/2024	Email	Verna Pappin		Lorien Perchard	ERM	Lorien issued Draft Solar ACHAR for review. She advised the close of the response period would be 28 March.  No response received.
29/02/2024	Email	Diana Astin	Girragirra Murun Aboriginal Corporation	Lorien Perchard	ERM	Lorien issued Draft Solar ACHAR for review. She advised the close of the response period would be 28 March.  No response received.
13/03/2024	Email	Amanda Clarke (on behalf of Nicholas Smith)	-	Lorien Perchard	ERM	Lorien issued Draft Solar ACHAR for review. She advised the close of the response period would be 28 March.  No response received.

## APPENDIX A



Date	Method	Addressee	Organisation	Sender	Sender Organisation	Details
<b>Issuing Draft Wind ACHAR</b>						
28/03/2024	Email	Ian Woods	Hay Local Aboriginal Land Council	Victoria Gleeson	ERM	Victoria issued Draft Wind ACHAR for review. She advised the close of the response period would be 26 April.  No response received.
28/03/2024	Email	Stephen Young	Griffith Local Aboriginal Land Council	Victoria Gleeson	ERM	Victoria issued Draft Wind ACHAR for review. She advised the close of the response period would be 26 April.  No response received.
28/03/2024	Email	John Patrick Kerr	Moama Local Aboriginal Land Council	Victoria Gleeson	ERM	Victoria issued Draft Wind ACHAR for review. She advised the close of the response period would be 26 April.  No response received.
28/03/2024	Email	Tracey Hamilton David Crew	Yarkuwa Indigenous Knowledge Centre	Victoria Gleeson	ERM	Victoria issued Draft Wind ACHAR for review. She advised the close of the response period would be 26 April.  Responded with thanks. No comments received.
28/03/2024	Email	Will Carter	Southern West Yiradyuri Clans Land, Water and Sky Country Aboriginal Corporation	Victoria Gleeson	ERM	Victoria issued Draft Wind ACHAR for review. She advised the close of the response period would be 26 April.  Responded with thanks. No comments received.

## APPENDIX A



Date	Method	Addressee	Organisation	Sender	Sender Organisation	Details
28/03/2024	Email	Amanda Clarke (on behalf of Nicholas Smith)	-	Victoria Gleeson	ERM	Victoria issued Draft Wind ACHAR for review. She advised the close of the response period would be 26 April.  No response received.
28/03/2024	Email	Neville Wayman	-	Victoria Gleeson	ERM	Victoria issued Draft Wind ACHAR for review. She advised the close of the response period would be 26 April.  No response received.
28/03/2024	Email	John Winch Patricia Winch	-	Victoria Gleeson	ERM	Victoria issued Draft Wind ACHAR for review. She advised the close of the response period would be 26 April.  No response received.
28/03/2024	Email	Ray Moon	Wingarra Wilay	Victoria Gleeson	ERM	Victoria issued Draft Wind ACHAR for review. She advised the close of the response period would be 26 April.  No response received.
28/03/2024	Email	Diana Astin	Girragirra Murun Aboriginal Corporation	Victoria Gleeson	ERM	Victoria issued Draft Wind ACHAR for review. She advised the close of the response period would be 26 April.
28/03/2024	Email	Thomas Dahlstrom	-	Victoria Gleeson	ERM	Victoria issued Draft Wind ACHAR for review. She advised the close of the response period would be 26 April.  No response received.

## APPENDIX A



Date	Method	Addressee	Organisation	Sender	Sender Organisation	Details
28/03/2024	Email	Cynthja & Gary Pappin	Wakool Indigenous Corporation	Victoria Gleeson	ERM	Victoria issued Draft Wind ACHAR for review. She advised the close of the response period would be 26 April.  No response received.
28/03/2024	Email	Rose Dunn	Deniliquin Local Aboriginal Land Council	Victoria Gleeson	ERM	Victoria issued Draft Wind ACHAR for review. She advised the close of the response period would be 26 April.  No response received.
28/03/2024	Email	Mary Pappin	Pappin Family Aboriginal Corporation	Victoria Gleeson	ERM	Victoria issued Draft Wind ACHAR for review. She advised the close of the response period would be 26 April.  No response received.
28/03/2024	Email	Verna Pappin	-	Victoria Gleeson	ERM	Victoria issued Draft Wind ACHAR for review. She advised the close of the response period would be 26 April.  Responded with thanks. No comments received.



Date	Method	Addressee	Organisation	Sender	Sender Organisation	Details
<b>Comments on Draft Reports</b>						
13/03/2024	Email	Lorien Perchard	ERM	Thomas Dahlstrom		Thomas responded to Lorien with comments on the Solar ACHAR regarding lithic material located during survey and plans and request to join the team for test excavations. Lorien responded to Thomas about timelines and would keep him informed as the project moves forward.
23/04/2024	Email	Victoria Gleeson	ERM	Jodie	Girragirra Murun Aboriginal Corporation	Girragirra Murun kindly requested that they be involved in any future fieldwork that requires RAP involvement. Victoria responded with thanks and let Girragirra Murun know that their request was noted.



APPENDIX B

ADVERTISEMENT

# Notice of Aboriginal Consultation – Proposed Pottinger Wind Farm, NSW

Environmental Resources Management Australia Pty Ltd (ERM), on behalf of Pottinger Renewables Pty Ltd (the proponent), is undertaking an Aboriginal Cultural Heritage Assessment to support the proposal to construct and operate the Pottinger Wind Farm, south of Hay, NSW. These activities may result in harm to Aboriginal cultural heritage. ERM is seeking expressions of interest from any Aboriginal people who may have cultural knowledge relating to the project area who may be able to assist in the development of this assessment.

Local Aboriginal parties wishing to be consulted for this assessment are invited to register a written expression of their interest by **COB 25 October 2023**.

Please respond in writing to:





ERM

APPENDIX C

AGENCY NOTIFICATION LETTER



8 August 2023

Office of the Registrar, ALRA



**ABORIGINAL AND HISTORIC HERITAGE ASSESSMENT  
POTTINGER WIND FARM**

Dear Sir/Madam,

OzArk Environment & Heritage (OzArk) has been engaged by RPS AAP Consulting Pty Ltd (RPS) on behalf of Pottinger Renewables Pty Ltd (the proponent) to undertake Aboriginal community consultation as per the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010).

The proponent is proposing to develop a 750 MW wind farm with a disturbance footprint of up to 470 hectares (ha) and includes:


- 108 Wind Turbine Generators (WTG)
- Electrical infrastructure
- Battery Energy Storage System (BESS)

The project area is located via the Cobb Highway from Jerilderie Road in the northeast and West Burrabogie Road in the west of Hay (**Figure 1**). These activities may result in harm to Aboriginal cultural heritage.

We are therefore seeking Expressions of Interest from relevant Aboriginal stakeholder groups and individuals in the area who hold cultural knowledge relevant to determining the significance of Aboriginal objects or places within the Hay Shire area.

This consultation group will assist OzArk in preparing the Aboriginal Cultural Heritage Assessment Report (ACHAR) and to assist Heritage NSW and the Department of Planning and Environment in their consideration and determination of the project.

If your organisation can recommend and provide contact details for any known Aboriginal groups or individuals with cultural knowledge relevant to determining the impacts to the cultural significance of the above-mentioned project, please advise our office.

We would appreciate it if you could provide any feedback, by responding to this email  regarding these Aboriginal stakeholder groups by **22 August 2023**, or sooner if possible.

Kind regards,

Catherine Burrowes

**Office Manager/ Community Liaison**

[REDACTED]

[REDACTED]



8 August 2023

Deniliquin LALC



## ABORIGINAL AND HISTORIC HERITAGE ASSESSMENT POTTINGER WIND FARM

Dear Sir/Madam,

OzArk Environment & Heritage (OzArk) has been engaged by RPS AAP Consulting Pty Ltd (RPS) on behalf of Pottinger Renewables Pty Ltd (the proponent) to undertake Aboriginal community consultation as per the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010).

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We would appreciate it if you could provide any feedback, by responding to this email  regarding these Aboriginal stakeholder groups by **22 August 2023**, or sooner if possible.

Kind regards,

Catherine Burrowes

**Office Manager/ Community Liaison**





8 August 2023

Edward River Council



**ABORIGINAL AND HISTORIC HERITAGE ASSESSMENT  
POTTINGER WIND FARM**

Dear Sir/Madam,

OzArk Environment & Heritage (OzArk) has been engaged by RPS AAP Consulting Pty Ltd (RPS) on behalf of Pottinger Renewables Pty Ltd (the proponent) to undertake Aboriginal community consultation as per the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010).

The proponent is proposing to develop a 750 MW wind farm with a disturbance footprint of up to 470 hectares (ha) and includes:


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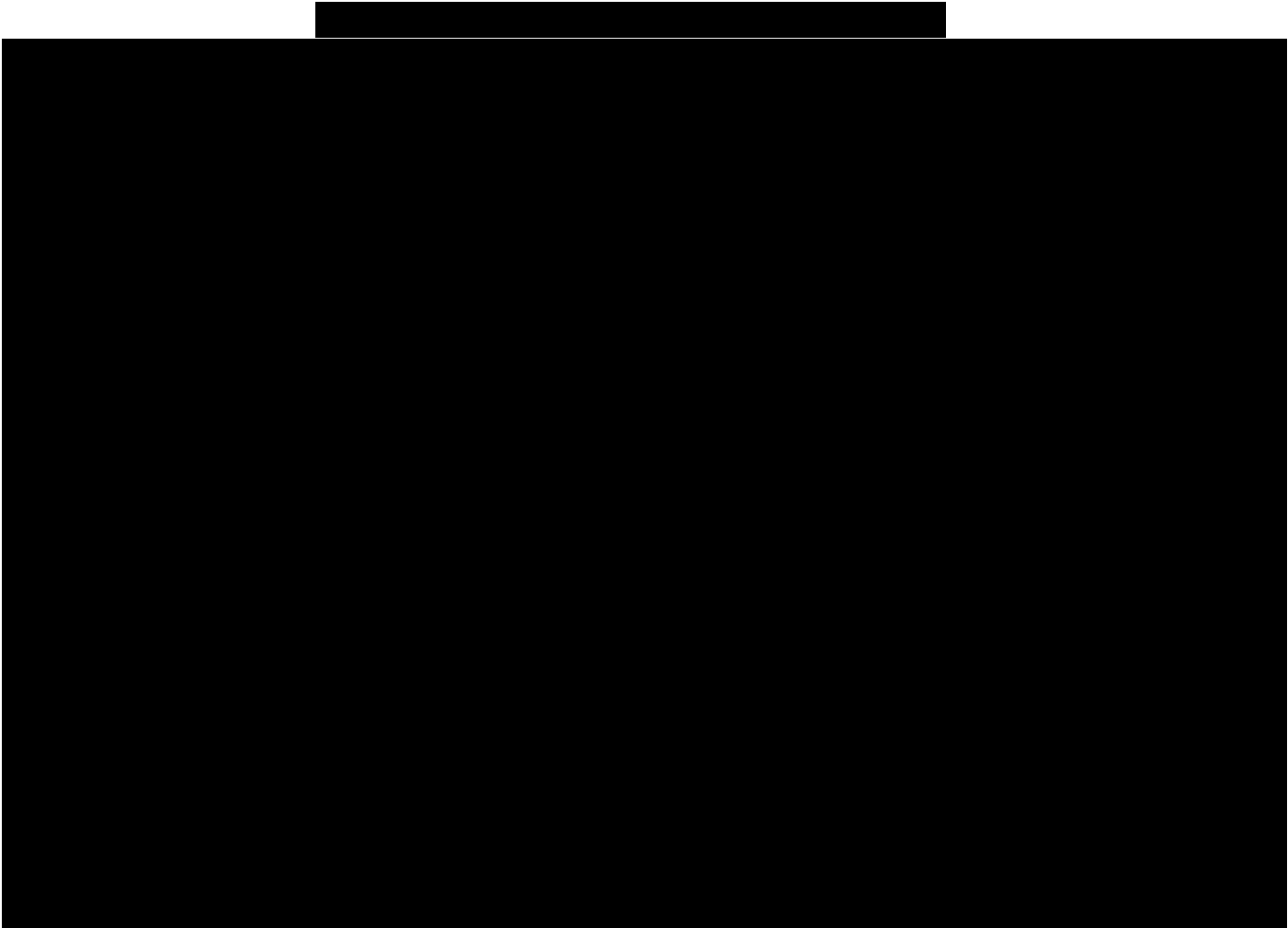
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We would appreciate it if you could provide any feedback, by responding to this email  regarding these Aboriginal stakeholder groups by **22 August 2023**, or sooner if possible.

Kind regards,

Catherine Burrowes

**Office Manager/ Community Liaison**





8 August 2023

Griffith LALC



**ABORIGINAL AND HISTORIC HERITAGE ASSESSMENT  
POTTINGER WIND FARM**

Dear Sir/Madam,

OzArk Environment & Heritage (OzArk) has been engaged by RPS AAP Consulting Pty Ltd (RPS) on behalf of Pottinger Renewables Pty Ltd (the proponent) to undertake Aboriginal community consultation as per the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010).

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We would appreciate it if you could provide any feedback, by responding to this email  regarding these Aboriginal stakeholder groups by **22 August 2023**, or sooner if possible.

Kind regards,

Catherine Burrowes

**Office Manager/ Community Liaison**





8 August 2023

Hay LALC



**ABORIGINAL AND HISTORIC HERITAGE ASSESSMENT  
POTTINGER WIND FARM**

Dear Sir/Madam,

OzArk Environment & Heritage (OzArk) has been engaged by RPS AAP Consulting Pty Ltd (RPS) on behalf of Pottinger Renewables Pty Ltd (the proponent) to undertake Aboriginal community consultation as per the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010).

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We would appreciate it if you could provide any feedback, by responding to this email  regarding these Aboriginal stakeholder groups by **22 August 2023**, or sooner if possible.

Kind regards,

Catherine Burrowes

**Office Manager/ Community Liaison**





8 August 2023

Hay Shire Council



**ABORIGINAL AND HISTORIC HERITAGE ASSESSMENT  
POTTINGER WIND FARM**

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We would appreciate it if you could provide any feedback, by responding to this email  regarding these Aboriginal stakeholder groups by **22 August 2023**, or sooner if possible.

Kind regards,

Catherine Burrowes

**Office Manager/ Community Liaison**





8 August 2023

Heritage NSW

Department of Premier and Cabinet



**ABORIGINAL AND HISTORIC HERITAGE ASSESSMENT  
POTTINGER WIND FARM**

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OzArk Environment & Heritage (OzArk) has been engaged by RPS AAP Consulting Pty Ltd (RPS) on behalf of Pottinger Renewables Pty Ltd (the proponent) to undertake Aboriginal community consultation as per the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010).

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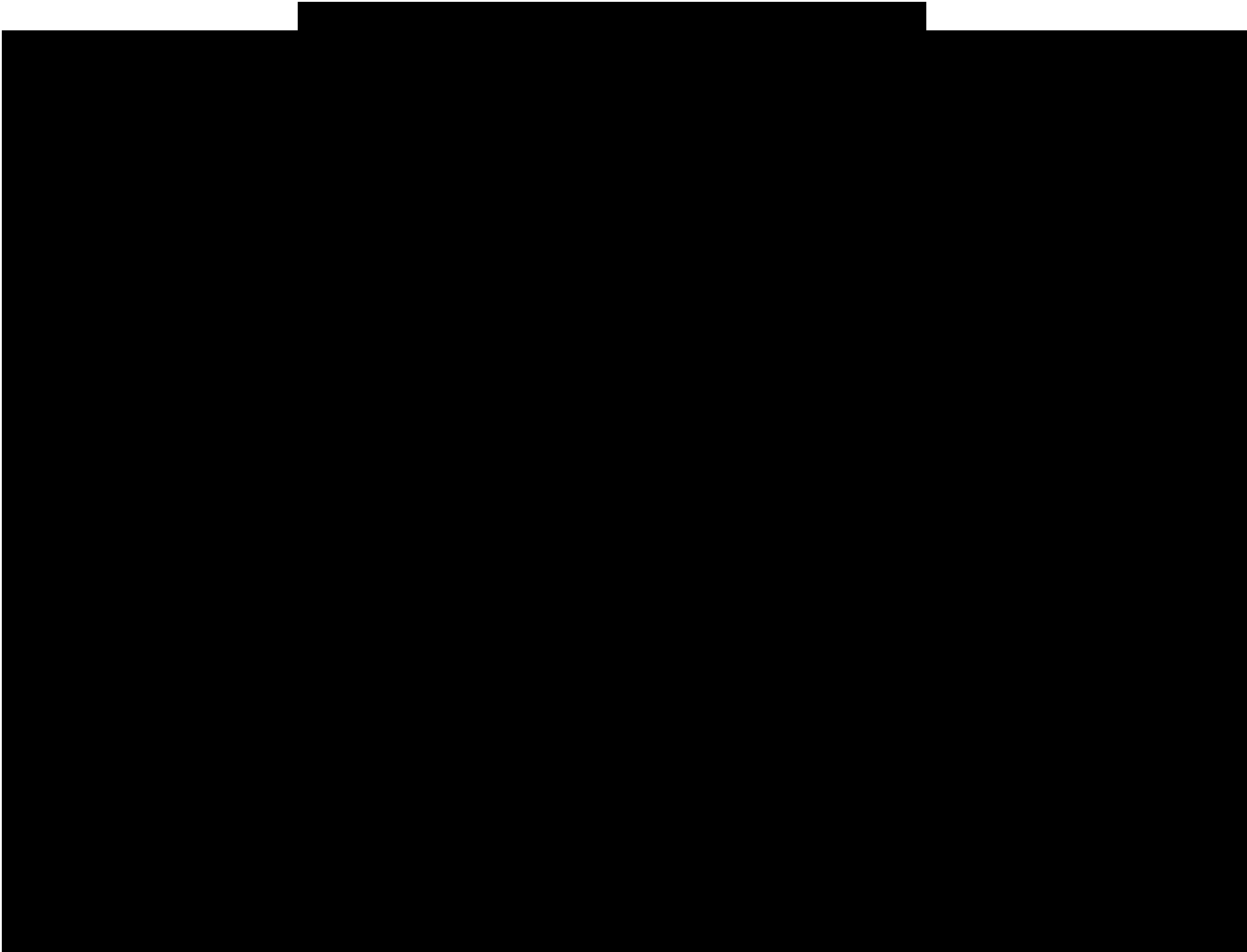
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Kind regards,

Catherine Burrowes

**Office Manager/ Community Liaison**





8 August 2023

Murray Local Land Services



**ABORIGINAL AND HISTORIC HERITAGE ASSESSMENT**  
**POTTINGER WIND FARM**

Dear Sir/Madam,

OzArk Environment & Heritage (OzArk) has been engaged by RPS AAP Consulting Pty Ltd (RPS) on behalf of Pottinger Renewables Pty Ltd (the proponent) to undertake Aboriginal community consultation as per the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010).

The proponent is proposing to develop a 750 MW wind farm with a disturbance footprint of up to 470 hectares (ha) and includes:


- 108 Wind Turbine Generators (WTG)
- Electrical infrastructure
- Battery Energy Storage System (BESS)

The project area is located via the Cobb Highway from Jerilderie Road in the northeast and West Burrabogie Road in the west of Hay (**Figure 1**). These activities may result in harm to Aboriginal cultural heritage.

We are therefore seeking Expressions of Interest from relevant Aboriginal stakeholder groups and individuals in the area who hold cultural knowledge relevant to determining the significance of Aboriginal objects or places within the Hay Shire area.

This consultation group will assist OzArk in preparing the Aboriginal Cultural Heritage Assessment Report (ACHAR) and to assist Heritage NSW and the Department of Planning and Environment in their consideration and determination of the project.

If your organisation can recommend and provide contact details for any known Aboriginal groups or individuals with cultural knowledge relevant to determining the impacts to the cultural significance of the above-mentioned project, please advise our office.

We would appreciate it if you could provide any feedback, by responding to this email  regarding these Aboriginal stakeholder groups by **22 August 2023**, or sooner if possible.

Kind regards,

Catherine Burrowes

**Office Manager/ Community Liaison**

[REDACTED]

[REDACTED]



8 August 2023

National Native Title Tribunal



**ABORIGINAL AND HISTORIC HERITAGE ASSESSMENT  
POTTINGER WIND FARM**

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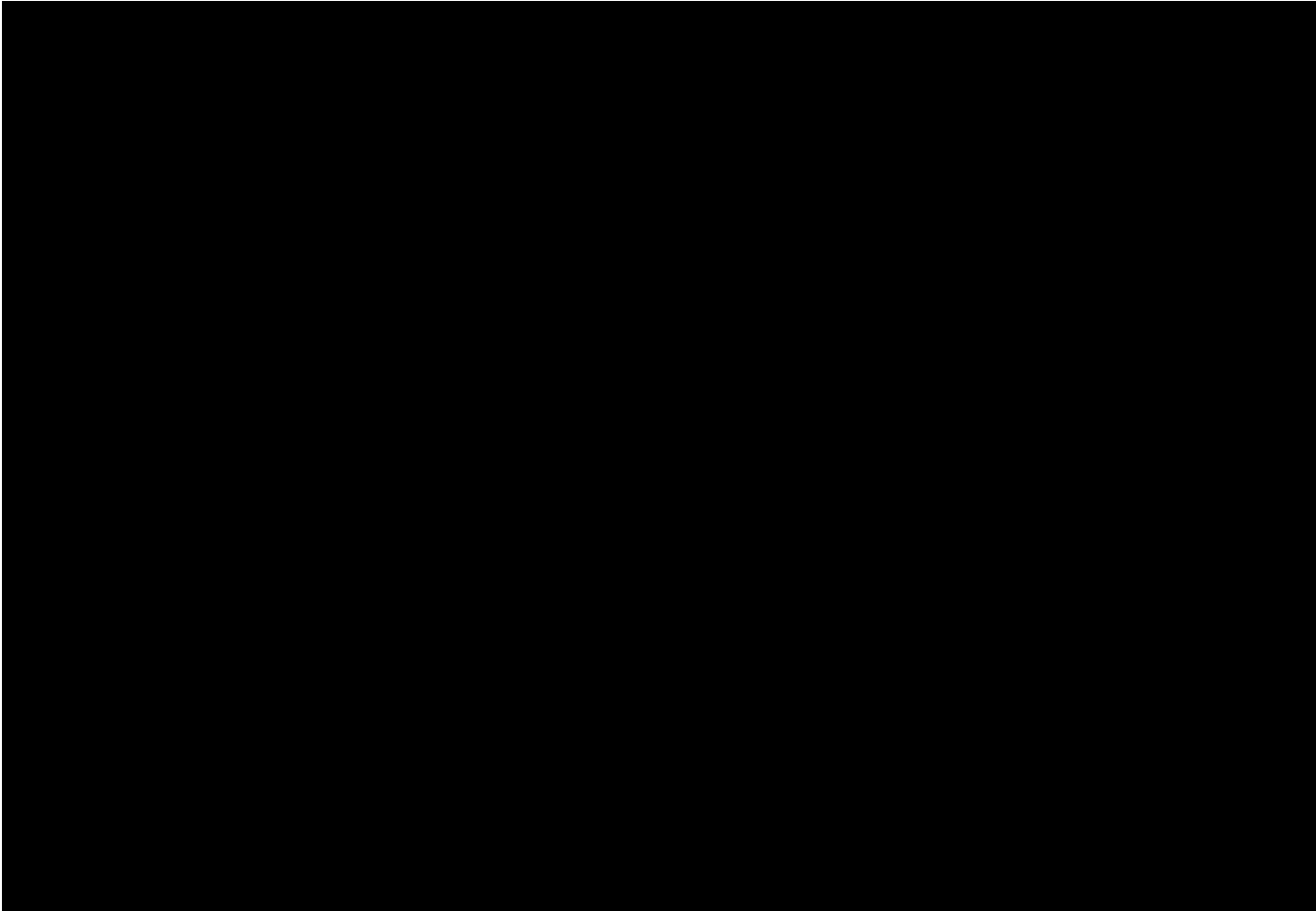
If your organisation can recommend and provide contact details for any known Aboriginal groups or individuals with cultural knowledge relevant to determining the impacts to the cultural significance of the above-mentioned project, please advise our office.

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Kind regards,

Catherine Burrowes

**Office Manager/ Community Liaison**





## Request for Spatial Search of Tribunal Registers

### 1: Your details

Your name:	Catherine Burrowes		
Your company:	OzArk environment & Heritage		
E-mail address:		Phone:	
Your reference:	Pottinger wind farm	Your state:	New South Wales
<input checked="" type="checkbox"/>	I have read and acknowledge the terms and conditions on the next page.		

### 2: Areas to be searched

Jurisdiction to be searched:	New South Wales	Tenure to be searched:	Select one.
------------------------------	-----------------	------------------------	-------------

Parcel or tenement identifiers (add up to 20 separate identifiers). **Please see over for parcel identifiers.**

Parcel 1:	Click or tap here to enter text.	Parcel 2:	Click or tap here to enter text.
Parcel 3:	Click or tap here to enter text.	Parcel 4:	Click or tap here to enter text.
Parcel 5:	Click or tap here to enter text.	Parcel 6:	Click or tap here to enter text.
Parcel 7:	Click or tap here to enter text.	Parcel 8:	Click or tap here to enter text.
Parcel 9:	Click or tap here to enter text.	Parcel 10:	Click or tap here to enter text.
Parcel 11:	Click or tap here to enter text.	Parcel 12:	Click or tap here to enter text.
Parcel 13:	Click or tap here to enter text.	Parcel 14:	Click or tap here to enter text.
Parcel 15:	Click or tap here to enter text.	Parcel 16:	Click or tap here to enter text.
Parcel 17:	Click or tap here to enter text.	Parcel 18:	Click or tap here to enter text.
Parcel 19:	Click or tap here to enter text.	Parcel 20:	Click or tap here to enter text.

If your search area is not a parcel or mining or petroleum tenement, you can enter other tenure or administrative regions here (e.g. local government area, townsite or county). Please provide as much detail as you can.

Wind Farm Project Area access: via the Cobb Highway from Jerilderie Road in the northeast. One emergency access point is located at the end of West Burrabogie Road, Maps attached.

Solar farm components access: via a major Port in either NSW, VIC, SA, via the Sturt Highway and/or Cobb Highway, then Jerilderie Road and/or West Burrabogie Road.

E-mail the completed form to

## Parcel Identifiers

In most jurisdictions please identify parcels using lot on plan, or lot/section/plan as appropriate. The NNTT is generally not able to identify parcels using land title information. Where possible, the NNTT uses the terminology and formatting of unique identifiers used in each state to uniquely identify a land parcel. More details are below:

1. **Lot on plan.** Use for Western Australia and Queensland.
2. **Lot/Section/Plan.** Use for New South Wales.
3. **LAISKEY.** Use for the Northern Territory. The laiskey is a unique identifier for each parcel comprised of the location code, LTO code (derived from the survey plan) where applicable and the parcel number.
4. **Parcel ID** – Use for South Australia. Concatenation of Parcel Type, Parcel, Plan Type and Plan.
5. **SPI** (Standard Parcel Identifier) – Use for Victoria.

## Terms and Conditions

1. Specify only one jurisdiction (e.g. Queensland) and one type of tenure (e.g. mining tenement) per form. You can add up to 20 separate tenements or parcels per search request. For more than 20 parcels or tenements please submit additional search requests or contact [REDACTED] to discuss your requirements.

Note: if your area of interest cannot be clearly identified from the search form, or is not held in NNTT datasets, we may instead provide search results for a surrounding local government area, or other suitable regional area.

2. Freehold land.

Under the Native Title Act 1993 (Cth), the valid grant of a freehold estate (other than certain types of Aboriginal and Torres Strait Islander land) on or before 23 December 1996 is known as a 'previous exclusive possession act'. This means that native title has been extinguished over the area. Native title claimants are not allowed to include land and waters covered by previous exclusive possession acts in their applications; therefore they would normally exclude freehold areas. A native title application may, however, be made over freehold land on the basis that freehold was invalidly granted, but the chances of this happening are very low.

3. Cultural Heritage in NSW.

The National Native Title Tribunal has undertaken steps to remove itself from the formal list of sources for information about indigenous groups in development areas. The existence or otherwise of native title is quite separate to any matters relating to Aboriginal cultural heritage. Information on native title claims, native title determinations and Indigenous Land Use Agreements is available on the Tribunal's website.

4. Spatial searches rely on data obtained from the relevant custodian. Whilst efforts are taken to update such datasets on a regular basis, the collection and interpretation of such datasets may be influenced by a number of factors that can impact of the completeness and accuracy of your search results.

## Disclaimer

While the National Native Title Tribunal (NNTT) and the Native Title Registrar (Registrar) have exercised due care in ensuring the accuracy of the information provided, it is provided for general information only and on the understanding that neither the NNTT, the Registrar nor the Commonwealth of Australia is providing professional advice. Appropriate professional advice relevant to your circumstances should be sought rather than relying on the information provided. In addition, you must exercise your own judgment and carefully evaluate the information provided for accuracy, currency, completeness and relevance for the purpose for which it is to be used.

The information provided is often supplied by, or based on, data and information from external sources, therefore the NNTT and Registrar cannot guarantee that the information is accurate or up-to-date.

The NNTT and Registrar expressly disclaim any liability arising from the use of this information.

This information should not be relied upon in relation to any matters associated with cultural heritage.



Head office: Dubbo

Satellite offices:

Queanbeyan | Wollongong

Newcastle | Brisbane



8 August 2023

Riverina Local Land Services



## ABORIGINAL AND HISTORIC HERITAGE ASSESSMENT POTTINGER WIND FARM

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OzArk Environment & Heritage (OzArk) has been engaged by RPS AAP Consulting Pty Ltd (RPS) on behalf of Pottinger Renewables Pty Ltd (the proponent) to undertake Aboriginal community consultation as per the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010).

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This consultation group will assist OzArk in preparing the Aboriginal Cultural Heritage Assessment Report (ACHAR) and to assist Heritage NSW and the Department of Planning and Environment in their consideration and determination of the project.

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We would appreciate it if you could provide any feedback, by responding to this email  regarding these Aboriginal stakeholder groups by **22 August 2023**, or sooner if possible.

Kind regards,

Catherine Burrowes

**Office Manager/ Community Liaison**





## APPENDIX D

## AGENCY RESPONSES

## **LIST OF ABORIGINAL STAKEHOLDERS FOR THE DEPARTMENT of PLANNING and ENVIRONMENT (DPE) SOUTHERN REGION HELD BY DPE FOR THE PURPOSES OF THE OEH ABORIGINAL CULTURAL HERITAGE CONSULTATION REQUIREMENTS FOR PROPONENTS 2010**

These lists are provided to proponents in accordance with section 4.1.2 of the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (the "Consultation Requirements") which commenced on 12 April 2010.

The consultation process involves getting the views of, and information from, Aboriginal people and reporting on these. It is not to be confused with other field assessment processes involved in preparing a proposal and an application. Consultation does not include the employment of Aboriginal people to assist in field assessment and/or site monitoring. Aboriginal people may provide services to proponents through a contractual arrangement however, this is separate from consultation. The proponent is not obliged to employ those Aboriginal people registered for consultation. Consultation as per these requirements will continue irrespective of potential or actual employment opportunities for Aboriginal people.

A copy of the Consultation Requirements can be found on the OEH website at:

<http://www.environment.nsw.gov.au/resources/cultureheritage/commconsultation/09781ACHconsultreq.pdf>.

Under the Consultation Requirements; a proponent is required to provide Aboriginal people who may hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and/or places as relevant to the proposed project area, with an opportunity to be involved in consultation. Section 3.3.1 of the Consultation Requirements states that Aboriginal people who can provide this information are, based on Aboriginal lore and custom, the traditional owners or custodians of the land that is the subject of the proposed project.

The Consultation Requirements also state that:

*Traditional owners or custodians with appropriate cultural heritage knowledge to inform decision making who seek to register their interest as an Aboriginal party are those people who:*

- *continue to maintain a deep respect for their ancestral belief system, traditional lore and custom*
- *recognise their responsibilities and obligations to protect and conserve their culture and heritage and care for their traditional lands or Country*
- *have the trust of their community, knowledge and understanding of their culture, and permission to speak about it.*

Please note: the placement of an organisation's name on any OEH Aboriginal stakeholder list for the Consultation Requirements does not override a proponent's requirement to also advertise in the local newspaper and to seek from other sources the names of any other Aboriginal people who may hold cultural knowledge as required under clause 60 of the National Parks and Wildlife Regulation 2019.

### **How to use this list**

- 1. Contact the organisations/individuals who have indicated an interest in the relevant LGA/s and invite them to register an interest in your project**

**Do not reproduce the attached list in publicly available reports and other documents. Your report should only contain the names of the organisations and individuals who you have invited to register an interest in your project and those who have registered as stakeholders for your project.**

***Last updated September 2023***

Aboriginal Stakeholders – Hay Local Government Area.

		-	-		I		-
		I	I		I		I
		-	-	-	-	373 Church St HAY NSW 2711	-
		I	I	I	I		I
		I	I	I	I		I
		I	I		I		I
		I	I		I		I
		I	I		I		I
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Hay Aboriginal Community			I		I	I	I
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		I	I	I	I		I
		I	I	I	I		I
		I	I	I	I		-

Konanggo Aboriginal Cultural Heritage Services			I		I		-
		I	I	I	I		-
			I		I		-
		-	-		I		-
Miyagan Culture & Heritage			I		I		-
Pappin Family Aboriginal Corporation			-		I		-
			-		-		-
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Thomas Dahlstrom Offers ACH value by using 3D Laser and Drone technology			I		I		I
		-	-	-	-		-
Wakool Indigenous Corporation			I		I		-
Girragirra Murun Aboriginal Corporation							
Wingarra Wilay Aboriginal Corporation							
Southern West Yiradyuri Clans, Land, Water and Sky Country Aboriginal Corporation							
John Winch							

**Aboriginal Stakeholders –Edward River Local Government Area.**

<b>Bangerang Aboriginal Corporation</b>	██████████ ██████████ ██████████	██████████████████ ██████████████████ ██████████ ██████████████████	██████ ██████████ ██████	██████████ ██████ ██████████ ██████ ██████████ ██████████ ██████		██████████ ██████████ ██████████	██████████ ██████████ ██████████
<b>John Jackson</b>	██████████	████████████████████ ██████████		██████████ ██████		██████████ ██████████ ██████████	-
<b>Patricia Winch</b>	██████ ██████	██████████████████		██████████ ██████		██████████ ██████████████████ ██████████	-
<b>Thomas Dahlstrom Offers ACH value by using 3D Laser and Drone technology</b>	██████ ██████████	████████████████████		██████████ ██████████ ██████████ ██████████ ██████████ ██████████ ██████████ ██████		██████████ ██████████ ██████████ ██████████	-
<b>Yarkuwa Indigenous Knowledge Centre</b>	██████████ ██████████ ██████████	██████████████████	██████ ██████████ ██████████		██████ ██████████ ██████████	██████████ ██████████ ██████████ ██████████	-

<b>Girragirra Murun Aboriginal Corporation</b>	<div></div>	<div></div>		<div></div>		<div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	
<b>Wingarra Wilay Aboriginal Corporation</b>	<div></div> <div></div>	<div></div>		<div></div> <div></div>		<div></div> <div></div> <div></div>	
<b>Southern West Yiradyuri Clans, Land, Water and Sky Country Aboriginal Corporation</b>	<div></div>	<div></div>		<div></div> <div></div>			

Our reference: Doc23/873385

Elspeth Mackenzie  
Principal Heritage Consultant  
ERM



4/10/2023

Dear Elspeth,

**WRITTEN NOTIFICATION OF PROPOSAL AS REQUIRED UNDER DECCW ABORIGINAL CULTURAL HERITAGE CONSULTATION REQUIREMENTS FOR PROPONENTS 2010**

**Subject: POTTINGER WIND FARM.**

Thank you for your correspondence dated 8 August 2023 to Heritage NSW (Department of Planning and Environment) regarding the above project.

Attached is a list of known Aboriginal Stakeholders for the proposed development at the **Hay and Edward River** Local Government Area that Heritage NSW considers likely to have an interest in the activity.

Please note this list is not necessarily an exhaustive list of all interested Aboriginal Stakeholders.

Receipt of this list does not remove the requirement of a proponent/ consultant to advertise in local print media and contact other bodies seeking interested Aboriginal parties, in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (April 2010).

Under Section 4.1.6. of the Consultation Requirements, you must also provide a copy of the names of each Aboriginal person who registered an interest to the relevant Heritage NSW office and Local Aboriginal Land Council (LALC) within 28 days from the closing date for registering an interest.

Please note that the contact details in the list provided by Heritage NSW may be out of date as it relies on Aboriginal stakeholders advising Heritage NSW when their details need changing. If individuals/companies undertaking consultation are aware that any groups contact details are out of date, or letters are returned unopened, please contact either the relevant stakeholder group (if you know their more current details) and/or Heritage NSW. AHIP applicants should make a note of any group they are unable to contact as part of their consultation record.



If you have any questions about this advice, please email:

[REDACTED] or contact [REDACTED]

Yours sincerely



**Barry Gunther, Aboriginal Senior Assessment Officer**  
**Environment and Heritage – Heritage NSW**  
**Department of Planning and Environment**  
**Aboriginal Heritage Regulation Branch – South Heritage NSW**

**Attachment A:**

Registered Aboriginal Interests DPE Aboriginal Stakeholders List for the **Hay and Edward River** Local Government Area.

**From:** [REDACTED]  
**To:** [REDACTED]  
**Subject:** DPE Aboriginal stakeholder list for Pottinger Wind Farm.  
**Date:** Wednesday, 4 October 2023 9:42:11 AM  
**Attachments:** [Heritage NSW Stage 1 Agency letter SSD Pottinger SF.docx](#)  
[Aboriginal Stakeholder POTTINGER WIND FARM.docx](#)  
[Aboriginal Stakeholder List- Hay and Edward River Local Government Area - LIST OF ABORIGINAL STAKEHOLDERS FOR THE DEPARTMENT of PLANNING and ENVIRONMENT.docx](#)

You don't often get email from [REDACTED].au. [Learn why this is important](#)

**EXTERNAL MESSAGE**

Hi [REDACTED],

Please find attached the DPE Aboriginal stakeholder list for Pottinger Wind Farm.

regards

[REDACTED] Aboriginal Senior Assessment Officer  
Environment and Heritage – Heritage NSW  
Department of Planning and Environment

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
Heritage NSW Department of Planning and Environment

[REDACTED]  
Website Facebook Instagram LinkedIn

The Heritage Management System is live from 31 May. More information is available here

I acknowledge and respect the traditional custodians and ancestors of the lands I work across.

Heritage NSW and coronavirus (COVID-19)

Heritage NSW has taken steps to protect the safety, health and wellbeing of our staff, communities and customers. Whilst our offices remain open, we have put in place flexible working arrangements for our teams across NSW and continue to adapt our working arrangements as necessary. Face-to-face meetings and field work/site visits with our customers are subject to rules on gatherings and social distancing measures. We thank you for your patience and understanding at this time.

-----  
This email is intended for the addressee(s) named and may contain confidential and/or privileged information.

If you are not the intended recipient, please notify the sender and then delete it immediately.

Any views expressed in this email are those of the individual sender except where the

sender expressly and with authority states them to be the views of the NSW Office of Environment, Energy and Science.

PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS EMAIL

**From:** [REDACTED]  
**To:** [REDACTED]  
**Subject:** FW: Expressions of interest - Pottinger Solar and Wind Farms  
**Date:** Tuesday, 12 September 2023 1:04:38 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[Edward River Council Stage 1\\_Agency letter SSD Pottinger WF.docx](#)  
[Edward River Council Stage 1\\_Agency letter SSD Pottinger SF.docx](#)

---

You don't often get email from [REDACTED] [Learn why this is important](#)

Hi [REDACTED]

Firstly, my sincere apologies for not responding sooner.

Secondly, I can't assist you with respect to the Hay Shire area. However, I do think it's a typo and you meant to refer to the Edward River Council area.

I recommend Mr David Crew, Yarkuwa Indigenous Knowledge Centre on [REDACTED] as the most appropriate contact.

Kindest,  
Dana

---

**From:** ERC Council [REDACTED]  
**Sent:** Thursday, August 10, 2023 8:11 AM  
**To:** Marie Sutton [REDACTED]; Dana McNally  
[REDACTED]  
**Subject:** FW: Expressions of interest - Pottinger Solar and Wind Farms

---

**From:** Imogen Crome [REDACTED]  
**Sent:** Tuesday, 8 August 2023 4:36 PM  
**To:** ERC Council [REDACTED]  
**Cc:** Catherine Burrowes [REDACTED]  
**Subject:** Expressions of interest - Pottinger Solar and Wind Farms

Good afternoon,

Please find attached two letters informing you of the Pottinger Wind and Solar Farm projects as we are currently seeking expressions of interest for Aboriginal stakeholders.

We look forward to hearing from you by COB **22 August 2023** and please do not hesitate to reach out to our office if required.

Kind regards,  
Imogen

---

**Imogen Crome**  
Archaeologist



OzArk Environment & Heritage

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]



OzArk and staff respectfully acknowledge the traditional custodians and Elders of the Country on which we work.

LEGAL DISCLAIMER. The contents of this electronic communication and any attached documents are strictly confidential and they may not be used or disclosed by someone who is not a named recipient. If you have received this electronic communication in error please notify the sender by replying to this electronic communication inserting the word "misdirected" as the subject and delete this communication from your system. The recipient agrees not to disclose the confidential information obtained from the discloser to anyone unless required to do so by law.

Edward River Council  
Edward River Council

[REDACTED]  
[REDACTED]

[REDACTED]  
Manager Community & Economy

Edward River Council

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]



Banner

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**From:** [REDACTED]  
**To:** [REDACTED]  
**Subject:** RE: Expressions of interest - Pottinger Solar and Wind Farms  
**Date:** Tuesday, 8 August 2023 5:07:00 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.jpg](#)  
[image004.png](#)

---

You don't often get email from [REDACTED]. [Learn why this is important](#)

Hi Imogen,

Griffith LALC would like to register our interest in undertaken of the ACHA, we have x 4 ACH Officers employed of whom are strong Aboriginal Cultural Heritage knowledge holders and well experienced in verifying and protecting the same, GLALC further acknowledges that the proposed development area is of high Aboriginal Ancestral Cultural Heritage value and we hod the rights for determining the same.

If you need to discuss please don't hesitate to contact me on mobile no: [REDACTED]

Regards

[REDACTED]  
CEO



Griffith Local Aboriginal Land Council

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

---

**From:** [REDACTED]  
**Sent:** Tuesday, August 8, 2023 4:39 PM  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** Expressions of interest - Pottinger Solar and Wind Farms

Good afternoon,

Please find attached two letters informing you of the Pottinger Wind and Solar Farm projects as we are currently seeking expressions of interest for Aboriginal stakeholders.

We look forward to hearing from you by COB **22 August 2023** and please do not hesitate to reach out to our office if required.

Kind regards,  
Imogen

Archaeologist

OzArk Environment & Heritage

OzArk and staff respectfully acknowledge the traditional custodians and Elders of the Country on which we work.

---

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---

**From:** [REDACTED]  
**To:** [REDACTED]  
**Subject:** RE: SR23/1305 - Pottinger Wind & Solar Farms - SR23/1305 [SEC=OFFICIAL]  
**Date:** Monday, 14 August 2023 10:08:29 AM  
**Attachments:** [20230811\\_PottingerWindFarm.xlsx](#)

---

## OFFICIAL

**Your ref:** *Pottinger Solar Farm*      **Our ref:** *SR23/1305*

Dear [REDACTED],

Thank you for your search request, please find your results attached.

### Search Results

The results provided are based on the information you supplied and are derived from a search of the following Tribunal databases:

- Schedule of Native Title Determination Applications
- Register of Native Title Claims
- Native Title Determinations
- Indigenous Land Use Agreements (Registered and notified)

For more information about the Tribunal's registers or to search the registers yourself and obtain copies of relevant register extracts, please visit our [website](#).

Information on native title claims and freehold land can also be found on the Tribunal's website here: [Native title claims and freehold land](#).

**Please note:** There may be a delay between a native title determination application being lodged in the Federal Court and its transfer to the Tribunal. As a result, some native title determination applications recently filed with the Federal Court may not appear on the Tribunal's databases.

The search results are based on analysis against external boundaries of applications only. Native title applications commonly contain exclusions clauses which remove areas from within the external boundary. To determine whether the areas described are in fact subject to claim, you need to refer to the "Area covered by claim" section of the relevant Register Extract or Schedule Extract and any maps attached.

### Search results and the existence of native title

Please note that the enclosed information from the Register of Native Title Claims and/or the Schedule of Applications is **not** confirmation of the existence of native title in this area. This cannot be confirmed until the Federal Court makes a determination that native title does or does not exist in relation to the area. Such determinations are registered on the National Native Title Register.

**The Tribunal accepts no liability for reliance placed on enclosed information**

The enclosed information has been provided in good faith. Use of this information is at your sole risk. The National Native Title Tribunal makes no representation, either express or implied, as to the accuracy or suitability of the information enclosed for any particular purpose and accepts no liability for use of the information or reliance placed on it.

If you have any further queries, please do not hesitate to contact us via  
[GeospatialSearch@NNTT.gov.au](mailto:GeospatialSearch@NNTT.gov.au)

Regards,

**Geospatial Searches**

**National Native Title Tribunal | Perth**

Email: [GeospatialSearch@nntt.gov.au](mailto:GeospatialSearch@nntt.gov.au) | [www.nntt.gov.au](http://www.nntt.gov.au)

---

**From:** [REDACTED]  
**Sent:** Friday, 11 August 2023 1:43 PM  
**To:** Geospatial Search Requests [REDACTED]  
**Subject:** SR23/1305 - Pottinger Wind & Solar Farms

Caution: This is an external email. DO NOT click links or open attachments unless you recognise the sender and know the content is safe.

Please find attached.

Thank you.

Regards, [REDACTED]

[REDACTED]  
OzArk Environment & Heritage  
Office Manager  
[REDACTED]



## APPENDIX E      INVITATION TO REGISTER LETTER

[Group]  
[First Name] [Last Name]  
[Address Line 1]  
[Address Line 2]  
[email]

5 October 2023

Reference: 0707548

Dear [First Name],

**Subject: Proposed Pottinger Wind & Solar Farms - Aboriginal Cultural Heritage Assessment**

In accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW 2010a), and the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010b), Environmental Resources Management Australia Pty Ltd (ERM) wishes to inform you that we have been engaged by Pottinger Renewables Pty Ltd (Pottinger) to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) associated with the proposed construction and operation of the Pottinger Wind & Solar Farms (the Projects). You have been identified by relevant agencies as having potential to be interested in being consulted about Aboriginal Cultural Heritage matters relevant to this project.

Further details of the proposal are provided in the sections below.

**Site Location**

The Project Area is located approximately 60 kilometres (km) south of Hay, NSW.

The Site is approximately 15,700 hectares (ha) (encompassing 14,000 ha for the Wind Farm and 1,700 ha for the Solar Farm), comprising of the following land parcels:

Lot	DP
3, 5	116080
1, 4, 5, 6, 7,	134988
1	134991
1	542495
42	591554
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 24, 25, 26, 32, 33, 34, 35, 36, 37, 38, 44, 45, 46, 47, 48, 49, 50, 54	756282
5, 6, 7, 8, 9, 10, 11, 12, 13, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 35, 36, 37, 40, 41, 42, 44, 47, 48, 51, 52, 53, 54, 55	756315
51, 52, 53, 60, 61, 62, 84, 88, 90, 91, 97, 106, 107, 108, 109	756809
1, 2	1081067

The Project Area is located within the boundaries of the Hay and Deniliquin Local Aboriginal Land Councils (LALC). The Project Area is within the Hay Shire and Edward River Local

Government Area (LGA). The location of the proposed development is shown in *Figure 1* (attached).

### *Proposed Development*

The Project includes the in-perpetuity approval for construction, operation, maintenance, and decommissioning of a 750 MW wind farm, 300 MW solar farm, BESS, electrical and other associated infrastructure, ancillary activities, and site access.

The Pottinger Wind Farm comprises the following elements:

- Up to 108 Wind Turbine Generators (WTGs) of which each has a maximum hub height of 180 m and tip height of up to 280 m;
- Electrical reticulation network:
  - Up to five main transformers and an optical second satellite substation and associated transformers, switch room, and reactive plant;
  - On-site connection to Project EnergyConnect, associated switch and other equipment at the main substation;
  - Internal electrical reticulation (both underground and overhead); and
  - Approximately 500 MW / 2 gigawatt hours (GWh) BESS.

The Pottinger Solar Farm comprises the following elements:

- Energy Generation:
  - Approximately 750,000 panels and 150 ha of solar arrays;
- Solar Power Conversion Unit (PCU):
  - Solar PCUs including a power station, inverter, transformer and associated equipment;

In addition, the Projects will include the following Project infrastructure and associated works:

- Other temporary and permanent infrastructure including:
  - Operations and Maintenance (O&M) facility and infrastructure including site office, storage facilities, car parking and fencing;
  - Accommodation facilities;
  - Construction and operational compounds;
  - Hardstands for WTGs and other infrastructure;
  - Internal access tracks and road turning head connecting Project infrastructure;
  - Meteorological masts;
  - Concrete batching plants, crushing facilities, gravel / borrow pits, construction laydown areas, and stockpile areas;

- Ancillary activities including sourcing of materials for construction; sourcing of water for construction; subdivision and boundary adjustments, visual screening and associated ancillary works;
- Access road use and Project-required upgrades:
  - Project Area access: via the Cobb Highway from Jerilderie Road in the north east and West Burrabogie Road in the west, as well as emergency access;
  - Wind farm components access: via a major Port in either NSW, VIC, SA, via the Sturt Highway and/or Cobb Highway, then Jerilderie Road and/or West Burrabogie Road; and
  - Solar farm components access: via a major Port in either NSW, VIC, SA, via the Sturt Highway and/or Cobb Highway, then Jerilderie Road and/or West Burrabogie Road.
- Operational and construction workforce of up to 40 Full Time Equivalent (FTE) and construction up to 450 FTE;
- Construction generally within standard construction hours and operations 24 hours per day 7 days per week; and
- Preliminary disturbance footprint of up to 1,100 ha.

No external transmission lines or associated easements are required for the Project.

### *Aboriginal Cultural Heritage Assessment Report*

The Projects are being assessed as State Significant Developments, with the applications for approval being supported by the preparation of Environmental Impact Statements (EIS). The Aboriginal Cultural Heritage Assessment Reports (ACHARs) will form one of the technical studies prepared to support the EISs. The ACHARs will be prepared in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010b), the *National Parks and Wildlife Act 1974* and all other relevant guidelines and legislation. The ACHARs will be prepared to identify, assess, and develop management recommendations for any identified Aboriginal Cultural Heritage on the Site.

### *Registration*

If you wish to register your interest in being consulted on this project, please contact Lorien Perchard (Project Archaeologist) by 19 October 2023 at the below contact details:

Lorien Perchard  
[lorien.perchard@erm.com](mailto:lorien.perchard@erm.com)  
Locked Bag 3012  
Australia Square NSW 2000

If you have any specific questions or concerns, please don't hesitate to reach out. Any cultural knowledge provided will be treated in confidence and information will be distributed in accordance with the wishes of the Aboriginal stakeholders.

Yours sincerely,

Lorien Perchard  
Managing Consultant - Heritage

**Figure 1 – Site Location**



APPENDIX F

SECTION 4.1.6 LETTER

Deniliquin LALC

  
**DATE**

01 December 2023

**REFERENCE**

0707548

Dear Deniliquin LALC,

**Subject: Written notification of registrations of interest as required under Heritage NSW Aboriginal Cultural Heritage Consultation requirements for proponents 2010 (Stage 1) – Pottinger Wind Farm - Aboriginal Cultural Heritage Project**

In accordance with the *Aboriginal Consultation Requirements for Proponents 2010* (Stage 1, s4.1.6), Environmental Resources Management Australia Pty Ltd (ERM) and our client RPS AAP Consulting Pty Ltd (RPS) on behalf of Pottinger Renewables Pty Ltd (the proponent), wishes to inform you of the Aboriginal people who have registered an interest in the preparation of an Aboriginal Cultural Heritage Assessment Report (ACHAR) associated with the proposed Pottinger Wind and Solar Farms located across an area of approximately 26,500 hectares, 60 kilometers south of Hay.

PERSON OR ORGANISATION	CONTACT DETAILS
Hay LALC	Ian Woods   
Griffith LALC	Stephen Young   
Moama LALC	John Patrick Kerr   

PERSON OR ORGANISATION	CONTACT DETAILS
Deniliquin LALC	Rose Dunn [REDACTED] [REDACTED]
Yarkuwa Indigenous Knowledge Centre	Tracey Hamilton [REDACTED] [REDACTED] [REDACTED]
Southern West Yiradyuri Clans, Land, Water and Sky Country Aboriginal Corporation	Will Carter [REDACTED] [REDACTED]
Nicholas Smith – Individual	Nicholas Smith [REDACTED] [REDACTED]
Neville Wayman – Individual	Neville Wayman [REDACTED] [REDACTED]
John Winch – Individual	John Winch [REDACTED]
Patricia Winch – Individual	Patricia Winch [REDACTED]
Wingarra Wilay	Ray Moon [REDACTED] [REDACTED]
Girragirra Murun Aboriginal Corporation	Diana Astin [REDACTED] [REDACTED]
Thomas Dahlstrom – Individual	Thomas Dahlstrom [REDACTED]

PERSON OR ORGANISATION	CONTACT DETAILS
Wakool Indigenous Corporation	Cynthja & Gary Pappin [REDACTED] [REDACTED] [REDACTED]

As also required, a copy of the invitation to register letter and public advertisement required for *Aboriginal Consultation Requirements for Proponents 2010* (Stage 1, s4.1.3) is attached for your records. Two advertisements (one for Pottinger Solar Farm and one for Pottinger Wind Farm) were placed in the Deniliquin Pastoral Times on the 26 September 2023, and in the Riverine Grazier on 27 September 2023.

Yours sincerely,



Lorien Perchard  
Managing Heritage Consultant

ATTACHMENT 1: Invitation to register

ATTACHMENT 2: Public Notice



ERM



erm.com

Hay LALC

[REDACTED]

[REDACTED]

DATE

01 December 2023

REFERENCE

0707548

Dear Hay LALC,

**Subject: Written notification of registrations of interest as required under Heritage NSW Aboriginal Cultural Heritage Consultation requirements for proponents 2010 (Stage 1) – Pottinger Wind Farm - Aboriginal Cultural Heritage Project**

In accordance with the *Aboriginal Consultation Requirements for Proponents 2010* (Stage 1, s4.1.6), Environmental Resources Management Australia Pty Ltd (ERM) and our client RPS AAP Consulting Pty Ltd (RPS) on behalf of Pottinger Renewables Pty Ltd (the proponent), wishes to inform you of the Aboriginal people who have registered an interest in the preparation of an Aboriginal Cultural Heritage Assessment Report (ACHAR) associated with the proposed Pottinger Wind and Solar Farms located across an area of approximately 26,500 hectares, 60 kilometers south of Hay.

PERSON OR ORGANISATION	CONTACT DETAILS
Hay LALC	Ian Woods [REDACTED] [REDACTED] [REDACTED]
Griffith LALC	Stephen Young [REDACTED] [REDACTED] [REDACTED]
Moama LALC	John Patrick Kerr [REDACTED] [REDACTED] [REDACTED]

PERSON OR ORGANISATION	CONTACT DETAILS
Deniliquin LALC	Rose Dunn [REDACTED] [REDACTED]
Yarkuwa Indigenous Knowledge Centre	Tracey Hamilton [REDACTED] [REDACTED] [REDACTED]
Southern West Yiradyuri Clans, Land, Water and Sky Country Aboriginal Corporation	Will Carter [REDACTED] [REDACTED]
Nicholas Smith – Individual	Nicholas Smith [REDACTED] [REDACTED]
Neville Wayman – Individual	Neville Wayman [REDACTED] [REDACTED]
John Winch – Individual	John Winch [REDACTED] <u>u</u>
Patricia Winch – Individual	Patricia Winch [REDACTED]
Wingarra Wilay	Ray Moon [REDACTED] [REDACTED]
Girragirra Murun Aboriginal Corporation	Diana Astin [REDACTED] [REDACTED]
Thomas Dahlstrom – Individual	Thomas Dahlstrom [REDACTED]

PERSON OR ORGANISATION	CONTACT DETAILS
Wakool Indigenous Corporation	Cynthja & Gary Pappin [REDACTED] [REDACTED] [REDACTED]

As also required, a copy of the invitation to register letter and public advertisement required for *Aboriginal Consultation Requirements for Proponents 2010* (Stage 1, s4.1.3) is attached for your records. Two advertisements (one for Pottinger Solar Farm and one for Pottinger Wind Farm) were placed in the Deniliquin Pastoral Times on the 26 September 2023, and in the Riverine Grazier on 27 September 2023.

Yours sincerely,



Lorien Perchard  
Managing Heritage Consultant

ATTACHMENT 1: Invitation to register

ATTACHMENT 2: Public Notice



ERM



erm.com

Heritage NSW

[Redacted]

[Redacted]

DATE

01 December 2023

REFERENCE

0707548

Dear Heritage NSW,

**Subject: Written notification of registrations of interest as required under Heritage NSW Aboriginal Cultural Heritage Consultation requirements for proponents 2010 (Stage 1) – Pottinger Wind Farm - Aboriginal Cultural Heritage Project**

In accordance with the *Aboriginal Consultation Requirements for Proponents 2010* (Stage 1, s4.1.6), Environmental Resources Management Australia Pty Ltd (ERM) and our client RPS AAP Consulting Pty Ltd (RPS) on behalf of Pottinger Renewables Pty Ltd (the proponent), wishes to inform you of the Aboriginal people who have registered an interest in the preparation of an Aboriginal Cultural Heritage Assessment Report (ACHAR) associated with the proposed Pottinger Wind and Solar Farms located across an area of approximately 26,500 hectares, 60 kilometers south of Hay.

PERSON OR ORGANISATION	CONTACT DETAILS
Hay LALC	Ian Woods [Redacted] [Redacted] [Redacted]
Griffith LALC	Stephen Young [Redacted] [Redacted] [Redacted] <sup>1</sup>
Moama LALC	John Patrick Kerr [Redacted] [Redacted] [Redacted]

PERSON OR ORGANISATION	CONTACT DETAILS
Deniliquin LALC	Rose Dunn [REDACTED] [REDACTED]
Yarkuwa Indigenous Knowledge Centre	Tracey Hamilton [REDACTED] [REDACTED] [REDACTED]
Southern West Yiradyuri Clans, Land, Water and Sky Country Aboriginal Corporation	Will Carter [REDACTED] [REDACTED]
Nicholas Smith – Individual	Nicholas Smith [REDACTED] [REDACTED]
Neville Wayman – Individual	Neville Wayman [REDACTED] [REDACTED]
John Winch – Individual	John Winch [REDACTED]
Patricia Winch – Individual	Patricia Winch [REDACTED]
Wingarra Wilay	Ray Moon [REDACTED] [REDACTED]
Girragirra Murun Aboriginal Corporation	Diana Astin [REDACTED] [REDACTED]
Thomas Dahlstrom – Individual	Thomas Dahlstrom [REDACTED]

PERSON OR ORGANISATION	CONTACT DETAILS
Wakool Indigenous Corporation	Cynthja & Gary Pappin [REDACTED] [REDACTED] [REDACTED]

As also required, a copy of the invitation to register letter and public advertisement required for *Aboriginal Consultation Requirements for Proponents 2010* (Stage 1, s4.1.3) is attached for your records. Two advertisements (one for Pottinger Solar Farm and one for Pottinger Wind Farm) were placed in the Deniliquin Pastoral Times on the 26 September 2023, and in the Riverine Grazier on 27 September 2023.

Yours sincerely,



Lorien Perchard  
Managing Heritage Consultant

ATTACHMENT 1: Invitation to register

ATTACHMENT 2: Public Notice



## APPENDIX G

## REGISTERED RAP GROUPS

## APPENDIX G

### Wind Farm Field Survey – Registered RAPs (Dec 2023 – February 2024)

Contact Name	Organization	Email	Address	Phone	Methodology Sent	Methodology Response
[REDACTED]	Yarkuwa Indigenous Knowledge Centre	[REDACTED]	[REDACTED] [REDACTED] [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED] [REDACTED]	Southern West Yiradyuri Clans, Land, Water and Sky Country Aboriginal Corporation	[REDACTED]		[REDACTED] [REDACTED] [REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]		[REDACTED]		[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]		[REDACTED]		[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED] [REDACTED]	Wakool Indigenous Corporation	[REDACTED]	[REDACTED] [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	Deniliquin Local Aboriginal Land Council	[REDACTED]	[REDACTED] [REDACTED]		[REDACTED]	[REDACTED]
[REDACTED] [REDACTED] [REDACTED]	Pappin Family Aboriginal Corporation	[REDACTED]	[REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED] [REDACTED]	[REDACTED]	[REDACTED]



## APPENDIX H      METHODOLOGY



Pottinger Renewables Pty Ltd

# Pottinger Wind & Solar Farm

## Aboriginal Cultural Heritage Assessment Survey Methodology

13 October 2023

Project No.: 0707548

<b>Document details</b>	
Document title	Pottinger Wind & Solar Farm
Document subtitle	Aboriginal Cultural Heritage Assessment Survey Methodology
Project No.	0707548
Date	13 October 2023
Version	2.0
Author	Meghyn Margetts, Lorien Perchard, Victoria Cottle
Client Name	Pottinger Renewables Pty Ltd

#### Document history

Version	Revision	Author	Reviewed by	ERM approval to issue		Comments
				Name	Date	
Draft 1	01	M. Margetts L. Perchard V. Cottle	E. Finnegan	L. Baker	29.09.2023	For client review
Final	02	V. Cottle	E. Mackenzie	L. Baker	13.10.2023	For RAP review

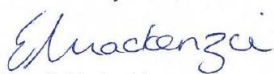
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## Signature Page

13 October 2023

# Pottinger Wind & Solar Farm

## Aboriginal Cultural Heritage Assessment Survey Methodology



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Elspeth Mackenzie  
Principal Consultant



---

Lucy Baker  
Partner

Environmental Resources Management Australia Pty Ltd  
Level 14 207 Kent Street  
Sydney NSW 2000

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## Acronyms and Abbreviations

Name	Description
ACHAR	Aboriginal Cultural Heritage Assessment Report
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit
BESS	Battery Energy Storage System
Code of Practice	<i>Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW 2010</i>
Consultation Requirements	<i>Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010</i>
DECCW	Department of Energy, Climate Change and Water (former)
EIS	Environmental Impact Statement
ERM	Environmental Resources Management Australia Pty Ltd
FTE	Full Time Equivalent
GWh	Gigawatt hours
ha	hectares
km	kilometres
kV	kilovolt
LALC	Local Aboriginal Land Council
LGA	Local Government Area
m	metres
MW	Megawatt
NEM	National Electricity Market
NSW	New South Wales
O&M	Operations and Maintenance
PAD	Potential Archaeological Deposit
Pottinger	Pottinger Renewables Pty Ltd
PSF	Pottinger Solar Farm
PWF	Pottinger Wind Farm
RAP	Registered Aboriginal Person/Party
WTG	Wind Turbine Generator

## 1. INTRODUCTION

Pottinger Renewables Pty Ltd (Pottinger) is proposing to construct, operate, maintain, and decommission the Pottinger Wind Farm (PWF) and Pottinger Solar Farm (PSF) (the Project). The Project will include a 750-megawatt (MW) wind farm, 300 megawatt (MW) solar farm with a Battery Energy Storage System (BESS) and other associated infrastructure and site access across an area of approximately 15,700 hectares (ha) (encompassing 14,000 ha for the Wind Farm and 1,700 ha for the Solar Farm). The Project Area is located approximately 60 kilometres (km) south of Hay, New South Wales (NSW). The Project Area is located within the boundaries of the Hay and Deniliquin Local Aboriginal Land Councils (LALC). The Project Area is within the Hay Shire and Edward River Local Government Area (LGA) (see *Figure 1.1*).

The Project will be assessed by a State Significant Development applications under Part 4, Division 4.7 of the NSW *Environmental Planning and Assessment Act 1979*. The application will be supported by preparation of an Environmental Impact Statement (EIS). The Aboriginal Cultural Heritage Assessment Report (ACHAR) will form one of the technical studies prepared to support the EIS.

Pottinger has engaged Environmental Resources Management Australia Pty Ltd (ERM) to complete an ACHAR to identify, assess, and develop management recommendations for any identified Aboriginal cultural heritage within the Project Area, in accordance with the *Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW* (prepared by the former Department of Energy, Climate Change and Water [DECCW] in 2011) and the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW, 2010a) (Consultation Requirements).

Preparation of the ACHAR will include Aboriginal community consultation which will be undertaken with the Registered Aboriginal Parties (RAPs) who have expressed interest in the overall Project.

This document provides details of the proposed assessment and survey methodology for the Project. This document will be provided to all RAPs who have registered interest in the Project for their review and comment. Any comments received will be considered and incorporated into the assessment methodologies where practicable.

### 1.1 Project Area

The Project Area is located south-east of the town of Hay, in the Riverina Murray Region of NSW. The Project Area is situated approximately 820 km (by road) west of Sydney, and 35 km south-east of Hay. The Project Area is within the Hay Shire and Edward River LGA on land that is predominately used for irrigated cropping and grazing pasture.

The Project currently extends over an area of approximately 15,700 ha, across 103 land parcels which are outlined in *Table 1.1*. The elevation across the Project Area is relatively consistent, ranging from 90 m to 98 m above sea level.

**Table 1.1 Project Area Lot and DP Details**

Lot	DP
3, 5	116080
1, 4, 5, 6, 7,	134988
1	134991
1	542495
42	591554
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 24, 25, 26, 32, 33, 34, 35, 36, 37, 38, 44, 45, 46, 47, 48, 49, 50, 54	756282
5, 6, 7, 8, 9, 10, 11, 12, 13, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 35, 36, 37, 40, 41, 42, 44, 47, 48, 51, 52, 53, 54, 55	756315

Lot	DP
51, 52, 53, 60, 61, 62, 84, 88, 90, 91, 97, 106, 107, 108, 109	756809
1, 2	1081067

## 1.2 Proposed Development

The Project includes the in-perpetuity approval for construction, operation, maintenance, and decommissioning of a 750 MW wind farm, 300 MW solar farm, BESS, electrical and other associated infrastructure, ancillary activities, and site access.

The PWF comprises the following elements:

- Up to 108 Wind Turbine Generators (WTGs) of which each has a maximum hub height of 180 m and tip height of up to 280 m;
- Electrical reticulation network:
  - Up to five main transformers and an optical second satellite substation and associated transformers, switch room, and reactive plant;
  - On-site connection to Project EnergyConnect, associated switch and other equipment at the main substation;
  - Internal electrical reticulation (both underground and overhead); and
  - Approximately 500 MW / 2 gigawatt hours (GWh) BESS.

The PSF comprises the following elements:

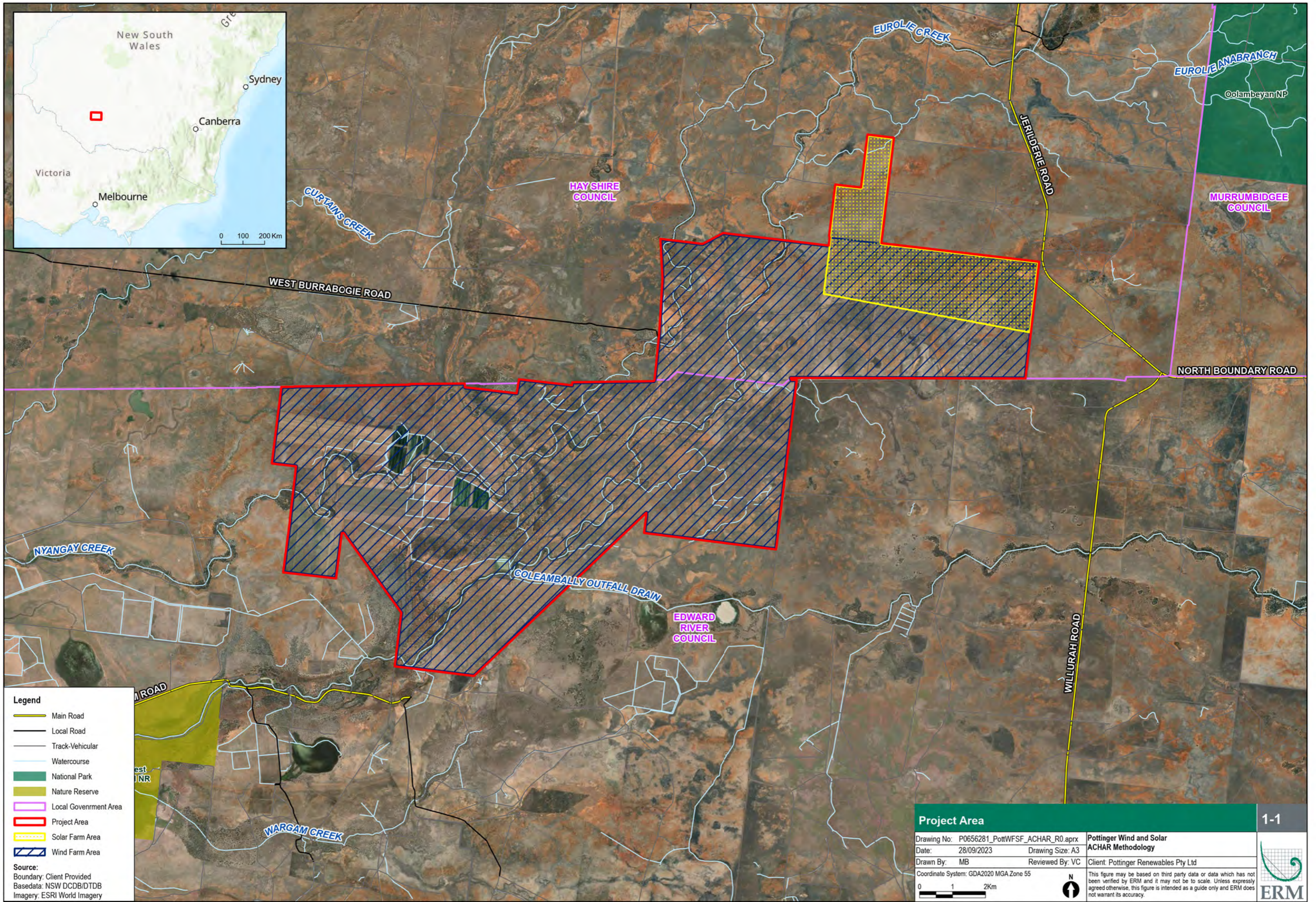
- Energy Generation:
  - Approximately 750,000 panels and 150 ha of solar arrays;
- Solar Power Conversion Unit (PCU):
  - Solar PCUs including a power station, inverter, transformer and associated equipment;

In addition, the Project will include the following Project infrastructure and associated works:

- Other temporary and permanent infrastructure including:
  - Operations and Maintenance (O&M) facility and infrastructure including site office, storage facilities, car parking and fencing;
  - Accommodation facilities;
  - Construction and operational compounds;
  - Hardstands for WTGs and other infrastructure;
  - Internal access tracks and road turning head connecting Project infrastructure;
  - Meteorological masts;
  - Concrete batching plants, crushing facilities, gravel / borrow pits, construction laydown areas, and stockpile areas;
- Ancillary activities including sourcing of materials for construction; sourcing of water for construction; subdivision and boundary adjustments, visual screening and associated ancillary works;
- Access road use and Project-required upgrades:
  - Project Area access: via the Cobb Highway from Jerilderie Road in the north east and West Burrabogie Road in the west, as well as emergency access;


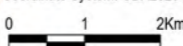
- Wind farm components access: via a major Port in either NSW, VIC, SA, via the Sturt Highway and/or Cobb Highway, then Jerilderie Road and/or West Burrabogie Road; and
- Solar farm components access: via a major Port in either NSW, VIC, SA, via the Sturt Highway and/or Cobb Highway, then Jerilderie Road and/or West Burrabogie Road.
- Operational and construction workforce of up to 40 Full Time Equivalent (FTE) and construction up to 450 FTE;
- Construction generally within standard construction hours and operations 24 hours per day 7 days per week; and
- Preliminary disturbance footprint of up to 1,100 ha.


No external transmission lines or associated easements are required for the Project.



- Legend**
- Main Road
  - Local Road
  - Track-Vehicular
  - Watercourse
  - National Park
  - Nature Reserve
  - Local Government Area
  - Project Area
  - Solar Farm Area
  - Wind Farm Area

**Source:**  
Boundary: Client Provided  
Basedata: NSW DCDB/DTDB  
Imagery: ESRI World Imagery

Project Area		1-1
Drawing No: P0656281_PottWFSF_ACHAR_R0.aprx	Pottinger Wind and Solar	
Date: 28/09/2023	Drawing Size: A3	ACHAR Methodology
Drawn By: MB	Reviewed By: VC	Client: Pottinger Renewables Pty Ltd
Coordinate System: GDA2020 MGA Zone 55		 This figure may be based on third party data or data which has not been verified by ERM and it may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and ERM does not warrant its accuracy.
		



## 1.3 Heritage Background

ERM recognises that the primary source of information regarding the Aboriginal cultural values and significance of a place is Aboriginal knowledge holders. The following background has been prepared as a summary of the current understanding of the environmental, historical, and archaeological background of the Project Area. This information has been used to develop an understanding of the potential cultural heritage values and sites which may be present which will be utilised in conjunction with RAP feedback to develop the proposed assessment approach.

### 1.3.1 Aboriginal Land Use

Aboriginal people have occupied the Australian continent for at least 40,000 years, with some reports of 60,000 years and beyond. There have been no dated excavations in the Project Area, however it is located around 200 km south-east of Lake Mungo, one of the most famous archaeological sites in Australia that has been dated back as far as 40,000 years (Hiscock 2000:21-22).

Several ethnographic accounts of Aboriginal people are available for the region, however as noted by Barber (2015), these ethnographies provide only a glimpse of a way of life which had already been impacted by disease and colonialism. Consequently, it is noted that the ethnographic record cannot provide a detailed and accurate understanding of how Aboriginal groups of the region inhabited the landscape without the influence of European arrival.

Ethnographic histories may however provide some insight into Aboriginal land use and culture at the time of colonisation. For example, Beveridge (1884) describes the communities of the Lower Murray, Murrumbidgee, Lachlan, and Darling areas as family oriented. Daily life often consisted of hunting or gathering, cooking, or preparing food, preparing tools and canoes, and telling stories or playing games. Beveridge notes that these groups had substantial commercial networks, with trade suggested to extend up to far north Queensland.

Items that were described as tradable goods were reeds for spears, red ochre, chalk for painting, stone for tools, fibre for nets and cord, opossum cloaks, wood for weapons, etc. Trade for certain items would have been vital for the communities of this area as some resources, such as that used for the stone tool production that took place, were difficult or impossible to source locally (Barber 2015; NGH 2020). Beveridge describes the importance of trade despite the noted difference in languages across the local Aboriginal communities. To this end he identified the importance of particular members of society known as *Ngalla Wattow*. These men were reportedly able to communicate in the languages of the surrounding communities and provided the means to transport goods from community to community. So respected were these men that Beveridge writes that even hostile communities would do no harm to the *Ngalla Wattow* of their rival community (NGH 2020).

The Aboriginal communities themselves were reportedly slightly different from others across Australia, as researchers such as Pardoe (1988) and Martin (2006) argue that the mounds of the plains represent territorial markers. Beveridge reports that they were a patriarchal society led by the elder generations of the community. Utilised food resources were reported to consist primarily of fish but also other animals such as kangaroo, wallaby, emu, and possum. What was eaten was dependant on the time of year and availability in the region. These resources were typically available in abundance for some eight months of the year, where the rivers and creeks of the region would fill with water and often flood the surrounding areas. Beveridge states that at these times there was more than the community could conceivably eat. However, during the remaining four months of the year it was substantially more difficult to forage for food. During the summer, when the river systems are teeming with life, Beveridge notes that the banks were filled by communities who would remain there for weeks or even months; this behaviour extended to the lakes too, which could be as heavily populated during these periods of time (Barber 2015; NGH 2020).

NGH (2021) report that one of the major features of these campsites were the ovens and/or mounds that were left behind. These features often formed central components within a campsite; their true purpose has been debated for some time, but the most accepted theories suggest that they were the areas where food was cooked (ovens) and potentially grown (mounds). Beveridge describes coming across mounds that had dozens of people buried within them, while others believe they were simply used as ovens. Martin (2006) suggests that these mounds were used to grow crops.

The effect of colonial settlement was initially felt through the rampant spread of disease, which had originally spread from the early colonial holdings along the coastline. By the time colonial explorers had reached the interior disease had ravaged the Aboriginal population. The situation grew even more dire as the true effects of colonialism reached the region and the traditional lands of the communities were possessed by settlers who used them for farming or herding. During this time resistance by Aboriginal people was usually met with retaliatory acts of violence. Those who had survived both disease and frontier violence were forced to adapt to a different world, as their access to their traditional way of life was blocked by colonial expansion. During this period, many had no other choice except to integrate into the new colonial settlements, as a result, the traditional way of life, along with the acts of hunting, gathering, religious life, marriage links, and ceremonial sites were disrupted or destroyed.

### 1.3.2 Previous Archaeological Assessments

Several archaeological surveys and reports have been conducted within the region and the surrounding landscape for renewable energy projects and other land management programs. These are briefly discussed below.

#### *Sunraysia Solar Farm, Balranald*

NGH Environmental (2016) surveyed 800 ha of land for the proposed Sunraysia Solar Farm near Balranald, located approximately 80 km from the current Project Area. The survey recorded three sites comprising two clusters of burnt clay recorded as ovens, and a site complex of seven stone artefacts and three hearths. NGH noted that a lack of culturally modified trees recorded in the assessment area was likely due to historic clearance and the lack of permanent water. NGH interpreted the nature of the archaeological material within this landscape to suggest that Aboriginal use of the landscape was intermittent.

#### *Balranald Mineral Sands Project, Balranald*

Another survey undertaken in the area was by Anderson (2015) for the Balranald Mineral Sands Project located approximately 110 km from the Project Area. For this assessment, a total of 1,125 ha of the 3,300 ha project area was surveyed with a total of 548 Aboriginal sites identified over the course of the surveys. The overwhelming majority of these sites (89.8%) were composed of a single site element, with the remaining 10.2% having two or more. Isolated and open scatters of stone artefacts were the most common site type throughout the area. Hearths were the second most common with scarred trees, potential archaeological deposits (PAD), and shell following in frequency. The assessment noted areas of high and moderate cultural value were associated with the Box Creek tributary streams as well as relict lake fringes and depressions.

#### *Abercrombie Water Efficiency Project*

Between 2014 and 2016, OzArk Environmental & Heritage Management Pty Ltd (OzArk, 2017) conducted surveys and assessments of the Abercrombie Water Efficiency Project, which consisted of a 10 m wide corridor along approximately 276 km of pipeline as well as small areas of ancillary water infrastructure. Initial investigation by OzArk identified seven sites, three of which being open campsites. An Aboriginal Heritage Impact Permit (AHIP) application was recommended for two isolated finds (WA-IF1, a grinding stone fragment, and WA-IF3, a flaked piece of silcrete) but was refused based on lack of survey coverage.

Re-assessment was undertaken including pedestrian transects and an AHIP application was subsequently approved, allowing for the harm (removal) to the two previously mentioned objects and the management of a further 42 Aboriginal objects or 'no harm' areas.

### *Keri Keri Renewable Energy Project, Balranald*

NGH Environmental (NGH, 2020) completed a Preliminary Cultural Heritage Study on behalf of Acciona for the Keri Keri renewable energy project, which is located approx. 50 km west of the PREP. The desktop report investigated the preliminary issues relating to cultural heritage potential opportunities and constraints relevant to the project area. Several Aboriginal sites were assessed and sensitive landscape mapping identified that further archaeological assessment would be required during the development pathway. Preliminary assessment suggested that Aboriginal use of the landscape was seasonally intermittent. The results of these surveys in the landscape immediately adjacent to and within Keri Keri was considered by NGH to suggest that the region of the Hay Plain was extremely sensitive due to its proximity to major regional (and seasonal) waterways along with other landscape features including ancient palaeochannels and relict lake features including lunettes.

### **1.3.3 Existing Predictive Models**

The Project Area is located within the Murrumbidgee Province of the Riverina Bioregion. The Murrumbidgee Province is generally comprised of a natural flat landscape largely consisting of clays, silts and sands which historically has been subject to a consistent cycle of annual flooding. Environmental influences on this landscape have varied dramatically over time with post glacial climate changes in the Holocene reducing flood peaks and sediment load. Over time this has resulted in modern watercourses crossing and cutting through earlier palaeochannels. These landscape features provide complexity to an assessment of archaeological sensitivity within the Riverine region that may not be identified through the predictive features of the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (Code of Practice) (DECCW, 2010b).

A localised landscape based predictive model was developed by Colin Pardoe for the 'Murrumbidgee Province' as part of the Murrumbidgee Province Aboriginal Cultural Heritage Study (Pardoe & Martin, 2011). This predictive model has focused on the localised landform features and their relationship to site identification and includes assessment of the Project Area. Pardoe's assessments considered the relationship between landform features and the location of archaeological sites making the following conclusions.

- Water – The pattern of site distribution was identified as having its greatest concentration within close proximity to watercourses. Pardoe and Martin (2011) found some variation in site distribution based on water source type was also noted:
  - Major Streams – No site was located more than 12 km from a major river channel with most sites found with a short distance of this channel (75% of sites were within 3.3 km of a major stream);
  - Minor Streams – No site was located more than 12 km from a minor stream (75% were within 2.2 km);
  - Lakes – More than 82% of sites are found within 8 km of a lake; and
  - Swamps – No obvious pattern of distribution was identified which was attributed to variations in the way swamps are described in official mapping data.
- Landforms – Plains made up 93% of the Province, and as such minor variations in landform were noted to be significant as an impetus to the flow of water and location of resources. While sites were identified across most landforms patterns; channelled plain and confined trace landforms were identified as containing a disproportionate number of sites. These landforms were most often associated with the modern active floodplain. Comparatively, burials were most often

associated with scalded, channelled, and depressed plains associated with paleo environments; and

- Soils – Soil type was noted for its association with water resources and vegetation communities. Based on this association, particular soil types were identified to be associated more closely with site features (burials, hearths, mounds etc) rather than overall site distribution.

Additional large-scale review of archaeological site types was completed by Martin in her review of the Hay Plain (Martin, 2007 and Martin, 2010). Martin noted a number of patterns in site distribution related to environmental features. In particular Martin noted that:

- The narrow floodplains or confined traces of the Murrumbidgee and Lachlan, the Lowbidgee distributary system, the Gum Creek palaeochannel, and the Abercrombie Creek system in the Hay Plain have the highest density of sites. Large open water lakes also have a high density of sites;
- Sites are widely spread over different geomorphic categories across the Hay Plain with certain site types most likely to be identified in specific soil types. Confined traces (including the Murrumbidgee River), plains with channels, plain with depressions and channelled plains contained a higher density of sites. Localised landforms included lunettes and lakes were also identified to have a higher than average site density;
- Mounds were identified to be located to particular parts of the Hay Plain and not directly related to geomorphology. Mounds were noted however to be particularly dense along confined traces, the Lowbidgee and Hay Plain Southeast;
- Middens were identified to be largely located along the confined traces of the major rivers and on large water lakes and lunettes;
- Open sites were more commonly found away from riverine grey cracking clays;
- Burials appeared to cluster in the western portion of the Hay Plain in similar locations to mounds. These sites were not identified to be connected to geomorphology;
- Artefact sites and ground ovens were recorded to have been spread widely across the Hay Plain; and
- All archaeological site types are considered likely to occur on slightly raised sandier paleochannel features.

Martin noted that on a wider scale the gently west sloped topography of the Hay Plain was identified to have an influence on the overall presence of sites. Martin suggested this may have been related to earlier water retention environments. Prior to modern water control systems, it was noted that the western half of the Hay Plain would have acted as a sump which collected seasonal floodwater and excess rainfall and would have provided appropriate resources for the growth of a number of plant and animal resources. Mound sites in the area surrounding Gum Creek and the Abercrombie Creek System were noted to be focused on paleochannel features and around ephemeral lakes and swamps (Martin, 2007, p. 199).

Most of the Project Area is comprised of landform types which were identified by Pardoe and Martin as having the potential to contain Aboriginal sites. Sensitivity mapping focused on delineating sensitivity into zones based on types of sites which would be expected in each landscape. Areas associated with scalded plains and paleo environments were assessed to contain high archaeological sensitivity associated with their potential to contain burials and intact deposits, while depression plains and otherwise clay-based deposits were considered to demonstrate moderate sensitivity. Delineation of soil landscapes was based off data available from the Reconnaissance Soil Landscape of the Riverine Plains (Department of Natural Resources, 2004) which was subsequently adjusted based on visual clues available from aerial imagery.

Preliminary cultural heritage sensitivity mapping is provided in *Figure 1.2*. Further assessment is required to identify additional environmental or landscape features (including palaeochannels) which may also be archaeologically sensitive, as well as historic land uses which may have disturbed or otherwise modified the archaeological sensitivity of an area. Detailed environmental modelling and ground-truthing will be required to adequately categorise the archaeological and cultural sensitivity of the Project Area.

In addition to the large number of tangible cultural heritage remains identified across the Murrumbidgee Province, Pardoe and Martin also noted that intangible ceremonial, dreaming, and story sites were common through the region. These were often associated with landscape features such as waterholes, hills, trees, or other minor features.

### 1.3.4 AHIMS Search Results

The Aboriginal Heritage Information Management System (AHIMS) database provides information concerning previously recorded Aboriginal sites in NSW. Two extensive searches of the AHIMS database were conducted on 28 September 2023 by shapefile to encapsulate the Project Area; Search 1 was for the Wind Farm and Search 2 was for the Solar Farm. The searches were conducted utilising the parameters provided in *Table 1.2*.

**Table 1.2 AHIMS Database Search Details**

Parameters	Search 1	Search 2
Client Service ID	824233	824239
Datum	GDA Zone 55	GDA Zone 55
Buffer	0 m	0 m
Number Sites	3	0

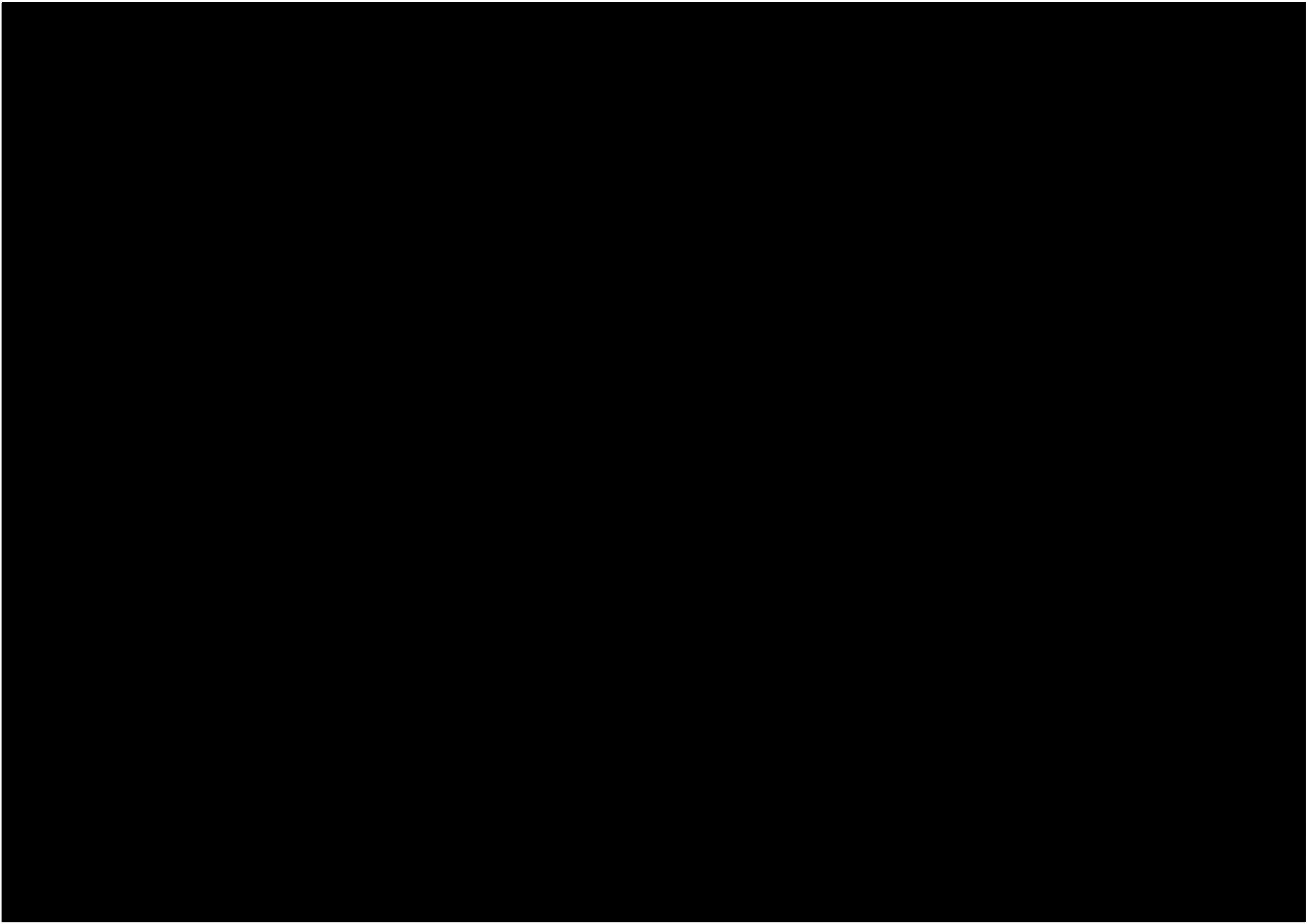
A total of three sites were identified within the Project Area. Sites within the Project Area included Artefact, Hearth and Culturally Modified Tree features. The presence of a variety of site types across the surrounding landscapes indicate that a variety of complex land uses may be associated within the landscape.

The results of the full AHIMS search are summarised in *Table 1.3*.

**Table 1.3 AHIMS Registered Site Types**

Site Type	Number of Site types within Project Area
Artefact	1
Artefact, Hearth	1
Artefact, Hearth, Modified Tree (Carved or Scarred)	1
<b>Total</b>	<b>3</b>

Despite the search results only yielding three AHIMS-registered sites, based on the results of the preliminary assessment, it is considered likely that there are significant areas within the Project Area which contain evidence of past Aboriginal land use. Predictive modelling prepared at this stage of the process can assist in determining sensitive landscapes; however, it is acknowledged that detailed investigation and site survey assessment will be required to inform the next phase of project planning and design.



## 2. FIELD INVESTIGATION METHODOLOGY

The following field investigation methodology has been developed to further assess the significance of the Project Area. Field investigation is proposed to be undertaken over a 10-day period. This will be broken down into an initial 5-day site survey in November 2023 of Hay LALC area, with an extra 5-day survey to follow for the Deniliquin LALC area. The survey length may extend depending on site survey results and design changes.

### 2.1 Field Survey for Solar Farm

An archaeological survey of the Solar Farm will aim to identify all Aboriginal sites and areas of cultural significance present within the proposed impact footprint of the Project Area. Survey would include the identification of any areas of PAD and would ground truth the locations of any previously registered Aboriginal sites within the impact footprint.

ERM proposes to undertake the survey with the following conditions:

- A survey would be undertaken across the full extent of the Solar Farm impact footprint;
- The Solar Farm footprint would be delineated into landforms, with survey including investigation of each individual landform across the Solar Farm impact footprint. Survey would also include investigation of varying soil landscapes, varying distances from watercourses and areas of intact vegetation where they overlap with the impact footprint;
- The survey will consist of all participants traversing the selected areas of the impact footprint using transects. Transects will include a sample of each individual landform across the Project Area. Transect spacing will vary across the survey area, between 10 to 50m apart, based on the level of archaeological potential identified during predictive modelling (see *Figure 1.2*), level of ground surface visibility, and feedback provided by the RAPs. Areas of high archaeological potential and/or higher levels of ground surface visibility would be subject to a more detailed ground survey;
- A site discussion will be held with the RAPs at the commencement of each field survey to refine the proposed survey sampling strategy, to discuss sensitive landforms or locations, proposed targeted survey areas, and any relevant cultural information;
- The survey will be undertaken on foot, with two teams comprised of one archaeologist and up to four RAPs per team. Survey will be limited to areas that can be traversed on foot;
- Identified objects will be recorded in situ and will remain onsite; and

Any cultural heritage information for the study area shared by the RAPs will be recorded during the field survey. Any cultural knowledge provided will be treated in confidence and the information will be distributed according to the wishes of the provider.

### 2.2 Field Survey for Wind Farm

The archaeological survey of the Wind Farm will aim to identify all Aboriginal sites and areas of cultural significance present within the proposed impact footprint of the Wind Farm and consequently would be comprised of a linear survey focused on the proposed wind turbine locations, proposed access tracks as well as associated infrastructure. Due to the sensitive archaeological landscape and existing AHIMS sites registered in the Project Area it is anticipated that new sites will be discovered and recorded during the field investigation. Therefore, it is proposed that survey will target 100% of the high potential areas and landscapes, and 50% of the remainder of the Project Area.

Survey would include the identification of any areas of PAD and would ground truth the locations of any previously registered Aboriginal sites within the impact footprint of the Wind Farm.

The survey would be focused on the proposed impact footprint with all individual landforms within the impact footprint subject to investigation. Due to the limited variation in landform across each Project Area, survey would also ensure investigation of representative samples of varying soil landscapes and land parcel (as delineated by the boundaries of the current grazing paddocks within the overarching Project Area).

The field survey for the Wind Farm would be completed utilising the following method:

- A sample survey would be undertaken across the full extent of Wind Farm impact footprint;
- The Wind Farm footprint would be delineated into landforms, with survey including investigation of each individual landform across the Wind Farm impact footprint. Survey would also include investigation of varying soil landscapes, varying distances from watercourses and areas of intact vegetation where they overlap with the impact footprint;
- Survey would also include inspection of previously registered AHIMS sites. Survey of these areas would be undertaken to ensure that extent of these sites are adequately captured by the assessment;
- The survey will consist of all participants traversing the selected areas of the impact footprint using transects. Transects will include a sample of each individual landform across the Project Area. Transect spacing will vary across the survey area, between 10 to 50 m apart, based on the level of archaeological potential identified during predictive modelling (see *Figure 1.2*), level of ground surface visibility, and feedback provided by the RAPs. Areas of high archaeological potential and/or higher levels of ground surface visibility would be subject to a more detailed ground survey;
- A site discussion will be held with the RAPs at the commencement of each field survey to refine the proposed survey sampling strategy, to discuss sensitive landforms or locations, proposed targeted survey areas, and any relevant cultural information;
- The survey will be undertaken using a combination of driving and pedestrian survey, with two teams comprised of one archaeologist and up to four RAPs per team. Survey will be limited to areas that can be traversed with a vehicle or on foot;
- Identified objects will be recorded in situ and will remain onsite; and
- Any cultural heritage information for the study area shared by the RAPs will be recorded during the field survey. Any cultural knowledge provided will be treated in confidence and the information will be distributed according to the wishes of the provider.

## 2.3 Sites containing Human Remains

Where potential ancestral remains are identified they would be subject to a non-invasive recording via photograph and GPS. The extent of the potential remains and an appropriate buffer zone to avoid potential impact to the remains during the remainder of the survey program would be discussed with the RAPs and recorded. Identified potential ancestral remains would not be touched during the recording process. Preliminary discussions with the RAPs would also be held to discuss potential mechanisms to manage the remains during construction and operational phases of the project. Identified buffer zones would be provided to the proponent to be incorporated into detailed design considerations.

As part of the preliminary recording, recommendations for long-term management of the remains would also be sought from the RAPs. At the end of the survey program, all potential ancestral remains would be reported to NSW Police and subject to inspection by a forensic anthropologist in accordance with the *Coroners Act 2009*. Heritage NSW would also be notified of the finds with all confirmed ancestral remains registered on the AHIMS database.

## 2.4 Site Recording

All Aboriginal objects and sites would be recorded and registered on the AHIMS database at the end of the field survey.

Feedback from the RAPs would be sought to identify any culturally sensitive or gendered sites which may need to be registered as a restricted site.

## 2.5 Archaeological Reporting

The results of the archaeological field investigation would be documented in an ACHAR. The report would detail the results of the field investigation and would be completed in accordance with the Code of Practice.

## 2.6 Test Excavation

At present, test excavation has not been incorporated into the current methodology.

Areas of PAD will be recorded during the survey and reviewed against the design layout to confirm if they would be subject to impact by the Project. Where impact cannot be avoided, mechanisms to further investigate these sites through archaeological excavation would be recommended.

Any test excavation program would be subject to a separate test excavation methodology which would be subject to consultation with the RAPs.

## 2.7 Aboriginal Stakeholder Involvement

It is proposed that the survey would consist of two survey teams. Each survey team is proposed to be comprised of one archaeologist and up to four RAPs per day. It would be the site archaeologist's responsibility to perform all photographic tasks and site recording and ensure adequate site recording is undertaken in accordance with the requirements of the Code of Practice and this methodology.

A copy of this proposed survey methodology has been sent to all RAPs to provide any comments they may have prior to its implementation.

### 3. ACHAR METHODOLOGY

Individual ACHARs will be prepared for the Wind Farm and Solar Farm components of the Project. Each ACHAR will include the steps outlined in *Section 3.1– Section 3.4*.

Each ACHAR will be prepared in accordance with the Heritage NSW Consultation Requirements and the Code of Practice and will include the following steps.

#### 3.1 Background Research and Predictive Modelling

A background assessment will review and analyse existing background information to gain a contextual understanding of the cultural landscape associated with the Project Area. Review of background information will include assessment of environmental information, former historic land use, available ethnographic information, as well as existing registered Aboriginal heritage sites and reports.

This stage is ongoing, with preliminary information identified throughout this phase summarised in *Section 2* above.

#### 3.2 Aboriginal Community Consultation

- Aboriginal community consultation for the project is proceeding in accordance with the Consultation Requirements which involved the following four key steps:
    - **Stage 1:** Notification of project proposal and registration of interest;
    - **Stage 2:** Presentation of information about the proposed project;
    - **Stage 3:** Gathering information about cultural significance; and
    - **Stage 4:** Review of draft cultural heritage assessment report.
  - **Stage 1** has been completed and included the following steps:
    - Placement of a public advertisement in the Riverine Grazier, and the Deni Pastoral Times;
    - Liaison with relevant legislative bodies to identify potentially interested parties; and
    - Liaison with potential interested parties identified to invite them to register an interest in the project.
- **Stage 2 and Stage 3** is currently underway and includes the preparation of the current document to present information regarding the proposed project and assessment methodology. This document also requests information regarding the cultural significance of the Project Area. Feedback on this document will be requested within 28 days of its issue to RAPs.
- **Stage 4** will involve the provision of the Draft ACHAR for review. The Draft ACHAR will provide a summary of the identified Aboriginal heritage values identified and the assessed impacts associated with the development. The report will also identify mitigation and management measures. The review of the Draft ACHAR will request feedback to confirm that the cultural values of the Project Area have been adequately identified and that the proposed management and mitigation measures for any impacts are appropriate.

#### 3.3 Identification and Assessment of Cultural Values

- The identification and assessment of cultural values will be completed using a combination of consultation with RAPs and field investigation:
  - Field investigation for the Project is proposed to involve the field survey component as detailed above;

- Identification of cultural values will be undertaken in consultation with the RAPs where possible, information on identified cultural values will be supplemented by the identification of cultural values through the review of previous reporting and publicly available information; and
- Assessment of cultural values will include consideration of Social, Historical, Aesthetic and Scientific values within the Project Area.

### 3.4 Assessment of Harm

Following the identification of Aboriginal cultural values for the respective Project Area, an impact assessment will be completed to identify whether any Aboriginal Objects, Places or cultural values will be harmed by the proposed works.

Where harm is identified which cannot be avoided, recommendations to manage and mitigate the harm will be proposed.

Harm would only be authorised as part of the Project's Conditions of Approval.

### 3.5 Assessment Timeframes

Proposed timing for completion of tasks associated with both field investigation and the ACHARs are provided below.

It is noted that timing for field investigations would be subject to weather conditions and site access.

**Table 3.1 Assessment Timeframes**

Assessment step	Description	Indicative timing	Proposed timeframe
Stage 1 – consultation process	Development of RAP list through: <ul style="list-style-type: none"> <li>■ Feedback from government bodies;</li> <li>■ Placement of adverts in The Riverine Grazier and the Deni Pastoral Times; and</li> <li>■ Contacting parties identified by government bodies.</li> </ul>	End of September 2023	6 weeks (minimum 14 days from placement of adverts and invitation to register)
Stage 2 and Stage 3 – consultation process	Development and review by RAPs of project information and proposed assessment methodology. Provision of RAP list to the Local Aboriginal Land Council and Heritage NSW.	October 2023	28 days
Revision of assessment methodology based on RAP comments	Updates to methodology based on feedback received during RAP review.	End of October – start November 2023	1 week
Field program	Combined Wind Farm and Solar Farm Field surveys.	November 2023	10 Days
Post field recording and reporting	Drafting of Wind Farm ACHAR & Solar Farm ACHAR.	November 2023 – January 2024	6 weeks
RAP review of draft ACHARs	Review of Wind Farm ACHAR & Solar Farm ACHAR.	January 2024	28 days
Finalisation of ACHARs		February 2024	2 weeks

## 4. FEEDBACK

ERM requests that you review and provide feedback on this information package and express your interest in participating in the fieldwork program by **10 November 2023**.

As part of your response ERM asks you to consider:

- a) whether there are any Aboriginal objects of cultural value to Aboriginal people in the Project Area or surrounds; and
- b) whether there are any places of cultural value to Aboriginal people in the Project Area or surrounds.

Any cultural knowledge provided by Aboriginal Stakeholders will be treated in confidence and the information will be distributed according to their wishes.

If you wish to be involved in the field investigation program, please include copies of your public liability and worker's compensation insurance as part of your expression of interest.

Please provide feedback to **Lorien Perchard** at the following contact details:

[REDACTED]  
[REDACTED]  
[REDACTED]

Yours sincerely,

For Environmental Resources Management Australia Pty Ltd



Lorien Perchard  
Managing Consultant – Heritage

## 5. REFERENCES

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## APPENDIX I

## AHIMS SEARCH RESULTS

Environmental Resources Management - Melbourne

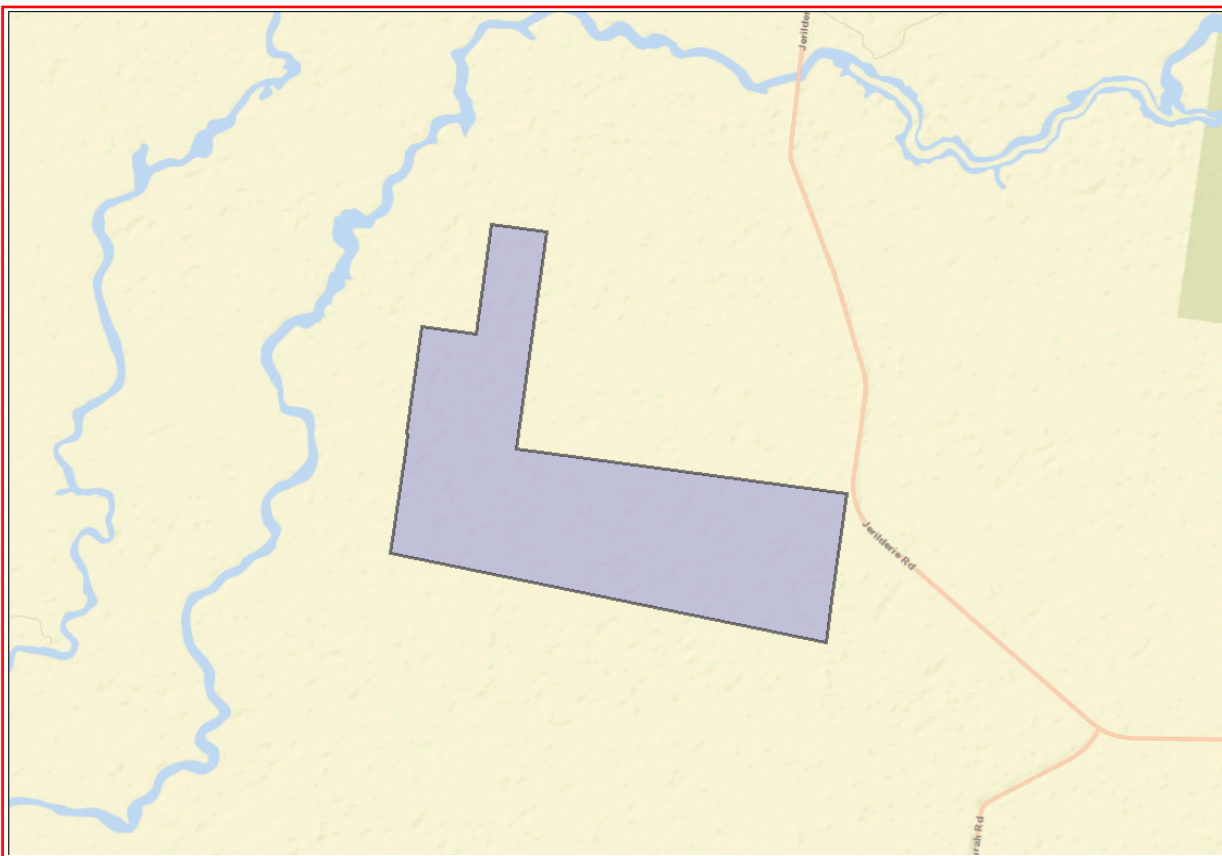
Date: 28 September 2023

[REDACTED]  
[REDACTED]  
[REDACTED]

Dear Sir or Madam:

**AHIMS Web Service search for the following area at Search using shape-file  
SolarProjectBoundaryV3 24Apr2023 with a buffer of 0 meters. Additional Info : Due Diligence,  
conducted by Victoria Cottle on 28 September 2023.**

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

[REDACTED]

**If your search shows Aboriginal sites or places what should you do?**

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the [NSW Government Gazette \(https://www.legislation.nsw.gov.au/gazette\)](https://www.legislation.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Heritage NSW upon request

**Important information about your AHIMS search**

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Heritage NSW and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.



# AHIMS Web Services (AWS)

## Extensive search - Site list report

Your Ref/PO Number : Pottinger (P0656281)

Client Service ID : 824239

<u>SiteID</u>	<u>SiteName</u> <u>Contact</u>	<u>Datum</u> <u>Recorders</u>	<u>Zone</u>	<u>Easting</u>	<u>Northing</u>	<u>Context</u>	<u>Site Status **</u>	<u>SiteFeatures</u> <u>Permits</u>	<u>SiteTypes</u>	<u>Reports</u>
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There are no sites found for given search criteria.

### **\*\* Site Status**

**Valid** - The site has been recorded and accepted onto the system as valid

**Destroyed** - The site has been completely impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There is nothing left of the site on the ground but proponents should proceed with caution.

**Partially Destroyed** - The site has been only partially impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There might be parts or sections of the original site still present on the ground

**Not a site** - The site has been originally entered and accepted onto AHIMS as a valid site but after further investigations it was decided it is NOT an aboriginal site. Impact of this type of site does not require permit but Heritage NSW should be notified

Report generated by AHIMS Web Service on 28/09/2023 for Victoria Cottle for the following area at Search using shape-file SolarProjectBoundaryV3\_24Apr2023 with a buffer of 0 meters.

Additional Info : Due Diligence. Number of Aboriginal sites and Aboriginal objects found is 0

This information is not guaranteed to be free from error omission. Heritage NSW and its employees disclaim liability for any act done or omission made on the information and consequences of such acts or omission.



# AHIMS Web Services (AWS) Search Result

Your Ref/PO Number : Pottinger (P0656281)

Client Service ID : 824233

Environmental Resources Management - Melbourne

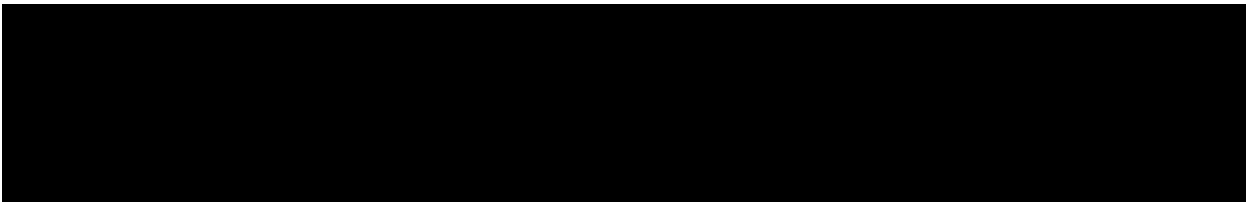
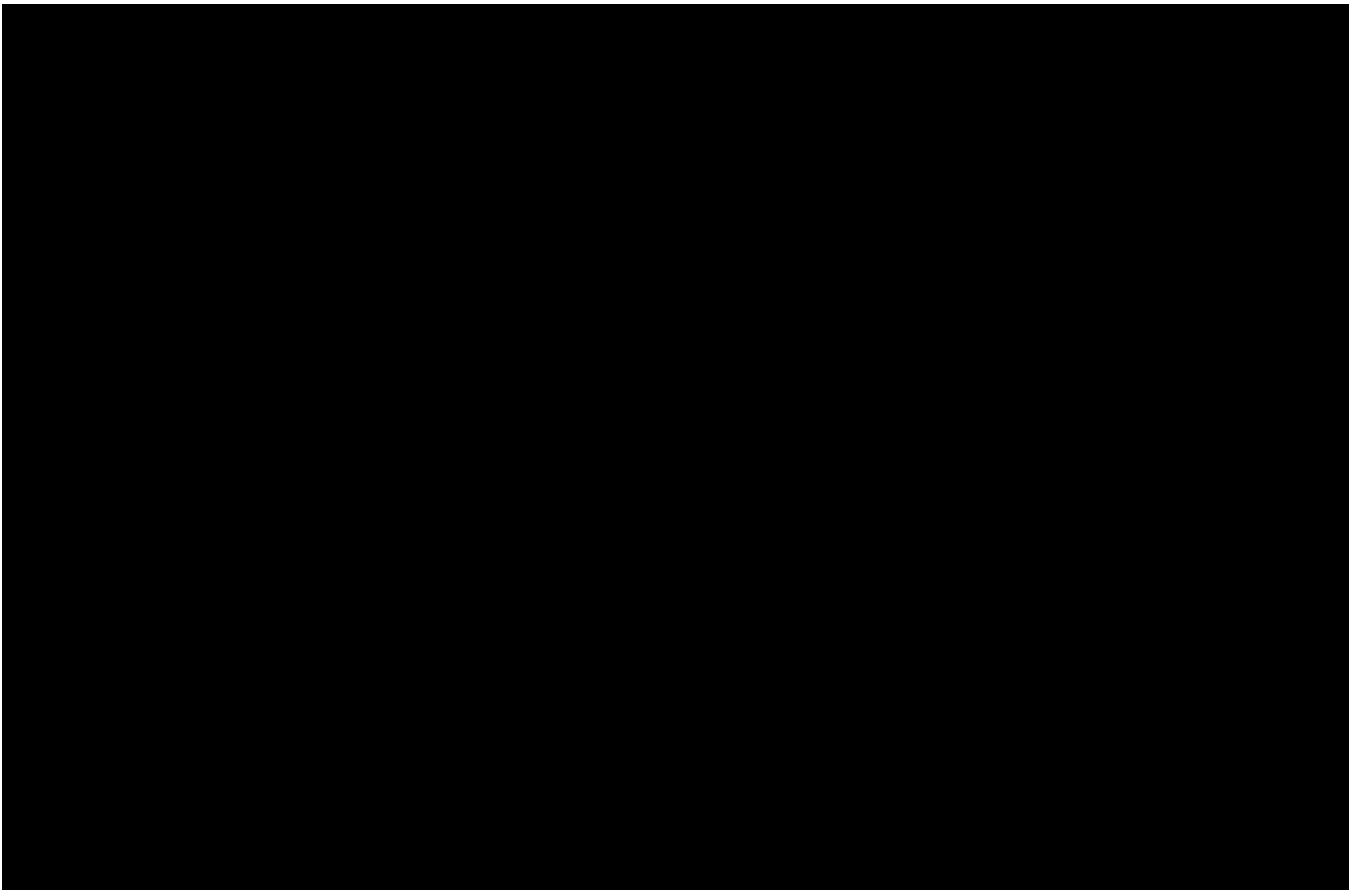
Date: 28 September 2023

[REDACTED]

Dear Sir or Madam:

**AHIMS Web Service search for the following area at Search using shape-file WindProjectBoundary with a buffer of 0 meters. Additional Info : Due Diligence, conducted by Victoria Cottle on 28 September 2023.**

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



**If your search shows Aboriginal sites or places what should you do?**

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the [NSW Government Gazette \(https://www.legislation.nsw.gov.au/gazette\)](https://www.legislation.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Heritage NSW upon request

**Important information about your AHIMS search**

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Heritage NSW and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

<u>SiteID</u>	<u>SiteName</u>	<u>Datum</u>	<u>Zone</u>	<u>Easting</u>	<u>Northing</u>	<u>Context</u>	<u>Site Status **</u>	<u>SiteFeatures</u>	<u>SiteTypes</u>	<u>Reports</u>
48-6-0165	PEC-E-36	GDA	55			Open site	Valid	Artefact : -, Hearth : -, Modified Tree (Carved or Scarred) : -		
	<u>Contact</u>									
48-6-0166	PEC-E-37	GDA	55			Open site	Valid	Artefact : -, Hearth : -		
	<u>Contact</u>									
48-6-0164	PEC-E-35	GDA	55			Open site	Valid	Artefact : -		
	<u>Contact</u>									

### \*\* Site Status

**Valid** - The site has been recorded and accepted onto the system as valid

**Destroyed** - The site has been completely impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There is nothing left of the site on the ground but proponents should proceed with caution.

**Partially Destroyed** - The site has been only partially impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There might be parts or sections of the original site still present on the ground

**Not a site** - The site has been originally entered and accepted onto AHIMS as a valid site but after further investigations it was decided it is NOT an aboriginal site. Impact of this type of site does not require permit but Heritage NSW should be notified

Report generated by AHIMS Web Service on 28/09/2023 for Victoria Cottle for the following area at Search using shape-file WindProjectBoundary with a buffer of 0 meters. Additional Info :

Due Diligence. Number of Aboriginal sites and Aboriginal objects found is 3

This information is not guaranteed to be free from error omission. Heritage NSW and its employees disclaim liability for any act done or omission made on the information and consequences of such acts or omission.



# AHIMS Web Services (AWS) Search Result

Your Ref/PO Number : Pottinger (0707548)

Client Service ID : 844350

Environmental Resources Management - Melbourne

Date: 29 November 2023

[REDACTED]  
[REDACTED]  
[REDACTED]

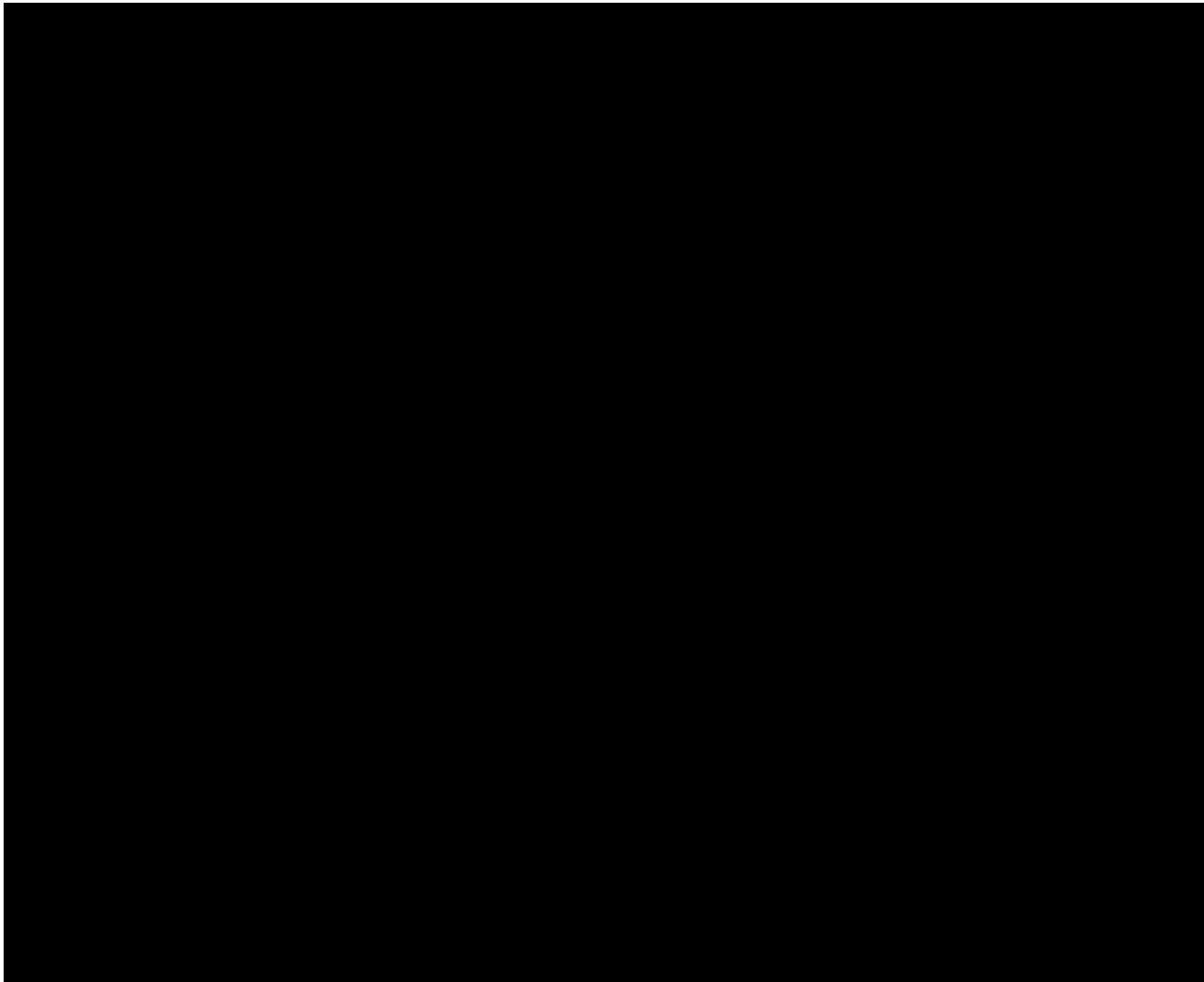
Dear Sir or Madam:

AHIMS Web Service search for the following area at Search using shape-file

Pottinger ProjectBoundary Combined 1KmBuffer with a buffer of 0 meters. Additional Info :

Archaeological Assessment, conducted by Victoria Cottle on 29 November 2023.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



**If your search shows Aboriginal sites or places what should you do?**

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the [NSW Government Gazette \(https://www.legislation.nsw.gov.au/gazette\)](https://www.legislation.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Heritage NSW upon request

**Important information about your AHIMS search**

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Heritage NSW and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.



SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
48-6-0174	PWF SUA 04	GDA	55			Open site	Valid	Artefact : -, Hearth : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							<u>Permits</u>
	<u>Contact</u>	<u>Recorders</u>	Doctor. Sarah Martin							<u>Permits</u>
48-6-0181	PWF SUC 04	GDA	55			Open site	Valid	Artefact : -, Hearth : -, Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							<u>Permits</u>
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							<u>Permits</u>
48-5-0201	Mungadal Scar Tree 3	GDA	55			Open site	Valid	Modified Tree (Carved or Scarred) : -		
	<u>Contact</u>	<u>Recorders</u>	Mr. Peter Ingram							<u>Permits</u>
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							<u>Permits</u>
48-6-0202	PSF 03	GDA	55			Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							<u>Permits</u>
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							<u>Permits</u>
48-6-0212	PSF 08	GDA	55			Open site	Valid	Artefact : -, Hearth : -, Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							<u>Permits</u>
48-6-0210	PSF 10	GDA	55			Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							<u>Permits</u>
48-6-0178	PWF SUC 07	GDA	55			Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							<u>Permits</u>

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
48-6-0190	PWF SUC 19	GDA	55			Open site	Valid	Modified Tree (Carved or Scarred) : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							
48-5-0196	Mungadal Hearth 1	GDA	55			Open site	Valid	Hearth : -		
	<u>Contact</u>	<u>Recorders</u>	Mr. Peter Ingram							
48-5-0413	West Wargan H1	GDA	55			Open site	Valid	Hearth : -		
	<u>Contact</u>	<u>Recorders</u>	Ms. Amanda Lavender, DPIE - Armidale							
48-6-0203	PSF 02	GDA	55			Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							
48-6-0172	PWF SUB 01	GDA	55			Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							
48-6-0183	PWF SUC 02	GDA	55			Open site	Valid	Modified Tree (Carved or Scarred) : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							
48-6-0180	PWF SUC 05	GDA	55			Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							
48-6-0208	PWF SUC 20	GDA	55			Open site	Valid	Modified Tree (Carved or Scarred) : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							
48-6-0175	PWF SUA 03	GDA	55			Open site	Valid	Artefact : -, Hearth : -, Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							
48-6-0176	PWF SUA 02	GDA	55			Open site	Valid	Hearth : -, Modified Tree (Carved or Scarred) : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							
48-6-0196	PWF SUC 13	GDA	55			Open site	Valid	Artefact : -, Hearth : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							
								(Carved or Scarred) : -		

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
	<a href="#">Contact</a>	<a href="#">Recorders</a>	Mr.Peter Ingram					<a href="#">Permits</a>		
48-6-0177	PWF SUA 01	GDA	55			Open site	Valid	Artefact : -, Hearth : -		
	<a href="#">Contact</a>	<a href="#">Recorders</a>	Environmental Resources Management - Melbourne, Miss.Meghyn Mathison					<a href="#">Permits</a>		
48-6-0184	PWF SUC 01	GDA	55			Open site	Valid	Modified Tree (Carved or Scarred) : -		
	<a href="#">Contact</a>	<a href="#">Recorders</a>	Environmental Resources Management - Melbourne, Miss.Meghyn Mathison					<a href="#">Permits</a>		
48-6-0193	PWF SUC 16	GDA	55			Open site	Valid	Modified Tree (Carved or Scarred) : -		
	<a href="#">Contact</a>	<a href="#">Recorders</a>	Environmental Resources Management - Melbourne, Miss.Meghyn Mathison					<a href="#">Permits</a>		
48-6-0192	PWF SUC 17	GDA	55			Open site	Valid	Modified Tree (Carved or Scarred) : -		
	<a href="#">Contact</a>	<a href="#">Recorders</a>	Environmental Resources Management - Melbourne, Miss.Meghyn Mathison					<a href="#">Permits</a>		
48-6-0194	PWF SUC 15	GDA	55			Open site	Valid	Modified Tree (Carved or Scarred) : -		
	<a href="#">Contact</a>	<a href="#">Recorders</a>	Environmental Resources Management - Melbourne, Miss.Meghyn Mathison					<a href="#">Permits</a>		
48-6-0207	PWF SUC 21	GDA	55			Open site	Valid	Modified Tree (Carved or Scarred) : -		
	<a href="#">Contact</a>	<a href="#">Recorders</a>	Environmental Resources Management - Melbourne, Miss.Meghyn Mathison					<a href="#">Permits</a>		
48-6-0195	PWF SUC 14	GDA	55			Open site	Valid	Modified Tree (Carved or Scarred) : -		
	<a href="#">Contact</a>	<a href="#">Recorders</a>	Environmental Resources Management - Melbourne, Miss.Meghyn Mathison					<a href="#">Permits</a>		
48-6-0191	PWF SUC 18	GDA	55			Open site	Valid	Modified Tree (Carved or Scarred) : -		
	<a href="#">Contact</a>	<a href="#">Recorders</a>	Environmental Resources Management - Melbourne, Miss.Meghyn Mathison					<a href="#">Permits</a>		
48-6-0205	PWF SUC 23	GDA	55			Open site	Valid	Hearth : -		
	<a href="#">Contact</a>	<a href="#">Recorders</a>	Environmental Resources Management - Melbourne, Miss.Meghyn Mathison					<a href="#">Permits</a>		
48-5-0199	Mungadal Scar Tree 6	GDA	55			Open site	Valid	Modified Tree (Carved or Scarred) : -		
	<a href="#">Contact</a>	<a href="#">Recorders</a>	Mr.Peter Ingram					<a href="#">Permits</a>		
48-6-0165	PEC-E-36	GDA	55			Open site	Valid	Artefact : -, Hearth : -, Modified Tree (Carved or Scarred) : -		
	<a href="#">Contact</a>	<a href="#">Recorders</a>	Navin Officer Heritage Consultants Pty Ltd, Mrs.Elisa Scorsini					<a href="#">Permits</a>		

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
48-6-0186	PWF SUB 02	GDA	55			Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							
48-6-0199	PSF 06	GDA	55			Open site	Valid	Artefact : -, Hearth : -, Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							
48-6-0209	PSF 11	GDA	55			Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							
48-6-0166	PEC-E-37	GDA	55			Open site	Valid	Artefact : -, Hearth : -		
	<u>Contact</u>	<u>Recorders</u>	Navin Officer Heritage Consultants Pty Ltd, Mrs. Elisa Scorsini							
48-5-0202	Mungadal Scar Tree 2	GDA	55			Open site	Valid	Modified Tree (Carved or Scarred) : -		
	<u>Contact</u>	<u>Recorders</u>	Mr. Peter Ingram							
48-5-0197	Mungadal Scar Tree 5	GDA	55			Open site	Valid	Modified Tree (Carved or Scarred) : -		
	<u>Contact</u>	<u>Recorders</u>	Mr. Peter Ingram							
48-5-0198	Mungadal Scar Tree 7	GDA	55			Open site	Valid	Modified Tree (Carved or Scarred) : -		
	<u>Contact</u>	<u>Recorders</u>	Mr. Peter Ingram							
48-6-0173	PWF SUA 05	GDA	55			Open site	Valid	Modified Tree (Carved or Scarred) : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							
48-6-0179	PWF SUC 06	GDA	55			Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							
48-6-0188	PWF SUC 09	GDA	55			Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							
48-6-0187	PWF SUC 10	GDA	55			Open site	Valid	Artefact : -, Hearth : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							
48-6-0198	PWF SUC 11	GDA	55			Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne, Miss. Meghyn Mathison							
48-5-0203	Mungadal Scar Tree 1	GDA	55			Open site	Valid	Modified Tree (Carved or Scarred) : -		

# AHIMS Web Services (AWS)

## Extensive search - Site list report

Your Ref/PO Number : Pottinger (0707548)

Client Service ID : 844350

<u>SiteID</u>	<u>SiteName</u>	<u>Datum</u>	<u>Zone</u>	<u>Easting</u>	<u>Northing</u>	<u>Context</u>	<u>Site Status **</u>	<u>SiteFeatures</u>	<u>SiteTypes</u>	<u>Reports</u>
	<u>Contact</u>	<u>Recorders</u>	Mr.Peter Ingram					<u>Permits</u>		
48-5-0200	Mungadal Scar Tree 8	GDA	55			Open site	Valid	Modified Tree (Carved or Scarred) : -		
	<u>Contact</u>	<u>Recorders</u>	Mr.Peter Ingram					<u>Permits</u>		
48-6-0164	PEC-E-35	GDA	55			Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Navin Officer Heritage Consultants Pty Ltd,Mrs.Elisa Scorsini					<u>Permits</u>		
48-6-0185	PWF SUB 03	GDA	55			Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne,Miss.Meghyn Mathison					<u>Permits</u>		
48-6-0213	PSF 07	GDA	55			Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne,Miss.Meghyn Mathison					<u>Permits</u>		
48-6-0167	Bullawah Site Complex 1	GDA	55			Open site	Valid	Artefact : -, Hearth : -		
	<u>Contact</u>	<u>Recorders</u>	Umwelt (Australia) Pty Limited - Individual users,Miss.Chantelle Laucht					<u>Permits</u>		
48-6-0182	PWF SUC 03	GDA	55			Open site	Valid	Modified Tree (Carved or Scarred) : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne,Miss.Meghyn Mathison					<u>Permits</u>		
48-6-0189	PWF SUC 08	GDA	55			Open site	Valid	Modified Tree (Carved or Scarred) : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne,Miss.Meghyn Mathison					<u>Permits</u>		
48-6-0206	PWF SUC 22	GDA	55			Open site	Valid	Artefact : -, Hearth : -		
	<u>Contact</u>	<u>Recorders</u>	Environmental Resources Management - Melbourne,Miss.Meghyn Mathison					<u>Permits</u>		

### \*\* Site Status

**Valid** - The site has been recorded and accepted onto the system as valid

**Destroyed** - The site has been completely impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There is nothing left of the site on the ground but proponents should proceed with caution.

**Partially Destroyed** - The site has been only partially impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There might be parts or sections of the original site still present on the ground

**Not a site** - The site has been originally entered and accepted onto AHIMS as a valid site but after further investigations it was decided it is NOT an aboriginal site. Impact of this type of site does not require permit but Heritage NSW should be notified

Report generated by AHIMS Web Service on 29/11/2023 for Victoria Cottle for the following area at Search using shape-file Pottinger\_ProjectBoundary\_Combined\_1KmBuffer with a buffer of 0 meters. Additional Info : Archaeological Assessment. Number of Aboriginal sites and Aboriginal objects found is 57

This information is not guaranteed to be free from error omission. Heritage NSW and its employees disclaim liability for any act done or omission made on the information and consequences of such acts or omission.






## APPENDIX J

## ABORIGINAL HERITAGE SITE DETAILS

## APPENDIX J




### Previously Recorded AHIMS Sites




AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
<b>Previously Recorded</b>						
48-6-0164	PEC-E-35	██████	██████	Artefact	Within Project Area  Outside Wind disturbance footprint	
48-6-0165	PEC-E-36	██████	██████	Artefact, Hearth, Modified Tree (Carved or Scarred)	Within Project Area  Outside Wind disturbance footprint	



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0166	PEC-E-37			Artefact, Hearth	Within Project Area Within Wind disturbance footprint	
48-6-0140	South Burrabogie 3			Hearth	Outside Project Area	<i>Not revisited.</i>
48-5-0201	Mungadal Scar Tree 3			Artefact, Hearth	Outside Project Area	<i>Not revisited.</i>
48-5-0196	Mungadal Hearth 1			Hearth	Outside Project Area	<i>Not revisited.</i>
48-5-0413	West Wargan H1			Hearth	Outside Project Area	<i>Not revisited.</i>
48-5-0195	Mungadal Scar Tree 4			Modified Tree (Carved or Scarred)	Outside Project Area	<i>Not revisited.</i>
48-5-0199	Mungadal Scar Tree 6			Modified Tree (Carved or Scarred)	Outside Project Area	<i>Not revisited.</i>
48-5-0202	Mungadal Scar Tree 2			Modified Tree (Carved or Scarred)	Outside Project Area	<i>Not revisited.</i>
48-5-0197	Mungadal Scar Tree 5			Modified Tree (Carved or Scarred)	Outside Project Area	<i>Not revisited.</i>



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0198	Mungadal Scar Tree 7	██████	██████	Modified Tree (Carved or Scarred)	Outside Project Area	<i>Not revisited.</i>
48-5-0203	Mungadal Scar Tree 1	██████	██████	Modified Tree (Carved or Scarred)	Outside Project Area	<i>Not revisited.</i>
48-5-0200	Mungadal Scar Tree 8	██████	██████	Modified Tree (Carved or Scarred)	Outside Project Area	<i>Not revisited.</i>
48-6-0167	Bullawah Site Complex 1	██████	██████	Artefact, Hearth	Outside Project Area	<i>Not revisited.</i>


## Newly Recorded Sites



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0203	PSF 02	■■■■■	■■■■■	PAD	Slightly raised landform, indicating a possible PAD. Ground visibility was low (approximately 5%), with vegetation comprising low grasses and ground creeping weeds. No artefacts were recorded on the surface. Site extent was approx. 250 x 250 m	 
48-6-0202	PSF 03	■■■■■	■■■■■	Artefact (multiple), PAD	Artefact scatter comprising approximately 15-20 silcrete and quartz flakes. The artefacts were present within scour of red sand and eroding out of elevated vegetation. The ground visibility of the site was approximately 40%; vegetation comprised low grasses. Site extent was approx. 200 x 50 m	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						
48-6-0201	PSF 04			Artefact (multiple)	Artefact scatter situated within scour of red sand. Approximately 20 silcrete, basalt, and quartz flakes were identified, as well as a volcanic grinding dish piece. The ground visibility of the site was approximately 30%; vegetation comprised low grasses. Site extent was approx. 100 x 100 m.	 




AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						
48-6-0200	PSF 05			Artefact (multiple), Hearth, PAD	<p>Artefact scatter within area of exposed sand. Artefacts were also present eroding out of elevated vegetation. Approximately 20 silcrete, quartz and possible mudstone flakes were identified, as well as a volcanic grinding dish fragment.</p> <p>Two hearths were present at the site (spaced approx. 20 m apart). Hearth 1 measured 80 cm x 65 cm (with a greater dispersal of burnt clay surrounding), and Hearth 2 measured 45 cm x 60 cm. Large pieces of burnt clay were also scattered across the site.</p> <p>The ground visibility across with site was approximately 35%. Vegetation comprised low grasses.</p> <p>Site extent was approx. 250 x 250 m</p>	




AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						
48-6-0199	PSF 06			Artefact (multiple), Hearth, PAD	<p>Artefact scatter within a scour of red sand, comprising approximately 20 silcrete, chert and quartz flakes. A large broken basalt grinding dish was also identified. It was broken into three pieces (the largest pieces measured 23 cm x 19 cm x 6 cm, and 18 cm x 14 cm x 5 cm). Two grinding grooves were present on one side of the dish.</p> <p>Two hearths were identified at the site, spaced approximately 50 m apart. Hearth 1 was eroding out of elevated grasses, and measured 150 cm x 180 cm x 5-10 cm deep. Hearth 2 was in red sand and measured 80 cm x 40 cm).</p>	



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
					<p>The ground visibility of the site was approximately 20%; vegetation comprised low grasses. Site extent was approx. 150 x 150 m.</p>	 <p>The photograph block contains three images. The top image shows five small, light-colored stones or pebbles arranged in a row on reddish-brown soil, with a white scale bar marked '8 cm' below them. The middle image shows a large, flat, light-brown rock with a dark vertical crack, lying on dry grass, with a white scale bar below it. The bottom image shows a person in an orange shirt and dark pants kneeling in a grassy field, using a long measuring tape to mark the ground.</p>




AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						
48-6-0213	PSF 07			Artefact (isolated)	Isolated silcrete flake present within area of exposed red clay, and adjacent to an access track. Ground visibility in the location of the artefact was 95%, with vegetation in the surrounding area comprising low grasses.	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0212	PSF 08			Artefact (multiple), Hearth, PAD	<p>Artefact scatter comprising approximately 2-3 silcrete flakes. Artefacts were present within exposed red sand and were eroding out of elevated vegetation.</p> <p>A hearth was identified, measuring 25 cm x 28 cm x 15 cm. Pieces of burnt clay were widely dispersed across site.</p> <p>The ground visibility of the site was approximately 70%; vegetation comprised low grasses.</p> <p>Site extent was approx. 50 x 50 m.</p>	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0211	PSF 09			Artefact (multiple), Hearth	<p>Artefact scatter comprising approximately 5 silcrete and quartz flakes, and one chert core.</p> <p>Two hearths were identified spaced approx. 3.5 m apart. Hearth 1 measured 30 cm x 25 cm. Hearth 2 measured 25 cm x 15 cm.</p> <p>The ground visibility of the site was approximately 80%; vegetation comprised low grasses. The site was adjacent to a shearing shed on the property.</p> <p>Site extent was approx. 10 x 5 m.</p>	  


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						
48-6-0210	PSF 10			Artefact (multiple), PAD	Low-density artefact scatter comprising approximately 2 silcrete and quartz flakes. The site was noted as being at a higher elevation than the surrounding area (by approximately 1-2 m). Artefacts were present in areas of exposed red sand. The ground visibility of the site was approximately 60%; vegetation comprised low grasses. Site extent was approx. 100 x 50 m.	 


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0209	PSF 11			Artefact (multiple), PAD	<p>Artefact scatter comprising approximately 20 quartzite and silcrete flakes. Artefacts were present in red sandy scour (slight depression) and eroding out of surrounding elevated vegetation.</p> <p>The ground visibility of the site was approximately 30%; vegetation comprised low grasses and creeping saltbush.</p> <p>Site extent was approx. 100 x 50 m.</p>	
48-6-0306	PSF 12			Artefact (multiple)	<p>Low-density artefact scatter comprising approximately 5 silcrete and quartz flakes. Majority of artefacts were present within area of exposed red sand adjacent to access track. Some pieces of burnt clay were noted eroding out of the access track in the eastern portion of the site extent, with concentration measuring approx. 50 x 50 cm. Additional pieces of burnt clay were scattered across broader area of access road extending for approx. 20 m.</p> <p>The ground visibility of the site was approximately 75%; vegetation comprised low grasses.</p> <p>Site extent was approx. 180 x 20 m.</p>	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						
48-6-0305	PSF 13			Artefact (multiple)	<p>Low-density artefact scatter comprising approximately 3 silcrete and quartz flakes. The site was located on access track over sand hill.</p> <p>Ground visibility of the site was approximately 80%.</p> <p>Site extent was approx. 70 x 10 m.</p>	 


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0177	PWF SUA 01			Artefact (multiple), Hearth	Two hearths present in red sand adjacent to Nyangay Creek approx. 6m apart. One measured 120 cm x 70 cm and the other measured 100 cm x 90 cm. Artefact scatter in vicinity of hearths (approx. 5 silcrete and quartz flakes). Site extent approx. 15 x 15m. 80% ground visibility.	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0176	PWF SUA 02			Hearth, Modified Tree	<p>Large hearth adjacent to Nyangay Creek. Concentrated in area of 110 cm x 130 cm; partly exposed on slight rise. Possible deposit associated with hearth. 80% ground visibility across site.</p> <p>CMT located approx. 15 m south of hearth feature. East-facing, oval scar measured 55 cm in length, 17 cm in width (with regrowth width of 25 cm), 4 cm in depth, and 1 m above ground. Diameter of Tree is 35 cm. Scar was in poor condition; deteriorated. Tree in fair condition. Black box eucalypt; approx. 15 m high.</p>	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0175	PWF SUA 03			Artefact (multiple), Hearth, PAD	<p>Six hearths dispersed across site (spaced approx. max 160 m apart). Hearths eroding out of clay (possible deposits). Overall site extent approx. 100 x 200 m.</p> <p>Hearth 1: dispersed over 500 cm x 300 cm. Hearth 2: two concentrated areas of burnt clay (2m apart; one cluster 70 cm x 30 cm; second cluster 30 cm x 20 cm). Hearth 3: 140 cm x 170 cm. Hearth 4: 120 cm x 90 cm. Hearth 5: 130 cm x 80 cm; quartz flake in the centre of concentration. Hearth 6: 65 cm x 35 cm.</p> <p>Artefact scatter (approx. 50 flakes); silcrete, chert, quartz and knapped slate.</p> <p>70% ground visibility across site.</p>	



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0174	PWF SUA 04			Artefact (multiple), Hearth	Low-density artefact scatter (2 quartz flakes). Three hearths present. Hearth 1: 170 cm x 110 cm. Hearth 2: 180 cm x 90 cm. Hearth 3: approx. 70 cm x 50 cm. Spaced approx. 20m apart. Site extent approx. 30 x 30m. Adjacent to access track. 30% ground visibility.	

AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0173	PWF SUA 05			Modified Tree	South-facing canoe-shaped scar, measuring 2 m in length, 42 cm in width (with regrowth width of 50 cm), 10 cm in depth and 20 cm above ground. Diameter of Tree was 87 cm. Scar in poor condition; deteriorating. Tree in poor condition; leaning over, roots exposed, broken limbs. Eucalypt – black box. Approx 30m high.	



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0172	PWF SUB 01			Artefact (multiple)	Artefact scatter (approx. 10-20 artefacts). Silcrete and quartz flakes as well as large core piece (30% cortex). Site extent approx. 300 x 150 m. 15% ground visibility. Saltbush, grasses in surrounding area.	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0186	PWF SUB 02			Artefact (multiple)	Low density artefact scatter (approx. 2 silcrete and basalt/volcanic flakes). Present approx. 20 m apart in red sandy scour. Elevated vegetation surrounding site. 100% ground visibility.	 


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0185	PWF SUB 03			Artefact (multiple)	Low density artefact scatter (approx. 2-5 flakes). Silcrete, quartz flakes and grinding dish piece. Adjacent to dam (disturbed area). Site extent approx. 100 x 50 m. 30% ground visibility.	


48-5-0611	PWF SUB 04			Modified Tree	<p>South-west facing shield-shaped scar, measuring 104 cm in length, 47 cm in width, 3 cm regrowth depth and 150 cm above ground.</p> <p>The girth of the tree was 270 cm.</p> <p>Scar in fair condition. Tree in fair condition. Eucalypt – yellow box approximately 8m high.</p>	
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AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						
48-6-0239	PWF SUB 05			Artefact (isolated)	Isolated quartzite material present within area of exposed red clay. Ground visibility in the location of the artefact was 90%, with vegetation in the surrounding area comprising low grasses and saltbush.	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0236	PWF SUB 06			Artefact (isolated)	<p>Isolated sandstone material present within area of exposed red clay. Possible grindstone piece that broke off.</p> <p>Ground visibility in the location of the artefact was 85%, with vegetation in the surrounding area comprising low grasses.</p>	 


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0237	PWF SUB 07			Artefact (isolated)	<p>Isolated burnt clay piece (or hearth stone) present within area of exposed grey sand. Piece was found loose on surface.</p> <p>Ground visibility in the location of the artefact was 65%, with vegetation in the surrounding area comprising low grasses and saltbush shrubs.</p>	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0234	PWF SUB 08			Artefact (multiple)	<p>Low density artefact scatter (approx. 5-10 artefacts), found in cleared area of red clay. Silcrete and quartz flakes as well as several burnt clay/ hearth stones.</p> <p>Site extent approx. 170 x 80 m. 95% ground visibility. Saltbush, clumped grasses, and wallaby grass in surrounding area.</p>	



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0239	PWF SUB 09			Artefact (multiple), PAD, Hearth	<p>Low density artefact scatter (approx. 10 loose burnt clay/ hearth stones). At least one hearth present across the site, and measured 40 cm x 30 cm (possible deposit underneath grass; partly exposed). Close proximity to a Palaeochannel. Site extent approx. 700 x 450 m. Saltbushes and clumped grasses across site. 25% ground visibility.</p>	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0238	PWF SUB 10			Artefact (multiple)	<p>Low density artefact scatter (approx. 5-10 artefacts), found in a cleared area of red and grey sands. Artefacts consisted of chert and silcrete flakes, a grinding/ rubbing stone, and a material piece. Silcrete and quartz flakes as well as several burnt clay/ hearth stones.</p> <p>Site is likely an erosion feature and a secondary deposit, not a knapping site.</p> <p>Site extent approx. 70 x 35 m. 80% ground visibility. Clumped grasses, and wallaby grass in surrounding area.</p>	

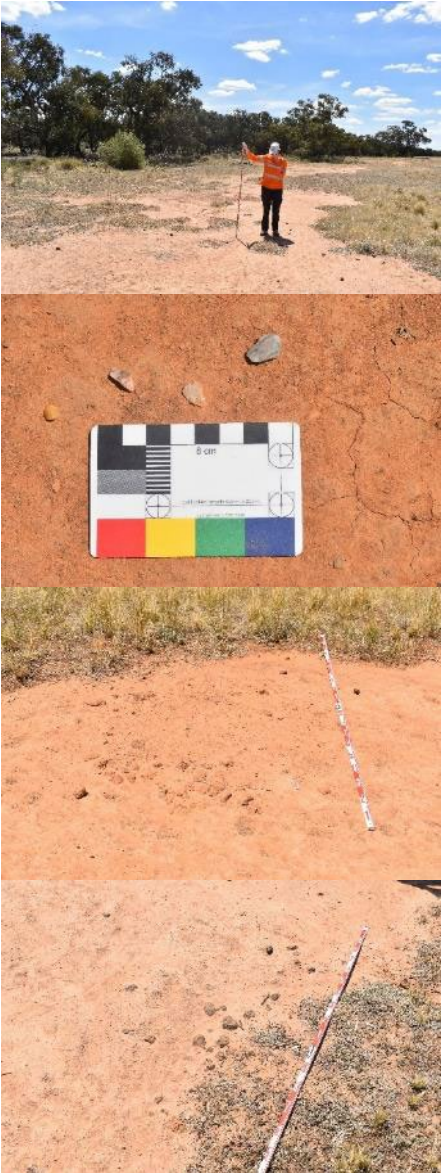
AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0301	PWF SUB 11			Artefact (multiple)	<p>Medium density artefact scatter (approx. 15-20 artefacts) comprised of silcrete and quartz flakes, and a grinding dish piece. Located approx. 30 m north of Coleambally Outfall Drain.</p> <p>Ground visibility 80%.</p> <p>Site extent approx. 120 x 95 m.</p>	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0300	PWF SUB 12			PAD	<p>Landform feature indicated PAD. Slight rise (approx. 0.5 – 1 m). Adjacent to former water source (low-lying). Red sand and clay across site.</p> <p>Vegetation was dense; no artefacts were observed on ground surface. Ground visibility 20%. Site extent approx. 380 x 200 m.</p>	
48-6-0184	PWF SUC 01			Modified Tree	<p>South-facing elongated scar (long oval shape – possible shield/dish). It measured 128 cm in length, 4 cm in with, 4 cm in depth and was 65 cm above ground. The circumference of tree is 2.4 m. Tree in poor condition. Scar in poor condition; severely deteriorated. Black box eucalypt; approx. 15 m high.</p>	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0183	PWF SUC 02			Modified Tree	South facing scar, elongated oval shape. It measured 110 cm in length, 20 cm in width, 6 cm in depth and was 20 cm above ground. Scar and tree were both in poor condition; deteriorated. Black box eucalypt; approx. 6 m high.	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0182	PWF SUC 03			Modified Tree	South-east facing scar. Long, elongated shape. It measured 116 cm in length, 15 cm in width, 10 cm in depth, and was 1.1 m above ground. Diameter of tree is 60 cm. Poor condition of scar; deteriorated. Tree in moderate condition. Black box eucalypt; approx. 15m high. Potential scar on northern side of tree (no measurements taken).	



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0181	PWF SUC 04			Artefact (multiple), Hearth, PAD	Low density artefact scatter (approx. 10 silcrete and quartz flakes and a tuff core piece). Six hearths present across the site, with the furthest distance between them being approx. 120 m). Hearth 1 measured 120 cm x 110 cm; Hearth 2 measured 130 cm x 50 cm; Hearth 3 measured 100 cm x 80 cm; Hearth 4 measured 50 cm x 30 cm (possible deposit underneath grass; partly exposed); Hearth 5 measured 170 cm x 100 cm; Hearth 6 measured 140 cm x 140 cm. Close proximity to Eurolie Creek. Site extent approx. 200 m x 100 m. Large trees present across site. 30% ground visibility.	

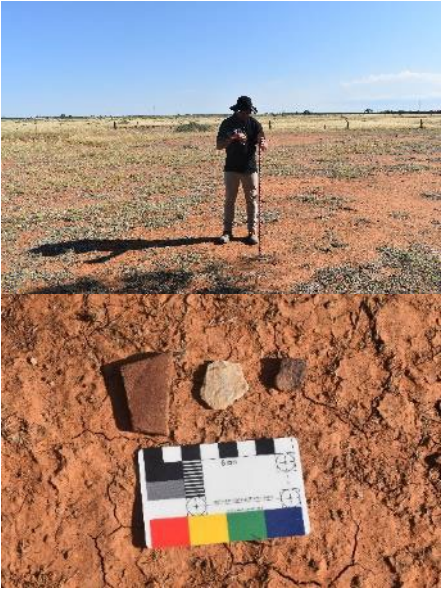
AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0180	PWF SUC 05			Artefact (isolated)	Isolated silcrete flake. Present on bank of Eurolie Creek. Grasses and saltbush in surrounding area. 90% ground visibility.	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0179	PWF SUC 06			Artefact (isolated)	Isolated quartz flake present on bank of Eurolie Creek and adjacent to access track. Disturbance of fire break noted adjacent to site. 80% ground visibility.	

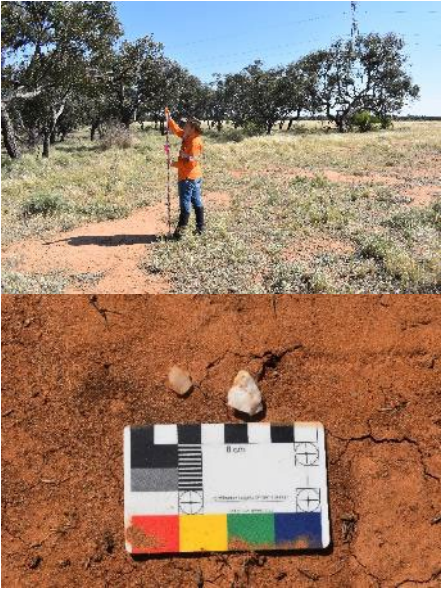
AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0178	PWF SUC 07			Artefact (isolated)	Isolated silcrete flake present on bank of Eurolie Creek. 30% ground visibility.	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0189	PWF SUC 08			Modified Tree	West-facing, oval shaped scar. It measured 58 cm in length, 20 cm in width (with 7 cm regrowth width), 4 cm in depth, and 2 m above ground. Scar was in fair condition. Tree in poor condition; leaning and roots exposed. Black box eucalypt; approx. 10-15 m high.	 

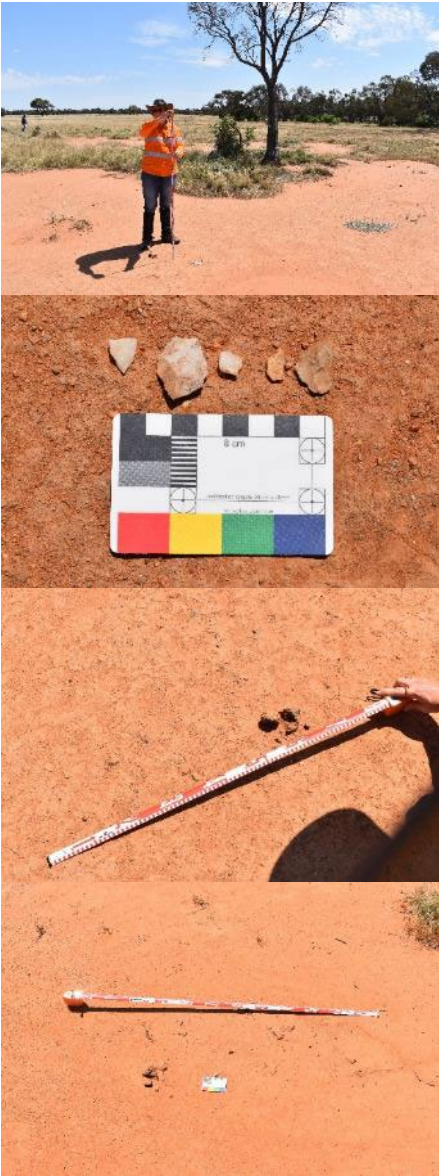
AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0188	PWF SUC 09			Artefact (multiple)	Low-density artefact scatter (3 silcrete and tuff flakes). Present on Eurolie Creek bank. Creeping saltbush in area. 80% ground visibility. Site extent approx. 45 x 25 m.	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0187	PWF SUC 10			Artefact (multiple), Hearth	Low density artefact scatter; silcrete and quartz flakes. Three hearth features adjacent to Eurolie Creek, spaced approx. 23 m apart. The first measured 60 cm x 40 cm (concentrated) with burnt clay dispersed in a wider area of approx. 2.5 x 1.5 m. The second hearth measured 12 cm x 25 cm. The third measured 30 cm x 20 cm. Site extent 30 x 100 m. 50% ground visibility.	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0198	PWF SUC 11			Artefact (multiple)	Artefact scatter (medium-density, approx. 50 quartz, silcrete and tuff flakes). Disturbance (ploughed fire-break) noted adjacent to site. Site adjacent to Eurolie Creek and TransGrid powerline access track. Site extent approx. 100 x 50 m. Creeping saltbush and grasses in surrounding area. 60% ground visibility.	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0197	PWF SUC 12			Artefact (isolated), Hearth	Isolated silcrete flake present in exposed red clay adjacent to Eurolie Creek. Hearth present on creek bank, measuring 90 cm x 50 cm (dispersed and partly exposed). Site extent approx. 100 x 50 m. 20% ground visibility across the site. Creeping saltbush and grasses in surrounding area.	



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0196	PWF SUC 13			Artefact (multiple), Hearth	<p>Medium density artefact scatter; approx. 20-50 artefacts. Silcrete, quartz and debitage. Two hearths present spaced approx. 13 m apart. Hearth 1 measured approx. 70 cm x 70 cm; partly exposed. Hearth 2 measured 100 cm x 50 cm. Site extent approx. 100 x 50 m. 40% ground visibility.</p> <p>A large tuff grinding dish was present at 34.813002°S, 145.050065°E (approx. 70 m north of the hearth features). It was present partly exposed in an area of red sand/clay. It measured 66 cm in length, 46 cm in width, 6 cm in depth (at thickest point). Two grooves were present on each face. The grooves on the front face (exposed when discovered) measured 47 cm x 15 cm and 46 x 12 cm. The grooves on the underside measured 48 cm x 16 cm and 47 cm x 16 cm. Following recording, the artefact was placed under a nearby tree by the RAPs for its protection at location 34.812998°S, 145.050264°E.</p>	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0195	PWF SUC 14			Modified Tree	North-facing, diamond shaped scar. It measured 90 cm in length, 23 cm in width (with regrowth width of 30 cm), 6 cm in depth, and 49 cm above ground. Diameter of tree was 60 cm. The scar was in fair condition. Tree in poor to fair condition; broken limbs. Black box eucalypt; approx. 15 m high.	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0194	PWF SUC 15			Modified Tree	<p>Two scars present. East-facing scar (oval) measured 50 cm in length, 16 cm in width, 3 cm in depth and 100 cm above ground.</p> <p>West-facing scar (elongated) measured 49 cm in length, 9 cm in width (with regrowth width of 15 cm), 4 cm depth and 89 cm above ground.</p> <p>Diameter of Tree was 75 cm. Poor to fair condition of scars. Dead tree.</p> <p>Black box eucalypt; approx. 10 m high.</p>	



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0193	PWF SUC 16			Modified Tree	North-west facing, elongated scar. It measured 145 cm in length, 30 cm in width (with regrowth width of 40 cm), 10 cm in depth, and 38 cm above ground. Diameter of Tree was 90 cm. Scar was in poor condition; deteriorated. Tree in fair condition. Black box eucalypt; approx. 20 m high.	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0192	PWF SUC 17			Modified Tree	South-facing elongated scar. It measured 55 cm in length, 14 cm in width (with regrowth width of 23 cm), 3 cm in depth and 120 cm above ground. Diameter of Tree was 60 cm. Scar was in poor to fair condition. Tree was in poor condition; termite damage noted. Black box eucalypt; approx. 15 m high.	 


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0191	PWF SUC 18			Modified Tree	Scar on dead tree. It measured 100 cm in length, 35 cm in width (with regrowth width of 40 cm), 8 cm in depth. Diameter of Tree: was 40 cm. Black box eucalypt.	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0190	PWF SUC 19			Modified Tree	North-facing, elongated scar. It measured 42 cm in length, 8 cm in width (with regrowth width of 18 cm), 10 cm in depth, and 50 cm above ground. Diameter of Tree was 50 cm. Scar was in fair condition. Tree in fair condition. Black box eucalypt; approx. 10-15 m high.	



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0208	PWF SUC 20			Modified Tree	Ring tree – two rings adjacent to each other; both measured 10 cm x 15 cm. Black box eucalypt; approx. 10-15 m high.	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0207	PWF SUC 21			Modified Tree	North-facing, oval scar (small shield/dish). It measured 50 cm in length, 11 cm in width (with regrowth width of 26 cm), 7 cm in depth, and 96 cm above ground. Diameter of Tree was 75 cm. Scar was in fair condition. Tree in fair condition. Black box eucalypt; approx. 20 m high. Second scar present on west-facing side of tree (likely natural).	 


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0206	PWF SUC 22			Artefact (multiple), Hearth	<p>Artefact scatter, low-density (1-5 quartz and silcrete flakes. Six hearths spaced approx. 40 m apart. Hearth 1: 150 cm x 100 cm. Hearth 2: 120 cm x 60 cm. Hearth 3: 120 cm x 100 cm. Hearth 4: 220 cm x 130 cm. Hearth 5: 400 cm x 33 cm. Hearth 6: 140 cm x 120 cm.</p> <p>Site extent approx. 50 x 100 m. 85% ground visibility.</p>	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0205	PWF SUC 23			Hearth	Two hearth features spaced approx. 5.5 m apart. Hearth 1: 90 cm x 70 cm. Hearth 2: 150 cm x 100 cm. High density of river pebbles with no particular artefactual features. Site extent approx. 20 x 20 m. 75% ground visibility.	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0595	PWF SUD 01			Modified Tree	<p>West facing elongated scar, measuring 160 cm in length, 32 cm in width, 8.5 cm regrowth depth and 35 cm above ground.</p> <p>The girth of the tree was 211 cm.</p> <p>Scar in moderate to poor condition.</p> <p>Tree in moderate condition. Eucalypt – red box approximately 10 m high.</p> <p>Noted by RAPs, these trees with thick, sturdy branches were climbed to reach hollows for possum hunting.</p>	 


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0594	PWF SUD 03			Modified Tree	<p>Two scars both west facing. Top scar (shield) measuring 60 cm in length, 18 cm in width, 6 cm regrowth depth and 320 cm above ground.</p> <p>The bottom scar (coolamon) measuring 65cm in length, 37cm in width, 8cm regrowth depth, and 180cm above ground.</p> <p>The girth of the tree was 170 cm.</p> <p>Scar in moderate condition. Tree in moderate condition. Eucalypt – red box approximately 10 m high.</p>	



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0593	PWF SUD 04			Modified Tree, PAD	<p>Multiple burnt clay pieces were identified within the site, and a series of large trees (varying between 8-12m in height) were within and surrounding the area.</p> <p>Low grasses, saltbush and African boxthorn were seen within and surrounding site. 70% ground visibility across site.</p> <p>Site extent is 500 x 180 m.</p> <p>CMT located in the centre of the site extent. The tree has collapsed, though features an elongated scar measuring 78 cm in length, 15 cm in width, and 4 cm in regrowth depth. Girth of tree is 35 cm. Scar was in poor condition; hollowed. Tree in poor condition; collapsed.</p>	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						 


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0597	PWF SUD 05			Modified Tree	<p>Two overgrown scars, noted on tree, one east facing and the other south-west facing. The east facing scar measures 87 cm in length, 30 cm in width, 22 cm regrowth depth and 110 cm above ground.</p> <p>The south-west facing scar measures 90 cm in length, 42 cm in width, 15 cm regrowth depth, and 5 above ground.</p> <p>The girth of the tree was 507 cm.</p> <p>Large African boxthorn at base of tree. Scar in moderate condition.</p> <p>Tree in moderate condition; dead collapsed branches. Eucalypt – yellow box approximately 15 m high.</p>	



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0610	PWF SUD 06			Modified Tree	<p>West facing scar, measuring 115 cm in length, 62 cm in width, 8 cm regrowth depth and 120 cm above ground.</p> <p>The girth of the tree was 230 cm.</p> <p>Scar in moderate to poor condition.</p> <p>Tree in moderate condition; dead collapsed branches. Eucalypt – yellow box approximately 11 m high.</p>	 


48-5-0609	PWF SUD 08			Modified Tree	<p>Elongated scar, measuring 83 cm in length, 23 cm in width, 6 cm regrowth depth and 155 cm above ground.</p> <p>The girth of the tree was 180 cm.</p> <p>Scar in poor condition; collapsed.</p> <p>Tree in poor condition; dead.</p> <p>Eucalypt approximately 8 m high.</p>	 
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AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0605	PWF SUD 09			Artefact (isolated)	<p>Isolated artefact (loose hearth stone/ burnt clay) found in cleared area of light sand.</p> <p>Crawling and other clumped grasses surrounding area, with low saltbush shrubs.</p> <p>Ground visibility 65%.</p>	 <p>The photograph is a composite of two images. The top image is a close-up of a soil profile showing a dark, irregularly shaped burnt clay artefact embedded in the earth. A black and white checkered scale bar is placed horizontally below the artefact for size reference. The bottom image is a wider shot of the same site, showing a cleared area of light-colored sand with sparse, low-lying vegetation. A person wearing a hat and dark clothing stands in the middle ground, and a white vehicle is parked in the background to the left, providing a sense of scale for the site.</p>



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0613	PWF SUD 10			Modified Tree	Natural ring tree, referred to as a spirit tree. Ring measured approximately 2-3m in length. Eucalypt – red box tree in good condition approximately 18m tall.	 


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0608	PWF SUD 11			Modified Tree	<p>South-facing scar, measuring 54 cm in length, 16 cm in width, 8 cm regrowth depth and 94 cm above ground.</p> <p>The girth at base of the tree was 330 cm. Scar in moderate to poor condition. Tree in moderate to poor condition. Eucalypt – red box approximately 12 m high.</p>	 


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0601	PWF SUD 12			Earth Mound, Hearth	<p>A hearth was identified on the earth mound, measuring 40 cm x 20 cm. Noted by RAPs the mound shows repetitive activity of hearth and fire pit features built on top of each other. Multiple hearth stones were also identified in the area.</p> <p>Site extent is 90 x 70 m, and the earth mound feature is 30 x 30m. There were low grasses and saltbush in the area. Ground visibility 40%.</p>	 <p>The photograph column contains three images. The top image is a close-up of a hearth on the ground, showing several stones and a black and white scale bar. The middle image is a close-up of a single hearth stone on the ground, also with a scale bar. The bottom image is a wider shot of the site, showing a dirt path, low vegetation, and several people in the background.</p>



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0602	PWF SUD 13			Modified Tree	<p>North-facing scar, measuring 190 cm in length, 58 cm in width, 3 cm regrowth depth and 105 cm above ground.</p> <p>The girth at base of the tree was 166 cm. Scar in moderate condition. Tree in moderate condition. Eucalypt – red box approximately 12 m high.</p> <p>Possible a canoe scar or used for a large dish.</p>	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0603	PWF SUD 14			Artefact (multiple), Hearth	<p>Low density artefact scatter, comprised of approximately 5-10 artefacts (silcrete core, burnt clay pieces/ hearth stones). Artefacts were found around the base of a tree. Site extent is 15 x 15m. The silcrete core shows evidence of working (bulb of percussion, 5 retouched flakes etc.) and may have possibly been used as a practice piece.</p> <p>A hearth was identified, measuring 20 cm x 20cm.</p> <p>Low grasses and saltbush in surrounding area. Ground visibility is 75%.</p>	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						 



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0604	PWF SUD 16			Hearth	<p>Multiple hearths were identified around the base of a tree. Hearth 1 measured 30 cm x 20 cm; approximately 10 m south was Hearth 2 and measured 30 cm x 20 cm; 30 cm x 15 cm and Hearth 3 was 2 m east of Hearth 2 and measured 50 cm x 40 cm.</p> <p>The ground visibility of the site was approximately 75%; vegetation comprised saltbush and crawling grasses.</p>	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0612	PWF SUD 18			Modified Tree	<p>South-west facing scar, measuring 121 cm in length, 24 cm in width, 9 cm regrowth depth and scar extends to ground.</p> <p>The girth of the tree was 192 cm.</p> <p>Scar in moderate condition. Tree in good condition. Cypress pine approximately 15 m high.</p>	 



48-5-0607	PWF SUD 19			Modified Tree	<p>North-west facing scar, measuring 118 cm in length, 21 cm in width, 3 cm regrowth depth and scar extends to ground.</p> <p>Possible metal axe mark at top of scar.</p> <p>The girth of the tree was 166 cm.</p> <p>Scar in moderate condition. Tree in moderate condition. Cypress pine approximately 14 m high.</p>	 
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AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0606	PWF SUD 20			Modified Tree	<p>East facing scar, measuring 110 cm in length, 13 cm in width, 3 cm regrowth depth and scar extends to ground.</p> <p>The girth of the tree was 166 cm.</p> <p>Scar in moderate condition. Tree in moderate condition. Cypress pine approximately 12 m high.</p> <p>Paterson's curse and saltbush in surrounding area.</p>	 


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0599	PWF SUE 01			Artefact (isolated)	Isolated artefact (small quartz flake) found in a cleared area of red sand, approximately 40m east of a paleochannel. Crawling grasses surrounding site. Ground visibility 90%.	



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0600	PWF SUE 02			Modified Tree	<p>Elongated scar, measuring 110 cm in length, 18 cm in width, 6 cm regrowth depth and 3 cm above ground. Noted by RAPs a stone tool was likely used to cut scar. The girth of the tree was 157 cm. Scar in good condition. Tree in good condition. Cypress pine approximately 10 m high.</p>	 


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0596	PWF SUE 03			Modified Tree	<p>West facing elongated scar, measuring 150 cm in length, 32 cm in width, 6.5 cm regrowth depth and scar extends to ground.</p> <p>The girth of the tree was 173 cm.</p> <p>Scar in poor condition. Tree in poor condition; dead, tree branches debris at base, collapsed tree. Cypress pine approximately 2.5 m high.</p>	 


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0591	PWF SUE 04			Modified Tree	<p>South facing elongated scar, measuring 100 cm in length, 20 cm in width, 9 cm regrowth depth and 15 cm above ground.</p> <p>The girth of the tree was 165 cm.</p> <p>Scar in moderate to poor condition; mould, root rot. Tree in good condition. Cypress pine approximately 16 m high.</p>	 


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0592	PWF SUE 05			Modified Tree	<p>South-east facing rectangular scar, measuring 95 cm in length, 45 cm in width, 8 cm regrowth depth and 60 cm above ground. Site was found within a paleochannel.</p> <p>The girth of the tree was 186 cm.</p> <p>Scar in moderate condition. Tree in moderate condition. Eucalypt – yellow box approximately 9m high.</p> <p>It was indicated by RAPs that rectangular scars were often used for burials.</p>	



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0598	PWF SUE 06			Modified Tree	<p>South-west facing elongated scar, measuring 80 cm in length, 17 cm in width, 12 cm regrowth depth and 15 cm above ground. Site was found within a paleochannel.</p> <p>The girth of the tree was 221 cm. Scar in good condition. Tree in good condition. Eucalypt – yellow box approximately 11m high.</p>	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0638	PWF SUG 01			Artefact (multiple), PAD	<p>Large PAD; obvious elevation in landscape (approx. 0.5 – 1 m). Dense grasses in broader area. Exposed areas of eroded red clays and sands across site. Artefacts present in exposed areas, comprised of three flakes; silcrete, quartzite and quartz. One grinding stone piece.</p> <p>Ground visibility 75%.</p> <p>Site extent 150 m x 150 m.</p>	 


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0637	PWF SUG 02			Artefact (multiple), PAD	<p>Low density-artefact scatter (2 artefacts). Grinding stone piece and high-density sediment flake. Located in exposed red clay pan. Site located adjacent to access track. Elevated vegetation surrounding; landform indicates PAD.</p> <p>Ground visibility 80%.</p> <p>Site extent approx. 180 x 95 m</p>	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0639	PWF SUG 03			Artefact (multiple)	<p>Low density-artefact scatter (2 artefacts). Grinding stone piece and silcrete flake. Located in exposed red clay pan. Site located adjacent to access track.</p> <p>Ground visibility 75%.</p> <p>Site extent approx. 75 x 75 m.</p>	



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0636	PWF SUG 04			Artefact (multiple), PAD	<p>Medium density artefact scatter (approx. 10-15 artefacts). Silcrete, quartz and green stone flakes. Grey silcrete likely traded from Paroo Darling system; red silcrete likely traded from Griffith region. Located in exposed red clay pan. Elevated vegetation surrounding; landform indicates PAD.</p> <p>Ground visibility approx. 80%. Site extent approx. 150 x 150 m.</p>	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0304	PWF SUG 05			Artefact (multiple), PAD	Medium density artefact scatter (approx. 10-15 artefacts). Silcrete, quartz and tuff flakes. Slightly elevated landform. Artefacts located in exposed red clay pan. Site located adjacent to irrigation channel. Ground visibility 75%. Site extent approx. 280 x 180 m.	 




AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0303	PWF SUG 06			Artefact (multiple), PAD	<p>Medium density artefact scatter (approx. 15 artefacts), comprised of silcrete and quartz flakes, and a silcrete core. Artefacts present in area of exposed light grey clay / sand.</p> <p>Site adjacent to lunette; landform indicates a PAD (close to former water source).</p> <p>Site also located adjacent to dam; evidence of historic disturbance including rusty shearer's bed, feed trough and wool hooks.</p> <p>Ground visibility 90%.</p> <p>Site extent approx. 85 x 85 m.</p>	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0302	PWF SUG 07			Artefact (multiple), PAD	Low density artefact scatter (approx. 5 artefacts), comprised of quartz flakes. Artefacts present in area of exposed red clay pan. Site adjacent to lunette; landform indicates a PAD (close to former water source). Ground visibility 85% Site extent approx. 300 x 93 m.	 



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0635	PWF SUG 08			Artefact (multiple), PAD, Hearth	<p>Eight hearths located approx. 350 m apart. Hearth 1 measured 1 x 1m; Hearth 2 measured 2.5 x 2 m; Hearth 3 measured 0.8 x 0.5 m; Hearth 4 measured 20 x 20 cm; Hearth 5 measured 0.5 x 0.5 m; Hearth 6 measured 1.3 x 1 m; Hearth 7 measured 0.6 x 0.6 m; Hearth 8 measured 0.8 x 0.5 m.</p> <p>Majority of hearths located on red sand exposed on access track. Elevated vegetation in surrounding area; landform indicates PAD.</p> <p>Artefacts present surrounding hearths and in wider area; silcrete, quartz, crystal quartz flakes (approx. 10-15). Ground visibility 70%</p> <p>Site extent approx. 2.2 km x 700 m. Overlaps sites PWF SUG 09 and 10</p>	




AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0634	PWF SUG 09			Artefact (multiple), PAD, Hearth	<p>Site located on rise (sand hill) in close proximity to previous water source (former lake system). High density artefact scatter (approx. 100 artefacts). Silcrete, quartz and basalt flakes. Grinding stones, and sandstone grinding dish fragments. Historic disturbances evident across site; dam, concrete pipe fragments, and timber fence post remnants. Ten hearths across site (spaced approx. 400 m apart; cluster of 6 in central portion of site approx. 100 m east of access track, and cluster of 4 in southern portion approx. 60 m south of access track). Hearth 1: 0.6 x 0.9 m. Hearth 2: 1.5 x 1.5 m. Hearth 3: 1.5 x 1 m. Hearth 4: 1.3 x 1 m. Hearth 5: 0.7 x 0.5 m. Hearth 6: 0.4 x 0.5 m. Hearth 7: 100 x 50cm. Hearth 8 (partially exposed): 130 x 40cm. Hearth 9: 130 x 60cm. Hearth 10: 90 x 30cm. Ground visibility 25% Site extent approx. 1 km x 800 m. Overlaps sites PWF SUG 08 and 10.</p>	  



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0633	PWF SUG 10			Artefact (multiple), PAD, Hearth	<p>Site located on rise (sand hill). Nine hearths present (spaced approx. 350 m apart). Hearths and artefacts eroding out of elevated vegetation; most were concentrated, circular.</p> <p>Hearth 1: 1.2 x 0.8 m. Hearth 2: 1.2 x 0.9 m. Hearth 3: 0.6 x 0.4 m. Hearth 4: 0.9 x 0.8 m. Hearth 5: 1.3 x 1 m. Hearth 6: 0.6 x 0.8 m. Hearth 8: 1.2 x 1.2 m. Hearth 9: 1.8 x 1 m. Medium density artefact scatter. Silcrete and quartz flakes (approx. 10). Large grinding dish piece. Ground visibility 25%</p> <p>Site extent approx. 2.1 km x 650 m. Overlaps sites PWF SUG 08 and 09.</p>	



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0629	PWF SUG 11			Hearth	Concentrated circular hearth present in area of exposed red sand. Measured 0.6 x 0.5 m. Ground visibility 100%	 


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0632	PWF SUG 12			Artefact (multiple)	<p>Low density artefact scatter (approx. 3-5 artefacts). Comprised of silcrete flakes located in area of exposed red sand.</p> <p>Ground visibility 90%.</p> <p>Site extent approx. 90 x 90 m.</p>	 
48-5-0631	PWF SUG 13			Artefact (multiple), Hearth	<p>Low density artefact scatter (approx. 5-10 artefacts). Comprised of silcrete and quartz flakes.</p> <p>Two hearths present (spaced approx. 50 m apart). Hearth 1 measured 1.2 x 1 m. Hearth 2 measured 0.8 x 0.9 m.</p> <p>Site present in close proximity to shearing shed.</p> <p>Ground visibility 80%</p> <p>Site extent approx. 200 x 125 m.</p>	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						 


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0630	PWF SUG 14			Artefact (isolated)	Isolated chert flake (distal flake). Located adjacent to former lake system. Ground visibility 95%.	



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0296	PWF SUG 15			Artefact (multiple), PAD, Hearth	<p>Site in cleared area of red sands, with low grasses. Elevated vegetation in surrounding area; landform indicates PAD.</p> <p>Low density artefact scatter comprised of one chert flake and multiple isolated hearth stones.</p> <p>Two Hearths present (approx. 1 m apart); Hearth 1 measured 188 x 45 cm. Hearth 2 measured 130 x 90 cm. RAPs noted one fire used for warming the other for cooking.</p> <p>Ground visibility 70%</p> <p>Site extent 90 x 75 m.</p>	 


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0298	PWF SUG 16			Artefact (multiple)	<p>Site identified in cleared area of red sands, with low grasses. Medium density artefact scatter (approx. 15-20 artefacts). Comprised of heated clay pieces, quartz and silcrete flakes, basalt flakes, and an unidentified cobble stone, possibly used for sharpening.</p> <p>Multiple isolated hearth stones, and a grinding stone (silcrete or quartzite) that measured 18 cm length, 13 cm width, and 4 cm depth.</p> <p>Noted by RAPs as a highly active site.</p> <p>Ground visibility 80%</p> <p>Site extent: 50 x 80 m</p>	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0299	PWF SUG 17			Artefact (multiple)	Low density artefact scatter, found in small, cleared area of red sands. Two isolated quartz flakes, and one possible river cobble. Ground visibility 65%	



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0297	PWF SUG 18			Artefact (multiple)	Site located near irrigation channel in red sands. Low density artefact scatter comprised of silcrete debitage and quartz raw material. Ground visibility 75% Site extent: 120m x 90m	



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0626	PWF SUG 19			Artefact (multiple)	<p>Low density artefact scatter (approx. 5-10 artefacts), found in densely vegetated area with small, cleared areas of red sand. Scatter comprised of quartz and silcrete flakes.</p> <p>Ground visibility 10%</p> <p>Site extent: 60m x 55m</p>	 


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0295	PWF SUG 20			Artefact (multiple), PAD, Hearth	<p>Medium density artefact scatter (approx. 30-40 artefacts), within red sands and crawling grasses and cotton bush. Some features have eroded to surface, some features are partially exposed; landform indicate PAD.</p> <p>Scatter comprised of quartz debitage, silcrete and quartz flakes, quartz core, banded silcrete flake, heat treated silcrete flake, ironstone piece, and a minimum 12 hearth stones.</p> <p>At least two Hearths; Hearth 1 measured 90 x 80cm. Hearth 2 (partially exposed) measured 80 x 70 cm.</p> <p>Noted by RAPs site was a highly active campsite, that would extend beyond visibility.</p> <p>Ground visibility 75%</p> <p>Site extent: 650m x 380m</p>	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-6-0294	PWF SUG 21			Artefact (multiple)	<p>Site found within a high potential area, with cleared areas of red sands amongst dense vegetation overgrowth. Low density artefact scatter, comprised of quartz and silcrete debitage, and a striated raw material.</p> <p>Ground visibility 45%</p> <p>Site extent: 60m x 40m</p>	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
54-3-0075	PWF SUG 22			Artefact (isolated), Hearth	Site found in cleared area of red sands near the irrigation channel. Isolated clear crystal quartz, and a Hearth that measured 73 x 88 cm. Ground visibility 70%	 




AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
54-3-0074	PWF SUG 23			PAD, Artefact (multiple)	<p>Low density artefact scatter (approx. 5 artefacts), located near raised paleochannel landform with red soils; indicated PAD. Comprised of quartz and basalt flakes.</p> <p>Ground visibility 65%</p> <p>Site extent: 530 x 240 m</p>	 

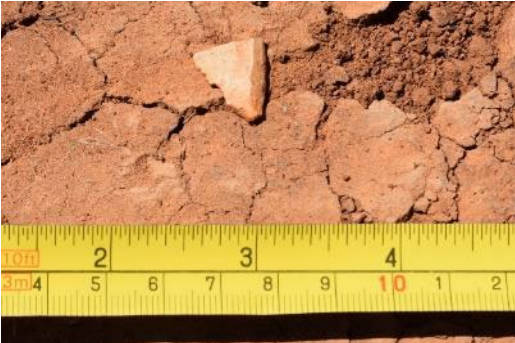


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
54-3-0073	PWF SUG 24			Hearth	<p>Site found in exposed area of red sands surrounded by low grasses. Hearth measured 113 x 70 cm. Overlaps with site PWF SUG 23 Ground visibility 65%</p>	



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0625	PWF SUG 25			Artefact (multiple)	<p>Low density artefact scatter (approx. 8 artefacts), located near paleochannel in red sands. Comprised of scattered hearth stones, quartz flakes, and fine grained silcrete flake with cortex.</p> <p>Ground visibility 75%</p> <p>Site extent: 185m x 100m</p>	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
54-2-0269	PWF SUG 26			Artefact (isolated)	Isolated artefact (silcrete flake), found in cleared area of red sands near access track. Ground visibility 70%.	 




AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
54-2-0268	PWF SUG 27			Artefact (multiple), Hearth	<p>Low density artefact scatter (approx. 3 artefacts) found in red sands, comprised of quartz debitage. Slowly eroded away to reveal, scattered hearths. At least two Hearths. Hearth 1 measured 113 x 85 cm. Hearth 2 (partially exposed) measured 28 x 30 cm.</p> <p>Ground visibility 60%</p> <p>Site extent: 55m x 30m</p>	




AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0623	PWF SUG 28			Artefact (multiple)	<p>Low density artefact scatter, within cleared area of red sands. Comprised of 4 silcrete flakes, and a large raw material piece.</p> <p>Ground visibility 65%</p> <p>Site extent: 120m x 85m</p>	  



AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0624	PWF SUG 29			Artefact (isolated)	Isolated artefact (silcrete flake), found in cleared area of red sands. Crawling grasses surrounding area. Ground visibility 60%.	 
48-5-0622	PWF SUG 30			Artefact (multiple), PAD, Hearth	<p>Low density artefact scatter (approx. 5-10 artefacts), comprised of isolated hearth stones scattered throughout site, and silcrete flakes. Elevated vegetation in surrounding area; landform indicates PAD. Several hearths located throughout site. Hearth 1 measured 80 x 90 cm, Hearth 2 (partially exposed) 30 x 40 cm, Hearth 3 (partially exposed) 35 x 40 cm.</p> <p>Ground visibility 70% Site extent: 150m x 100m</p>	


AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						
48-5-0621	PWF SUG 31			Artefact (multiple), PAD, Hearth	<p>Site located in red sands on a rise, with a partially exposed hearth (measured 1 x 0.5m). Low density artefact scatter comprised of silcrete and quartz flakes.</p> <p>Adjacent to PWF SUG 08 Ground visibility 60% Site extent: 210m x 90m</p>	

AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						

AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
54-2-0267	PWF SUG 32			Artefact (multiple), PAD, Hearth	<p>Large site near paleochannels and former lake systems, site comprised of scattered hearth stones and several undisturbed hearths throughout the site. One larger Hearth in the centre (measured approximately 4 x 6m) and other hearths surrounding it. Some Hearth's partially exposed. Elevated vegetation surrounding; landform indicates PAD</p> <p>RAPs noted the site has hundreds to thousands of years' worth of hearth activity, camp site.</p> <p>Ground visibility 60%</p> <p>Site extent: 165m x 155m</p>	 
48-5-0620	PWF SUG 33			Artefact (isolated)	<p>Isolated artefact (silcrete flake), possible broken blade found in small, cleared area of red sand.</p> <p>Crawling and other clumped grasses surrounding area.</p> <p>Ground visibility 45%.</p>	

AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						
48-5-0627	PWF SUG 34			Artefact (isolated)	Isolated artefact (coarse grain silcrete flake) found in small, cleared area of red sand. Crawling and other clumped grasses surrounding area, with low saltbush shrubs. Ground visibility 50%.	 

AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
48-5-0614	PWF SUG 35			Artefact (isolated)	<p>Isolated artefact (burnt clay/ hearth stone), found in a ploughed area and not left <i>in situ</i>. Found approximately 20m east of Coleambally Fallout drain.</p> <p>Saltbush and clumped grasses surrounding site.</p> <p>Ground visibility 35%.</p>	
48-5-0628	PWF SUH 01			Modified Tree	<p>Overgrown elongated scar, measuring 40 cm in length, 5 cm in width, 45 cm regrowth depth and 90 cm above ground. Site was found near Wargam Creek.</p> <p>The girth of the tree was 64 cm.</p> <p>Scar in fair condition (overgrown).</p> <p>Tree in good condition. Black box approximately 15-20 m high.</p>	

AHIMS Site ID	Name	Easting	Northing	Site Type	Notes	Photograph
						



## APPENDIX K

## DETAIL OF NEWLY RECORDED SITES TO BE DIRECTLY IMPACTED

< redacted for public exhibition >



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