



Paling Yards Wind Farm

Aboriginal Cultural Heritage Assessment Report



25 November 2022

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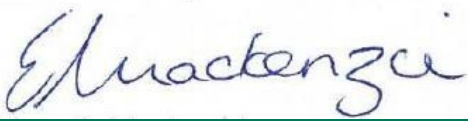
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Signature Page

25 November 2022

Paling Yards Wind Farm

Aboriginal Cultural Heritage Assessment Report



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Environmental Resources Management Australia Pty Ltd would like to acknowledge the Traditional Custodians of the land on which this assessment took place, and pay respects to their belief, cultural heritage, and continuing connection to country. We also acknowledge and pay respects to the Elders of this region, past and present, as knowledge keepers, teachers and leaders.

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Acronyms and Abbreviations

Name	Description
ACHAR	Aboriginal Cultural Heritage Assessment Report
ASIRF	Archaeological Site Impact Recording Form
Aboriginal Object	(as defined in the NPW Act) Any deposit, object or material evidence (not being handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales (NSW), being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains
Aboriginal Place	(as defined in the NPW Act) A place declared under s.84 of the NPW Act that, in the opinion of the Minister, is or was of special significance to Aboriginal culture.
AHC	Australian Heritage Commission
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit
Burra Charter	The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance
CEMP	Construction Environment Management Plan
CHL	Commonwealth Heritage List
CHMP	Cultural Heritage Management Plan
DECCW	Department of Environment, Climate Change and Water (former) NSW
disturbed land or land already previously disturbed by activity	Land is disturbed if it has been the subject of a human activity that has changed the land's surface -being changes that remain clear and observable.
EMS	Environment Management Strategy
EP&A Act	NSW Environmental Planning and Assessment Act 1979
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
ERM	Environmental Resources Management Australia Pty Ltd
EWMS	Environment Work Method Statement
GPG	Global Power Generation Australia Pty Ltd
GSV	Ground Surface Visibility
'harm' an Aboriginal object	(as defined in the NPW Act) To destroy, deface, damage an object, move an object from the land on which it is situated, or cause or permit an object to be harmed.
Heritage Act	NSW Heritage Act 1977
LEP	Local Environmental Plan
LGA	Local Government Area
NPW Act	NSW National Parks and Wildlife Act 1974
NPW Regulation	NSW National Parks and Wildlife Regulation 2009
OEH (former)	Office of Environment and Heritage (former) NSW
PAD	Potential Archaeological Deposit
PLALC	Pejar Local Aboriginal Land Council
Project Area	The land subject to investigation in this report
PYWF	Paling Yards Wind Farm
SEARs	Secretary's Environmental Assessment Requirements
SHR	State Heritage Register
SSD	State Significant Development
SU	Survey Unit
The Project	The Proposed Development

EXECUTIVE SUMMARY

Environmental Resources Management Australia Pty Ltd was commissioned by Global Power Generation Australia to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) for the site of the proposed Paling Yards Wind Farm (PYWF). The proposed PYWF is located in Paling Yards, NSW, approximately 60 km south of Oberon. The Project Area encompasses approximately 4,600 hectares of land. The proposed PYWF will include 47 wind turbines, and associated infrastructure, include access tracks, transmission lines, an electrical substation and weather monitoring masts. It is expected that construction of the PYWF would commence in early 2023 and continue for a period of approximately two years. The expected operational life of the PYWF is 30 years.

This ACHAR examines Aboriginal heritage values within the Project Area. This report has been prepared in accordance with the following guidelines:

- *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010a);
- *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010b);
- *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (OEH, 2011); and
- *The Australia International Council on Monuments and Sites, Charter for Places of Cultural Significance* (also known as the Burra Charter, Australia ICOMOS 2013).

Preparation of this report include:

- 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 survey of multiple iterations of the Development Footprint (consisting of a 25 m buffer either side of proposed linear infrastructure, and a 100 m buffer on proposed turbine locations);
- assessment of heritage significance;
- impact assessment; and
- preparation of management and mitigation recommendations.

The Paling Yards Wind Farm Project Area has been subject to two previous Aboriginal cultural heritage assessments, undertaken in 2005 and 2013. The 2005 assessment identified 14 Aboriginal sites, while the 2013 assessment identified a further eight sites.

Field survey undertaken for the current assessment including survey of multiple iterations of the Development Footprint. The survey examined the location of the previously identified sites that were within, or in close proximity to, the proposed Development Footprint. Additionally, the field survey aimed to identify any additional Aboriginal archaeological material that may be present within the survey area. The field survey was unable to identify any of the objects recorded during the 2005 or 2013 surveys; however, 17 new sites were recorded. Of these, two are in close proximity to previously recorded sites.

In addition to the sites, the field survey has identified a number of areas of archaeological sensitivity that are not considered to represent areas of Potential Archaeological Deposit (PAD). Rather, they indicate areas of higher potential for ex-situ cultural heritage material to be present (and an increased risk of 'harm' to cultural material).

The conclusions of this report can be summarised as:

- Aboriginal heritage sites have been located within the Project Area;

- a total of 28 sites are located within the survey area and have been assessed by the current report. Of those sites, a total of 13 sites have been assessed to be subject to direct or indirect impact as part of the Project.
- five surface artefact sites have been assessed to contain associated areas of artefact deposit;
- areas of archaeological sensitivity which are indicative of areas which may include ex-situ deposition of artefacts have also been identified surrounding the delineated extents of the identified artefact deposits and at other identified sites within the Development Footprint;
- a total of 12 sites would be subject to direct impacts associated with the Project.
- one site (PYWF 2021-11) is located within the Development Footprint but does not directly overlap with proposed infrastructure. Assessment has identified that this site may be subject to indirect impacts as part of works.

Proposed measures to manage and mitigate impacts to identified sites is summarised below.

Management Measures	Relevant sites/ Locations
<p>Cultural Awareness Induction Prior to construction an Environmental Work Method Statement or Constructional Environmental Management Plan should be developed to ensure all onsite personnel are aware of their obligations in relation to Aboriginal Heritage</p>	<ul style="list-style-type: none"> ■ All
<p>Surface Collection Prior to commencement of ground disturbing activities, the RAPs should be provided the opportunity to attend site and collect all surface artefacts from all registered sites within the Development Footprint</p>	<ul style="list-style-type: none"> ■ PYWF A7 (AHIMS # 51-3-0037) ■ PYWF A10 (AHIMS # 51-3-0040) ■ PYWF A11 (AHIMS # 51-3-0041) ■ Paling Yard 8 (AHIMS # 51-3-0058) ■ PYWF 2021-10 (AHIMS # 51-3-0080) ■ PYWF 2021-11 (AHIMS # 51-3-0081) ■ PYWF 2021-12 (AHIMS # 51-3-0082) ■ PYWF 2021-13 (AHIMS # 51-3-0087) ■ PYWF22_AS2 (AHIMS # 51-3-0085) ■ PYWF22_AS1 (AHIMS # 51-3-0084) ■ PYWF A1 (AHIMS # 51-3-0031) ■ PYWF A4 (AHIMS # 51-3-0034) ■ PYWF A6 (AHIMS # 51-3-0036)
<p>Staged Salvage Excavation Prior to construction, a staged salvage excavation of each Artefact site with an identified subsurface deposit should be undertaken. Salvage investigation would be guided by the development of an Archaeological Method Statement for each area to be subject to salvage in consultation with the RAPs</p>	<ul style="list-style-type: none"> ■ PYWF A4 (AHIMS # 51-3-0034) ■ PYWF22_AS2 (AHIMS # 51-3-0085) ■ Paling Yard 8 (AHIMS # 51-3-0058) ■ PYWF A11 (AHIMS # 51-3-0041) ■ PYWF A1 (AHIMS # 51-3-0031) ■ PYWF A7 (AHIMS # 51-3-0037)
<p>Archaeological Monitoring Archaeological monitoring would be undertaken across areas of High and Moderate archaeological sensitivity during preliminary earthworks.</p>	<ul style="list-style-type: none"> ■ Areas of High and Moderate Archaeological Sensitivity
<p>Chance Finds Procedure During construction areas of low archaeological sensitivity would be subject to a chance finds procedure.</p>	<ul style="list-style-type: none"> ■ Areas of Low Archaeological Sensitivity

Management Measures	Relevant sites/ Locations
<p>Cultural Heritage Management Plan A Cultural Heritage Management Plan should be developed for the site prior to commencement of construction. The Plan would outline management and mitigation protocols for each site including proposed salvage excavation and chance finds protocols.</p>	<ul style="list-style-type: none">■ All sites
<p>Repatriation of Archaeological Material Following completion of construction work, archaeological material salvaged from the Project Area would be repatriated to a designated location across the Project Area. The proposed repatriation location would be developed in consultation with the RAPs</p>	<ul style="list-style-type: none">■ All sites

1. INTRODUCTION

Environmental Resources Management Australia Pty Ltd (ERM) was commissioned by Global Power Generation Australia (GPG, or 'the Proponent'), to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) for the site of the proposed Paling Yards Wind Farm (PYWF) ('the Project').

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;
- present historical and environmental contextual data to aid in the development of an archaeological predictive model;
- 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 heritage resources.

1.2 Site Location

The proposed PYWF is located in Paling Yards, NSW, approximately 60 km south of Oberon. The Project Area is within the Oberon Local Government Area (LGA), and within the boundaries of the Pejar Local Aboriginal Council (PLALC). The location of the Project is shown in *Figure 1.1*.

The Project Area is approximately 4,600 hectares, encompassing the following land parcels:

DP	Allotment
753019	Lots 1, 2, 3, 4, 30, 31 and 32
753037	Lot 1, 2, 5, 6, 7, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 26, 27, 28, 34, 36, 39, 40, 41, 42, 43, 44, 45, 46, 48, 49, 53 and 67
753064	Lots 2, 41, 56 and 67
1025920	Lots 2 and 41
257010	Lot 13
621232	Lot 51
1068141	Lot 7005
1068142	Lot 7002

In addition, associated infrastructure, including transmission lines, will be constructed on the following allotments:

DP	Allotment
753037	Lots 2, 5, 16, and 40
753064	Lots 56 and 67

1.3 Terminology

The Project Area incorporates the full extent of the land parcels which are proposed to be utilised in some capacity by the Project. Based on the linear and localised nature of the development, the Project Area is substantially larger than the Development Footprint.

Survey of the Project Area was limited to lands within the Project's Development Footprint as delineated by a 100m buffer on proposed turbines and 25m buffer on linear infrastructure. As the Development Footprint was refined throughout the assessment process, the area subject to survey reflects a larger area than will be subject to works as part of the final development.

The combined areas subject to survey is referred to as the 'survey area' throughout this report. The 'Development Footprint' is limited to the portions of the Project Area which was proposed for development as of the finalisation of this report.

1.4 Description of the Proposed Development

The proposed PYWF will include the following elements:

- up to 47 wind turbines with a maximum height of 240 m;
- up to 3 wind monitoring masts fitted with associated instruments;
- on-site electrical substations within approximately 9km of overhead power line; and
- control room, maintenance buildings, switchgear and associated control systems in the vicinity of the wind turbine towers.
- preparation and construction of internal roads to turbine and substation locations;
- temporary laydown and batching plants during construction; and
- removal of native vegetation and additional vegetation planting to provide screening (if required)

It is expected that construction of the PYWF would commence in 2023 and continue for a period of approximately two years. The expected operational life of the PYWF is 30 years.

The proposed layout of the Project is provided in *Figure 1.2*.

1.5 Methodology

This ACHAR examines Aboriginal heritage values within the Project Area. This report has been prepared in accordance with the following guidelines:

- *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010a);
- *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); and
- *The Australia International Council on Monuments and Sites, Charter for Places of Cultural Significance* (also known as the Burra Charter, Australia ICOMOS 2013).

Preparation of this report include:

- 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 survey of multiple iterations of the Development Footprint (consisting of a 25 m buffer either side of proposed linear infrastructure, and a 100 m buffer on proposed turbine locations (hereafter referred to as the survey area);
- assessment of heritage significance;
- impact assessment; and
- preparation of management and mitigation recommendations.

1.6 Secretary’s Environmental Assessment Requirements (SEARs)

The SEARs (SSD 29064077) for the Project were issued on 9 March 2022. The requirements of the SEARS and where they are addressed in this report are outlined in Table 1.1.

Table 1.1 Secretary’s Environmental Assessment Requirements (SEARs)

Requirement	Where addressed
An assessment of the impact to Aboriginal cultural heritage items (archaeological and cultural) in accordance with the Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH, 2011) and the Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW (DECCW, 2010), including results of test excavations (if required);	This 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 Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010); and	Section 0 and Appendices

1.7 Authorship

Table 1.2 below provides an overview of the ERM Staff involved in the preparation of this report, and their relevant qualifications.

Table 1.2 Authorship and Relevant Qualifications

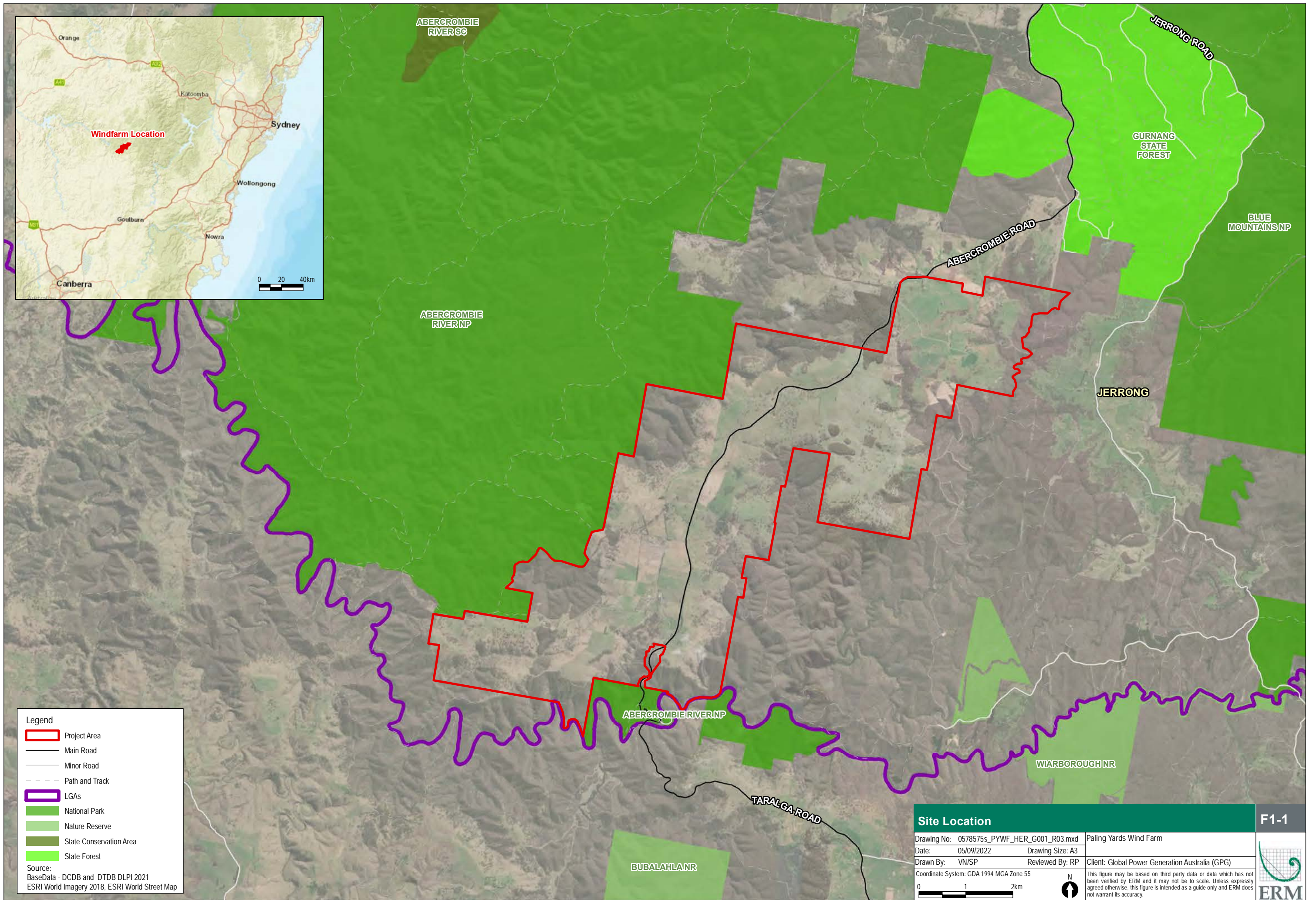
Name	Title	Role	Relevant Qualifications
Stephanie Moore	Heritage Consultant	Primary Author	Bachelor of Arts (Honours) (Archaeology and Palaeoanthropology), University of New England, 2014 Master of Heritage Conservation, University of Sydney, 2019 Eight years professional experience
Alyce Haast	Senior Heritage Consultant	Author	Bachelor of Science (Archaeology), University of Western Australia, 2012 Master of Professional Archaeology, University of Western Australia, 2014 Eight years professional experience
Erin Finnegan	Principal Heritage Consultant	Technical Review	Bachelor of Arts (Cultural Anthropology), Macalester, 1998 Post Graduate Diploma – Museum and Heritage Studies, University of Cape Town 2003 Master of Philosophy (Archaeology), University of Cape Town, 2006 18 years professional experience

Name	Title	Role	Relevant Qualifications
Elsbeth Mackenzie	Principal Heritage Consultant	Project Manager	Bachelor of Arts (Hons) Anthropology & Archaeology. University of Queensland, Australia, 2002 Graduate Diploma of Museum Studies. Deakin University, Australia, 2003. Master of Cultural Heritage. Deakin University, Australia, 2005. 18 years professional experience
Karie Bradfield	Partner	Quality Assurance Review	Bachelor of Engineering (Chemical), University of Sydney, Australia, 1998

1.8 Acknowledgements

ERM would like to thank the following people for their assistance during the preparation of this report:

- Delise Freeman and Chris McAlister, Pejar Local Aboriginal Land Council;
- [Name removed at stakeholder request];
- [Name removed at stakeholder request]; and
- Paul Boyd, Lily Carroll and Debra Charman, Didge Ngunawal Clan.

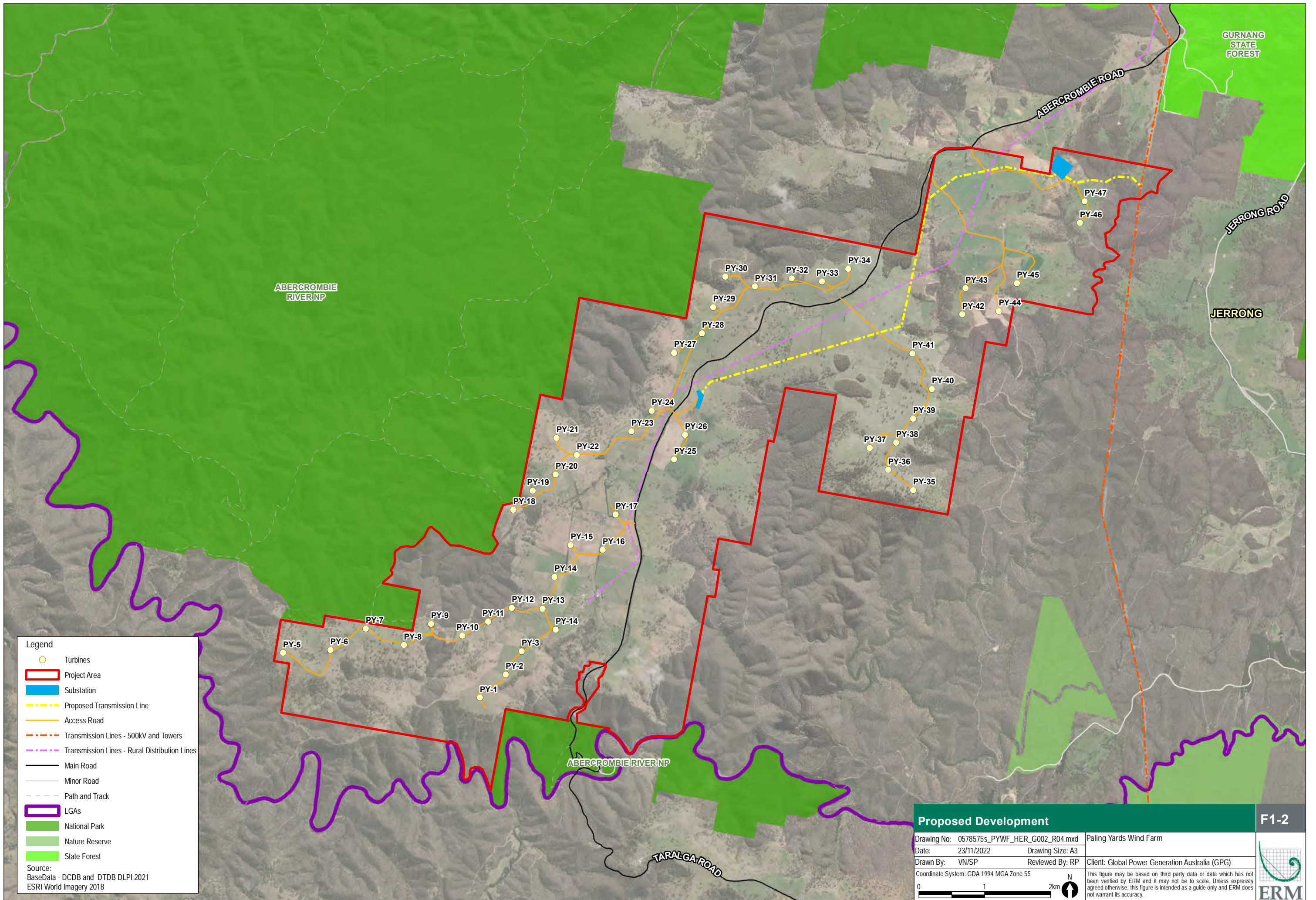


Legend

- Project Area
- Main Road
- Minor Road
- Path and Track
- LGAs
- National Park
- Nature Reserve
- State Conservation Area
- State Forest

Source:
 BaseData - DCDB and DTDB DLPI 2021
 ESRI World Imagery 2018, ESRI World Street Map

Site Location		F1-1
Drawing No: 0578575s_PYWF_HER_G001_R03.mxd	Paling Yards Wind Farm	 <small>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.</small>
Date: 05/09/2022	Drawing Size: A3	
Drawn By: VN/SP	Reviewed By: RP	
Client: Global Power Generation Australia (GPG)		
Coordinate System: GDA 1994 MGA Zone 55		
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Legend

- Turbines
- Project Area
- Substation
- Proposed Transmission Line
- Access Road
- Transmission Lines - 500kV and Towers
- Transmission Lines - Rural Distribution Lines
- Main Road
- Minor Road
- Path and Track
- LGAs
- National Park
- Nature Reserve
- State Forest

Source:
 BaseData - DCDB and DTDB DLPI 2021
 ESRI World Imagery 2018

Proposed Development		F1-2
Drawing No: 0578575s_PYWF_HER_G002_R04.mxd	Paling Yards Wind Farm	
Date: 23/11/2022	Drawing Size: A3	
Drawn By: VN/SP	Reviewed By: RP	
Coordinate System: GDA 1994 MGA Zone 55		Client: Global Power Generation Australia (GPG)
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2. LEGISLATION AND GUIDELINES

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. A number of 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).

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). These values are not currently protected under the *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

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

2.2.1 *NSW Environmental Planning and Assessment Act 1979*

The *Environmental Planning and Assessment Act 1979* (EP&A Act) requires that environmental impacts are considered in land use planning, including impacts on Aboriginal and non-Aboriginal heritage. Various planning instruments prepared under the Act identify permissible land use and development constraints.

2.2.1.1 *State Significant Development*

This Project has been designated as a State Significant Development (SSD 29064077) under Section 4.12 (8) of the EP&A Act. A development application for a State Significant Development must be accompanied by an Environmental Impact Statement (EIS) prepared in the form prescribed by the regulations. To guide the preparation of an EIS the Department of Planning and Environment issues the Secretaries Environmental Assessment Requirements (SEARs) which guides the level of assessment required to support development of the Project EIS.

The SEARs (SSD 29064077) for the Project were issued on 9 March 2022 as detailed in Section 1.6. In accordance with the SEARs, this assessment has been prepared in accordance with the requirements of the following legislation and guidelines:

- *National Parks and Wildlife Act 1974;*
- *National Parks and Wildlife Regulation 2019;*

- *ACHAR Guide;*
- *Aboriginal Cultural Heritage Consultation requirements for proponents (DECCW, 2010); and*
- *Code of Practice.*

2.2.1.2 Local Environmental Plans

The EP&A Act allows for the preparation of planning instruments to direct development within NSW. This includes Local Environment Plans (LEP), which are administered by local government, and principally determine land use and the process for development applications. LEPs usually include a schedule of identified heritage items.

The Project Area is within the Oberon LGA, and is therefore governed by the Oberon LEP 2013.

2.2.2 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 NSW National Parks and Wildlife Act 1974 (NPW Act). Under Section 5 of the 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, 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 has been assessed as SSD, the need for a permit under Section 90 is extinguished. This does not, however, exempt the proponent from managing cultural heritage matters to the same statutory standard, as is usually captured in the SEARs requirements.

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 Act. This protection applies to all sites, regardless of their significance or land tenure.

3. ABORIGINAL COMMUNITY CONSULTATION

This chapter contains details of the Aboriginal community consultation undertaken regarding the Aboriginal cultural heritage of the Project Area. In accordance with the guideline *Aboriginal Cultural Heritage Consultation Requirements for Proponents* 2010 (DECCW, 2010), consultation with Aboriginal people is an essential part of the heritage assessment process to:

- determine potential harm on Aboriginal cultural heritage from proposed activities; and
- inform decision making for any application for an AHIP where it is determined that harm cannot be avoided.

The guideline also sets out four stages of consultation requirements. Fulfilment of these requirements is outlined below. All correspondence is recorded in the Aboriginal Heritage Consultation Log, included as *Appendix B*.

3.1 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 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 Proponent, ERM has 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. After determining that there was no approved determination of Native Title over the project area (per 4.1.1 of the guidelines), ERM reached out to additional resources for information about interested parties.

In order to identify people with a potential interest in the project (as per 4.1.2 of the guidelines), a Public Advert stating the location and nature of the Project, and seeking registration of interested Aboriginal parties was run in the Oberon Review on Thursday 14 January 2021 (*Appendix C*).

In addition, a letter containing these details (dated 12 January 2021, *Appendix D*) was sent to the following agencies:

- Pejar Local Aboriginal Land Council (PLALC);
- Central Tablelands Local Land Services;
- National Native Title Tribunal;
- Native Title Services Corporation (NTS Corp);
- Heritage NSW;
- Office of the Registrar, *Aboriginal Land Rights Act 1983*; and
- Oberon Council.

Responses received from these agencies indicated a total of 15 Aboriginal individuals or organisations may have an interest in the project. An invitation to register letter was sent to each of these identified parties on 2 February 2021 and a period of 14 days was provided for the parties to respond. A copy of this letter is provided as *Appendix E*.

At the end of the 14 days, two organisations had registered their interest in being consulted in the project. Both these organisations asked that their correspondence not be published; as such, copies of their registrations have not been provided in this report. A further registration was received in late March 2021. In addition to the three registrations, ERM has provided all project details to the Pejar LALC. A full list of the Registered Aboriginal Parties (RAPs) can be found in *Table 3.1* below, and copies of relevant registrations can be found at *Appendix F*.

Table 3.1 Registered Aboriginal Parties

Individual/Organisation
[Name removed at RAP request]
[Name removed at RAP request]
Didge Ngunawal Clan
Pejar LALC

3.2 Stage 2: Presentation of Information about the Proposed Project

The aim of Stage 2 of the consultation process is to *provide registered Aboriginal parties with information about the scope of the proposed project and the proposed cultural heritage assessment process.*

A proposed field survey methodology was sent to each of the RAPs (dated 26 February 2021) (*Appendix G*). The letter included:

- an outline of the proposed works;
- the proposed methodology and an indication of the expected dates for pedestrian survey; and
- a request for RAPs to identify any particular areas of cultural significance or interest within the Project Area.

ERM received one responses to the proposed methodology (see *Appendix H*). The responses are summarised in Table 3.2 below.

Table 3.2 Comments on the original methodology

Organisation	Comment
Pejar LALC	Advised they saw no issues with the proposed assessment methodology.

Following modifications to the project design an updated project methodology was issued (dated 14 April 2022) outlining the changes to the Project Area and the proposal to undertake an additional round of survey. ERM received one response on the supplementary survey as summarised in Table 3.3.

Table 3.3 Comments on the revised assessment methodology

Organisation	Comment
[Name removed at RAP request]	Supported the proposed methodology

3.3 Stage 3: Gathering information about Cultural Significance

Stage 3 of the consultation involves discussion of cultural values and examination of intangible elements of significance. Often, these discussions occur on site during field survey, rather than being reported by letter or email. All RAPs were provided an opportunity to participate in both the 2021 and 2022 field seasons. A summary of which groups participated in each field season is provided in Table 3.4

Table 3.4 Survey participants

Individual/Organisation	2021 Field Survey	2022 Field Survey
[Name removed at RAP request]	Yes	Yes
[Name removed at RAP request]	Yes	No
Didge Ngunawal Clan	Yes	Yes
Pejar LALC	Yes	Yes

ERM received no formal correspondence relating specifically to areas of cultural significance within the Project Area. Discussions on site with the RAPs did not yield information about specific cultural values or areas of significance, although it is understood that all land retains special significance for Aboriginal people. Several culturally significant places were noted in surrounding localities such as Goulburn. Feedback on site noted that several scarred trees were located in the area which were reported to be associated with a burial in the locality. On site conversations also included discussion of proposed management and mitigation measures with ERM presenting some options that the RAPs could consider.

3.4 Stage 4: Review of Draft Cultural Heritage Assessment Report

The Draft ACHAR based on the results of the initial survey program was initially issued to RAPs on 7 May 2021, 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. Comments were received from two RAPs, indicating that their organisations agreed with the report and its recommendations. Both organisations asked that their correspondence not be published, and as such the original responses have not been included in this report.

Following completion of the supplementary survey, the Draft ACHAR was updated and reissued for an additional round of RAP review. The report was issued on 8 September 2022. Comments were received from two stakeholder groups [Name removed at RAP request] and Didge Ngunawal Clan supporting the updated report.

4. ENVIRONMENTAL CONTEXT

The environmental setting in which people live has direct and indirect influences on human behaviour. This is particularly true for hunter-gatherer societies in which availability and abundance of local resources influence movement within the landscape. Environmental factors may also influence the potential that archaeological sites would be preserved and visible. Because of this, the physical setting of the Project is discussed in terms of geology and landforms, and past land use and disturbance.

A determination of the former environmental context is essential to develop accurate models of cultural activity, site distribution patterns and the archaeological potential of any given area. The environmental setting of the Project is discussed below.

4.1 South Eastern Highlands Bioregion

The Project Area is situated within the Southern Highlands Bioregion. The Southern Highlands Bioregion is approximately 8,749,155 ha in size, 55.9% of which is within NSW (the remainder extends into Victoria). This bioregion occupies approximately 6.11% of NSW (National Parks and Wildlife 2003).

Climate within the Southern Highlands Bioregion is generally temperate, characterised by warm summers and no dry season. Where elevations are higher throughout the bioregion, summers are generally milder. Annual mean temperatures are between 6-16°C with average rainfall between 460-1883 mm (National Parks and Wildlife 2003).

4.2 Geology, Soils and Topography

Geology

The Project Area is situated within the Lachlan fold belt, which runs through the eastern states as a “*complex series of metamorphose Ordovician to Devonian sandstones, shales and volcanic rocks intruded by numerous granite bodies and deformed by four episodes of folding, faulting and uplifting*” (National Parks and Wildlife 2003). This has resulted in a structural trend running north-south throughout the Southern Highlands bioregion, which is reflected in the overall topography. Ordovician formations include a small sliver of serpentine, running from Gundagai past Tumut to the Snowy Mountains, and mixed sediments with interbedded quartz sandstone and basaltic tuffs through the north of the bioregion. Later Devonian formations include shales, sandstones and volcanic sediments, which is generally highly mineralised and contains base metals and gold. Volcanic activity through the tertiary resulted in the deposition of river sands and gravels. The largest lava fields were identified around the Monaro, and are known to contain river sediments. Lava flows around Crookwell, Abercrombie, Nerriga and the Macquarie Valley have preserved old valleys (National Parks and Wildlife 2003).

The Project Area is situated on five unique geologies, including Warbisco Shale, Wheeo Basalt, unconsolidated alluvial quartzose, Poidevins Sandstone, and colluvial gravel, sand and silt (Thomas et al 2013). Wheeo Basalt is the predominant underlying geology, situated throughout the north of the Project Area. Wheeo Basalt is described as “*Black alkali basalt to basanite flows, containing porphyritic olivine and Ti-augite, with flow banding, vesicles and doleritic textures*” (Bishop 1984). Warbisco Shale occurs throughout the south western portion of the Project Area, and is characterised as “*Black, laminated to medium-bedded pyritic carbonaceous shale, commonly strongly foliated and folded; minor quartzose sandstone*” (Bishop 1984). This underlying geology suggests the region contains a number of raw material suitable for the manufacture of stone tools, including basalt, quartz and quartzite.

Soils

The Project Area is situated across the Lickinghole, Midgee, and Taralga soil landscapes. The Lickinghole Soil Landscape is characterised by shallow soils on steep hills, shallow stony to loamy lithosols and shallow red and yellow Earths on crests and side slopes. Mid and lower slopes contain shallow red and yellow podzolic soils, and some rocky outcrops may be encountered (NSW eSpade 2021).

The Midgee Soil Landscape is the most prominent across the region, occupying roughly 1500 km² and borders the Project Area. This soil landscape is associated with Ordovician, Devonian and lower Silurian sediments and metasediments in hilly terrain. The sediments are heavily folded, resulting in the possibility of both deep and shallow soils occurring within the one landform element. Soils across the Midgee unit are commonly yellow earths, yellow podzolic soils and intergrades, which are almost always stony and acidic. Other soils throughout the area include red podzolic soils, lithosols, soloths and red earths (NSW eSpade 2021).

The Taralga soil landscape runs centrally through the Project Area, and is situated over tertiary lava flows, Krasnozems and Xanthozems. The landscape features friable, slightly hardsetting soils on side slopes, Prairie soils on foot slopes, and alluvial soils and wiesenbodens in drainage lines.

With the exception of the Midgee landscape, which produces some deep soils, the Project Area sits predominantly on an area of shallow soils. Shallow soils can have lower potential to contain archaeological deposits, as the sedimentation and taphonomic processes are less likely to provide the opportunity for deposition. There is a higher likelihood that surface expressions of objects will not be accompanied by further archaeological expression.

Topography

Topographically, the South Eastern Highlands Bioregion's dominant features are plateau remnants, granite basins and prominent ridges. Streams are generally deeply entrenched with only a few terrace features, resulting in narrow valleys (National Parks and Wildlife 2003). The Project Area is situated on a plateau, surrounded by a significant number of valleys and ridgelines. The Project Area encompasses rolling hill within these valleys, with significantly less variation in elevation than the surrounding ridges. Although the area is still quite hilly, the consistent water and moderate slopes indicate that it would have been a good location for ongoing occupation by Aboriginal people, and has been suitable for settlement by European farmers.

4.3 Hydrology

The Project Area contains a number of ephemeral first and second order watercourses, which drain to Abercrombie River. In addition to these ephemeral creeks, a number of named tributaries of the Abercrombie River are located within the Project Area. Black Bett Creek and Paling Yards Creek in the south, Middle Station Creek and Oaky Creek through the central portion of the Project Area as well as Brothers Creek and Cobra Gully in the northern portion of the Project Area. Owing to the number of creeks and streams throughout the Project Area, there are a number of important creek confluences that may provide evidence of past Aboriginal occupation of the site. Further, these creeks are likely to have provided reliable water sources for Aboriginal people, and European farmers alike, suggesting that this region would have been heavily utilised by past peoples.

4.4 Flora and Fauna

Understanding the flora and fauna of a region can help to illustrate potential sources of food and raw materials traditionally utilised by Aboriginal people. By exploring the resources available to be exploited by clans as they moved through the landscape allows us to build a picture of land management and subsistence practices, which assists in the preparation of archaeological predictive models.

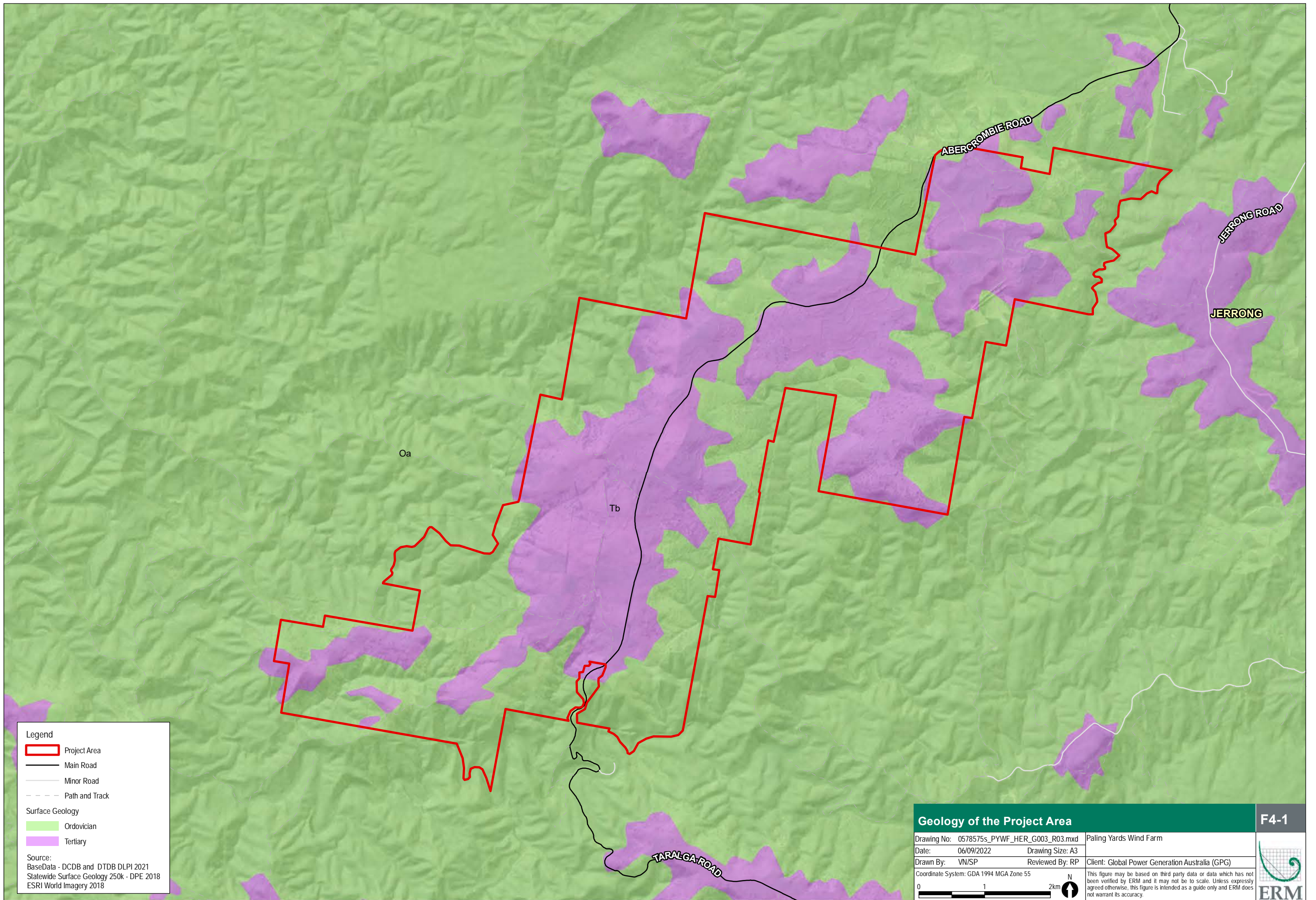
Diverse vegetation communities occur across the South Eastern Highlands Bioregion, with distribution of particular species impacted primarily by altitude, temperature and rainfall. The area is home to a considerable number of Eucalypt species, including yellow box (*Eucalyptus melliodora*), red box (*Eucalyptus polyanthemos*), Blakely's red gum (*Eucalyptus blakelyi*), white box (*Eucalyptus albens*), and red stringybark (*Eucalyptus macrorhyncha*) (National Parks and Wildlife 2003). River Oak (*Casuarina cunninghamiana*) is seen along main streams, and mountain gum (*Eucalyptus dalrympleana*), narrow leaved peppermint (*Eucalyptus radiata*) and ribbon gum (*Eucalyptus viminalis*) occur in higher areas. Granite derived soils can support apple box (*Eucalyptus bridgesiana*), yellow box and some white gum species, while rocky outcrops can support patches of black cypress pine (*Callitris endlicheri*).

In the lower canopy, extensive grasslands are common on the driest plains of the Monaro, with characteristic species including snow grass (*Poa sieberiana*), spear grasses (*Stipa scabra* and *Stipa variabilis*), kangaroo grass (*Themeda australis*) and wallaby grass (*Danthonia* sp.) (National Parks and Wildlife 2003). Along with the broad range of eucalypts which were likely exploited for tools and equipment, the region was abundant with tubers of yam daisy, wattle seeds and orchid tubers. These would have formed an important part of the diet of Aboriginal occupants.

The ecological communities found in this bioregion support a number of significant fauna, including the endangered regent honeyeater (*Xanthomyza phrygia*). The area is also home to the noisy miner (*Manorina melanocephala*), Australian magpie (*Gymnorhina tibicen*) and grey butcherbird (*Cracticus torquatus*). It is likely the area also supports several species of kangaroo, wallabies, possums, and wombat. It is probable that introduced pests such as rabbits and foxes also inhabit much of the Project Area. Rivers yielded fish and crayfish from September to May, which would have supplemented diets dominated by larger grazing mammals (National Parks and Wildlife 2003).

4.5 Land Use and Disturbance

The largest source of disturbance throughout the Project Area is farming, having resulted in land clearances, construction of buildings (homesteads and sheds), installation of fences, construction of dams and irrigation systems, and intensive stock grazing. Construction of roads and access tracks throughout the properties has also resulted in significant ground disturbance. Some of the access tracks have involved considerable construction activity, including importation of gravels and compaction of road surfaces. Intensive grazing has also resulted in overall land disturbance, especially in low lying marshy areas where heavy trampling may lead to significant mixing of topsoil.



Legend

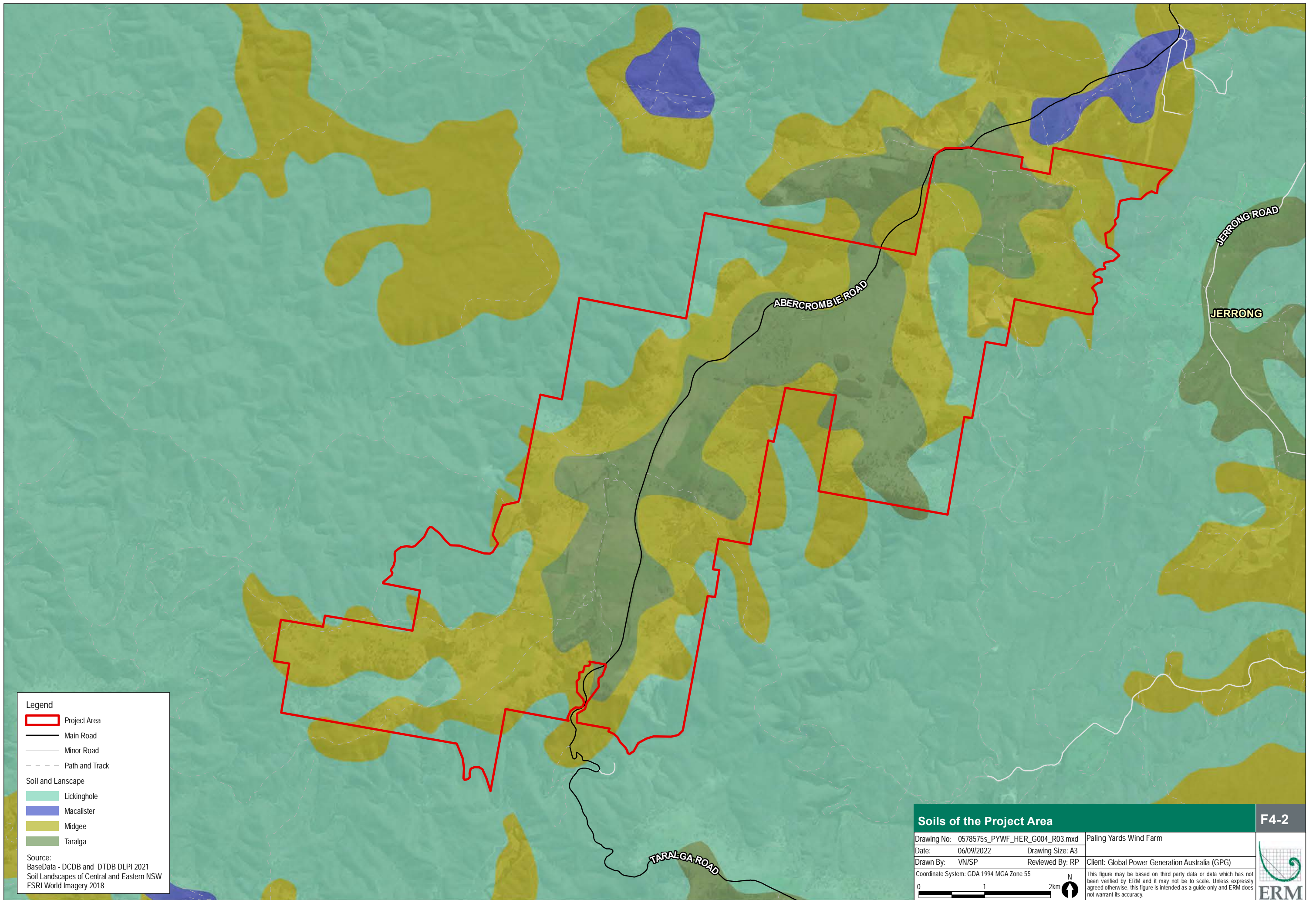
- Project Area
- Main Road
- Minor Road
- Path and Track

Surface Geology

- Ordovician
- Tertiary

Source:
 BaseData - DCDB and DTDB DLPI 2021
 Statewide Surface Geology 250k - DPE 2018
 ESRI World Imagery 2018

Geology of the Project Area		F4-1
Drawing No: 0578575s_PYWF_HER_G003_R03.mxd	Paling Yards Wind Farm	
Date: 06/09/2022	Drawing Size: A3	Client: Global Power Generation Australia (GPG)
Drawn By: VN/SP	Reviewed By: RP	
Coordinate System: GDA 1994 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.
<div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 10px;">0</div> <div style="margin-right: 10px;">1</div> <div style="margin-right: 10px;">2km</div> <div style="text-align: center;"> <div style="border: 1px solid black; width: 8px; height: 8px; margin: 0 auto;"></div> <div style="font-size: 8px; margin: 0 auto;">N</div> </div> </div>		



Legend

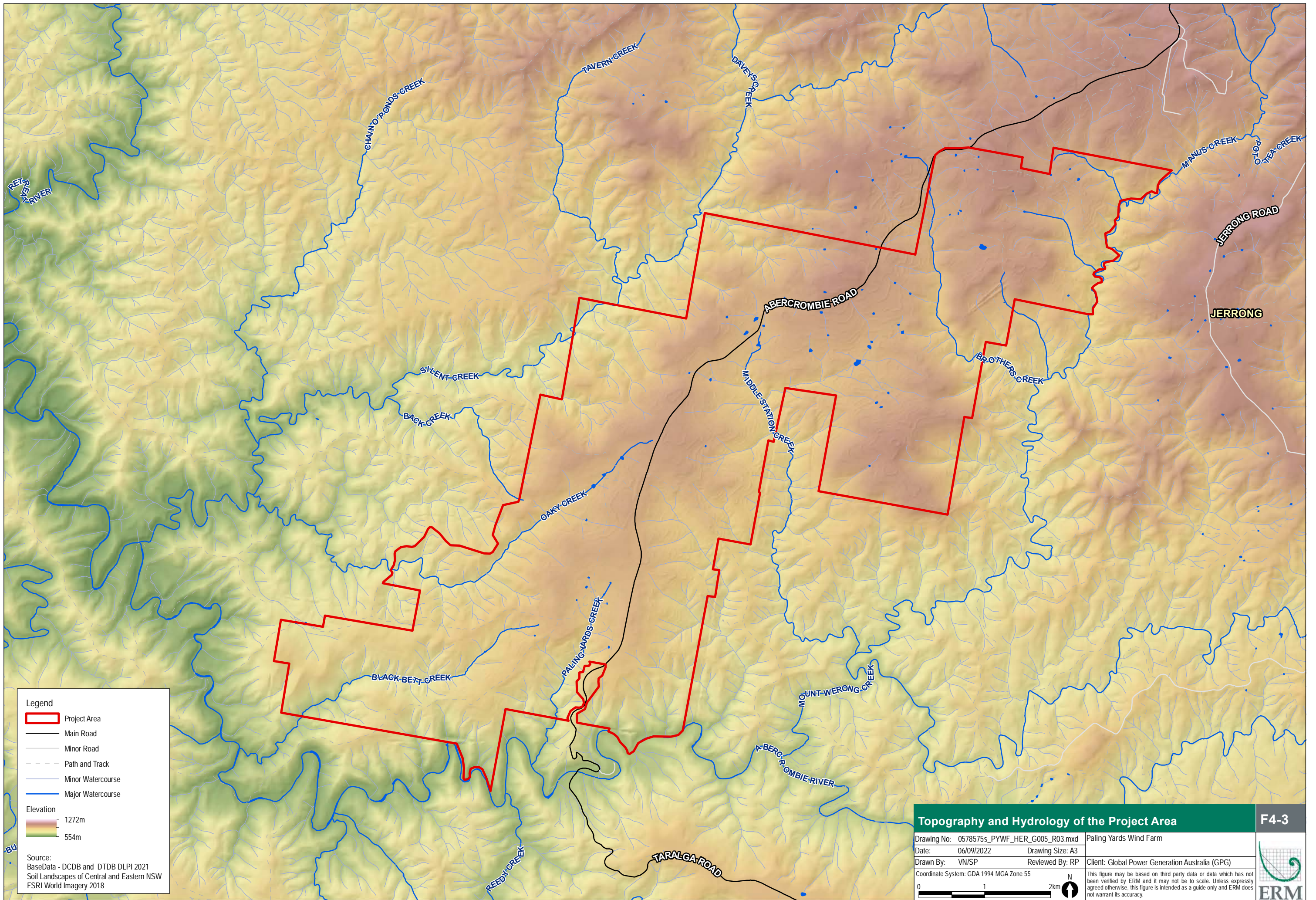
- Project Area
- Main Road
- Minor Road
- Path and Track

Soil and Landscape

- Lickinghole
- Macalister
- Midgee
- Taralga

Source:
 BaseData - DCDB and DTDB DLPI 2021
 Soil Landscapes of Central and Eastern NSW
 ESRI World Imagery 2018

Soils of the Project Area		F4-2
Drawing No: 0578575s_PYWF_HER_G004_R03.mxd	Paling Yards Wind Farm	
Date: 06/09/2022	Drawing Size: A3	Client: Global Power Generation Australia (GPG)
Drawn By: VN/SP	Reviewed By: RP	
Coordinate System: GDA 1994 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.
<div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 5px;">0</div> <div style="flex-grow: 1; border-bottom: 1px solid black; position: relative;"> <div style="position: absolute; right: -10px; top: -5px;">2km</div> </div> <div style="margin-left: 5px;">1</div> </div>		
<div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 5px;">N</div> <div style="font-size: 1.2em;">↑</div> </div>		



Legend

- Project Area
- Main Road
- Minor Road
- Path and Track
- Minor Watercourse
- Major Watercourse

Elevation

1272m
554m

Source:
BaseData - DCDB and DTDB DLPI 2021
Soil Landscapes of Central and Eastern NSW
ESRI World Imagery 2018

Topography and Hydrology of the Project Area		F4-3
Drawing No: 0578575s_PYWF_HER_G005_R03.mxd	Paling Yards Wind Farm	
Date: 06/09/2022	Drawing Size: A3	
Drawn By: VN/SP	Reviewed By: RP	Client: Global Power Generation Australia (GPG)
Coordinate System: GDA 1994 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.
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5. HISTORICAL CONTEXT

The following historical overview has been drawn from the Cultural Heritage Impact Assessment prepared by Anderson Environmental Consultants in 2013, and the *Thematic History of Oberon Shire*, prepared by Philippa Gemmell-Smith in 2004.

5.1 Aboriginal History of Paling Yards

The Oberon Shire local government area (LGA) is situated along the border of the traditional lands of the Gundungurra and Wiradjuri peoples. The Project Area, which is within the southern portion of the Oberon Shire, sits predominantly within Gundungurra lands.

There is anecdotal evidence to suggest that Aboriginal people were occupying the region year round, with European explorers noting sightings of local tribes in May of 1819 (Gemmell-Smith, 2004). The Gundungurra people of the Burra Burra band inhabited the area around Oberon, “from the Abercrombie to Taralga and Carrabungla” (Macalister, 1907). Men from this tribe were included in Charles Throsby’s expedition from Sydney to Bathurst in 1819, providing guiding and interpretation services to the European explorers. Gundungurra people would have utilised aquatic and terrestrial resources for subsistence, including fish and shellfish, yams, tubers, and medicinal plants, and goanna, kangaroo, possum and waterfowl. Gundungurra lands contained a number of scarred trees, some showing evidence of resource gathering, the majority of which are likely to have been removed through land clearance. It is also indicated by Gundungurra elders that carved trees were used to mark ceremonial areas and sacred sites, including burials. The Oberon area also contains source material sites and evidence of stone quarrying, primarily for the manufacturing of various types of stone tools.

5.2 Early European Exploration

Oberon Shire was initially explored by Francis Barallier and a team of five European men, accompanied by two Aboriginal guides, in 1802. Barallier believed he had crossed the Blue Mountains, but was disappointed to discover further ridges and gullies upon crossing Byrne’s Gap (Gemmell-Smith, 2004). Barallier was followed in 1819 by Charles Throsby, who was the first recorded white man on the Oberon Plateau. Throsby’s party commenced their journey at Moss Vale, crossing the Wollondilly and Abercrombie Rivers. The party was guided by Coocoogong and also included Aboriginal Interpreters Duel and Bian. While moving through the region, Throsby recorded the Aboriginal names for places. Later explorer John Oxley, who followed Throsby’s route in 1820, did not record any local names.

5.3 Early European Settlement

In the early 1800s, Governor Macquarie proclaimed all land west of the Macquarie River, and south along the Campbell River to Rockley, as Government stock reserve. The first land grants west of the Blue Mountains were made to Lieutenant William Lawson and William Cox. Lawson was the first landholder in the region, having brought his cattle over the mountains to the junction of the Fish and Campbell Rivers in 1815. Lawson’s property, which he named ‘Macquarie’ contained a house and outbuildings, which are still extant. Further properties were erected surrounding ‘Macquarie’ in the early 1820s, including ‘Sidmouth Valley’, ‘Raineville’ and ‘Blenhem’.

The Paling Yards/Porters Retreat area was settled around the 1830s, with several sheep runs recorded by early surveyors. The properties were owned by ‘Captain Browne’, ‘Captain King’, Archibald McColl and Patrick Mahoney. By 1842 John Tingcombe had established Wallangriva on 640 acres at Paling Yards, in proximity to further properties owned by McColl (Gemmell-Smith, 2004). Parish Maps from the late 1800s and early 1900s indicate that the Project Area encompasses lands held by Tingcombe, McColl, and Thomas Stillwell amongst others (see *Figures 5.1 and 5.2*)

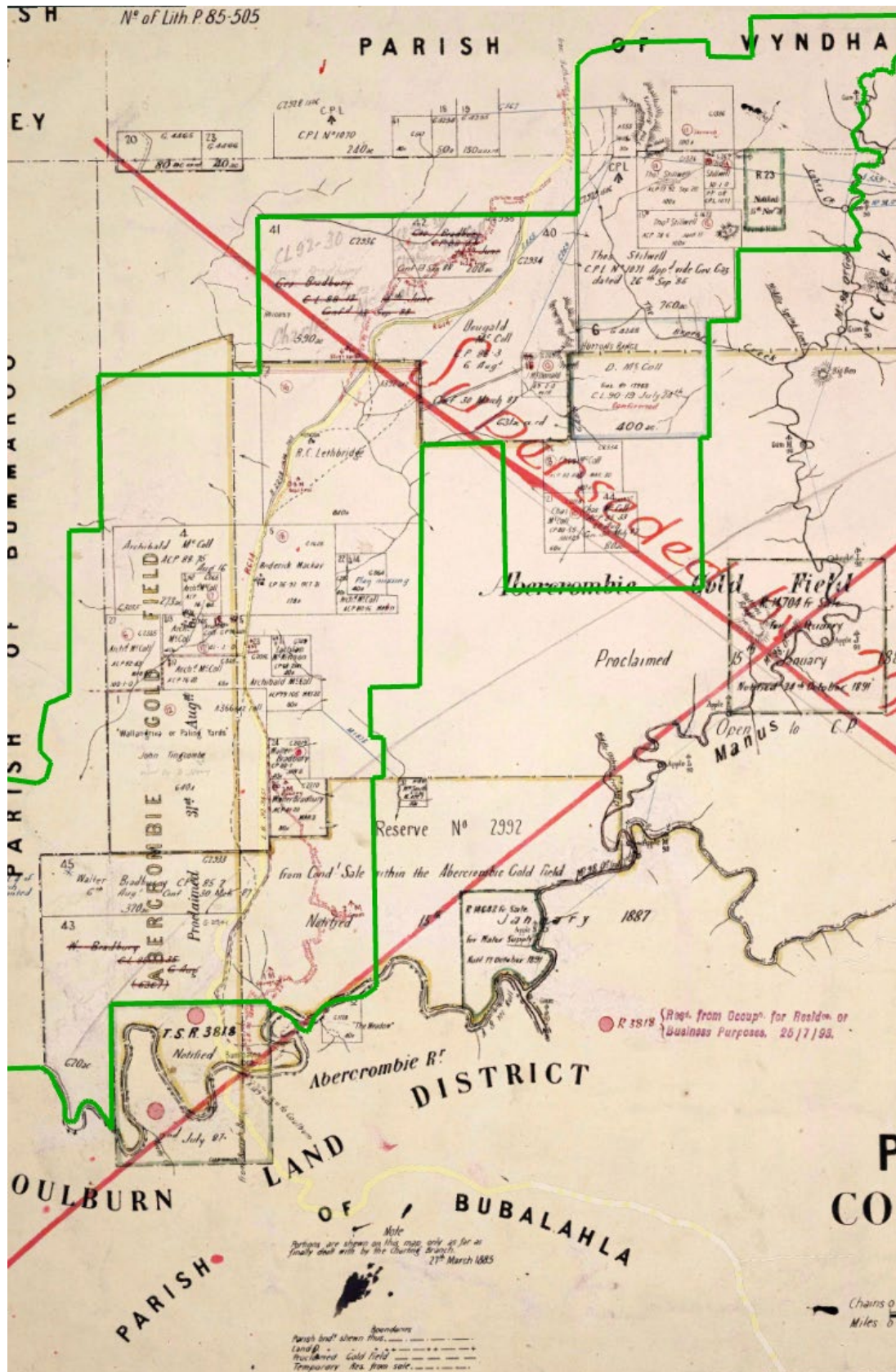


Figure 5.1 Parish of Jerrong 1890 (location of Project Area marked in green)
 (NSW Historical Land Records Viewer)

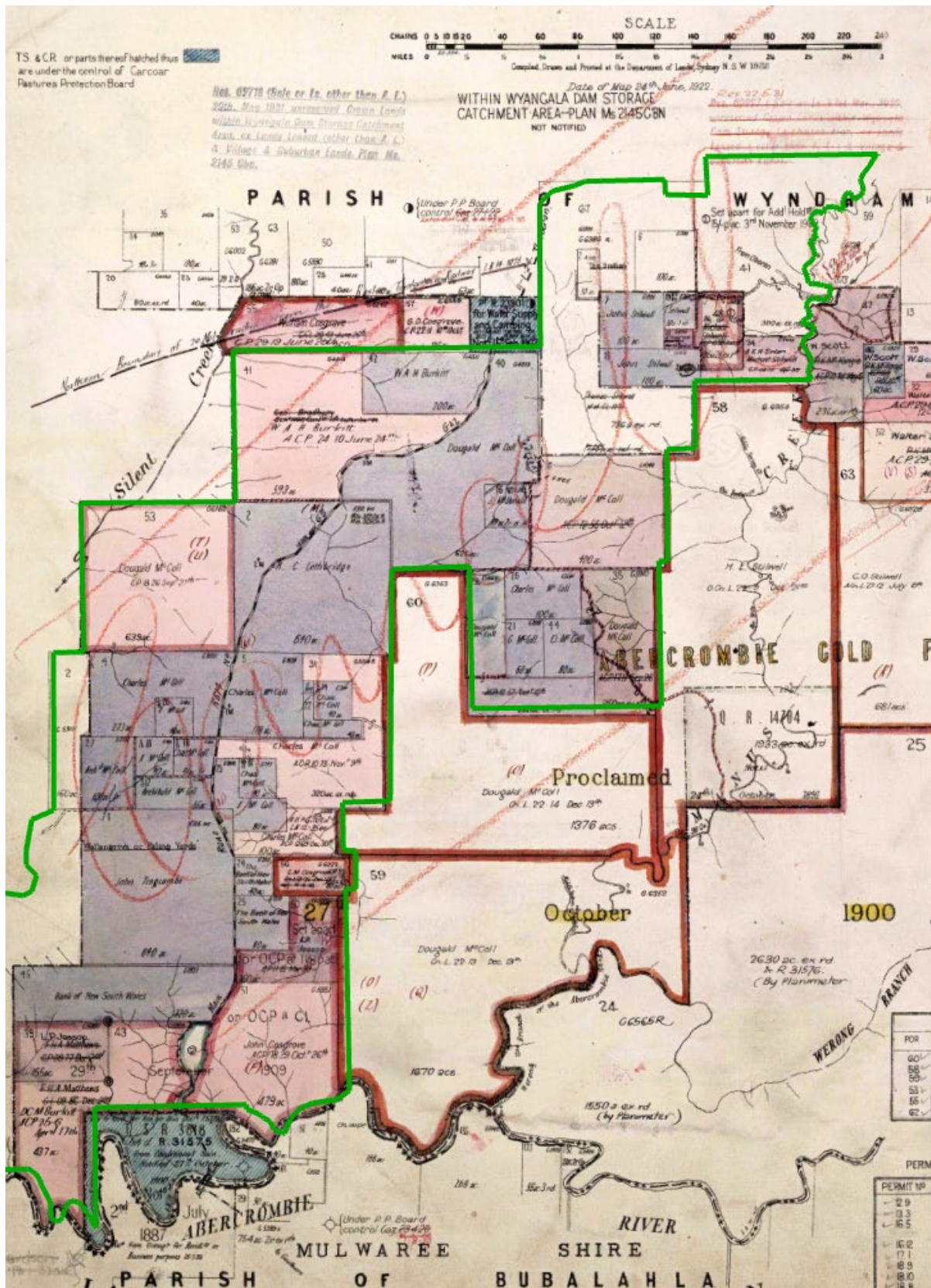


Figure 5.2 Parish of Jerrong 1922 (approximate location of Project Area marked in green) (NSW Historical Land Records Viewer)

5.4 Development around Paling Yards/Porters Retreat

Paling Yards and nearby Porters Retreat remain remote rural communities with limited amenity or urban development. The closest townships are Oberon (47 km north) and Taralga (24 km south), small rural townships with limited local services available. The surrounding region supports timber logging around Gurnang (approximately 5 km north-east), while Paling Yards predominantly supports sheep and cattle farming, with some crop farming still occurring in the region.

Immediately north/north west of the Project Area are Abercrombie River National Park and Abercrombie River State Conservation Area, which consist of publicly accessible parklands with hiking trails and campgrounds. The Oberon Correctional Centre is located approximately 15 km north-east of the Project Area.

5.5 Land Use and Disturbance

The largest source of disturbance throughout the Project Area is farming, having resulted in land clearances, construction of buildings (homesteads and sheds), installation of fences, construction of dams and irrigation systems, and intensive stock grazing. Construction of roads and access tracks throughout the properties has also resulted in significant ground disturbance. Some of the access tracks have involved considerable construction activity, including importation of gravels and compaction of road surfaces. Intensive grazing has also resulted in overall land disturbance, especially in low lying marshy areas where heavy trampling may lead to significant mixing of topsoil. A review of historical aerial imagery shows cleared land with few structures, similar to what is evident today (*Figure 5.3*).



Figure 5.3 Historic Aerial Image, Taralga 1963, showing the northern portion of the Project Area overlay (NSW Spatial Services Historical Aerial Imagery Viewer)

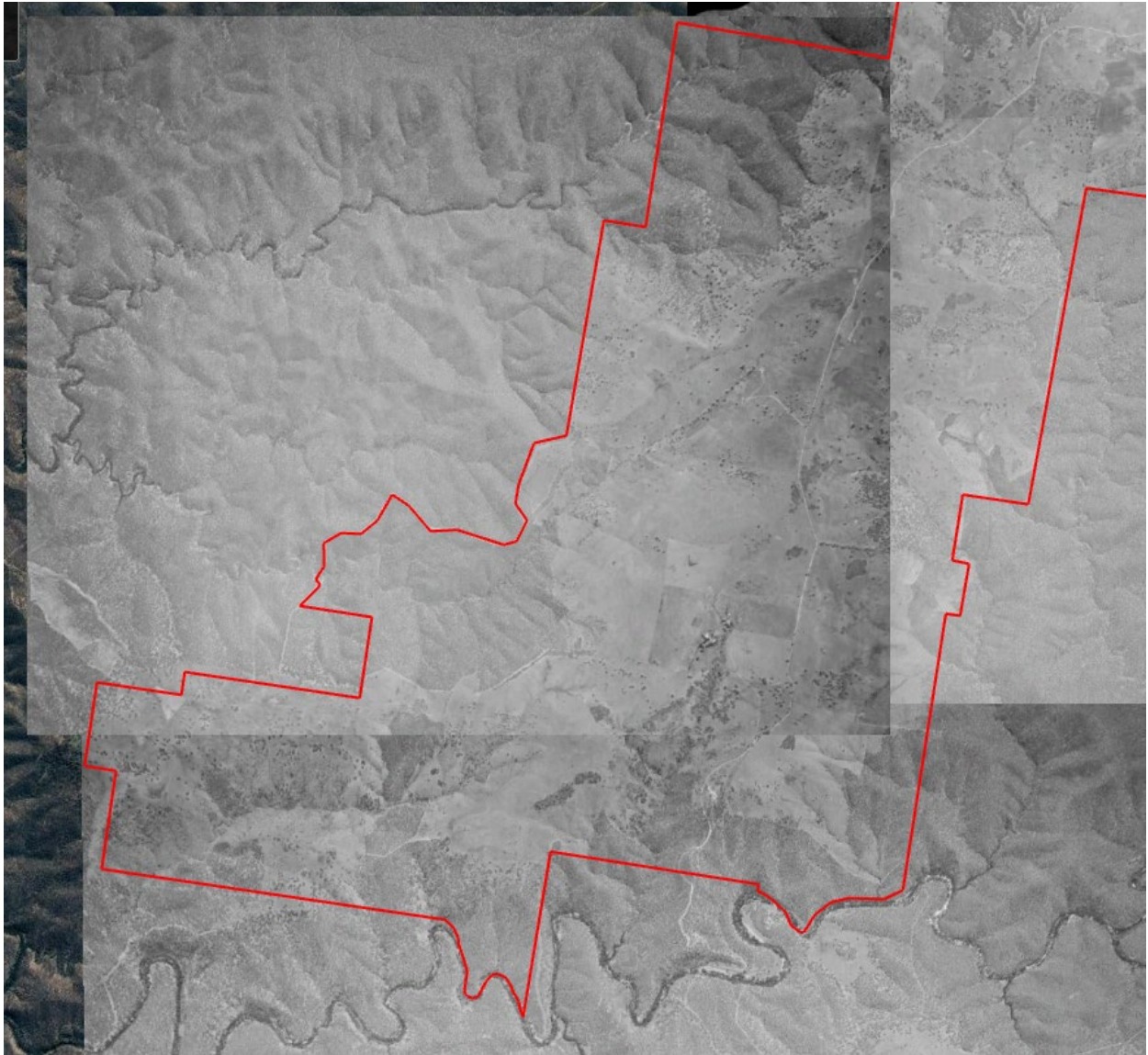


Figure 5.4 Historic Aerial Image, Taralga 1963, showing the southern portion of the Project Area overlay (NSW Spatial Services Historical Aerial Imagery Viewer)

6. ABORIGINAL ARCHAEOLOGICAL CONTEXT

The Project Area is situated in a region rich in Aboriginal cultural heritage. Numerous archaeological sites have been recorded in the region, ranging in size and complexity. The following information provides an overview of the archaeological context in which cultural heritage values within the Project Area can be understood.

6.1 The Aboriginal Cultural Landscape

As noted in *Section 5*, the Project Area sits within the traditional lands of the Gundungurra people. The Gundungurra people of the Burra Burra band inhabited the area around Oberon, “*from the Abercrombie to Taralga and Carrabungla*” (Macalister, 1907). Men from this tribe were included in Charles Throsby’s expedition from Sydney to Bathurst in 1819, providing guiding and interpretation services to the European explorers. Gundungurra people would have utilised aquatic and terrestrial resources for subsistence, including fish and shellfish, yams, tubers, and medicinal plants, and goanna, kangaroo, possum and waterfowl. Gundungurra lands contained a number of scarred trees, some showing evidence of resource gathering, the majority of which are likely to have been removed through land clearance. It is also indicated by Gundungurra elders that carved trees were used to mark ceremonial areas and sacred sites, including burials. The Oberon area also contains source material sites and evidence of stone quarrying, primarily for the manufacturing of various types of stone tools.

6.2 Regional Archaeological Context

There have been relatively few Aboriginal archaeological studies undertaken in the region surrounding the Project Area, owing to minimal development driving the need for specialist studies. Aboriginal archaeological investigation in the broader Oberon and Blue Mountains region has indicated Aboriginal occupation as early as 14,000 years ago. Evidence from the western side of the mountains indicates intensification of Aboriginal occupation in this area from 3000 BP¹ onwards, noted through marked increase in archaeological evidence (OzArk 2016). Studies conducted further south, around the Goulburn region, provide similar evidence and support this proposed timeline (Dibden 2007).

Early artefact assemblages (prior to 3000 BP) generally consist of poor quality raw materials, characterised by granular cherts and quartz, which lead to the manufacture of larger objects. At some stage prior to 3000 BP, backed artefact appeared in assemblages, accompanied by a shift to more fine-grained materials in production (OzArk 2016). Implements being produced now include microlith, bondi points and geometric backed artefacts. Artefact production changes again around 1000 years BP, with a move away from bondi points and towards eloueras. Quartz use increases during this period as well, with a reduction in fine grained material usage (OzArk 2016).

Analysis of archaeological evidence from these regions provides a broad overview of Aboriginal land use strategies and areas of activity. It is suggested that the highlands were utilised for specialised food procurement or ceremonial activities, ridgelines were generally used to traverse the landscape, and waterways provide reliable resources near which to camp (OzArk 2016). Regarding site types and distribution, open camp sites in the lower to mid-mountains tend to consist of sparse, low-density surface scatters with quartz as a dominant raw material type.

¹ Before Present

6.3 Local Archaeological Context

6.3.1 AHIMS Database Search Results

The AHIMS database provides information concerning previously recorded Aboriginal sites in NSW. AHIMS stores data regarding a site's location, site type, site features and a unique site identification number for all registered Aboriginal heritage sites in NSW. Mapping of an AHIMS database search result will identify any known sites that could be impacted by the proposed works as well as help to determine the overall pattern of Aboriginal sites in an area. A summary of the various site types likely to be located in the Project Area can be found in Table 6.1. This will aid in the development of a site prediction model for the Project Area.

Table 6.1 NSW National Parks and Wildlife Act Site Type Definitions

Site types	Definition
Stone artefact scatters (or open camp sites)	Stone artefact scatter sites, sometimes referred to as open camp sites, are usually indicated by surface scatters of stone artefacts and sometimes fire blackened stones and charcoal. Where such sites are buried by sediment they may not be noticeable unless exposed by erosion or disturbed by modern activities. The term camp site has historically been used as a convenient label which, in the case of open sites, does not necessarily imply that Aboriginal people actually camped on the sites; rather it indicates only that some type of activity was carried out there.
Isolated finds	Sites consisting of only one identified stone artefact, isolated from any other artefacts or archaeological evidence. They are generally indicative of sporadic past Aboriginal use of an area.
Shell middens	Middens consist of accumulations of shell that represent the exploitation and consumption of shellfish by Aboriginal people. Shell species may be marine, estuarine or freshwater depending on the environmental context and middens may also include other faunal remains, stone artefacts, hearths and charcoal.
Shelter sites	Sandstone shelters and overhangs were used by Aboriginal people to provide camp sites sheltered from the rain and sun. The deposits in such sites are commonly very important because they often contain clearly stratified material in a good state of preservation.
Grinding grooves	Grooves resulting from the grinding of stone axes or other implements are found on flat areas of suitable sandstone. They are often located near waterholes or creek beds as water is necessary in the sharpening process. In areas where suitable outcrops of rock were not available, transportable pieces of sandstone were used.
Quarries	These are areas where stone was obtained for flaked artefacts or ground-edge artefacts, or where ochre was obtained for rock paintings, body decoration or decorating wooden artefacts.
Art sites	Aboriginal paintings, drawings and stencils are commonly to be found where suitable surfaces occur in sandstone shelters and overhangs. These sites are often referred to as rock shelters with painted art.
	Rock engravings, carvings or peckings are also to be found on sandstone surfaces both in the open and in shelters. These are referred to as rock engraving sites.
Scarred trees	Scarred trees bear the marks of bark and wood removal for utilisation as canoes, shields, boomerangs or containers. It is commonly very difficult to confidently distinguish between Aboriginal scars and natural scars or those made by Europeans.
Burial sites	Burials may be of isolated individuals, or they may form complex burial grounds.

Site types	Definition
Stone arrangements, carved trees and ceremonial grounds	These site types are often interrelated. Stone arrangements range from simple cairns or piles of rocks to more elaborate arrangements; patterns of stone laid out to form circles and other designs or standing slabs of rock held upright by stones around the base.
	Carved trees are trees with intricate geometric or linear patterns or representations of animals carved into their trunks. Ceremonial grounds and graves were often marked by such trees. Bora grounds are a common type of ceremonial site and they are generally associated with initiation ceremonies. They comprise two circles, generally edged with low banks of earth but sometimes of stone, a short distance apart and connected by a path.

Several AHIMS searches were undertaken over the life of the Project. The most recent extensive search of the AHIMS database was undertaken on 21 June 2022, using the following details:

Client Service ID: 560618
Datum: GDA **Zone:** 55
Eastings: 746036 to 761924
Northings: 6211088 to 6222645
Buffer: 0 m

The full AHIMS extensive search results are provided in *Appendix J*.

A total of 27 registered Aboriginal sites were identified within the search area, including 13 within the Project Area (*Figure 6.1*). Of the sites identified by the search, the majority are recorded as Artefact Scatters (n=21), some with associated Potential Archaeological Deposit (PAD). One Stone Quarry site was recorded within the search area. The results of the full AHIMS search are summarised in Table 6.2.

Table 6.2 AHIMS Registered Site Types

Site Type	Total Number
Artefact	22
Artefact; Potential Archaeological Deposit	4
Stone Quarry	1

Sites within the Project Area had all been identified as part of assessment completed by Heritage Concepts (2005) and Anderson Environmental (2013) which are further discussed below. The location of each of the registered sites within the Project Area were ground-truthed against the data provided in their original reports. This review identified inconsistencies with the registered site locations of those sites registered by Heritage Concepts. Site updates were submitted for these sites to correct the inaccuracy identified between these reports.

6.3.2 Previous Assessments within the Project Area

Three Aboriginal heritage assessments have previously been completed across the Project Area being:

- A draft cultural heritage assessment prepared by Heritage Concepts in 2005;
- A Cultural Heritage Impact Assessment prepared by Anderson Environmental Consultants for the proposed PYWF in June 2013; and
- A supplementary cultural heritage assessment prepared by ERM in November 2013, to respond to commentary from the Office of Environment and Heritage (OEH) (former).

The outcomes of these assessments and their relevance to the current Project Area are summarised below.

6.3.2.1 Aboriginal and Historic Archaeological Assessment and Statement of Heritage Impact – Paling Yard Wind Farm (Heritage Concepts 2005)

In 2005, Heritage Concepts prepared a draft Aboriginal and Historic Archaeological report for an early iteration of the proposed Paling Yards Wind Farm. Due to project alterations and delays, the report was never finalised. Heritage Concepts undertook archaeological survey of the study area, concentrating on three locations, identified as Round Hill/Mount Browne, Huttons Ridge, and Defiance Ridge. The archaeological survey recorded 14 Aboriginal sites across the study area, summarised in Table 6.3 and shown in *Figure 6.1*. Several of the sites identified by Heritage Concepts are within the current survey area. In addition to the Aboriginal archaeological sites recorded, Heritage Concepts identified five Historic heritage sites within the Project Area. These are discussed in detail in the Historic Heritage Due Diligence Report prepared by ERM (2022).

Table 6.3 Sites Recorded by Heritage Concepts

AHIMS ID	Site Name	Within survey area?	Description (Heritage Concepts 2005 and Anderson Environmental 2013)
53-1-0031	PYWF A1	Yes	<i>Open Camp Site and Potential Aboriginal Deposit.</i> A natural milky quartz outcrop with 45 artefacts was identified on a ridgeline spur to SE of Mount Browne. High Archaeological Potential for further subsurface Aboriginal cultural material to be present on this landform. High Archaeological Potential for further subsurface Aboriginal cultural material to be present on this landform.
53-1-0032	PYWFA2	No	<i>Isolated find and Potential Aboriginal Deposit.</i> Located 57 m from PYWF A1. A single piece of milky quartz (debitage) was identified in an area of soil disturbance.
53-1-0033	PYWF A3	No	<i>Open Camp Site and Potential Aboriginal Deposit.</i> Located 25 m southwest of PYWF A2. Five artefacts were identified on the soil surface, including two milky quartz artefacts and three silcrete artefacts. High Archaeological Potential for further subsurface Aboriginal cultural material to be present on this landform.
53-1-0034	PYWF A4	Yes	<i>Open Camp Site and Potential Aboriginal Deposit.</i> Artefacts were identified on a gentle SW slope adjacent to Brothers Creek. Site consists of 15 artefacts, including 10 milky quartz artefacts; and five on brecciated chert. Site is within 50 m of the access road and there is high potential for subsurface Aboriginal cultural material to be present within the area.
53-1-0035	PYWF A5	No	<i>Open Camp Site and Potential Aboriginal Deposit.</i> Located on a small elevated northeast / southwest running ridge with drainage channels on each side. Several milky quartz nodules were found degrading out from an area measuring 15 m x 5 m along the ridge. There is high potential for subsurface Aboriginal cultural material to be present within the area.
53-1-0036	PYWF A6	Yes– Wider extent only	<i>Open Camp Site and Potential Aboriginal Deposit.</i> Located on a level, gentle rise approximately 200m SW of Brothers Creek. Identified in a highly disturbed area within a graded fire trail. It is likely that the high level of disturbance had brought artefacts from the lower stratigraphic units to the surface and that further material is present below the surface in the area. There is high potential for subsurface Aboriginal cultural material to be present within the area.

AHIMS ID	Site Name	Within survey area?	Description (Heritage Concepts 2005 and Anderson Environmental 2013)
53-1-0037	PYWF A7	Yes	<i>Open Camp Site and Potential Aboriginal Deposit.</i> Located in a saddle which is an east access point between Middle Station Creek and Manus Creek catchment areas. Site contains of six silcrete artefacts located in an area of high visibility associated with stock movements through a gate.
53-1-0038	PYWF A8	No	<i>Open Camp Site and Potential Aboriginal Deposit.</i> Located on a dirt access road and adjacent land within the Mingary Park Farm. Site is on a gentle slope within a closed catchment area. A total of 13 artefacts were recorded at site; including artefacts manufactured from chert, brecciated chert and quartz. There is high potential for subsurface Aboriginal cultural material to be present within the area.
53-1-0039	PYWF A9	Yes	<i>Isolated find.</i> Site was within a dam embankment wall and consisted of a coarse - grained silcrete piece. This is in an area of high disturbance with heavy earthworks and active stock visitation having churned the soil. The artefact is not in primary context and given the close proximity to sit PYWF A10. It is likely that that this artefact represents a displaced outlier from PYWF A10. There is no potential for Aboriginal cultural material to be present within the area.
53-1-0040	PYWF A10	Yes	<i>Open Camp Site and Potential Aboriginal Deposit.</i> Site is located on the saddle of a ridgeline. Eight artefacts were identified in the area. The area has been cleared and used as pasture and disturbance within this area is quite high disturbance. There is high potential for Aboriginal cultural material to be present within the area; and the site is within the impact footprint of the current proposal.
53-1-0041	PYWF A11	Yes – wider site extent only	<i>Open Camp Site and Potential Aboriginal Deposit.</i> Site is a complex open camp site situated on the level crests of north west branching spur from the main Defiance Ridge Line. Artefacts were identified across most of the level surface over an area of 92 m x 76 m. With an overall area of 6992m ² ; and if the site has a constant density of 16 artefacts /m ² ; there would be nearly 112,000 artefacts on the surface. There is high potential for Aboriginal cultural material to be present within the area; and the site is within the impact footprint of the current proposed development.
53-1-0042	PYWF A12	No	<i>Quarry</i> A silcrete quarry was identified across a gully approximately 700 m west of the proposed Wind Turbine Generators (B5, B6 and B7); the quarry is natural outcrop of silcrete with small amounts of associated grey chert and quartz, which has been exploited as a raw material source. Site has low potential for archaeological material to be present within this area, given the lack of observable surface indications such as an associated knapping floor.

AHIMS ID	Site Name	Within survey area?	Description (Heritage Concepts 2005 and Anderson Environmental 2013)
53-1-0043	PYWF A13	No	<i>Isolated find / Open Camp Site.</i> Site is situated on a level area east of a windbreak. Site consisted of an isolated chert flake identified in a cleared paddock. Approximately 40 m south of this flake was a historical stone cairn; where a chert manuport and a chert core were found. There is moderate to low potential the further subsurface Aboriginal cultural material will be present in this location.
53-1-0044	PYWF A14	No	<i>Open Camp Site & Potential Aboriginal Deposit.</i> Two coarse-grained silcrete flakes were identified in a stock scour at a gate to the south of wind turbine generator B3. Site is located on a level area of ridge top which has been cleared and converted to pasture. The site was visible in an area of high disturbance and although it is likely that further cultural material may be present at this site, the integrity of any such material is likely to be low. There is moderate potential the further subsurface Aboriginal cultural material will be present in this location.

6.3.2.2 Indigenous and non-Indigenous Archaeological Heritage for Proposed Paling Yards Wind Farm (Anderson Environmental 2013)






Anderson Environmental prepared a Cultural Heritage Impact Assessment in 2013 for the proposed Paling Yards Wind Farm, in response to Director-General's Assessment requirements. Anderson Environmental prepared an Aboriginal and Historic heritage assessment that included Aboriginal community consultation and archaeological survey.




During field survey, Anderson Environmental attempted to relocate the sites recorded by Heritage Concepts in 2005, although it is noted that ground visibility was limited at the time. It is unclear from the reporting whether all 14 sites were relocated during field survey. Anderson Environmental identified a further eight artefact scatters during their inspection of the Project Area, noting that each of the eight sites retained moderate archaeological potential for surface and subsurface finds. A summary of the sites identified by Anderson Environmental is presented in Table 6.4 below.

Of the eight sites identified, by Anderson Environmental, two are within the current survey area.

The Anderson Environmental report recommended that impact to known archaeological sites be avoided by micro siting of turbines and infrastructure.

Table 6.4 Summary of Additional Sites identified by Anderson Environmental

AHIMS ID	Site Name	Description	Within survey area?	Photograph (Anderson Environmental 2013)
53-1-0051	Paling Yard 1*	Artefact scatter measuring 8 m x 6 m containing eight artefacts identified on a steep slope 500 m north of Abercrombie River. Identified as having moderate archaeological potential.	No	
53-1-0052	Paling Yard 2	Artefact scatter measuring 5 m x 5 m containing four artefacts along a farm track. Identified as low archaeological potential.	No	
53-1-0053	Paling Yard 3	Artefact scatter measuring 15 m x 4 m containing six artefacts along a farm track. Low archaeological potential identified.	No	
53-1-0054	Paling Yard 4	Artefact scatter measuring 6 m x 6 m containing five artefacts identified on a small rise above the Abercrombie River. Low archaeological potential.	No	
53-1-0055	Paling Yard 5	Artefact scatter measuring approximately 10 m x 10 m containing one core and five flakes. Identified on the lower knoll known as 'the racecourse'. Low to moderate archaeological potential.	No	

AHIMS ID	Site Name	Description	Within survey area?	Photograph (Anderson Environmental 2013)
53-1-0056	Paling Yard 6	Artefact scatter consisting of 35 artefacts identified on a hilltop with a northerly aspect. Moderate archaeological potential identified.	No	
53-1-0057	Paling Yard 7	Artefact scatter measuring 10 m in diameter, containing one core and one backed blade. Located within an open paddock. Low-moderate archaeological potential.	Yes	
53-1-0058	Paling Yard 8	Large artefact scatter measuring 100 m x 80 m containing 55 artefacts. Located on the top of a gully. Moderate archaeological potential.	Yes – wider extent	

**Note: Paling Yards 1 is recorded twice on AHIMS as "PALING YARDS" AHIMS ID #51-3-0049. Same coordinates recorded for both sites.*

6.3.2.3 Paling Yards Wind Farm Supplementary Cultural Heritage Report (ERM 2013)

The report prepared by ERM in November 2013 aimed to provide additional significance assessment of the sites identified by Anderson Environmental, after OEH review indicated that the significance assessment presented did not meet the test of adequacy. ERM provided additional assessment of the eight sites, and clarified the archaeological and cultural significance levels for each. A summary of the revised assessment is provided in Table 6.5 below.

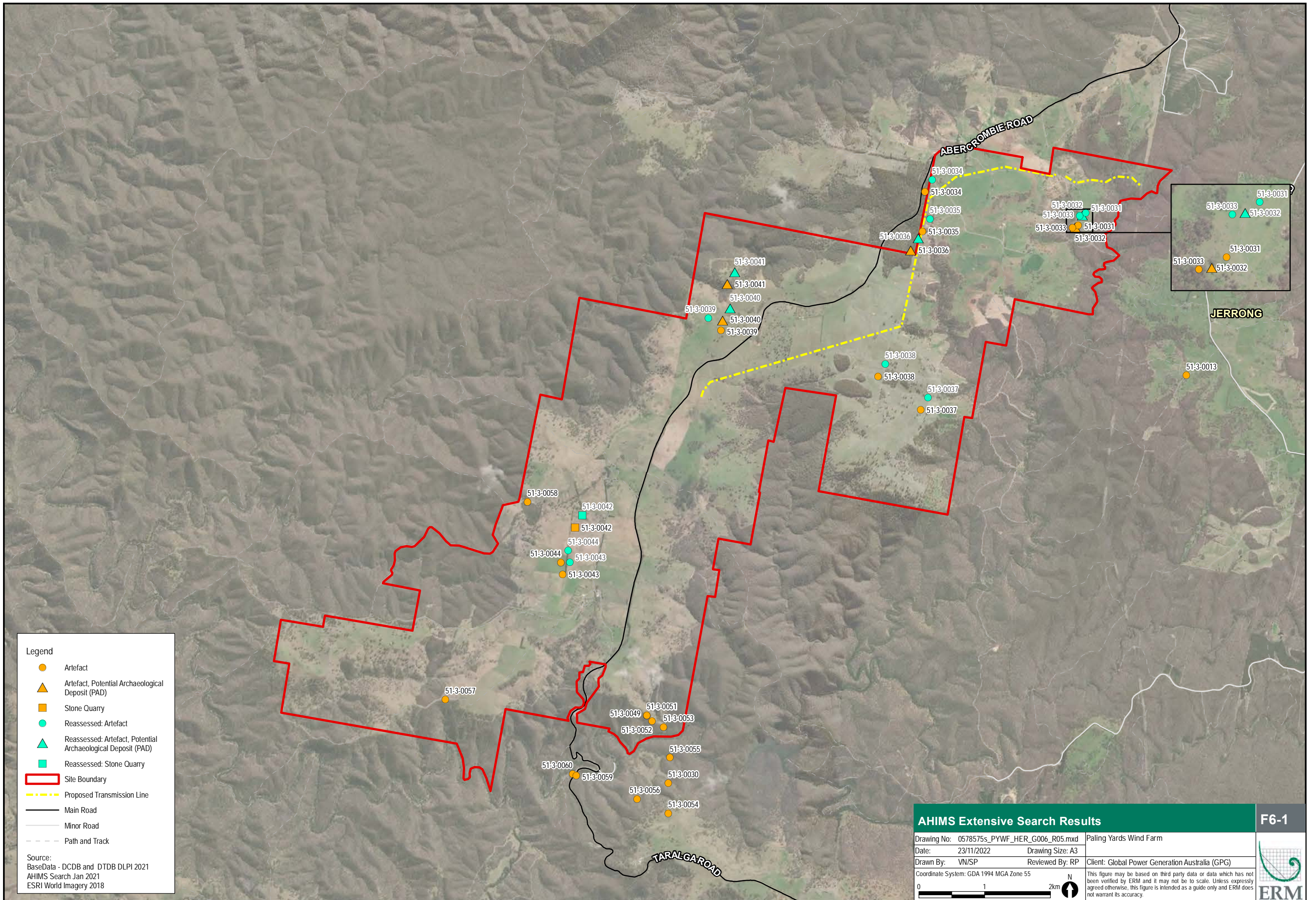
Table 6.5 Summary of Revised Significance Assessment (ERM 2013)

Landscape Units and Sites	Archaeological Sensitivity	Scientific Significance	Aboriginal cultural significance
Head of gullies	Moderate	Moderate	Moderate
Low rises (near water)	Moderate	Moderate	Moderate
Slight slope areas (near water)	Moderate	Moderate	Moderate
Paling Yards 11 (AHIMS # 51-3-0051)	Moderate	Low	High
Paling Yards 2 (AHIMS # 51-3-0052)	Moderate	Low	High
Paling Yards 3 (AHIMS # 51-3-0053)	Low	Low	High
Paling Yards 4 (AHIMS # 51-3-0054)	Low	Low	High
Paling Yards 5 (AHIMS # 51-3-0055)	Low/Moderate	Moderate	High
Paling Yards 6 (AHIMS # 51-3-0056)	Low/Moderate	Moderate	High
Paling Yards7 (AHIMS # 51-3-0057)	Low/Moderate	Moderate	High
Paling Yards 8 (AHIMS # 51-3-0058)	Moderate	Moderate	High

6.4 Aboriginal Archaeological Predictive Model


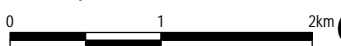

Based on information drawn from regional archaeological research, the results of the AHIMS search, and data drawn from previous assessments within the Project Area, the following predictive model has been developed for the Project Area:

- Artefact scatters or isolated finds are the most likely site type to be identified within the Project Area;
- Artefact scatters may vary in density, with higher concentrations of artefacts expected on ridgelines and crests;
- Aboriginal archaeological sites are more likely to be identified within 200 m of permanent water, and particularly around creek confluences;
- Scarred or modified trees are unlikely to be identified due to extensive land clearance occurring during early European settlement; and
- Stone quarry sites may be encountered in this area.



- Legend**
- Artefact
 - ▲ Artefact, Potential Archaeological Deposit (PAD)
 - Stone Quarry
 - Reassessed: Artefact
 - ▲ Reassessed: Artefact, Potential Archaeological Deposit (PAD)
 - Reassessed: Stone Quarry
 - ▭ Site Boundary
 - - - Proposed Transmission Line
 - Main Road
 - Minor Road
 - - - Path and Track

Source:
 BaseData - DCDB and DTDB DLPI 2021
 AHIMS Search Jan 2021
 ESRI World Imagery 2018

AHIMS Extensive Search Results		F6-1
Drawing No: 0578575s_PYWF_HER_G006_R05.mxd	Paling Yards Wind Farm	
Date: 23/11/2022	Drawing Size: A3	
Drawn By: VN/SP	Reviewed By: RP	
Coordinate System: GDA 1994 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.
 		

7. PHYSICAL ANALYSIS

Field survey to support the assessment was undertaken over two discrete field seasons. The first field survey was undertaken in 2021 and included investigation of the southern portion of the Project Area which is described in Section 7.1 to Section 7.2 below. The second survey was completed in July 2022 encompassing the northern portion of the Project Area. The results of this survey is described in Sections 7.3 to 7.4.

7.1 2021 Field Survey Methodology

Preliminary archaeological field survey of the Project Area was undertaken over three days between 30 March to 1 April 2021 by ERM Archaeologist Stephanie Moore and the RAPs. The proposed survey methodology was provided to the RAPs for comment prior to fieldwork commencing (refer Section 3.2).

All RAPs were invited to participate in the site survey. Participants in the 2021 survey included Delise Freeman (Pejar LALC), [Name removed at RAP request], [Name removed at RAP request] and Paul Boyd (Didge Ngunawal Clan)

The survey aimed to ground truth the location of known Aboriginal heritage sites, and identify any previously unrecorded sites within the Development Footprint. The methodology for the survey comprised:

- a pedestrian survey to accessible areas, where possible (see *Section 7.1.1*), with participants walking along proposed access tracks and transmission lines within a 50 m corridor (25 m either side of the centreline) and within a 100 m radius of all proposed turbine locations;
- the survey targeted known Aboriginal heritage sites (AHIMS registered sites) within the Project Area;
- the survey targeted each landform within the study area;
- areas of potential cultural heritage sensitivity such as raised landforms in close proximity to semi-permanent water sources were targeted;
- areas of exposure and ground visibility were targeted;
- any areas of interest to the RAPs were targeted; and
- any cultural information for the Project Area held by the RAPs that they wished to disclose was discussed and recorded during the field survey. This information was treated in confidence and distributed according to the wishes of the RAPs.

This methodology was adopted to pursue the discovery of new archaeological sites, facilitate the accurate recording of such sites, and provide sufficient information to provide an assessment of the cultural significance of the Project Area. Discussion also included Aboriginal intangible values and the importance of Aboriginal sites to the community.

7.1.1 2021 Field Survey Limitations

Field survey was limited by several factors, including dense grasses, patches of thistles that could not be traversed, and steep terrain. Where areas could not be accessed on foot due to these limitations, discussion was held with the RAPs about desktop assessment of these areas and development of appropriate management measures.

7.2 2021 Field Survey Results

7.2.1 Description of the Project Area

The southern portion of the Project Area generally consisted of grazing paddocks, which were densely vegetated with grass and weeds. Grass varied in density and height, although it was most common for paddocks to have thick knee to waist height grass across area surveyed. Weeds were also noted throughout, particularly thistle, which impeded survey at some locations. There was generally very poor ground surface visibility, with ground exposures noted along access tracks, around gates and fences, or within previously ploughed areas. Exposures associated with tracks and disturbances were inspected for artefacts and features. The Project Area contains farm infrastructure, such as fences, sheds, dams, and homesteads. During survey, the majority of the Project Area was being grazed by sheep, with cattle noted in one paddock west of Abercrombie Road.

Soils across this portion of the Project Area ranged from rich alluvial soils on lower slopes and around watercourses, to shallow loamy soils along ridges and elevated slopes. Soils contained various stone materials, with quartz appearing regularly in surface exposures, although much of the material appeared to be unsuitable for use in tool manufacture.

7.2.2 2021 Survey Coverage

The Project Area has been recorded in Survey Units (SUs) for ease of reference. The SUs were decided arbitrarily, and generally represent a grouping of proposed turbines and access tracks within the same geographic location. Where access was not available to a group of turbines in proximity to one another, these have been grouped as an SU to simplify reporting.

The following table provides a summary of the survey coverage achieved during pedestrian survey of the Project Area, in consideration of ground surface visibility and other limiting factors. The summary is provided by SU.

Table 7.1 Survey Coverage



Survey Unit	Landform	Survey Unit Area (sq m)	Visibility %	Exposure %	Effective Coverage Area (sq m)	Effective Coverage %
SU1	Rolling Hills / Upper Slope	535,129	0%	0%	0	0%
SU2	Rolling Hills / Upper Slope	180,888	5%	2%	181	0.1%
SU3	Rolling Hills / Upper Slope	187,871	5%	5%	470	0.3%
SU4	Rolling Hills / Upper Slope	817,886	50%	30%	122,682	15%
SU5	Rolling Hills / Upper Slope	441,781	0%	0%	0	0%
SU6	Rolling Hills / Upper Slope	301,288	5%	2%	301	0.1%
SU7	Rolling Hills / Upper Slope	448,745	5%	5%	1,122	0.3%
SU8	Rolling Hills / Upper Slope	841,716	0%	0%	0	0%
SU9	Rolling Hills / Upper Slope	317,521	5%	5%	794	0.3%
SU10	Rolling Hills / Upper Slope	178,887	5%	5%	447	0.3%



Survey Unit	Landform	Survey Unit Area (sq m)	Visibility %	Exposure %	Effective Coverage Area (sq m)	Effective Coverage %
SU11	Rolling Hills / Upper Slope	284,838	20%	10%	5,697	2%
SU12	Rolling Hills / Upper Slope	207,562	0%	0%	0	0
SU13	Rolling Hills / Upper Slope	502,939	5%	2%	503	0.1%
SU14	Rolling Hills / Upper Slope	265,933	10%	5%	1,330	0.5%
SU15	Rolling Hills / Upper Slope	741,553	40%	40%	118,648	16%
SU16	Rolling Hills / Upper Slope	124,265	0%	0%	0	0
SU17	Rolling Hills / Upper Slope	323,771	15%	10%	4,857	1.5%
SU18	Rolling Hills / Upper Slope	374,089	10%	5%	1,870	0.5%
SU19	Rolling Hills / Upper Slope	356,732	5%	2%	357	0.1%



7.2.3 Survey Results

A total of 14 new sites were identified during the field survey, consisting primarily of artefacts sites. Table 7.2 below provides an overview of the results of the survey, including descriptions of each SU. Table 7.3 provides descriptions of the newly identified sites, and the previously identified AHIMS site locations inspected during the field survey.



Table 7.2 Description of Survey Units



Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph
SU1	Grazing	<p>SU1 was not accessible on foot due to dense thistle and fencing impeding access. The area of SU1 that could be seen was heavily vegetated and GSV was noted to be very poor.</p> <p>There is one known heritage site within SU1, identified as PYWF A7. The site could not be relocated due to the survey limitations, but the area was noted to be overgrown.</p>	PYWF A7	
SU2	Grazing	<p>SU2 is thickly vegetated grazing land, overgrown with thistle. An access track through the thistle had been recently slashed, providing traversable areas. GSV throughout this SU was very poor.</p> <p>Land throughout SU2 varied, with a general slope from north to south across the SU. The ground surface was generally undulating and a series of large rocks were noted beneath grass coverage.</p> <p>There are no known heritage sites within SU2.</p>	Nil	



Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph
SU3	Grazing	<p>SU3 is thickly vegetated grazing land, overgrown with thistle. An access track through the thistle had been recently slashed, providing traversable areas. GSV throughout this SU was very poor.</p> <p>Land throughout SU3 varies, with a general slope from north to south across the SU. The ground surface was generally undulating and a series of large rocks was noted beneath grass coverage.</p> <p>There are no known heritage sites within SU3.</p>	Nil	
SU4	Grazing / Cropping	<p>SU4 is predominantly densely vegetated grazing land, as seen across the Project Area. Three previously registered sites were located across the SU which were not successfully relocated during the 2021 survey.</p> <p>An area of extended cropping was identified along a ridge along the SU. In this area, ground visibility was very good and exposures yielded clear evidence of stone raw materials. In these areas of exposure, two Aboriginal archaeological sites were identified.</p>	<p>PYWF A9 PYWF A10 PYWF A11 PYWF 2021-11 PYWF 2021-12</p>	



Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph
SU5	Grazing	SU5 exhibited dense grass coverage across the length of the area, and a decision was made by the RAPs to provide desktop assessment of this area, rather than physically inspect. There are no previously recorded sites within the area, and the SU sits predominantly within mid and lower slopes, with minimal archaeological potential. No areas of cultural sensitivity were identified by the RAPs	Nil	
SU6	Grazing	SU6 consisted of undulating hills with dense, short grass throughout. The SU is situated on the eastern side of Abercrombie Road, within cattle grazing paddocks. Ground visibility was near zero, with the only noted exposures caused primarily by cattle trampling. No sites were identified.	Nil	



Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph
SU7	Grazing	SU7 continues the cattle grazing paddocks of SU6 through the same landscape of rolling hills. Ground visibility is very poor, with dense short grass coverage. There are some small trees within the SU, although none are mature or showed evidence of cultural modification. No sites were identified.	Nil	
SU8	Grazing	<p>SU8 was not physically inspected across the entire length. Portions were inspected while accessing SU3, and a decision was made with the RAPs to present a desktop assessment, due to poor visibility. The area is densely vegetated and utilised for cattle grazing.</p> <p>Based on visual inspection from the boundary of the SU and review of desktop information it was identified that the SU was located across a series of mid slope landforms associated with an area of undulating hillslopes. While the SU crosses Middle Station Creek and a number of other unnamed tributaries these tributaries are considered unlikely to provide suitable access to water resources when compared with other slopes within the Project Area.</p> <p>No known sites are located within this area and the landform presents low archaeological potential.</p>	Nil	

Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph
SU9	Grazing	<p>SU9 consists of rolling hills covered with heavy grass to at least knee height. The landform varies from ridges to mid slopes throughout. No exposures were noted through SU9, and ground visibility was generally very low.</p> <p>No known sites are located within this area, and no new sites were identified during field survey.</p>	Nil	
SU10	Grazing	<p>SU10 primarily consists of upper slope and ridge landforms along the western edge of the Project Area. This SU has dense, short grass throughout, with minimal tree cover. No mature trees were noted. Ground visibility was very low across the SU.</p> <p>No existing sites are located within this area, and no new sites were identified during the field survey.</p>	Nil	

Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph
SU11	Grazing	<p>SU11 consists of upper slopes and ridges along the western edge of the Project Area. Ground coverage was generally thick with poor visibility across the majority of the SU. There is a thicket of trees within the SU, with broad exposures resulting from drainage erosion beneath. This exposure contains one known heritage site (Paling Yards 8), consisting of an artefact scatter.</p> <p>During the field survey, additional artefacts were identified within this location (PYWF 2021-10). The site consists of 16 artefacts, including silcrete and mudstone objects, across an area of approximately 25 m x 15 m.</p>	PYWF 2021-10 Paling Yards 8	
SU12	Grazing	<p>SU12 was not physically inspected, as the landforms involved were steep and covered with thistles. RAPs opted to complete desktop assessment of this area. From an accessible vantage point, it was clear that ground visibility would be very low across the SU. There are no known sites within this area, and the landscape generally contains low archaeological potential.</p>	Nil	

Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph
SU13	Grazing	SU13 contains rolling hills, with the majority of the SU consisting of mid to upper slopes. The SU contains high, dense grasses with very limited ground surface visibility. There is also very little tree coverage throughout the SU, with much of the area cleared for grazing. No new sites were identified.	Nil	
SU14	Grazing	SU14 consist of rolling hills, with upper and mid slopes the most common landscape features. Throughout the majority of the SU, grass coverage was thick and at least knee height. In some areas, particularly along ridges, grass was shorter and some exposures were noted. Ground visibility was still minimal, although improved over other parts of the Project Area. SU14 contains two known Aboriginal heritage site (PYWF A13 and PYWF A14), which could not be relocated during survey, due to dense grass coverage. No new sites were identified.	PYWF A13 PYWF A14	

Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph
SU15	Grazing	<p>SU15 is a large SU, with varied landforms included. The northern end of the SU is densely grassed paddocks along the crest of a hill, while the southern portion contains steep slopes leading into a valley. In the valley, ground surface visibility was very good, owing to erosion and surface wash. One known site (Paling Yards 7) was identified within SU15. The artefacts that form this original recording were not relocated; however, upwards of 20 new artefacts were identified around the same location. The new sites consist of a large scatter of mudstone and silcrete objects, across an area of approximately 100 m x 20 m. The site is surrounded by smaller scatters and isolated finds. It is probable that these sites form part of a larger site complex. These sites were delineated into nine new sites (PYWF 2021 -1 to PYWF 2021-9)</p>	<p>PYWF 2021-1 PYWF 2021-2 PYWF 2021-3 PYWF 2021-4 PYWF 2021-5 PYWF 2021-6 PYWF 2021-7 PYWF 2021-8 PYWF 2021-9</p> <p>Paling Yards 7</p>	
SU16	Grazing	<p>SU16 was not physically inspected, as RAPs determined desktop assessment would be appropriate given the steep terrain and thick ground cover. There are no known sites within this area.</p> <p>Based on the steep terrain desktop assessment identified this SU was unlikely to contain intact archaeological deposits and was of low archaeological sensitivity.</p>	Nil	

Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph
SU17	Grazing	SU17 consisted of grazing paddocks and an existing access road, which has been gravelled with imported material. The access road extends throughout the majority of the SU, and although this presents ground exposure, it is considered this has no archaeological potential as the material is imported. Outside the access tracks, ground surface visibility was generally very low, due to dense grass coverage. No sites were identified within this SU.	Nil	
SU18	Grazing	SU18 was situated along the ridgeline, with some areas of upper and mid-slope featured. Generally, the SU consists of grazing land with poor visibility. There are several stands of trees within the SU, beneath which ground exposures were noted. One new site comprised of a number of mudstone artefacts were identified (PYWF 2021-13).	PYWF 2021-13	






Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph
SU19	Grazing	SU19 contained densely grassed grazing land with minimal ground exposures. The landforms are primarily upper slopes and crests. Ground visibility was poor throughout, with minimal exposures noted. One scarred tree was identified in this survey unit.	PYWF 2021-14	



Table 7.3 Survey Results



AHIMS Site Number	Site Name	Survey Unit	Coordinates (GDA94 Zone 55)	Description	Photograph (ERM 2021, unless noted)
AHIMS # 51-3-0037	PYWF A7	1	X: 757598 Y: 6218635	<p>Artefact Scatter and Deposit</p> <p>Located in a saddle which is an east access point between Middle Station Creek and Manus Creek catchment areas. Site contains of six silcrete artefacts located in an area of high visibility associated with stock movements through a gate.</p> <p>The site extent was assessed to extent across the full extent of the saddle landform and to contain a subsurface deposit.</p> <p>PYWF A7 was inaccessible during survey due to dense thistle across the survey unit.</p>	Not Available
AHIMS # 51-3-0039	PYWF A9	4	X: 754263 Y: 6219843	<p>Isolated Find</p> <p>PYWF A9 was comprised of an isolated find located within a dam embankment comprised of a silcrete piece. The site extent was identified to have been heavily displaced from its original environment.</p> <p>The site was not associated with subsurface archaeological potential.</p> <p>No Aboriginal objects were identified in association with this site during the 2021 survey.</p>	Not Available
AHIMS # 51-3-0040	PYWF A10	4	X: 754590 Y: 6219992	<p>Artefact Scatter</p> <p>PYWF A10 was located on a saddle within a ridgeline feature. A total of 8 artefacts were identified within this area during its original recording. The site was assessed high potential for further objects to be present across the site extent. Based on the high level of disturbance however it was not assessed to represent an intact deposit</p> <p>No Aboriginal objects were identified in association with this site during the 2021 survey.</p>	Not Available

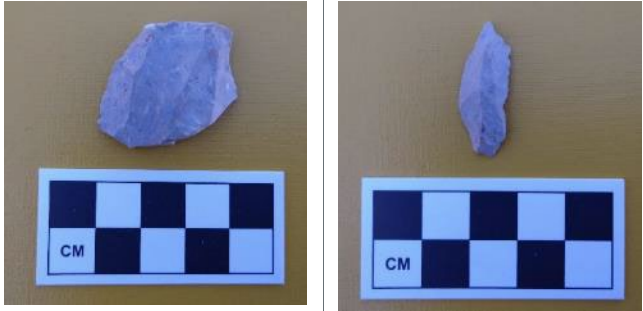

AHIMS Site Number	Site Name	Survey Unit	Coordinates (GDA94 Zone 55)	Description	Photograph (ERM 2021, unless noted)
AHIMS # 51-3-0041	PYWF A11	4	X: 754663 Y:6220543	<p>Artefact Scatter and Deposit PYWF A11 was originally identified as a complex open camp site located across a level crest of the north west branch of Defiance Ridge. During the original recording Artefacts were identified across the majority of the level surface associated with the crest landform.</p> <p>The site was assessed to be representative of an intact artefact deposit.</p> <p>No Aboriginal objects were identified in association with this site during the 2021 survey.</p>	Not Available
AHIMS #51-3-0058	Paling Yard 8	11	X: 751514 Y: 6217053	<p>Artefact Scatter and Deposit 55 artefacts identified at this site, including cores, flakes and debitage. The site occurs at the top of a gully, representing a potential camping or hunting position. Artefacts identified within this location were assessed to be representative of surface expressions of an intact subsurface deposit.</p> <p>The location of Paling Yards 8 was revisited during survey. While specific artefacts associated with the site were not identified additional artefacts were found in close proximity and recorded as PYWF 2021-10</p>	 <p>Anderson Environmental, 2013</p>
AHIMS #51-3-0043	PYWF A13	14	X: 752157 Y: 6216138	<p>Artefact Scatter Located on a dirt access road and adjacent land within the Mingary Park Farm. The site was located on a gentle slope within a closed catchment area. A total of 13 artefacts were recorded at site; including artefacts manufactured from chert, brecciated chert and quartz.</p> <p>The location of PYWF A13 was revisited during the 2021 survey. Due to extensive grass cover no Aboriginal objects were identified during the 2021 survey.</p>	Not Available


AHIMS Site Number	Site Name	Survey Unit	Coordinates (GDA94 Zone 55)	Description	Photograph (ERM 2021, unless noted)
AHIMS # 51-3-0044	PYWF A14	14	X: 752133 Y: 6216318	<p>Artefact Scatter PYWF A14 was originally identified as 2 silcrete flakes located in a stock scour. The site was located on a level area of ridge top which had been converted to pastoral lands. The site was located within a highly disturbed area however it was considered likely that further cultural material may be present across the site.</p> <p>The location of PYWF A13 was revisited during the 2021 survey. Due to extensive grass cover No Aboriginal objects were identified during the 2021 survey.</p>	Not Available
AHIMS #51-3-0057	Paling Yard 7	15	X: 750265 Y: 6214056	<p>Artefact Scatter Consists of a backed blade and a core, identified within an existing access road.</p>	 <p>Anderson Environmental, 2013</p>



AHIMS Site Number	Site Name	Survey Unit	Coordinates (GDA94 Zone 55)	Description	Photograph (ERM 2021, unless noted)
# 51-3-0094	PYWF 2021-1	15	X: 749964.5197 Y: 6213933.578	<p>Isolated Find</p> <p>PYWF 2021-1 consists of a single Greywacke flake measuring 3 cm by 3.3 cm. Flake was identified along the existing access track through the southern portion of SU15.</p>	
# 51-3-0093	PYWF 2021-2	15	X: 750036.2302 Y: 6213979.499	<p>Artefact Scatter</p> <p>PYWF 2021-2 consists of mudstone and chert artefacts found in an exposure along the existing access track through SU15. The exposure was noted on a small rise in the landscape. The surrounding area is considered to have moderate archaeological sensitivity.</p>	



AHIMS Site Number	Site Name	Survey Unit	Coordinates (GDA94 Zone 55)	Description	Photograph (ERM 2021, unless noted)
# 51-3-0092	PYWF 2021-3	15	X: 750159.9805 Y: 6214055.895	<p>Artefact Scatter</p> <p>PYWF 2021-3 consists of mudstone and silcrete artefacts located along the existing access track in the southern portion of SU15. The scatter was identified approximately 100 m west of AHIMS #51-3-0057 and approximately 60 m west of PYWF 2021-6. Artefacts range in size and type, although are largely flakes or flaked pieces, with no formal tools noted. The surrounding area is considered to have moderate archaeological sensitivity.</p>	
#51-3-0091	PYWF 2021-4	15	X: 750163.7706 Y: 6214056.813	<p>Isolated Find</p> <p>PYWF 2021-4 consists of a single silcrete flake located approximately 4m east of PYWF 2021-3, on the access track through SU15. The artefact measures approximately 4.5 cm x 2 cm.</p>	


AHIMS Site Number	Site Name	Survey Unit	Coordinates (GDA94 Zone 55)	Description	Photograph (ERM 2021, unless noted)
# 51-3-0090	PYWF 2021-5	15	X: 750196.103 Y: 6214060.99	<p>Artefact Scatter</p> <p>PYWF 2021-5 is an artefact scatter consisting of mudstone and chert flakes and flaked pieces, located approximately 20 m west of PYWF 2021-6 and 30 m east of PYWF 2021-4. It is presumed that these sites make up a larger site complex. The site was identified within the existing access track through the south of SU15, on a slight ridge. Artefacts vary in size and condition. The surrounding area is considered to have moderate archaeological sensitivity.</p>	
# 51-3-0089	PYWF 2021-6	15	X: 750238.5512 Y: 6214052.755	<p>Artefact Scatter</p> <p>PYWF 2021-6 is a large artefact scatter measuring at least 20 m x 10 m to the west of AHIMS #51-3-0057. It is presumed that this artefact scatter forms part of the same overall site complex, and is associated with the other scatters identified in this location.</p> <p>At least 20 artefacts were identified, predominantly consisting of mudstone flakes and flaked pieces. No formal tool types were noted. The surrounding area is considered to have moderate archaeological sensitivity.</p>	

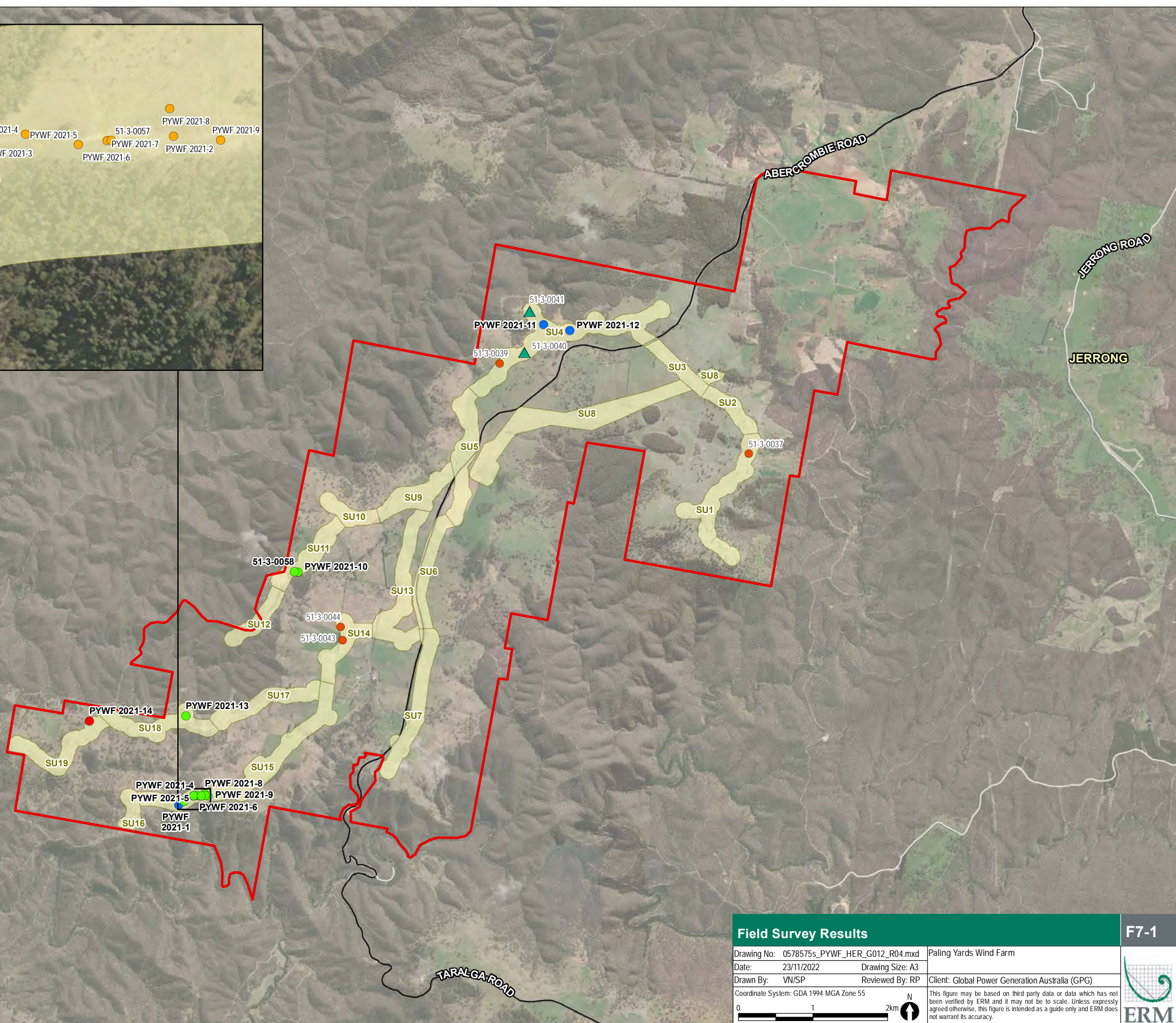
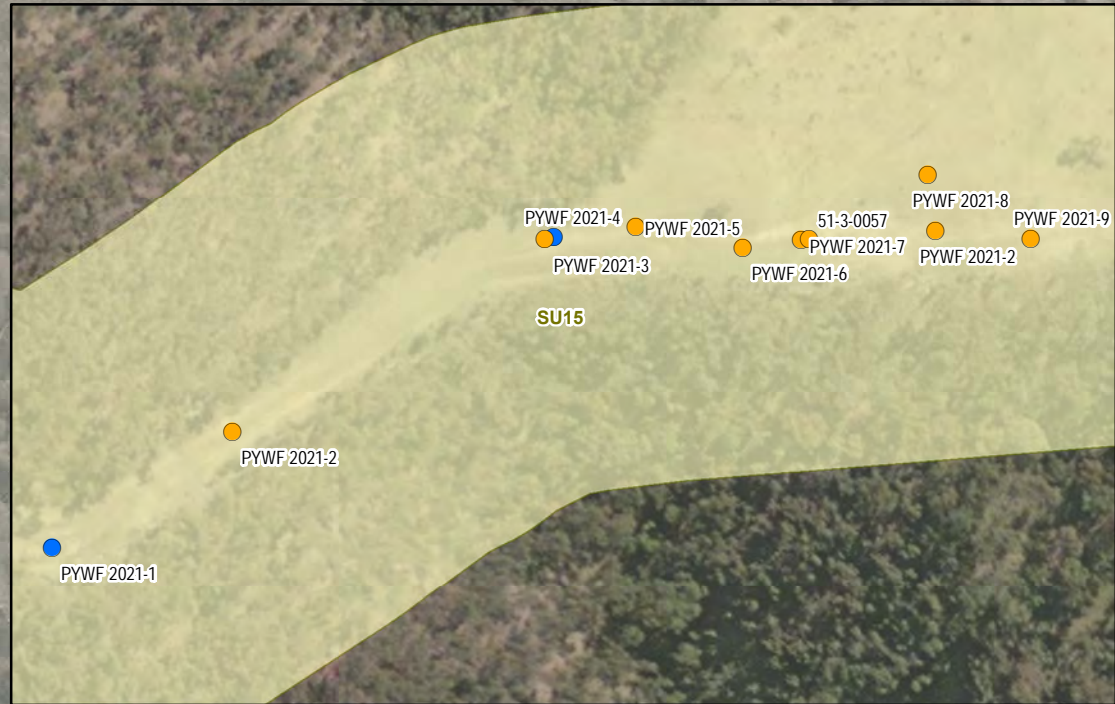
AHIMS Site Number	Site Name	Survey Unit	Coordinates (GDA94 Zone 55)	Description	Photograph (ERM 2021, unless noted)
# 51-3-0088	PYWF 2021-7	15	X: 750261.7728 Y: 6214055.700	<p>Artefact Scatter</p> <p>PYWF 2021-7 consists of two mudstone flakes identified near the recorded location of AHIMS #51-3-0057. It is presumed that they form part of the same site, given their proximity to the original recording. The flakes measure approximately 3 cm x 2.7 cm and 3 cm x 1 cm.</p>	
# 51-3-0078	PYWF 2021-8	15	X: 750312.0688 Y: 6214081.673	<p>Artefact Scatter</p> <p>PYWF 2021-8 consists of four flakes located approximately 50 m north-east of AHIMS #51-3-0057. The mudstone and quartz artefacts were located within an erosion scour to the north of the existing access track through the south of SU15.</p>	

AHIMS Site Number	Site Name	Survey Unit	Coordinates (GDA94 Zone 55)	Description	Photograph (ERM 2021, unless noted)
# 51-3-0079	PYWF 2021-9	15	X: 750352.801 Y: 6214056.344	<p>Artefact Scatter PYWF 2021-9 consists of two flakes, one mudstone and one silcrete, identified at the base of a steep access track. The artefacts were identified within the erosion scour surrounding a gate, at the southern end of SU15. Silcrete was not commonly identified during the survey, and no evidence of unworked silcrete raw material was noted throughout the survey area. The surrounding area is considered to have moderate archaeological sensitivity.</p>	 <p>The photograph shows two stone flakes resting on a dark, textured soil surface. The flake on the left is light-colored and translucent, while the one on the right is reddish-brown. A black and white checkered scale bar is positioned below the flakes, with the letters 'CM' visible in the bottom left corner of the scale bar.</p>

AHIMS Site Number	Site Name	Survey Unit	Coordinates (GDA94 Zone 55)	Description	Photograph (ERM 2021, unless noted)
# 51-3-0080	PYWF 2021-10	11	X: 751557.3049 Y: 6217047.632	<p>Artefact Scatter</p> <p>PYWF 2021-10 consists of a collection of mudstone artefacts located along an eroded track in proximity to AHIMS #51-3-0058. The artefacts are similar in size, and include flakes and flaked pieces, with no formal tools identified.</p> <p>The artefacts identified at this site are considered to be an extension of the Artefact Scatter and associated deposit of Paling Yards 8. The surrounding area is considered to have high archaeological sensitivity.</p>	
# 51-3-0081	PYWF 2021-11	4	X: 754850.0842 Y: 6220365.511	<p>Isolated Find</p> <p>PYWF 2021-11 is identified as a silcrete flake identified on an upper slope within a recently slashed paddock. The object was surrounded by other raw materials, but no other evidence of worked pieces was noted in the area. The surrounding area is considered to have moderate archaeological sensitivity.</p>	

AHIMS Site Number	Site Name	Survey Unit	Coordinates (GDA94 Zone 55)	Description	Photograph (ERM 2021, unless noted)
# 51-3-0082	PYWF 2021-12	4	X: 755201.6229 Y: 6220282.719	<p>Isolated Find PYWF 2021-12 is an isolated mudstone flake identified on the crest of a recently slashed paddock. The surrounding area contained pebbles and pieces of stone raw material, although no other objects were identified in proximity. The surrounding area is considered to have moderate archaeological sensitivity.</p>	
# 51-3-0087	PYWF 2021-13	18	X:750055 Y: 6215124	<p>Artefact Scatter PYWF 2021-13 is an artefact scatter of seven mudstone pieces located in an area of erosion below a tree, along the proposed access road to Turbine 9. The artefacts are flakes and flaked pieces, all roughly the same size and all the same mudstone material. No further objects were located in proximity to this scatter. The surrounding area is considered to have moderate archaeological sensitivity.</p>	



AHIMS Site Number	Site Name	Survey Unit	Coordinates (GDA94 Zone 55)	Description	Photograph (ERM 2021, unless noted)
# 51-3-0086	PYWF 2021-14	19	X: 748766.2787 Y: 6215054.896	<p>Scarred Tree PYWF 2021-14 consists of a scarred tree with a large oblong scar. The tree is located near an access track between two turbine locations. The scar has a tall, narrow shape measuring approximately 2 m x 0.4 m.</p>	



Legend

- Reassessed: Artefact
- ▲ Reassessed: Artefact, Potential Archaeological Deposit (PAD)
- Artefacts Scatter
- Isolated Find
- Scarred Tree
- ▨ Artefact Pad
- ▭ Project
- ▭ Survey Units
- Main Road
- Minor Road
- - - Path and Track

Source:
 BaseData - DCDB and DTDB DLPI 2021
 AHIMS Search Jan 2021
 ESRI World Imagery 2018

Field Survey Results		F7-1
Drawing No: 0578575s_PYWF_HER_G012_R04.mxd	Paling Yards Wind Farm	
Date: 23/11/2022	Drawing Size: A3	
Drawn By: VN/SP	Reviewed By: RP	
Coordinate System: GDA 1994 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.
		

7.3 2022 Field Survey Methodology

The second archaeological field survey which encompassed the northern portion of the Project Area was undertaken over two days between 27 July to 28 July 2022 by Alyce Haast (ERM Senior Archaeologist) and representatives of the RAPs.

RAP representatives included Chris McAlister (Pejar LALC), [Name removed at RAP request] and Debra Charman (Didge Ngunawal Clan).

The proposed survey methodology was provided to the RAPs for comment prior to fieldwork commencing (refer Section 3.2). The survey aimed to ground truth the location of known Aboriginal heritage sites, and identify any previously unrecorded sites within the northern portion of the Development Footprint.

Initially the survey methodology also included a proposal to revisit portions of the Project Area investigated as part of the 2021 survey program in response to minor design revisions in these areas. During the field program the proposal to undertake this was discussed with the RAPs. The RAPs confirmed that due to the relatively localised nature of these design changes that they were satisfied that previous survey of this area had adequately sampled the Investigation Area and that desktop assessment of the potential of these landscapes was considered adequate to identify heritage values associated with these landscapes. Consequently, survey was limited to the northern portion of the Project Area.

The methodology for the survey comprised:

- a pedestrian survey to accessible areas, where possible (see *Section 7.1.1*), with participants walking along proposed access tracks and transmission lines within a 50 m corridor (25 m either side of the centreline) and within a 100 m radius of all proposed turbine locations;
- the survey targeted known Aboriginal heritage sites (AHIMS registered sites) within the Survey Area where accessible;
- the survey targeted each landform within the Survey Area;
- areas of potential cultural heritage sensitivity such as raised landforms in close proximity to semi-permanent water sources were targeted;
- areas of exposure and ground visibility were targeted;
- any areas of interest to the RAPs were targeted; and
- any cultural information for the Project Area held by the RAPs that they wished to disclose was discussed and recorded during the field survey. This information was treated in confidence and distributed according to the wishes of the RAPs.

7.3.1 2022 Field Survey Limitations

Field survey was limited by several factors, including dense grasses, waterlogged landscapes and steep terrain. Where areas could not be accessed on foot due to these limitations, discussion was held with the RAPs about desktop assessment of these areas and development of appropriate management measures.

7.4 2022 Field Survey Results

7.4.1 Description of the Project Area

The northern portion of the Survey Area generally consisted of densely vegetated grazing paddocks. Grass varied in density and height, although the majority of land in this portion of the Project area was comprised of low lying pastoral grasses. While thistle and blackberry bushes were common in several portions of the Project Area they were not a sufficient density to limit survey in this location.

There was generally very poor ground surface visibility, with ground exposures noted along access tracks, around gates and fences, or within previously ploughed areas. Exposures associated with tracks and disturbances were inspected. The northern portion of the Project Area contained farm infrastructure, such as fences, sheds, dams, and homesteads.

Soils across the Project Area ranged from rich alluvial soils on lower slopes and around watercourses, to shallow loamy soils along ridges and elevated slopes. In some areas paddocks had been heavily stripped of its overlying topsoil with the underlying B horizon clays visible from the surface. Soils contained various stone materials. In particular, several areas included extensive surface deposits of natural quartz cobbles.

7.4.2 2022 Survey Coverage

Recording of the northern portion of the Project Area continued the established SU naming convention from the 2021 survey. A total of 10 SU's were recorded (SU20 – SU29). Steep densely vegetated terrain and creek crossings limited access to a small portion of the Development Footprint which was subsequently subject to desktop assessment.



The following table provides a summary of the survey coverage achieved during pedestrian survey of the Project Area, in consideration of ground surface visibility and other limiting factors. The summary is provided by SU.


Table 7.4 Survey Coverage



Survey Unit	Landform	Survey Unit Area (sq m)	Visibility %	Exposure %	Effective Coverage Area (sq m)	Effective Coverage %
20	Rolling Hills	113,956	10	50	5697	5
21	Rolling Hills	110,864	50	100	55,432	50
22	Rolling Hills/ Drainage line	98,600	0	0	0	0
23	Rolling Hills	78,073	20	50	7,807	10
24	Rolling Hills	37,065	10	20	741	2
25	Rolling Hills	102,859	20	20	4,114	4
26	Rolling Hills	52,945	10	20	1,058	2
27	Rolling Hills	43,261	10	50	2,163	5
28	Rolling Hills	63,631	10	50	3,181	5
29	Rolling Hills/ Drainage line	140,109	5	50	350	2.5



7.4.3 Survey Results

A total of 3 new sites were identified during the field survey, consisting of a combination of artefacts sites and scarred trees. Table 7.2 below provides an overview of the results of the survey, including descriptions of each SU. Table 7.3 provides descriptions of the newly identified sites, and the previously identified AHIMS site locations inspected during the field survey.

Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph (ERM 2022 unless otherwise noted)
SU20	Grazing	SU20 was comprised of a series of rolling hills rising towards a tall ridgeline located in the centre of the SU. The majority of the SU was heavily vegetated with dense manicured grasses. Visibility across the survey unit was limited to dam walls and existing access tracks which were in poor condition due to recent rains. The development of access tracks in the eastern portion of the SU had involved significant land disturbance with the tracks cut into the side of otherwise sloped landforms. The SU had been subject to extensive clearing with limited scattered trees present across the SU.	Nil	
SU21	Grazing	<p>SU21 was comprised of a gently sloped hillslope/ spur extending towards Mount Brown Gully. The hillslope included localised weed species which did not directly obscure the ground surface resulting in high levels of surface visibility. Soils within the SU were comprised of clayey soils which included substantial gravels on the ground surface.</p> <p>The southern portion of the survey unit was comprised of a more steeply sloped portion of land surrounding two artificially dammed drainage lines. Based on the moderately steep nature of the slope in this location this portion of the SU was not identified to demonstrate archaeological potential.</p> <p>One artefact scatter was identified across the SU within the portion of the SU associated with the gently sloped hillslope/ spur.</p>	PYWF22_AS2	

Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph (ERM 2022 unless otherwise noted)
SU22	Grazing	SU22 was located across a steeply sloped densely vegetation landscape which crossed Mount Brown Gully. Review of the landscape from adjacent vantage points suggested that visibility across the survey unit would have been low due to the dense woodland and heavy leaf litter. Based on the steeply sloped nature of the SU and likely associated difficulty accessing the areas of crest desktop assessment did not identify the SU as demonstrating archaeological potential	Nil	Not available
SU23	Grazing	SU23 was located across a gently to moderately sloped spur line. The SU was primarily utilised for grazing with large areas of pastoral grasses. The western portion of the SU included a heavily eroded track with high levels of exposure associated with this landscape. The eastern portion of the SU was heavily grasses with areas of ground surface visibility limited to erosion scours associated with cattle movements. Evidence of disturbance across this SU included development of the existing access track and mounds of local stone which appeared to have been moved utilising mechanical methods. One previously recorded and one newly identified Aboriginal site were identified within S23.	PYWF22_AS1 PYWF A1	

Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph (ERM 2022 unless otherwise noted)
SU24	Grazing	SU24 was located across an undulating landscape which included areas of gentle to steep slope. The SU was primarily used for grazing and had evidence of some level of landscape modification through the construction of several dams immediately adjacent to the SU. Visibility across the SU was extremely low with dense grasses and scrub obscuring the ground surface. Minor erosion surfaces were present across access	Nil	
SU25	Grazing	SU25 extended across a series of undulating hillslopes and was comprised largely of existing access tracks which had been cut into the existing hill slopes. Visibility across the survey unit was relatively which revealed a dark orange clay surface with gravel inclusions. A small portion of the SU extended towards a gently sloped pastoral landscape adjacent to Brothers Creek. One previously registered site was located within this landscape (PYWF A4).	PYWF A4	

Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph (ERM 2022 unless otherwise noted)
SU26	Grazing	<p>SU26 extended across an undulating landform which incorporated areas of valley, slope and crest. The SU included areas of open pasture, as well as areas of localised agricultural plantings. Visibility across the SU was generally low with areas of exposure limited to the existing access tracks and recently ploughed lands. Existing disturbances across the SU included impacted associated with vegetation clearance, agricultural land use and the development of access tracks.</p> <p>No Aboriginal sites or areas of PAD were identified in SU26.</p>	Nil	
SU27	Grazing	<p>SU27 was located across a mid-slope landform adjacent to a tributary of Brothers Creek. The SU broadly followed an existing access track which had been cut into the surrounding slope. Visibility was generally low with exception of the identified access tracks and erosions associated with cattle movement. The southern portion of the SU was located across a gently to moderately sloped landform. Exposures within the southern portion of SU revealed a clay based subsoil suggesting that the ground surface in this portion of the SU had been stripped of its topsoil as a result of past land uses. No Aboriginal sites or areas of PAD were identified in SU27.</p>	Nil	









Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph (ERM 2022 unless otherwise noted)
SU28	Grazing	<p>SU28 was located across a moderately sloped spur landform leading towards Brothers Creek. The SU extending from a crest landform with extensive areas of outcropping stone which was obscured by dense scrub. The central and southern portions of the SU was largely comprised of pastoral grasses. Visibility was generally low with areas of exposure were limited to minor ground disturbances associated with animal burrowing and cattle movements.</p> <p>Soils within the SU where visible were comprised of dark brown clay loams with limited evidence of gravels.</p> <p>No Aboriginal sites or areas of PAD were identified in SU28.</p>	Nil	
SU29	Grazing	<p>SU29 was located across a series of rolling hills which were bisected by a number of low order tributaries of Brothers Creek. Access to the SU was limited to the northern half of the SU with crossings of Brothers Creek and boggy soil conditions limiting access to the southern portion. Views of the southern portion of the SU from accessible areas confirmed that this area was heavily vegetated and would have had extremely low levels of visibility.</p> <p>The northern portion of the SU included gently to moderately sloped landforms. In several areas extensive surface deposits of quartz cobbles were identified across the landform. Inspection of the quartz cobbles did not identify any exhibiting evidence of cultural modification.</p> <p>One new Aboriginal site was identified during survey of SU29 (PYWF22_ST_01). One previously registered Aboriginal site was located within the SU (PYWF A6). PYWF A6 was located in the inaccessible portion of the SU and was not able to be surveyed as part of the 2022 survey program.</p>	PYWF22_ST_01 PYWF A6	

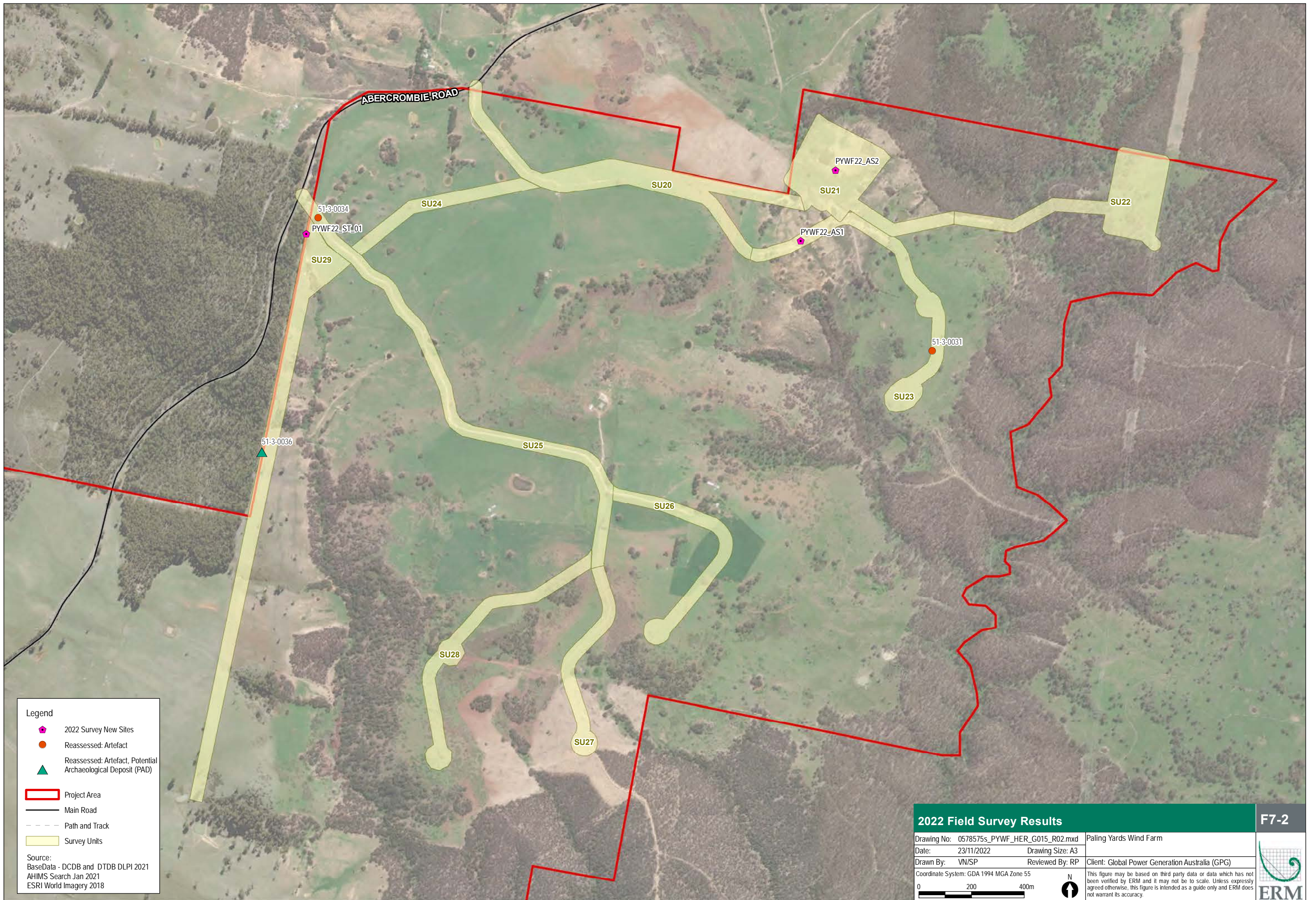
Table 7.5 2022 Survey Results

AHIMS Site Number	Site Name	Survey Unit	Coordinates (GDA94 Zone 55)	Description	Photograph (ERM 2022, unless noted)
# 51-3-0085	PYWF22_AS2	21	X: 759626 Y: 6222125	<p>Artefact Scatter and Deposit PYWF22_AS2 was comprised of a large artefact scatter located across a low lying spur landform adjacent to Mount Brown Gully. The site location is noted to contain a direct and gently sloped landform link directly to Mount Brown Gully</p> <p>The artefact scatter was assessed to extend across the extent of the spur with dimensions of approximately 300 m x 200 m. A total of 15 artefacts (see image for sample of identified artefacts) were identified and recorded including 3 silcrete artefacts, 4 chert artefacts, 7 quartz artefacts and one quartzite artefact. The majority of artefacts were flakes with one core recorded. 2 flakes were noted to contain retouch or backing.</p> <p>With exception of land clearance, no evidence of substantial historic disturbance was noted associated with the landform. It was assessed as likely that further Aboriginal objects would be present across the site extent both exposed on the surface and as part of a subsurface deposit.</p>	

AHIMS Site Number	Site Name	Survey Unit	Coordinates (GDA94 Zone 55)	Description	Photograph (ERM 2022, unless noted)
# 51-3-0084	PYWF22_AS1	23	X: 759494 Y: 6221856	<p>Artefact Scatter</p> <p>PYWF22_AS1 was identified as a large artefact scatter located across an access track. The artefact scatter was localised level area within the access track associated with a mid-slope spur.</p> <p>The site was recorded to extend over a 170x20m area with 12 artefacts identified across the sites extent (see image for sample of identified artefacts).</p> <p>Identified artefacts included 7 chert flakes, 4 quartz flakes and 1 quartzite flake. Of those identified, 3 artefacts exhibited evidence of backing or retouch.</p> <p>The PYWF22_AS1 was assessed to be subject to some level of post depositional processes associated with its location on an existing access track which was subject to extensive use. The site was not assessed to contain subsurface archaeological potential however it was considered likely that further detailed examination of the surface would result in the identification of additional Aboriginal objects.</p>	

AHIMS Site Number	Site Name	Survey Unit	Coordinates (GDA94 Zone 55)	Description	Photograph (ERM 2022, unless noted)
51-3-0031	PYWF A1	23	X: 759994 Y: 6221439	<p>Artefact Scatter and Deposit PYWF A1 was originally recorded as an artefact scatter and PAD by Heritage Concepts in 2005. The site was noted to be comprised of a natural milky quartz outcrop containing 45 artefacts within a ridgeline spur to the south east of Mount Browne.</p> <p>The location of PYWF A1 was revisited as part of the 2022 survey. The site extent was heavily vegetated with no Aboriginal objects identified at the site location. While some evidence of disturbance associated with the piling of outcropping stone was noted the landform was considered to represent an area of artefact deposition which contained both surface and sub-surface components</p>	
51-3-0034	PYWF A4	25	X: 757662 Y: 6221944	<p>Artefact Scatter and Deposit PYWF A4 was originally recorded as an artefact scatter and PAD by Heritage Concepts in 2005. Artefacts were reported to be identified on a gentle slope SW of Brothers Creek. The site was reported to contain 15 artefacts including 10 quartz artefacts and 5 chert artefacts.</p> <p>The site was reported to be located within 50m of the existing access road. The site was assessed to be representative of an intact artefact deposit.</p> <p>The location of PYWF A4 was revisited as part of the 2022 survey. The site extent was heavily vegetated with no Aboriginal objects identified at the site location. Assessment of the site during survey noted that identified artefacts identified during the initial survey were representative of an intact artefact deposit.</p>	

AHIMS Site Number	Site Name	Survey Unit	Coordinates (GDA94 Zone 55)	Description	Photograph (ERM 2022, unless noted)
# 51-3-0083	PYWF22_ST_01	29	X: 757616 Y: 6221884	<p>Scarred Tree</p> <p>PYWF22_ST_01 is comprised of scarred tree with a medium oblong scar. The tree appears to be a ribbon gum species which is located along the bank of Brothers Creek and is approximately 20m high and in good condition. The tree has a girth of 2.8m.</p> <p>The scar is located approximately 35cm above the ground surface and is 110cm long, 30cm wide and 8cm deep. Visible regrowth measures 12cm.</p>	
51-3-0036	PYWF A6	29	X: 757448 Y: 6221055	<p>Artefact Scatter and Deposit</p> <p>PYWF A6 was originally recorded as an artefact scatter and deposit located on a level, gentle rise approximately 200m SW of Brothers Creek. The surface components of the site were assessed to have been representative of artefacts dislodged from the underlying deposit during the construction of a graded fire trail.</p> <p>While access to the site area was not available during the current survey, inspection from a distance (see figure) did not identify any evidence of substantial disturbance in proximity to the site location.</p>	

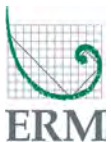


Legend

- ◆ 2022 Survey New Sites
- Reassessed: Artefact
- ▲ Reassessed: Artefact, Potential Archaeological Deposit (PAD)
- Project Area
- Main Road
- Path and Track
- Survey Units

Source:
 BaseData - DCDB and DTDB DLPI 2021
 AHIMS Search Jan 2021
 ESRI World Imagery 2018

2022 Field Survey Results		F7-2
Drawing No: 0578575s_PYWF_HER_G015_R02.mxd	Paling Yards Wind Farm	
Date: 23/11/2022	Drawing Size: A3	
Drawn By: VN/SP	Reviewed By: RP	Client: Global Power Generation Australia (GPG)
Coordinate System: GDA 1994 MGA Zone 55		<small>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.</small>
0 200 400m <div style="display: flex; align-items: center;"> <div style="width: 100px; border-bottom: 1px solid black; margin-right: 5px;"></div> <div style="text-align: center; margin-right: 5px;">N</div> <div style="text-align: center;">↑</div> </div>		



8. DISCUSSION

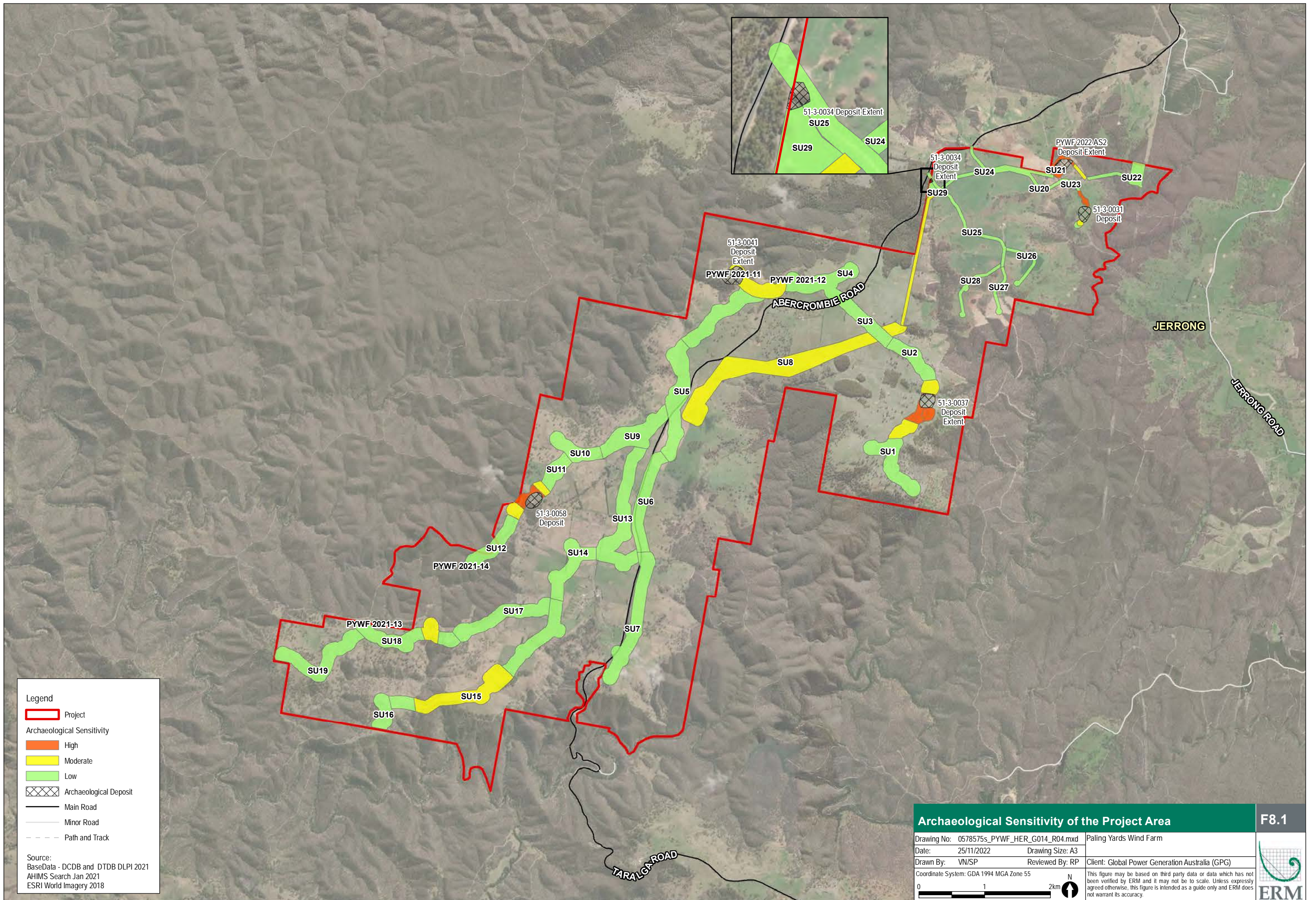
There are a number of archaeological sites located within the survey area. The majority of sites are artefact scatters of low density, with some medium - high density scatters and two scarred trees. In many cases these artefact scatters have been noted to contain the potential for further surface or subsurface artefact deposits to be identified within the site location. The type of finds, and their location, is consistent with the predictive model developed for this project, which indicates artefact sites would be most common across the Project Area. Additionally, the predictive model indicated artefact sites would be most likely along ridgelines and crests or in raised locations in proximity to water sources. Survey results show that identified sites have been most commonly identified in elevated locations or in close proximity to existing water sources.

Relating to artefact raw materials, identified sites show a preference for local materials, particularly mudstone and chert, with minimal evidence of exotic materials identified in the artefact assemblages. Silcrete identified within the Project Area varies greatly in type, suggesting various external sources of trade or resource gathering. The survey results suggest that local materials were of sufficient quality for use in the majority of tool making, but that additional outside resources were utilised when available. There is no evidence to suggest that exotic silcrete materials were favoured in tool manufacture in this area.

Nine artefact sites were assessed to be representative of intact sites with both surface and subsurface components based. While test excavation was not undertaken at these sites, the surface artefacts were assessed to be related to in-situ site development with further artefacts anticipated in these site locations associated with the nature of the underlying deposit and areas of low visibility. While the significance of these sites have been assessed based on the nature of identified surface artefacts associated with each site it is likely that further research questions could be answered by post approval excavation at these site locations.

In addition to these site extents areas of moderate to high archaeological sensitivity were also identified. These areas generally surround the assessed site extents but were not directly located within the landform associated with the intact site. These areas have been flagged as areas which are at risk of containing ex-situ artefact deposition associated with post depositional processes. The identification of areas of archaeological sensitivity is intended to signal the potential for further archaeological material to be identified in these areas, particularly extensions of surface scatters, without high potential for intact subsurface deposits. While artefacts may be present in these location the potential for these deposits to answer research questions with further investigation is considered to be limited.

Recommendations for management and mitigation of features within these intact artefact deposits and areas of sensitivity are provided in *Section 10.2*.



Legend

- Project
- Archaeological Sensitivity
 - High
 - Moderate
 - Low
- Archaeological Deposit
- Main Road
- Minor Road
- Path and Track

Source:
 BaseData - DCDB and DTDB DLPI 2021
 AHIMS Search Jan 2021
 ESRI World Imagery 2018

Archaeological Sensitivity of the Project Area		F8.1
Drawing No: 0578575s_PYWF_HER_G014_R04.mxd	Paling Yards Wind Farm	
Date: 25/11/2022	Drawing Size: A3	
Drawn By: VN/SP	Reviewed By: RP	
Client: Global Power Generation Australia (GPG)	Coordinate System: GDA 1994 MGA Zone 55	
<div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 10px;">0 1 2km</div> <div style="text-align: center;"> N </div> </div>		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.

9. ASSESSMENT OF HERITAGE SIGNIFICANCE

The following section provides an assessment of the overall Aboriginal cultural heritage significance of the survey area. The survey area has been assessed against the NSW significance assessment criteria for potential for social, historical, scientific, and aesthetic values, contributing to the overall significance of the area.

9.1 Assessment of Cultural Heritage Significance

Cultural significance is defined in the Australia ICOMOS Burra Charter 2013 (Burra Charter) as “a concept which helps in estimating the value of place”. The places that are likely to be of significance are those which help an understanding of the past or enrich the present, and which will be of value to future generations. The Burra Charter provides a definition of cultural significance as “aesthetic, historic, scientific or social value for past, present or future generations.” Aboriginal and Historic cultural heritage sites can be assessed through the applications of these four principle values.

Description of cultural heritage values

The review of background information and information gained through consultation with Aboriginal people should provide insight into past events. These include how the landscape was used and why the identified Aboriginal objects are in this location, along with contemporary uses of the land. The following descriptions of cultural heritage values are drawn from the ACHAR Guide, based on the Burra Charter principles.

- *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.

Significance values will be 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.

9.1.2 Social or Cultural Significance

The social or cultural significance of the Project Area can only be determined by the local Aboriginal community. Limited feedback was received from the RAPs during or following field survey relating to the specific social or cultural significance of the Project Area. Feedback provided noted the cultural significance of scarred trees within the Project which were noted as direction markers towards ancestral burials.

No additional comment on social value was provided during RAP feedback. It is however noted that generally all evidence of past Aboriginal land use is recognised by the RAPs as demonstrating social significance as a tangible connection to the past. The Project Area is considered to contain **moderate** social and cultural value.

9.1.3 Historic Significance

Background research undertaken in the preparation of this report indicates that the Project Area does not hold any historical significance for local Aboriginal people. No comments were received from the RAPs regarding historic significance of the Project Area. The Project Area is considered to demonstrate **nil** historic significance.

9.1.4 Scientific Significance

Scientific significance, or research value, is generally based on the ability of an archaeological resource to contain undisturbed artefactual material, occur within a context which enables the testing of certain attributes (such as age), contain large number of or material diversity, have unusual characteristics, or are a constituent of a larger site with the above characteristics.

Stone artefact sites including open camp sites (or artefact scatters) and isolated finds are the most common site types found across the region, which is reflected in the findings of the field survey. Artefact types, predominantly flakes and flaked pieces, are typical of the area. Site densities varied greatly, with some sites indicating ephemeral usage or movement through the landscape, and higher density sites potentially suggesting habitation. Artefact material identified during the survey consisted predominantly of mudstone, chert and quartz which are available locally. Silcrete objects were also identified, indicating at least some level of regional procurement or trade.

The majority of the Project Area is located within steeply sloped contexts or otherwise in landscapes which would be impacted by post colluvial movement. During survey Artefacts were often identified in disturbed contexts, such as erosion scours or access tracks. The majority of identified artefact sites are not considered to represent primary deposition. In particular, sites identified within SU15 were noted as the base of a significant slope, suggesting surface wash may have been responsible for deposition of objects at this location. Artefacts identified in disturbed contexts present lower research value, as they cannot provide accurate details of past Aboriginal land use.

The scientific significance of each site has been assessed in Table 9.1.

9.1.5 Aesthetic Significance

The Project Area is comprised of a series of rolling hills with a significant outlook towards a number of environmental features including existing rivers and mountain ranges. Despite historic land clearance, the landscape is considered to contain significant connection to the pre contact landscape and key landform features. The Project Area has been assessed to contain moderate **aesthetic** value.

9.1.6 Summary Significance Assessment

Table 8.1 below presents a summary of the significance assessment undertaken for each of the identified sites. This summary assessment considers only scientific as aesthetic values, social and historical values have been assessed at a broader landscape level as discussed above.

Table 9.1 Summary Significance of Individual Aboriginal Heritage Sites

Site Name	Scientific Values	Overall Scientific Significance
PYWF A7 (AHIMS #51-3-0037)	PYWF A7 was recorded as an artefact scatter with deposit by Heritage Concepts. The site included chert and quartz artefacts, and was situated on a raised area above two creeks. The site has moderate research potential and scientific significance.	Moderate
PYWF A9 (AHIMS # 51-3-0039)	PYWF A9 was recorded as an isolated artefact located within a dam embankment. The site was considered to be located in a heavily modified environment and as such does not demonstrate representativeness. The artefact is also considered to contain low rarity values as well as limited research or educational potential.	Low
PYWF A10 (AHIMS # 51-3-0040)	PYWF A10 was recorded as a low density artefact scatter located within a ridgeline feature. The artefacts were identified to be associated with high potential for further objects to be present. The site is considered high research potential associated with previous Aboriginal land use of ridgeline features in the region. The site itself is considered to contain low rarity values as a common site type in the region and moderate representativeness values as an example of land use techniques in the region. The site is considered to contain moderate levels of educational potential.	Moderate
PYWF A11 (AHIMS # 51-3-0041)	PYWF A11 was originally identified as a complex artefact site located across a crest landform. Original recording noted an extremely high density of artefacts across the area. The density of artefacts identified during the recording has been assessed to be have high rarity values. In addition, the site is considered to have further research potential and education potential as part of more detailed recording and interpretation of the site.	High
Paling Yard 8 (AHIMS #51-3-0058)	This site represents the top of a gully. It represents a potential hunting position. It is likely it could have been used as a temporary camp site. There are a good number of artefacts present. Anderson Environmental assessed the site as having moderate archaeological potential, due to the soil type present.	Moderate
PYWF A13 (AHIMS #51-3-0043)	The site consists of an isolated chert flake identified in a cleared paddock. Heritage Concepts assessed the site as having low to moderate archaeological potential. Research potential of the site is low.	Low
PYWF A14 (AHIMS # 51-3-0044)	The site consists of two artefacts located within a highly disturbed area. Based on the disturbed nature of the site it is considered to demonstrate limited research potential and educational potential. As a low density artefact site the site is not to be considered to be rare. The site	Low
Paling Yard 7 (AHIMS #51-3-0057)	This site represents a small site where only one core and backed blade were found. It is an area of approximately 10 m in diameter. The site was assessed by Anderson Environmental as having low to moderate archaeological potential, due to the number and type of artefacts identified.	Moderate
PYWF 2021-1 (AHIMS # 51-3-0094)	The site consists of an isolated find, located within a disturbed context along an existing access track. The site presents minimal research potential, and therefore has low scientific value.	Low

Site Name	Scientific Values	Overall Scientific Significance
PYWF 2021-2 (AHIMS # 51-3-0093)	The site consists of two mudstone artefacts, identified within a disturbed context along an existing access track. The artefacts are of a common material type, and were identified within a broader context of dense artefact scatters, associated with AHIMS #51-3-0057. Based on the material and location, the site retains moderate research potential and moderate scientific value.	Moderate
PYWF 2021-3 (AHIMS # 51-3-0092)	The site consists of three mudstone artefacts identified along an existing access road. The site is within a broader complex of dense artefact scatters, associated with AHIMS #51-3-0057, and may present research potential.	Moderate
PYWF 2021-4 (AHIMS # 51-3-0091)	The site consists of an isolated find, identified within a disturbed context. The artefact is silcrete, an uncommon material in the area. Additionally, the site is situated in proximity to other high density scatters, associated with AHIMS #51-3-0057. The site retains moderate research potential.	Moderate
PYWF 2021-5 (AHIMS # 51-3-0090)	The site consists of a low density artefact scatter, containing mudstone and chert objects. The site was identified along an existing access track, in proximity to other high density scatters, associated with AHIMS #51-3-0057. The site may contribute to our understanding of the broader site context, retaining moderate research potential.	Moderate
PYWF 2021-6 (AHIMS # 51-3-0089)	The site is a high density artefact scatter, identified across an existing access track. The site contains at least 20 artefacts, the majority of which are mudstone flakes. The site is within the broader context of sites associated with AHIMS #51-3-0057. The site has moderate research potential.	Moderate
PYWF 2021-7 (AHIMS # 51-3-0088)	The site consists of two mudstone flakes, identified along an existing access track. The site may form part of a larger complex identified in the area, associated with AHIMS #51-3-0057, and as such has potential to contribute to our understanding of past Aboriginal land usage in the area.	Moderate
PYWF 2021-8 (AHIMS # 51-3-0078)	The site consists of four mudstone flakes, located within the broader context of a series of moderately dense artefact scatters, associated with AHIMS #51-3-0057. The site has potential to contribute to our understanding of Aboriginal land use in the region.	Moderate
PYWF 2021-9 (AHIMS # 51-3-0079)	The site consists of two flakes, one mudstone and one silcrete, identified within a heavily disturbed context. The site is within the broader context of sites associated with AHIMS #51-3-0057. The silcrete material is uncommon in the area, and may present some research potential.	Moderate
PYWF 2021-10 (AHIMS # 51-3-0080)	The site consists of a number of mudstone artefacts identified in a disturbed context. The site is located in proximity to previously recorded AHIMS #51-3-0058, indicating a broader context of land usage. The site has some research potential.	Moderate
PYWF 2021-11 (AHIMS # 51-3-0081)	The site consists of an isolated find, located within a farmed paddock. The site has low research potential, as the context is likely disturbed and no other material was identified in the surrounding area.	Low

Site Name	Scientific Values	Overall Scientific Significance
PYWF 2021-12 (AHIMS # 51-3-0082)	The site consists of an isolated find, located within a farmed paddock. The site has low research potential, as the context is likely disturbed and no other material was identified in the surrounding area.	Low
PYWF 2021-13 (AHIMS # 51-3-0087)	The site consists of an artefact scatter of mudstone flakes and flaked pieces. The site has minimal research potential.	Low
PYWF 2021-14 (AHIMS # 51-3-0086)	This site is comprised of a scarred tree located within a largely cleared paddock. The scarred tree is representative of a relatively rare site type in the region which contains educational potential as the in-situ utilisation of tree bark. The tree is considered to contain limited additional research potential.	Moderate
PYWF22_AS2 (AHIMS # 51-3-0085)	This site consists of an Artefact scatter located across a gentle spur located with easy access to Brothers Creek. The artefact scatter was assessed to be located across a relatively unique landscape which is considered to be rare in the local context. The site appears intact and is considered to provide a good representative example of an artefact scatter. Based on the lack of disturbance it is considered that the site demonstrates high levels of research potential.	High
PYWF22_AS1 (AHIMS # 51-3-0084)	This site is comprised of an artefact scatter located across an access track which was assessed to have been subject to high levels of previous disturbance associated use by both livestock and farming vehicles. The artefacts are considered unlikely to represent in-situ deposits and are considered to demonstrate low representativeness and rarity values. Based on the level of disturbance across the site the research potential associated with the site is also considered to be low	Low
PYWF A1 (AHIMS # 51-3-0031)	PYWF A1 was recorded as an artefact scatter with associated subsurface artefact deposit. The site was noted to contain an outcrop of natural milky quartz outcrop which was noted to contain 45 artefacts. The assessment noted high potential for subsurface archaeological material to be present. The revisit of the site in 2022 identified evidence of surface disturbance associated with the movement and grouping of existing outcropping stone.	Moderate
PYWF A4 (AHIMS # 51-3-0034)	PYWF A4 was recorded as an artefact scatter comprised of 15 artefacts. The site was assessed to be associated with high archaeological potential for further artefacts to be potential. Based on the high level of potential for further artefacts the site is considered to demonstrate high research potential. Artefact scatters are considered to be common in the region, with the current site considered to contain moderate representative and rarity values.	Moderate
PYWF22_ST_01 (AHIMS # 51-3-0083)	This site is comprised of a scarred tree located in close proximity to Brothers Creek. The scarred tree is representative of a relatively rare site type in the region which contains educational potential as the insitu utilisation of tree bark. The tree is considered to contain limited additional research potential.	Moderate
PYWF A6 (AHIMS # 51-3-0036)	PYWF A6 was recorded as an artefact scatter located on a level gentle rise. The site was identified to be located within a heavily disturbed landscape which has been subject to multiple phases of grading. The likely presence of further material was noted however based on the level of disturbance research potential associated with the site was considered to be low. As an artefact scatter the site is considered to be relatively common without high levels of representativeness.	Low

9.2 Statement of Significance

The Aboriginal cultural heritage sites within the Project Area represent past Aboriginal land usage and subsistence patterns. The sites vary in type and density, but predominantly represent evidence of stone tool manufacture.

Artefact sites within the survey area have been evaluated as being of low to moderate scientific significance. Sites with low scientific significance include isolated finds and low density artefact scatters which were not assessed to be associated with intact subsurface deposits. 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 to high scientific significance include medium density artefact scatters, associated with intact subsurface deposits. These sites may represent occupation or activity areas subject to repeated use, and have higher research potential.

The Project Area has been assessed as having moderate aesthetic significance associated with the clear connection of the landscape to available resources and potential travel pathways. There is no evidence to suggest that the Project Area holds specific historical significance to the local Aboriginal community.

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 by the RAPs; however, it is understood that all Aboriginal heritage sites retain significance for the Aboriginal community. In particular feedback from the local Aboriginal community noted that scarred trees in the area were reported to demonstrate cultural value as a marker of burials within the region.

Although some of the sites within the survey area have been assessed as having low scientific significance, it should be noted that this assessment is balanced by the consideration that all Aboriginal sites as having social/cultural significance.

10. IMPACT ASSESSMENT

10.1 Proposed Impact

The proposed PYWF will include the following elements:

- Up to 47 wind turbines with a maximum height of 240 m;
- Up to 3 wind monitoring masts fitted with associated instruments;
- On-site electrical substations within approximately 9km of overhead power line; and
- Control room, maintenance buildings, switchgear and associated control systems in the vicinity of the wind turbine towers.
- Preparation and construction of internal roads to turbine and substation locations;
- Temporary laydown and batching plants during construction; and
- removal of native vegetation and additional vegetation planting to provide screening (if required)

Impacts within the project area will result from construction of infrastructure, grading of roads, installation of wind turbines, and excavation for installation of services.

10.2 Impact to Aboriginal Cultural Heritage Values

The proposed works will result in impact to a number of the identified sites within the Project Area, through construction and operation activities.

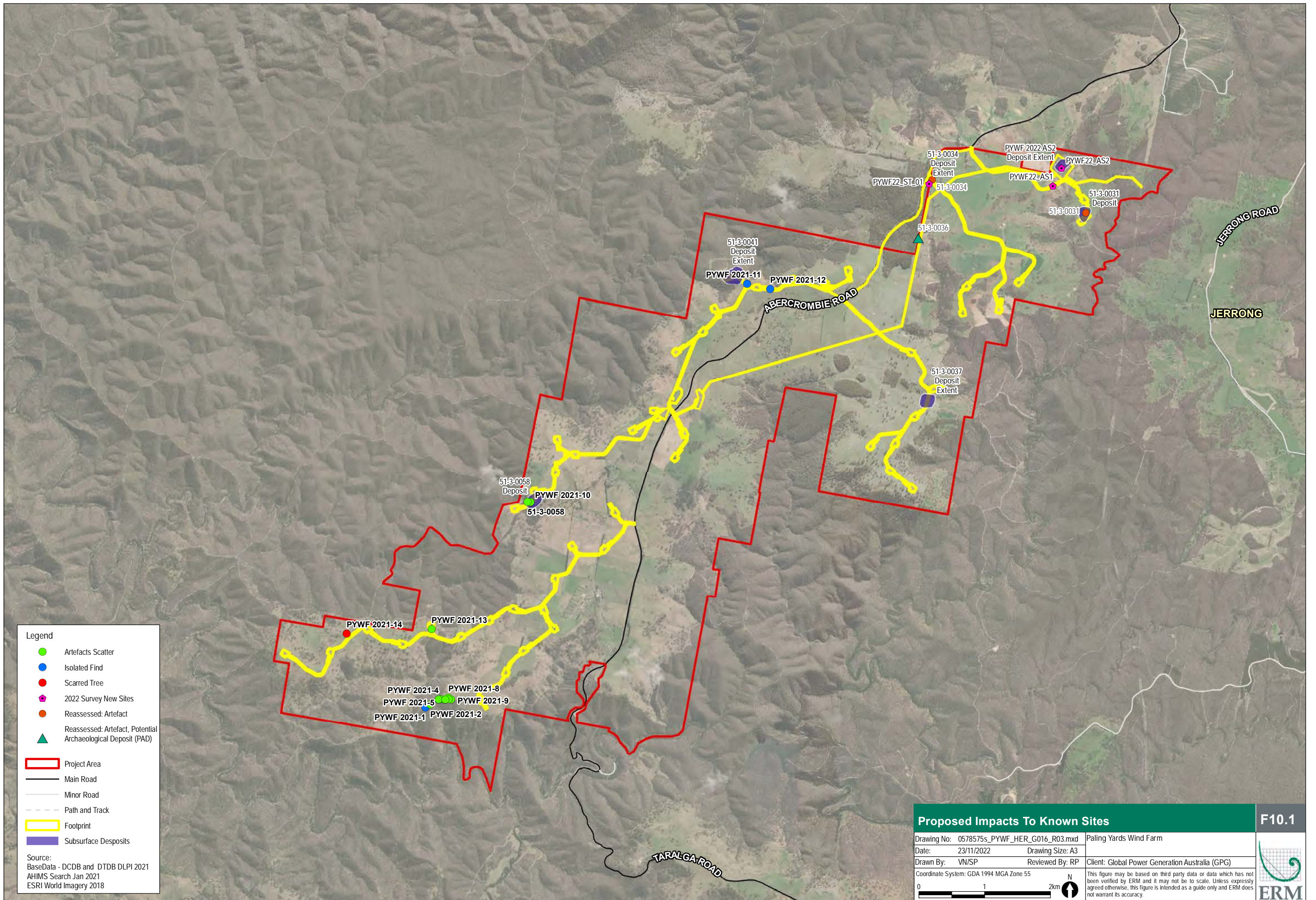
Throughout development of the Project, opportunities to reduce impacts to Aboriginal Objects have been considered. This has included the removal of several turbines and access tracks. Of the 28 sites identified within the survey area a total of 13 sites would be subject to partial to total impact by the proposed works.

Table 10.1 provides a summary of the impact to Aboriginal Cultural Heritage values that will result from the proposed works.

Table 10.1: Summary of identified impacts

Site Name	AHIMS	Scientific Significance	Impact resulting from	Type of Harm	Degree of Harm	Consequence of Harm
PYWF A7	#51-3-0037	Moderate	Access track	Direct	Total	Total loss of value
PYWF A9	#51-3-0039	Low	None	None	None	None
PYWF A10	#51-3-0040	Moderate	Access track	Direct	Total	Total loss of value
PYWF A11	#51-3-0041	High	Turbine	Direct	Partial	Partial loss of value
PYWF A13	#51-3-0043	Moderate	None	None	None	None
PYWF A14	#51-3-0044	Low	None	None	None	None
Paling Yard 7	#51-3-0057	Moderate	None	None	None	None
Paling Yard 8	#51-3-0058	Moderate	Access track	Direct	Partial	Partial loss of value
PYWF 2021-1	#51-3-0092	Low	None	None	None	None
PYWF 2021-2	# 51-3-0093	Moderate	None	None	None	None
PYWF 2021-3	# 51-3-0092	Moderate	None	None	None	None
PYWF 2021-4	# 51-3-0091	Moderate	None	None	None	None
PYWF 2021-5	# 51-3-0090	Moderate	None	None	None	None
PYWF 2021-6	# 51-3-0089	Moderate	None	None	None	None
PYWF 2021-7	# 51-3-0088	Moderate	None	None	None	None
PYWF 2021-8	# 51-3-0078	Moderate	None	None	None	None
PYWF 2021-9	# 51-3-0079	Moderate	None	None	None	None
PYWF 2021-10	# 51-3-0080	Moderate	Access track	Direct	Total	Total loss of value
PYWF 2021-11	# 51-3-0081	Low	Access track	Potential Indirect	Total	Total loss of value
PYWF 2021-12	# 51-3-0082	Low	Access track	Direct	Total	Partial loss of value

Site Name	AHIMS	Scientific Significance	Impact resulting from	Type of Harm	Degree of Harm	Consequence of Harm
PYWF 2021-13	# 51-3-0087	Low	Access Track and Turbine	Direct	Total	Partial loss of value
PYWF 2021-14	# 51-3-0086	Low	None	None	None	None
PYWF22_AS2	# 51-3-0085	High	Substation	Direct	Total	Total loss of value
PYWF22_AS1	# 51-3-0084	Low	Access Track	Direct	Partial	Partial loss of value
PYWF A1	# 53-1-0031	Moderate	Access Track and Turbine	Direct	Partial	Partial loss of value
PYWF A4	# 53-1-0034	Moderate	Access Track	Direct	Partial	Partial loss of value
PYWF22_ST_01	# 51-3-0083	Moderate	None	None	None	None
PYWF A6	# 53-1-0036	Low	Transmission line	Direct	Partial	Partial loss of value



Legend

- Artefacts Scatter
- Isolated Find
- Scarred Tree
- ◆ 2022 Survey New Sites
- Reassessed: Artefact
- ▲ Reassessed: Artefact, Potential Archaeological Deposit (PAD)
- Project Area
- Main Road
- Minor Road
- Path and Track
- Footprint
- Subsurface Desposits

Source:
 BaseData - DCDB and DTDB DLPI 2021
 AHIMS Search Jan 2021
 ESRI World Imagery 2018

Proposed Impacts To Known Sites		F10.1
Drawing No: 0578575s_PYWF_HER_G016_R03.mxd	Palling Yards Wind Farm	
Date: 23/11/2022	Drawing Size: A3	
Drawn By: VN/SP	Reviewed By: RP	Client: Global Power Generation Australia (GPG)
Coordinate System: GDA 1994 MGA Zone 55		<small>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.</small>

11. ECOLOGICALLY SUSTAINABLE DEVELOPMENT PRINCIPALS

In accordance with the ACHAR Guide, Ecologically Sustainable Development (ESD) principles have been considered in the preparation of this ACHAR including options to avoid impacts to Aboriginal cultural heritage values.

The ESD as relevant to Aboriginal cultural heritage are considered below.

11.1.1 *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 considered the potential for Aboriginal objects and sites to be harmed within both the current and former impact footprints. This assessment has included a buffer surrounding the proposed infrastructure to ensure that assessment includes an adequate understanding of the potential for impact.

Where harm has been identified assessment has confirmed that the current level of investigation is adequate to have developed an understanding of the nature of significance of each site and surrounding areas of sensitivity. Consequently, proposed management measures have been development in consideration of the significance that each site has been assessed to possess. The project is considered to adhere to the principal of intergenerational equity.

11.1.2 *The Principle of Intergenerational Equity*

The principle of inter-generational 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.

The current assessment has included detailed assessment of the Project Area's Aboriginal heritage. Early and continued heritage assessment throughout several iterations of the Project have ensured that Aboriginal heritage values are considered throughout the development of the Project. This consideration has also included efforts to reduce impacts to identified Aboriginal cultural heritage with 15 sites within the survey area to be preserved through the reduction of the Development Footprint. This level of conservation in conjunction with management measures to salvage identified Aboriginal sites adheres to the Principle of Intergenerational Equity.

12. CONCLUSIONS AND RECOMMENDATIONS

12.1 Conclusions

The PYWF Project Area has been subject to two previous Aboriginal cultural heritage assessment, undertaken in 2005 and 2013. The 2005 assessment identified 14 Aboriginal sites, while the 2013 assessment identified a further eight sites. The identified sites consisted of artefact scatters and isolated finds, and were assessed as having low to moderate significance (in relation to scientific, aesthetic and historical values), and high significance (in relation to social/cultural values).

Field survey undertaken for the current assessment including survey of multiple iterations of the Project Footprint (the survey area). The survey examined the location of 11 previously registered sites located within or in close proximity to the survey area. Additionally, the field survey aimed to identify any additional Aboriginal archaeological material that may be present within the Survey Footprint. The field survey was unable to identify any of the objects recorded during the 2005 or 2013 surveys; however, 17 new sites were recorded. Of these, two are in close proximity to previously recorded sites.

In addition to the sites, the field survey has identified a number of areas of archaeological sensitivity that are not considered to represent areas of Potential Archaeological Deposit (PAD). Rather, they indicate areas of higher potential for ex-situ cultural heritage material to be present (and an increased risk of 'harm' to cultural material).

The conclusions of this report can be summarised as:

- Aboriginal heritage sites have been located within the Project Area;
- A total of 28 sites are located within the survey area and have been assessed by the current report. Of those sites, a total of 13 sites have been assessed to be subject to direct or indirect impact as part of the Project.
- Six surface artefact sites have been assessed to contain associated areas of artefact deposit;
- Areas of archaeological sensitivity which are indicative of areas which may include ex-situ deposition of artefacts have also been identified surrounding the delineated extents of the identified artefact deposits and at other identified sites within the Development Footprint;
- One site (PYWF 2021-11) is located within the Development Footprint but does not directly overlap with proposed infrastructure. Assessment has identified that this site may be subject to indirect impacts as part of works.

A total of 12 sites (13 with indirect) would be subject to direct impacts associated with the Project.

12.2 Recommendations

The following recommendations are made to assist in ongoing management of identified heritage sites. The management recommendation statements below were developed in light of information gathered from the background desktop investigation, predictive modelling, results of the field survey, heritage significance assessment, legislative requirements, and consultation with relevant Aboriginal parties. A summary of which sites and/ or locations each recommendation is relevant to is provided in Table 12.1.

12.2.1 Cultural Awareness Induction

- Contractors engaged by GPG to complete the works should prepare an Environmental Management Strategy (EMS), an Environmental Work Method Statement (EWMS) and/or a Construction Environmental Management Plan (CEMP) that ensures that all onsite personnel are aware of their obligations and requirements in relation to Aboriginal heritage as outlined in the Projects Conditions of Approval and guided by the regulations and guidelines developed under

the NPW Act. The EWMS should be presented to staff through a site-specific heritage induction; and

- The Heritage Induction should include information on not only the identified sites in this report, but also types of potential archaeological evidence that may be found during works (this relates to the Chance Finds Procedure, refer *Section 10.2.4*).

12.2.2 Surface Collection of Artefact Scatters

- Prior to the commencement of ground disturbance activities, the RAPs should be provided the opportunity to attend site and collect any/all artefacts present on the ground surface at the location of identified sites within the Development Footprint;
- Surface collection will be undertaken by the RAPs, in consultation with a qualified archaeologist and subject to detailed recording;
- Following completion of the surface collection, summary reporting and Aboriginal Site Impact Recording (ASIRF) forms will be completed and submitted to AHIMS;
- All recovered material will be stored within a safe location to be determined in consultation with GPG and the RAPs for the duration of works, and repatriated to the site, in a location to be determined by the RAPs, upon completion of Project construction; and
- The location of the proposed repatriation should be outlined in the projects Cultural Heritage Management Plan.

12.2.3 Staged Salvage Excavation

- At sites with an associated intact subsurface deposit (see Table 12.1) component a staged salvage excavation process is recommended to provide an opportunity to salvage a representative sample of the subsurface component of each assessed site area. Salvage Excavation should be guided by the preparation of an Archaeological Method Statement (AMS) for each site which would detail the proposed salvage methodology and proposed research questions. Salvage should be focused within portions of each identified site subject to direct impact;
- Where there is sufficient space, Stage 1 salvage should be comprised of a grid of 1 x 1m pits spaced 20m apart; and
- Following the completion of Stage 1 salvage pits consideration would be given the establishment of a Stage 2 open area salvage. It is anticipated that appropriate open area salvage dimensions would be identified during preparation of AMS for each area proposed to be subject to excavation.

12.2.4 Archaeological Monitoring

- In identified areas of high and moderate archaeological sensitivity, archaeological monitoring is recommended during initial earth clearance activities;
- Archaeological monitoring would be undertaken by a qualified archaeologist, in consultation with the RAPs, during initial ground disturbing works; and
- Archaeological monitoring would aim to identify, record, and salvage any previously unknown Aboriginal archaeological material within the Development Footprint.

12.2.5 Chance Finds Procedure

- Areas assessed to demonstrate low archaeological sensitivity should be subject to a Chance Finds Procedure.

- Where Aboriginal objects (excluding human remains) are identified as a chance find, works would be temporarily halted in the area and the following procedure should be followed:
 - The location of the find should be visually marked and a 10m exclusion zone around the site established.
 - An appropriately qualified heritage professional should be consulted to confirm the site as an Aboriginal Object;
 - Where confirmed the site should be recorded on the AHIMS database and managed in accordance with the surface collection procedure undertaken for remaining identified sites across the Development Footprint;
 - RAPs should be notified and provided the opportunity to participate in the surface collection.
- In the event of the discovery of human skeletal material (or suspected human skeletal material) during project activities in the Project Area the following steps should be followed:
 - All activities and/or works in the immediate area must cease;
 - The State Police must be contacted along with Heritage NSW; and
 - Any sand/soils removed from the near vicinity of the find must be identified and set aside for assessment by the investigating authorities.

The Chance Finds Procedure should be included in the EMS/EWMS/CEMP

12.2.6 Preparation of a Cultural Heritage Management Plan

- It is recommended that a Cultural Heritage Management Plan (CHMP) be developed for the site, prior to the commencement of construction;
- The CHMP would be developed in consultation with the RAPs;
- The CHMP would provide detailed management and mitigation protocols including detailing the AMS for each area to be subject to salvage excavation, and identify triggers for stop works, further investigation, or additional consultation with the RAPs; and
- The CHMP would incorporate the results of this assessment, and all previous investigations.

12.2.7 Repatriation of Archaeological Material

- Following completion of all construction works, archaeological material salvaged from the Project Area will be repatriated to a designated location on the site;
- RAPs will determine the location for repatriation, preferably within a location that is unlikely to be subject to future disturbance; and
- Archaeological material will be reburied in accordance with leading practice guidelines, and the location of the reburial recorded and submitted to AHIMS.

12.2.8 Aboriginal Community Endorsement and Recommendations

- A copy of this report should be provided the RAPs for their review and comment, prior to finalisation; and
- Upon finalisation, a copy of this report incorporating comments from the RAPs should be provided to the relevant Heritage NSW regional branch.

Table 12.1 Summary of recommendations and related sites/ locations

Management Measures	Relevant sites/ Locations
Cultural Awareness Induction	<ul style="list-style-type: none"> ■ All
Surface Collection	<ul style="list-style-type: none"> ■ PYWF A7 (AHIMS # 51-3-0037) ■ PYWF A10 (AHIMS # 51-3-0040) ■ PYWF A11 (AHIMS # 51-3-0041) ■ Paling Yard 8 (AHIMS # 51-3-0058) ■ PYWF 2021-10 (AHIMS # 51-3-0080) ■ PYWF 2021-11 (AHIMS # 51-3-0081) ■ PYWF 2021-12 (AHIMS # 51-3-0082) ■ PYWF 2021-13 (AHIMS # 51-3-0087) ■ PYWF22_AS2 (AHIMS # 51-3-0085) ■ PYWF22_AS1 (AHIMS # 51-3-0084) ■ PYWF A1 (AHIMS # 51-3-0031) ■ PYWF A4 (AHIMS # 51-3-0034) ■ PYWF A6 (AHIMS # 51-3-0036)
Staged Salvage Excavation	<ul style="list-style-type: none"> ■ PYWF A4 (AHIMS # 51-3-0034) ■ PYWF22_AS2 (AHIMS # 51-3-0085) ■ Paling Yard 8 (AHIMS # 51-3-0058) ■ PYWF A11 (AHIMS # 51-3-0041) ■ PYWF A1 (AHIMS # 51-3-0031) ■ PYWF A7 (AHIMS # 51-3-0037)
Archaeological Monitoring	<ul style="list-style-type: none"> ■ Areas of High and Moderate Archaeological Sensitivity
Chance Finds Procedure	<ul style="list-style-type: none"> ■ Areas of Low Archaeological Sensitivity
Cultural Heritage Management Plan	<ul style="list-style-type: none"> ■ All sites
Repatriation of Archaeological Material	<ul style="list-style-type: none"> ■ All sites
Aboriginal Community Endorsement and Recommendations	<ul style="list-style-type: none"> ■ This report

13. REFERENCES

- Bishop, P., 1984, *Oligocene and Miocene volcanic rocks and quartzose sediments of the Southern Tablelands, New South Wales: definitions of stratigraphic units*, Royal Society of New South Wales. Journal and Proceedings, 117(3/4), p113-117
- Dibden, Julie (New South Wales Archaeology Pty Ltd) 2007 *Proposed Gullen Range Wind Farm Archaeological Assessment*. A report to NGH Environmental on behalf of Epuron Pty Ltd.
- Gemmel-Smith, Philippa, 2004. *Thematic History of Oberon Shire*. Report to Oberon Council.
- Macalister, Charles 1907 *Old Pioneering Days in the Sunny South* (Chas. Macalister Book Publishing Committee)
- NSW National Parks and Wildlife Service 2003 *The Bioregions of New South Wales: their biodiversity, conservation and history* NSW National Parks and Wildlife Service Hurstville NSW
- OzArk Environmental and Heritage Management Pty Ltd 2016 *Aboriginal and Historic Due Diligence Archaeological Assessment, Proposed Pine Hill Quarry*. Report prepared for R.W Corkery & Co Pty Ltd.
- Thomas, O.D., et al., 2013, *Taralga 1:100 000 geological sheet 8829 (2nd edition)*, Geological Survey of New South Wales.

APPENDIX A SEARS

Planning Secretary's Environmental Assessment Requirements

Section 4.12(8) of the *Environmental Planning and Assessment Act 1979*

Part 8, Division 2 of the *Environmental Planning and Assessment Regulation 2021*

Application Number	SSD-29064077
Project Name	<p>Paling Yards Wind Farm which includes:</p> <ul style="list-style-type: none"> • the construction, operation and decommissioning of a wind farm with an estimated capacity 310 megawatts (MW), a maximum of 47 turbines and a maximum height of 240 m (to blade tip); and • ancillary infrastructure, including site offices, internal roads, underground and overhead cabling, and a substation.
Location	Abercrombie Road, Paling Yards, 60 km north of Goulburn in the Oberon Local Government Area (LGA)
Applicant	Global Power Generation Australia Pty Ltd
Date of Issue	09/03/2022
General Requirements	<p>The environmental impact statement (EIS) for the development must comply with the requirements in Part 8, Division 5 of the <i>Environmental Planning and Assessment Regulation 2021</i> (the Regulation) and must have regard to the <i>State Significant Development Guidelines</i>.</p> <p>In particular, the EIS must include:</p> <ul style="list-style-type: none"> • a stand-alone executive summary; • a full description of the development, including: <ul style="list-style-type: none"> – details of construction, operation and decommissioning, including any proposed staging of the development or refurbishing of turbines over time; – all infrastructure and facilities, such as substations, transmission lines, construction compounds, concrete batching plants, internal access roads, and road upgrades (including any infrastructure that would be required for the development, but the subject of a separate approvals process); – plans for any buildings – site plans and maps at an adequate scale with dimensions showing: <ul style="list-style-type: none"> ○ the location and dimensions of all project components including coordinates in latitude / longitude and maximum AHD heights of the turbines; ○ existing infrastructure, land use, and environmental features in the vicinity of the development, including nearby residences and approved residential developments or subdivisions within 5 km of a proposed turbine, and any other existing, approved or proposed wind farms in the region; ○ the development corridor that has been assessed, including any allowance for micro-siting of turbines and identification of the key environmental constraints that have been considered in the design of the development;

- consolidated list and GIS data of coordinates of wind turbines, project infrastructure and relevant receivers and distances to potentially impacted receivers; and
 - details of the progressive rehabilitation of the site;
- a list of any approvals that must be obtained before the development may commence;
- the terms of any proposed voluntary planning agreement with the relevant local council;
- an assessment of the likely impacts of the development on the environment, focusing on the specific issues identified below, including:
 - a description of the existing environment likely to be affected by the development using sufficient baseline data;
 - an assessment of the likely impacts of all stages of the development (which is commensurate with the level of impact), including any cumulative impacts of the site and existing or proposed developments in the Oberon region, in accordance with the *Cumulative Impact Assessment Guideline* (DPIE, Nov 2021), taking into consideration any relevant legislation, environmental planning instruments, guidelines, policies, plans and industry codes of practice and including the *NSW Wind Energy Guidelines for State Significant Wind Energy Development* (2016);
 - a description of the measures that would be implemented to avoid, mitigate and/or offset the impacts of the development, including details of consultation with any affected non-associated landowners in relation to the development of mitigation measures, and any negotiated agreements with these landowners; and
 - a description of the measures that would be implemented to monitor and report on the environmental performance of the development, including adaptive management strategies and contingency measures to address residual impact;
- a consolidated summary of all the proposed environmental management and monitoring measures, identifying all the commitments in the EIS; and
- a detailed evaluation of the merits of the project as a whole having regard to:
 - the requirements in Section 4.15 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), and how the principles of ecologically sustainable development have been incorporated in the design, construction and ongoing operations of the development;
 - the environmental, economic and social costs and benefits of the development, having regard to the predicted electricity demand in NSW and the National Electricity Market, NSW's *Climate Change Policy Framework*, NSW's *Net Zero Plan Stage 1: 2020 - 2030* and the greenhouse gas savings of the development;
 - feasible alternatives to the development (and its key components), including the consequences of not carrying out the development; and
 - the suitability of the site with respect to potential land use conflicts with existing and future surrounding land uses, including rural villages, rural dwellings, subdivisions, land of high scenic value, conservation areas (including National Parks, State Parks and Reserves), state forests, mineral and coal resources, triangulation stations, tourism facilities, existing or proposed wind farms, and the capacity of the existing electricity transmission network to accommodate the development;

	<ul style="list-style-type: none"> • a detailed consideration of the capability of the project to the security and reliability of the electricity system in the National Electricity Market, having regard to local system conditions and the Department’s guidance on the matter; and • a signed statement from the author of the EIS, certifying that the information contained within the document is neither false nor misleading. <p>The EIS must also be accompanied by a report from a suitably qualified person providing:</p> <ul style="list-style-type: none"> • a detailed calculation of the capital investment value (CIV) (as defined in the Dictionary of the Regulation) of the proposal, including details of all assumptions and components from which the CIV calculation is derived; • an estimate of jobs that will be created during the construction and operational phases of the proposed infrastructure; and • certification that the information provided is accurate at the date of preparation. <p>The development application must be accompanied by the consent of the owner/s of the land (as required in clause 23(1) of the Regulation).</p>
<p>Key issues</p>	<p>The EIS must address the following specific issues for the wind farm and associated infrastructure:</p> <p>Landscape and Visual – including a detailed assessment of the visual impacts of all components of the project (including turbines, transmission lines, substations, battery energy storage system, and any other ancillary infrastructure in accordance with the <i>NSW Wind Energy: Visual Assessment Bulletin</i> (DPE, 2016), including detailed consideration of potential visual impacts on local residences (including approved developments, lodged development applications and dwelling entitlements), amenity values of the Abercrombie National Park, scenic or significant vistas and road corridors in the public domain.</p> <p>Noise and Vibration – the EIS must assess:</p> <ul style="list-style-type: none"> • wind turbine noise in accordance with the <i>NSW Wind Energy: Noise Assessment Bulletin</i> (EPA/DPE, 2016); • noise generated by ancillary infrastructure in accordance with the <i>NSW Noise Policy for Industry</i> (EPA, 2017); • construction noise under the <i>Interim Construction Noise Guideline</i> (DECC, 2009); • traffic noise under the <i>NSW Road Noise Policy</i> (DECCW, 2011); • vibration under the <i>Assessing Vibration: A Technical Guideline</i> (DECC, 2006); and • assess the noise impacts on amenity/recreational use of the Abercrombie National Park (including walking tracks, campgrounds and lookouts) considering the <i>NSW Noise Policy for Industry</i> (EPA, 2017). <p>Biodiversity – the EIS must:</p> <ul style="list-style-type: none"> • assess biodiversity values and the likely biodiversity impacts of the project, including impacts associated with transport route road upgrades and indirect impacts on the Abercrombie National Park, in accordance with the <i>Biodiversity Conservation Act 2016</i> (NSW), the Biodiversity Assessment Method (BAM) 2020 and documented in a Biodiversity Development Assessment Report (BDAR), including a detailed description of the proposed regime for avoiding, minimising, managing and reporting on the biodiversity impacts of the development over time, and a strategy to offset any residual impacts of the development in accordance with the BC Act; • assess the likely impacts on listed aquatic threatened species, populations or ecological communities, scheduled under the <i>Fisheries Management Act 1994</i>,

and a description of the measures to minimise and rehabilitate impacts;

- assess the impacts of the development on birds and bats, including blade strike, low air pressure zones at the blade tips (barotrauma), alteration to movement patterns, and cumulative impacts of other wind farms in the vicinity; and
- if an offset is required, details of the measures proposed to address the offset obligation.

Heritage –including:

- an assessment of the impact to Aboriginal cultural heritage items (archaeological and cultural) in accordance with *the Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (OEH, 2011) and the *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW* (DECCW, 2010), including results of archaeological test excavations (if required);
- 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 *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW, 2010); and
- an assessment of the impacts to historic heritage having regard to the *NSW Heritage Manual*.

Transport – including:

- an assessment of the construction, operational and decommissioning traffic impacts of the development on the local and State road network;
- provide details of the peak and average traffic volumes (including light, heavy and over-mass / over-dimensional vehicles) and transport and haulage routes during construction, operation and decommissioning, including traffic associated with sourcing raw materials (water, sand and gravel);
- an assessment of the potential traffic impacts of the project on road network function including intersection performance, site access arrangements, site access and haulage routes, and road safety, including school bus routes and school zones;
- an assessment of the capacity of the existing road network to accommodate the type and volume of traffic generated by the project (including over-mass / over-dimensional traffic haulage routes from port) during construction, operation and decommissioning;
- an assessment of the likely transport impacts to the site access and haulage routes, site access point, any rail safety issues, any Crown Land (including existing Travelling Stock Route network), particularly in relation to the capacity and conditions of the roads and use of rail level crossings (and rail safety assessment if required), and impacts to rail underbridges and overbridges;
- a cumulative impact assessment of traffic from nearby developments including, Crookwell 3 Wind Farm; and
- provide details of measures to mitigate and / or manage potential impacts including a schedule of all required road upgrades (including resulting from over mass / over dimensional traffic haulage routes), road maintenance contributions, and any other traffic control measures, developed in consultation with the relevant road and / or rail authority.

Water and Soils – including:

- an assessment of the likely impacts of the development (including flooding) on surface water and groundwater resources traversing the site and surrounding watercourses, the Wyangala Dam Water catchment, drainage channels, wetlands, riparian land, farm dams, groundwater dependent ecosystems and acid

sulfate soils, related infrastructure, adjacent licensed water users and basic landholder rights, and measures proposed to monitor, reduce and mitigate these impacts;

- quantify water demand, identify water sources (surface and groundwater), including any licensing requirements, and determine whether an adequate and secure water supply is available for the development;
- where the project involves works within 40 metres of the high bank of any river, lake or wetlands (collectively waterfront land), identify likely impacts to the waterfront land, and how the activities are to be designed and implemented in accordance with the *DPI Guidelines for Controlled Activities on Waterfront Land* (2018) and (if necessary) *Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings* (DPI 2003); and *Policy & Guidelines for Fish Habitat Conservation & Management* (DPI, 2013);
- a description of the measures to minimise surface and groundwater impacts, including how works on erodible soil types would be managed and any contingency requirements to address residual impacts in accordance with the *Managing Urban Stormwater: Soils and Construction* series of guidelines;
- an assessment of risks of dust generation and propose mitigation measures designed in accordance with the *Approved Methods and Guidelines for the Modelling and Assessment of Air Pollutants in New South Wales* (DECC, 2005);

Land – including:

- a detailed justification of the suitability of the site and that the site can accommodate the proposed development having regard to its potential environmental impacts, permissibility, strategic context and existing site constraints;
- an assessment of the potential impacts of the development on existing land uses on the site and adjacent land, including:
 - the impact of the development on the Abercrombie National Park in accordance with the guidelines for *Development adjacent to National Parks and Wildlife Service Lands* (DPIE, 2020);
 - consideration of agricultural land, Travelling Stock Routes, flood prone land, Crown lands, mining, quarries, mineral or petroleum rights;
 - a soil survey to determine the soil characteristics and consider the potential for erosion to occur; and
 - an assessment of the compatibility of the development with existing land uses, during construction, operation and after decommissioning, including consideration of the zoning provisions applying to the land, including subdivision (if required);

Hazards and Risks – including:

- *Aviation Safety*:
 - assess the impact of the development under the *National Airports Safeguarding Framework Guideline D: Managing Wind Turbine Risk to Aircraft*;
 - provide associated height and co-ordinates for each turbine assessed;
 - assess potential impacts on aviation safety, including cumulative effects of wind farms in the vicinity, potential wake / turbulence issues, the need for aviation hazard lighting and marking, including of wind monitoring masts, considering, defined air traffic routes, aircraft operating heights, approach / departure procedures, radar interference, communication systems, navigation

	<p>aids, use of emergency helicopter access, and aerial baiting and culling in the National Park;</p> <ul style="list-style-type: none"> – identify aerodromes within 30 km of the turbines and consider the impact to nearby aerodromes and aircraft landing areas and aerial pest control and fire management operations in the Abercrombie National Park; – address impacts on obstacle limitation surfaces; and – assess the impact of the turbines on the safe and efficient aerial application of agricultural fertilisers and pesticides in the vicinity of the turbines and transmission line; <ul style="list-style-type: none"> • <i>Telecommunications</i> – identify possible effects on telecommunications systems, assess impacts and mitigation measures including undertaking a detailed assessment to examine the potential impacts as well as analysis and agreement on the implementation of suitable options to avoid potential disruptions to radio communication services, which may include the installation and maintenance of alternative sites; • <i>Health</i> – consider and document any health issues having regard to the latest advice of the National Health and Medical Research Council, and identify potential hazards and risks associated with electric and magnetic fields (EMF) and demonstrate the application of the principles of prudent avoidance; • <i>Bushfire</i> – identify potential hazards and risks associated with bushfires / use of bushfire prone land, potential impacts on Abercrombie National Park and including the risks that a wind farm would cause bush fire and any potential impacts on the aerial fighting of bushfires and demonstrate compliance with <i>Planning for Bush Fire Protection 2019</i>; and • <i>Blade Throw</i> – assess blade throw risks. <p>Social Impact – including an assessment of the social impacts in accordance with <i>Social Impact Assessment Guideline</i> (DPIE, Nov 2021) and consideration of construction workforce accommodation;</p> <p>Economic – including any benefits of the economic impacts or benefits of the project for the region and the State as a whole, including consideration of any increase in demand for community infrastructure services, and details of how the construction workforce will be managed to minimise local impacts, including a consideration of the construction workforce accommodation.</p> <p>Waste – identify, quantify and classify the likely waste streams to be generated during construction and operation, and describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste.</p>
<p>Plans and Documents</p>	<p>The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Part 3 of the Regulation. Provide these as part of the EIS rather than as separate documents.</p> <p>In addition, the EIS must include high quality files of maps and figures of the subject site, proposal, and proposed road upgrades.</p>
<p>Engagement</p>	<p>During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners.</p> <p>The EIS must:</p> <ul style="list-style-type: none"> • detail how engagement undertaken was consistent with the <i>Undertaking Engagement Guide: Guidance for State Significant Projects</i> (DPIE, Nov 2021); and

	<ul style="list-style-type: none"> • describe the consultation process and the issues raised and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, an explanation should be provided. <p>In particular you must consult with:</p> <ul style="list-style-type: none"> • consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups, affected landowners, exploration licence holders, quarry operators and mineral title holders; and • carry out detailed consultation with the following: <ul style="list-style-type: none"> – Oberon Council – NSW Aboriginal Land Council – DPE’s Biodiversity, Conservation and Science Directorate – NSW National Parks and Wildlife Service – Heritage NSW – DPIE Water Group – WaterNSW – Environment Protection Authority – Crown Lands – Regional NSW – Mining, Exploration & Geoscience – Department of Primary Industries – Agriculture and Fisheries divisions – Transport for New South Wales – Transgrid – Department of Finance, Services and Innovation –Telco Authority – Fire & Rescue NSW – NSW Rural Fire Service – Commonwealth Department of Defence – Civil Aviation Safety Authority – Airservices Australia.
Expiry Date	<p>If you do not lodge a Development Application and EIS for the development within 2 years of the issue date of these SEARs, your SEARs will expire. If an extension to these SEARs will be required, please consult with the Planning Secretary 3 months prior to the expiry date.</p>
Legislation, Policies & Guidelines	<p>The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans as identified.</p> <p>While not exhaustive, a list of some of the legislation, policies and guidelines that may be relevant to the environmental assessment of this proposal can be found at:</p> <ul style="list-style-type: none"> • https://www.planning.nsw.gov.au/Policy-and-Legislation/Planning-reforms/Rapid-Assessment-Framework/Improving-assessment-guidance • https://www.planningportal.nsw.gov.au/major-projects/assessment/policies-and-guidelines; and • http://www.environment.gov.au/epbc/publications#assessments

APPENDIX B ABORIGINAL COMMUNITY CONSULTATION - CONSULTATION LOG

Date	Method	Addressee	Organisation	Sender	Sender Organisation	Details
Agency Letter						
12.01.2021	Email	N/A	Office of the Registrar	Stephanie Moore	ERM	Sent Agency Letter
12.01.2021	Email	N/A	Native Title Services Corporation	Stephanie Moore	ERM	Sent Agency Letter
12.01.2021	Email	N/A	Native Title Tribunal	Stephanie Moore	ERM	Sent Agency Letter
12.01.2021	Email	N/A	Oberon Council	Stephanie Moore	ERM	Sent Agency Letter
12.01.2021	Email	N/A	Central Tablelands Local Land Services	Stephanie Moore	ERM	Sent Agency Letter
12.01.2021	Email	N/A	Heritage NSW	Stephanie Moore	ERM	Sent Agency Letter
12.01.2021	Email	N/A	Pejar Local Aboriginal Land Council	Stephanie Moore	ERM	Sent Agency Letter
Agency Responses						
12.01.2021	Email	Stephanie Moore	ERM	N/A	Central Tableland Local Land Services	Automatic Reply to email acknowledging receipt
12.01.2021	Email	Stephanie Moore	ERM	N/A	Heritage NSW	Automatic Reply to email acknowledging receipt
12.01.2021	Email	Stephanie Moore	ERM	N/A	Native Title Tribunal	Automatic Reply to email acknowledging receipt
12.01.2021	Email	Geospatial Search Requests	National Native Title Tribunal	Stephanie Moore	ERM	Submission of search request forms
13.01.2021	Email	Stephanie Moore	ERM	Geospatial Search Requests	National Native Title Tribunal	Provision of search results
13.01.2021	Email	Stephanie Moore	ERM	Rachel Rewiri	Office of the Registrar	Provision of search results
29.01.2021	Email	Stephanie Moore	ERM	Daniel Clegg	Heritage NSW	Provision of search results
Advert						
14.01.2021	Advert	Oberon Review		Stephanie Moore	ERM	Advertisement placed in the Oberon Review, requesting interested Aboriginal parties to register their interest in the process of Aboriginal stakeholder consultation for the Paling Yards wind farm Requested registration of interest by 28 January 2021

Invitation to register an interest						
02.02.2021	Post	Lyn Syme	North-East Wiradjuri	Stephanie Moore	ERM	Invitation to Register Letter posted
02.02.2021	Post	N/A	Wiradjuri Interim Working Party	Stephanie Moore	ERM	Invitation to Register Letter posted
02.02.2021	Post	Coral Peckham	Wirrimbah Direct Descendants	Stephanie Moore	ERM	Invitation to Register Letter posted
02.02.2021	Post	Robert Clegg	Wiradjuri Council of Elders	Stephanie Moore	ERM	Invitation to Register Letter posted
02.02.2021	Post	The Board of Directors	Warrabinga Native Title Claimants Corporation	Stephanie Moore	ERM	Invitation to Register Letter posted
02.02.2021	Post	Trevor Robinson	N/A	Stephanie Moore	ERM	Invitation to Register Letter posted
02.02.2021	Post	N/A	Pejar LALC	Stephanie Moore	ERM	Invitation to Register Letter posted
02.02.2021	Post	N/A	North-Eastern Wiradjuri	Stephanie Moore	ERM	Invitation to Register Letter posted
02.02.2021	Post	Neville Williams	N/A	Stephanie Moore	ERM	Invitation to Register Letter posted
02.02.2021	Post	Helen Riley	Mingaan Aboriginal Corporation	Stephanie Moore	ERM	Invitation to Register Letter posted
02.02.2021	Post	Chairperson	Gundungurra Tribal Council Aboriginal Corporation	Stephanie Moore	ERM	Invitation to Register Letter posted
02.02.2021	Post	Sharon Brown	Gundungurra Aboriginal Heritage Association Inc	Stephanie Moore	ERM	Invitation to Register Letter posted
02.02.2021	Post	Chairperson	Dhuuluu-Yala Aboriginal Corporation	Stephanie Moore	ERM	Invitation to Register Letter posted
02.02.2021	Post	Bill Allen	N/A	Stephanie Moore	ERM	Invitation to Register Letter posted
02.02.2021	Post	[Removed at stakeholder request]	[Removed at stakeholder request]	Stephanie Moore	ERM	Invitation to Register Letter posted
10.02.2021	Email	Stephanie Moore	ERM	[Removed at stakeholder request]	[Removed at stakeholder request]	Registration of Interest in the project
10.02.2021	Email	Stephanie Moore	ERM	[Removed at stakeholder request]	[Removed at stakeholder request]	Registration of Interest in the project
15.02.2021	Email	[Removed at stakeholder request]	[Removed at stakeholder request]	Stephanie Moore	ERM	Acknowledged receipt of registration
15.02.2021	Email	[Removed at stakeholder request]	[Removed at stakeholder request]	Stephanie Moore	ERM	Acknowledged receipt of registration

15.02.2021	Post	N/A	N/A	N/A	Wiradjuri Interim Working Party	Invitation to Register Returned to Sender
25.02.2021	Post	N/A	N/A	Chairperson	Dhuuluu-Yala Aboriginal Corporation	Invitation to Register Returned to Sender
26.02.2021	Email	Stephanie Moore	ERM	Jaclyn Burns	Oberon Council	Provided response to Stage 1 Notification stating we should contact Pejar LALC.

ACHAR methodology

26.02.2021	Email	[Removed at stakeholder request]	[Removed at stakeholder request]	Stephanie Moore	ERM	Sent Project Methodology for review and comments
26.02.2021	Email	[Removed at stakeholder request]	[Removed at stakeholder request]	Stephanie Moore	ERM	Sent Project Methodology for review and comments
26.02.2021	Email	Delise Freeman	Pejar LALC	Stephanie Moore	ERM	Sent Project Methodology for review and comments
17.03.2021	Email	[Removed at stakeholder request]	[Removed at stakeholder request]	Stephanie Moore	ERM	Followed up email to request comments on the proposed methodology and advise field survey dates.
17.03.2021	Email	[Removed at stakeholder request]	[Removed at stakeholder request]	Stephanie Moore	ERM	Followed up email to request comments on the proposed methodology and advise field survey dates.
17.03.2021	Email	Delise Freeman	Pejar LALC	Stephanie Moore	ERM	Followed up email to request comments on the proposed methodology and advise field survey dates.
17.03.2021	Email	Stephanie Moore	ERM	[Removed at stakeholder request]	[Removed at stakeholder request]	Emailed to advise they would have a representative available for fieldworks
17.03.2021	Email	[Removed at stakeholder request]	[Removed at stakeholder request]	Stephanie Moore	ERM	Confirmed receipt of email.
17.03.2021	Email	Stephanie Moore	ERM	[Removed at stakeholder request]	[Removed at stakeholder request]	Emailed to advise they would have a representative available for fieldworks. Provided current insurances.
17.03.2021	Email	[Removed at stakeholder request]	[Removed at stakeholder request]	Stephanie Moore	ERM	Confirmed receipt of email.
17.03.2021	Email	Stephanie Moore	ERM	Delise Freeman	Pejar LALC	Emailed to advise they would have a representative available for fieldworks. Provided current insurances and rates.

17.03.2021	Email	Delise Freeman	Pejar LALC	Stephanie Moore	ERM	Confirmed receipt of email.
17.03.2021	Phone	Stephanie Moore	ERM	Paul Boyd and Lily Carroll	Didge Ngunawal Clan	Called to register for the project. Stephanie asked Paul to send an email through with all relevant contact details so Project methodology could be provided.
17.03.2021	Email	Stephanie Moore	ERM	Paul Boyd and Lily Carroll	Didge Ngunawal Clan	Email providing formal expression of interest in the project.
17.03.2021	Email	Paul Boyd and Lily Carroll	Didge Ngunawal Clan	Stephanie Moore	ERM	Acknowledged registration and provided a copy of the project methodology for review. Advised of fieldwork dates and asked for copies of insurances.

Draft ACHAR review

7.05.2021	Email	[Removed at stakeholder request]	[Removed at stakeholder request]	Elspeth Mackenzie	ERM	Sent draft ACHAR for review and comments.
7.05.2021	Email	[Removed at stakeholder request]	[Removed at stakeholder request]	Elspeth Mackenzie	ERM	Sent draft ACHAR for review and comments.
7.05.2021	Email	Delise Freeman	Pejar LALC	Elspeth Mackenzie	ERM	Sent draft ACHAR for review and comments.
7.05.2021	Email	Paul Boyd and Lily Carroll	Didge Ngunawal Clan	Elspeth Mackenzie	ERM	Sent draft ACHAR for review and comments.
9.5.2021	Email	Elspeth Mackenzie	ERM	[Removed at stakeholder request]	[Removed at stakeholder request]	Agrees with the report
10.5.2021	Email	Stephanie Moore and Elspeth Mackenzie	ERM	[Removed at stakeholder request]	[Removed at stakeholder request]	Agrees with the report

Project Update

1.12.2021	Email	To whom it may concern	[Removed at stakeholder request]	Alyce Haast	ERM	<p>Contact noting that ERM has received feedback noting that the direct contact for [Removed at stakeholder request] had passed away and asking for any other members of the organisation to step forward as direct contact for the Project.</p> <p>Provided project update noting that project was still waiting on issue of SEARs and noting design modifications were currently underway</p>
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						which would trigger further heritage assessment
1.12.2021	Email	[Removed at stakeholder request]	[Removed at stakeholder request]	Alyce Haast	ERM	<p>Contacted [Removed at stakeholder request] noting that it was understood that [Removed at stakeholder request] was now the direct contact for [Removed at stakeholder request].</p> <p>Provided project update noting that project was still waiting on issue of SEARs and noting design modifications were currently underway which would trigger further heritage assessment</p>
1.12.2021	Email	Paul Boyd	Didge Ngunawal Clan	Alyce Haast	ERM	<p>Provided project update noting that project was still waiting on issue of SEARs and noting design modifications were currently underway which would trigger further heritage assessment</p>
1.12.2021	Email	Delise Freeman	Pejar LALC	Alyce Haast	ERM	<p>Provided project update noting that project was still waiting on issue of SEARs and noting design modifications were currently underway which would trigger further heritage assessment</p>
1.12.2021	Email	[Removed at stakeholder request]	[Removed at stakeholder request]	Alyce Haast	ERM	<p>Provided project update noting that project was still waiting on issue of SEARs and noting design modifications were currently underway which would trigger further heritage assessment</p>
1.12.2021	Email	Alyce Haast	ERM	Paul and Lilly Carroll	ERM	<p>Thanked for update</p>
1.12.2021	Email	Alyce Haast	ERM	[Removed at stakeholder request]	[Removed at stakeholder request]	<p>Confirmed that they were the contact moving forward for [Removed at stakeholder request] and would like for [Removed at stakeholder request] to continue to be registered for the project.</p>

1.12.2021	Email	Alyce Haast	ERM	Paul and Lilly Carroll	ERM	Thanked for update and confirmed availability for additional survey as noted.
Updated project methodology						
14.4.2022	Email	[Removed at stakeholder request]	[Removed at stakeholder request]	Alyce Haast	ERM	Provided updated project methodology which included details of proposed supplementary survey locations. Requested any feedback on proposed methodology by 17 May 2022
14.4.2022	Email	Paul Boyd	Didge Ngunawal Clan	Alyce Haast	ERM	Provided updated project methodology which included details of proposed supplementary survey locations. Requested any feedback on proposed methodology by 17 May 2022
14.4.2022	Email	Delise Freeman	Pejar LALC	Alyce Haast	ERM	Provided updated project methodology which included details of proposed supplementary survey locations. Requested any feedback on proposed methodology by 17 May 2022
14.4.2022	Email	[Removed at stakeholder request]	[Removed at stakeholder request]	Alyce Haast	ERM	Provided updated project methodology which included details of proposed supplementary survey locations. Requested any feedback on proposed methodology by 17 May 2022
Comments on updated project methodology						
20.4.2022	Email	Alyce Haast	ERM	Marilyn Carroll	Corroboree	Agreed with methodology
Supplementary fieldwork						
27-28 July 2022	Field survey	Debra Charman	Didge Ngunawal Clan	Alyce Haast	ERM	Participated in supplementary site survey
27-28 July 2022	Field survey	Chris McAlister	Pejar LALC	Alyce Haast	ERM	Participated in supplementary site survey
27-28 July 2022	Field survey	[Removed at RAP request]	[Removed at RAP request]	Alyce Haast	ERM	Participated in supplementary site survey
Issue of updated ACHAR						
8. 9. 2022	Email	[Removed at stakeholder request]	[Removed at stakeholder request]	Alyce Haast	ERM	Provided copy of updated draft ACHAR requesting review and comments by the 7 October 2022

8. 9. 2022	Email	Paul Boyd	Didge Ngunawal Clan	Alyce Haast	ERM	Provided copy of updated draft ACHAR requesting review and comments by the 7 October 2022
8. 9. 2022	Email	Delise Freeman	Pejar LALC	Alyce Haast	ERM	Provided copy of updated draft ACHAR requesting review and comments by the 7 October 2022
8. 9. 2022	Email	[Removed at stakeholder request]	[Removed at stakeholder request]	Alyce Haast	ERM	Provided copy of updated draft ACHAR requesting review and comments by the 7 October 2022
9.9.2022	Email	Alyce Haast	ERM	Paul Boyd	Didge Ngunawal Clan	Confirming that DNC are happy with the draft report and that the invoice from fieldwork has been processed
17.9.222	Email	Alyce Haast	ERM	Shayne Dickson	[Removed at stakeholder request]	[Removed at stakeholder request] is happy with the draft ACHAR provided.
28.9.2022	Email	Delise Freeman	Pejar LALC	Alyce Haast	ERM	Follow up on issue of draft report requesting feedback. Also follow up on invoicing from fieldwork.

APPENDIX C ABORIGINAL COMMUNITY CONSULTATION - PUBLIC ADVERT

14 January 2021

**Notice of Aboriginal Consultation -
Paling Yards, NSW**

Environmental Resources Management Australia Pty Ltd (ERM), on behalf of Global Power Generation Australia Pty Ltd (GPG), is undertaking an Aboriginal Cultural Heritage Assessment, to support GPG's proposal to construct and operate a Wind Farm and associated infrastructure near Paling Yards, NSW. 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.



Local Aboriginal parties wishing to be consulted for this assessment are invited to register a written expression of their interest by COB 28 January 2021.

Please respond in writing to:
Stephanie Moore
ERM
Locked Bag 3012
Australia Square, NSW 2000
Or email to: stephanie.mooreerm.com

APPENDIX D ABORIGINAL COMMUNITY CONSULTATION – AGENCY LETTERS

Example letter provided. Letter sent to the following agencies:

- Central Table Lands Local Land Services
- Heritage NSW
- National Native Title Tribunal
- Native Title Services Corporation
- Oberon Council
- Office of The Registrar
- Pejar LALC

Heritage NSW
Department of Premier & Cabinet
heritagemailbox@environment.nsw.gov.au



12 January 2021

Reference: 0578575

To Whom it May Concern,

Subject: Paling Yards Wind Farm - Aboriginal Cultural Heritage Assessment

In accordance with the *Aboriginal Consultation Requirements for Proponents* (DECCW 2010a) (the Consultation Guidelines), and the *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010b) (Code of Practice), Environmental Resources Management Australia Pty Ltd (ERM) wishes to inform you that we have been engaged by Global Power Generation Australia Pty Ltd (GPG) (Gideon Roux, Renewable Development Engineer, GPG, Suite 4 Level 3, 24 Marcus Clarke Street, Canberra ACT 2600) to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) associated with the proposed construction and operation of Paling Yards Wind Farm (PYWF).

The proposed PYWF is located in Paling Yards, NSW, approximately 100 km south of Bathurst. The Site is approximately 3,900 hectares, encompassing the following land parcels:

- | | | |
|-----------------------|----------------------|----------------------|
| ■ Lot 31 in DP753019 | ■ Lot 31 in DP753037 | ■ Lot 43 in DP753037 |
| ■ Lot 3 in DP753019 | ■ Lot 13 in DP753037 | ■ Lot 51 in DP753037 |
| ■ Lot 1 in DP753019 | ■ Lot 56 in DP753037 | ■ Lot 53 in DP753037 |
| ■ Lot 30 in DP753019 | ■ Lot 5 in DP753037 | ■ Lot 2 in DP753037 |
| ■ Lot 4 in DP753019 | ■ Lot 25 in DP753037 | ■ Lot 41 in DP753037 |
| ■ Lot 32 in DP753019 | ■ Lot 22 in DP753037 | ■ Lot 42 in DP753037 |
| ■ Lot 14 in DP753037 | ■ Lot 11 in DP753037 | ■ Lot 6 in DP753037 |
| ■ Lot 2 in DP753019 | ■ Lot 23 in DP753037 | ■ Lot 16 in DP753037 |
| ■ Lot 49 in DP753037 | ■ Lot 24 in DP753037 | ■ Lot 21 in DP753037 |
| ■ Lot 1 in DP753037 | ■ Lot 18 in DP753037 | ■ Lot 26 in DP753037 |
| ■ Lot 17 in DP753037 | ■ Lot 20 in DP753037 | ■ Lot 28 in DP753037 |
| ■ Lot 41 in DP1025920 | ■ Lot 39 in DP753037 | ■ Lot 35 in DP753037 |
| ■ Lot 27 in DP753037 | ■ Lot 51 in DP621232 | ■ Lot 40 in DP753037 |
| ■ Lot 45 in DP753037 | ■ Lot 50 in DP753037 | ■ Lot 44 in DP753037 |

In addition, associated infrastructure, including transmission lines, will be constructed on the following allotments:

- Lot 67 in DP753064
- Lot 12 in DP753064
- Lot 81 in DP753064
- Lot 2 in DP1033361
- Lot 52 in DP753064
- Lot 27 in DP1033361
- Lot 80 in DP753064



The Site is within the Oberon Local Government Area (LGA), adjacent to the LGA boundary with the Upper Lachlan LGA, and within the boundaries of the Pejar Local Aboriginal Council (PLALC). The location of the proposed development is shown in *Figure 1* (attached).

The proposed PYWF will include the following elements:

- Up to 52 wind turbines with a total height of 240 m above natural ground level;
- Corresponding individual kiosks for the housing of equipment;
- Three wind monitoring masts, fitted with various instruments such as anemometers, wind vanes, temperature gauges and other electrical equipment;
- Obstacle lighting to selected turbines (if required);
- Wind Farm and substation control room and facilities building;
- On-site electrical substation and approximately 9.0 km of overhead power line of up to 500 kV;
- Removal of native vegetation and additional vegetation planting to provide screening (if required);
- Upgrade existing local road infrastructure and internal unsealed tracks; and
- Temporary batching plant to supply concrete.

The project is being assessed as a State Significant Development (SSD).

Given the rural and fairly undisturbed nature of the Site, it is considered likely that previous unidentified Aboriginal archaeological material may be present within the Project Footprint. The ACHAR will endeavour to provide additional information about the archaeological resources within the Site, in order to provide any necessary management recommendations.

By informing Heritage NSW through this correspondence, ERM is satisfying Stage 1 of the Consultation Requirements – *project notification and identification of stakeholders*. As part of this step, ERM requests Heritage NSW's assistance in obtaining a list of Aboriginal people who may have an interest in this project, and hold relevant knowledge about the cultural significance of the area.

Relevant stakeholder lists can be returned to Stephanie Moore (Project Archaeologist) at the details below:

Stephanie Moore
stephanie.moore@erm.com
Locked Bag 3012
Australia Square NSW 2000
(02) 8584 8868

Yours sincerely,

A handwritten signature in black ink, appearing to be 'SM', written in a cursive style.

Stephanie Moore
Heritage Consultant

Figure 1 – Site Location



APPENDIX E ABORIGINAL COMMUNITY CONSULTATION – INVITATION TO REGISTER

Example Letter Provided. Invitation to Register was posted to the following organisations:

- Bill Allen
- Corroboree Aboriginal Corporation
- Dhuuluu-Yala Aboriginal Corporation (Returned to Sender)
- Gundungurra Aboriginal Heritage Association Incorporated
- Gundungurra Tribal Council Aboriginal Corporation
- North-East Wiradjuri
- Mingaan Aboriginal Corporation
- Mooka (Returned to Sender)
- North-Eastern Wiradjuri
- Pejar LALC
- Trevor Robinson
- Warrabinga Native Title Claimants Aboriginal Corporation
- Wiradjuri Council of Elders
- Wiradjuri Interim Working Party (Returned to Sender)
- Wirrimbah Direct Descendants

To Whom it May Concern
Pejar LALC
80 Combermere Street
Goulburn NSW 2580



2 February 2021

Reference: 0578575

Dear Sir/Madam,

Subject: Proposed Wind Farm, Paling Yards NSW – 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 Global Power Generation Australia Pty Ltd (GPG) (Gideon Roux, Renewable Development Engineer, GPG, Suite 4 Level 3, 24 Marcus Clarke Street, Canberra ACT 2600) to prepare an Aboriginal Cultural Heritage Due Diligence Assessment Report (ACHAR) associated with the proposed Paling Yards Wind Farm (PYWF). Your group has 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 proposed PYWF is located in Paling Yards, NSW, approximately 100 km south of Bathurst. The Site is approximately 3,900 hectares, encompassing the following land parcels:

- | | | |
|----------------------|-----------------------|----------------------|
| ■ Lot 31 in DP753019 | ■ Lot 17 in DP753037 | ■ Lot 11 in DP753037 |
| ■ Lot 3 in DP753019 | ■ Lot 41 in DP1025920 | ■ Lot 23 in DP753037 |
| ■ Lot 1 in DP753019 | ■ Lot 27 in DP753037 | ■ Lot 24 in DP753037 |
| ■ Lot 30 in DP753019 | ■ Lot 45 in DP753037 | ■ Lot 18 in DP753037 |
| ■ Lot 4 in DP753019 | ■ Lot 31 in DP753037 | ■ Lot 20 in DP753037 |
| ■ Lot 32 in DP753019 | ■ Lot 13 in DP753037 | ■ Lot 39 in DP753037 |
| ■ Lot 14 in DP753037 | ■ Lot 56 in DP753037 | ■ Lot 51 in DP621232 |
| ■ Lot 2 in DP753019 | ■ Lot 5 in DP753037 | ■ Lot 50 in DP753037 |
| ■ Lot 49 in DP753037 | ■ Lot 25 in DP753037 | ■ Lot 43 in DP753037 |
| ■ Lot 1 in DP753037 | ■ Lot 22 in DP753037 | ■ Lot 51 in DP753037 |

- Lot 53 in DP753037
- Lot 6 in DP753037
- Lot 28 in DP753037
- Lot 2 in DP753037
- Lot 16 in DP753037
- Lot 35 in DP753037
- Lot 41 in DP753037
- Lot 21 in DP753037
- Lot 40 in DP753037
- Lot 42 in DP753037
- Lot 26 in DP753037
- Lot 44 in DP753037

In addition, associated infrastructure, including transmission lines, will be constructed on the following allotments:

- Lot 67 in DP753064
- Lot 27 in DP1033361
- Lot 52 in DP753064
- Lot 2 in DP1033361
- Lot 12 in DP753064
- Lot 80 in DP753064

The Site is within the Upper Lachlan Shire Local Government Area (LGA), and within the boundaries of the Pejar Local Aboriginal Council (PLALC). The location of the proposed development is shown in *Figure 1* (attached).

Proposed Development

The proponent of the proposed works is Global Power Generation Australia Pty Ltd (GPG).

GPG proposes to construct and operate a Wind Farm and associated infrastructure ('The Proposal') in Paling Yards, NSW.

The proposed PYWF will include the following elements:

- Approximately 52 wind turbines with a total height of 240 m;
- Corresponding individual kiosks for the housing of equipment;
- Three wind monitoring masts, fitted with various instruments such as anemometers, wind vanes, temperature gauges and other electrical equipment;
- Obstacle lighting to selected turbines (if required);
- Wind Farm and substation control room and facilities building;
- On-site electrical substation and approximately 9.0 km of overhead power line of up to 550 kv;
- Removal of native vegetation and additional vegetation planting to provide screening (if required);
- Upgrade existing local road infrastructure and internal unsealed tracks; and
- Temporary batching plant to supply concrete.

It is expected that construction of the PYWF would commence in early 2022 and continue for a period of 2 years. The expected operational life of the PYWF is 30 years.

Aboriginal Cultural Heritage Assessment Report

The PYWF is being assessed as a State Significant Development, with the application for approval being supported by the 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. The ACHAR 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 ACHAR 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 Stephanie Moore (Project Archaeologist) by 16 February 2021 at the below contact details:

Stephanie Moore
stephanie.moore@erm.com
Locked Bag 3012
Australia Square NSW 2000
(02) 8584 8868
0439 720 041

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,



Stephanie Moore
Heritage Consultant

APPENDIX F ABORIGINAL COMMUNITY CONSULTATION – REGISTRATIONS OF INTEREST

Two of the organisations registered asked for their correspondence not to be released. As such, only the registration for Didge Ngunawal Clan has been included here.

Stephanie Moore

From: lilly carroll <didgengunawalclan@yahoo.com.au>
Sent: Wednesday, 17 March 2021 2:18 PM
To: Stephanie Moore
Subject: EOI

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Stephanie

DNC would love to be a part of the windfarm project at Oberon

Kind regards
Paul Boyd & Lilly Carroll
Directors DNC
0426823944

[Sent from Yahoo Mail for iPhone](#)

APPENDIX G ABORIGINAL COMMUNITY CONSULTATION – PROPOSED SURVEY METHODOLOGY



Paling Yards Wind Farm

Proposed Aboriginal Heritage Assessment Methodology

26 February 2021

Project No.: 0578575

Document details	
Document title	Paling Yards Wind Farm
Document subtitle	Proposed Aboriginal Heritage Assessment Methodology
Project No.	0578575
Date	26 February 2021
Version	1.0
Author	Stephanie Moore
Client Name	Global Power Generation Australia Pty Ltd

Document history

Version	Revision	Author	Reviewed by	ERM approval to issue		Comments
				Name	Date	
Draft	00	Stephanie Moore	Elspeth Mackenzie Amanda Antcliff	Murray Curtis	19 February 2021	Released for client comment
Final	01	Stephanie Moore	Elspeth Mackenzie Amanda Antcliff	Murray Curtis	26 February 2021	Release to RAPs

Signature Page

26 February 2021

Paling Yards Wind Farm

Proposed Aboriginal Heritage Assessment Methodology



Stephanie Moore
Heritage Consultant



Erin Finnegan
Principal Heritage Consultant



Amanda Antcliff
Project Manager



Murray Curtis
Partner

Environmental Resources Management Australia Pty Ltd
Level 15
309 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
DECCW	NSW Department of Environment, Climate Change and Water (former)
EIS	Environmental Impact Statement
ERM	Environmental Resources Management Australia Pty Ltd
GPG	Global Power Generation Australia Pty Ltd
LGA	Local Government Area
OEH	NSW Office of Environment and Heritage (former)
PAD	Potential Archaeological Deposit
PLALC	Pejar LALC
PYWF	Paling Yards Wind Farm
RAPs	Registered Aboriginal Parties

1. INTRODUCTION

Environmental Resource Management Australia Pty Ltd (ERM) has been commissioned by Global Power Generation Australia Pty Ltd (GPG) to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) associated with the proposed Paling Yards Wind Farm (PYWF) (the 'Project'). The proposed site is located in Paling Yards, NSW, south-west of Oberon. Further details regarding the proposed site are provided in *Section 2*.

The PYWF is being assessed as a State Significant Development, with the application for approval being supported by the preparation of an Environmental Impact Statement (EIS). The ACHAR will form one of the technical studies prepared to support the EIS. The ACHAR 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 ACHAR will be prepared to identify, assess, and develop management recommendations for any identified Aboriginal Cultural Heritage within the Project Area. Preparation of the ACHAR will include Aboriginal community consultation, field investigations and associated data analysis and reporting.

This document provides details of the proposed assessment methodology for the ACHAR. This document will be provided to all Registered Aboriginal Parties (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.

2. SITE LOCATION

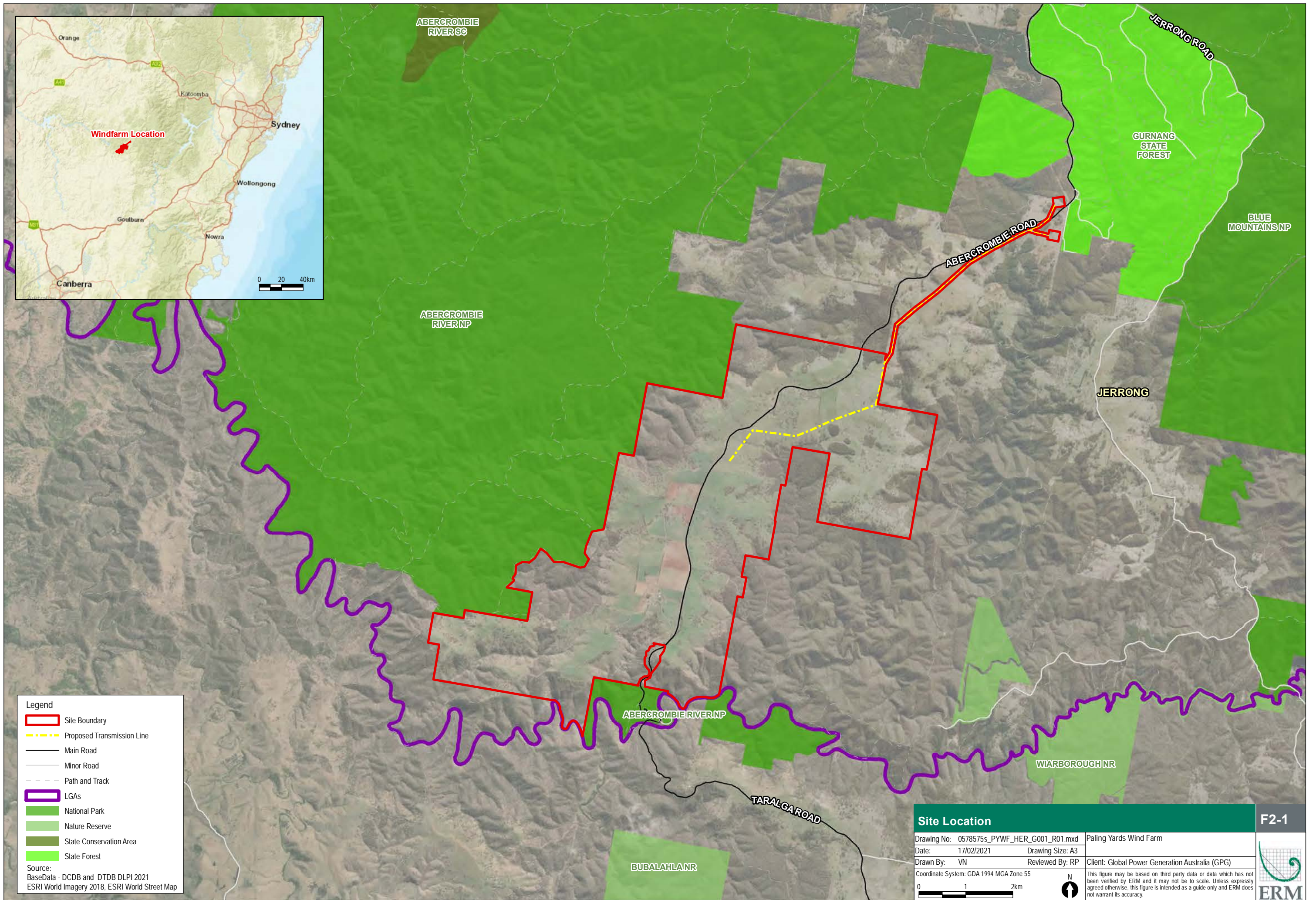
The proposed PYWF is located in Paling Yards, NSW, approximately 100 km south of Bathurst. The Site is within the Upper Lachlan Shire Local Government Area (LGA), and within the boundaries of the Pejar Local Aboriginal Council (PLALC). The location of the proposed development is shown in *Figure 2-1*.

The Site is approximately 3,900 hectares, encompassing the following land parcels:

- Lot 31 in DP753019
- Lot 3 in DP753019
- Lot 1 in DP753019
- Lot 30 in DP753019
- Lot 4 in DP753019
- Lot 32 in DP753019
- Lot 14 in DP753037
- Lot 2 in DP753019
- Lot 49 in DP753037
- Lot 1 in DP753037
- Lot 17 in DP753037
- Lot 41 in DP1025920
- Lot 27 in DP753037
- Lot 45 in DP753037
- Lot 31 in DP753037
- Lot 13 in DP753037
- Lot 56 in DP753037
- Lot 5 in DP753037
- Lot 25 in DP753037
- Lot 22 in DP753037
- Lot 11 in DP753037
- Lot 23 in DP753037
- Lot 24 in DP753037
- Lot 18 in DP753037
- Lot 20 in DP753037
- Lot 39 in DP753037
- Lot 51 in DP621232
- Lot 50 in DP753037
- Lot 43 in DP753037
- Lot 51 in DP753037
- Lot 53 in DP753037
- Lot 2 in DP753037
- Lot 41 in DP753037
- Lot 42 in DP753037
- Lot 6 in DP753037
- Lot 16 in DP753037
- Lot 21 in DP753037
- Lot 26 in DP753037
- Lot 28 in DP753037
- Lot 35 in DP753037
- Lot 40 in DP753037
- Lot 44 in DP753037
- Lot 2 DP1025920
- Lot 7005 DP1068141
- Lot 7002 DP1068142
- Lot 13 DP257010

In addition, associated infrastructure, including transmission lines, will be constructed on the following allotments:

- Lot 67 in DP753064
- Lot 2 in DP1033361
- Lot 27 in DP1033361
- Lot 12 in DP753064
- Lot 52 in DP753064
- Lot 2 DP753064
- Lot 8 DP753064
- Lot 81 DP753064



Legend

- Site Boundary
- Proposed Transmission Line
- Main Road
- Minor Road
- Path and Track
- LGAs
- National Park
- Nature Reserve
- State Conservation Area
- State Forest

Source:
BaseData - DCDB and DTDB DLPI 2021
ESRI World Imagery 2018, ESRI World Street Map

Site Location		F2-1
Drawing No: 0578575s_PYWF_HER_G001_R01.mxd	Paling Yards Wind Farm	
Date: 17/02/2021	Drawing Size: A3	Client: Global Power Generation Australia (GPG) <small>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.</small>
Drawn By: VN	Reviewed By: RP	
Coordinate System: GDA 1994 MGA Zone 55		

3. PROPOSED DEVELOPMENT

The proponent of the proposed works is Global Power Generation Australia Pty Ltd (GPG).

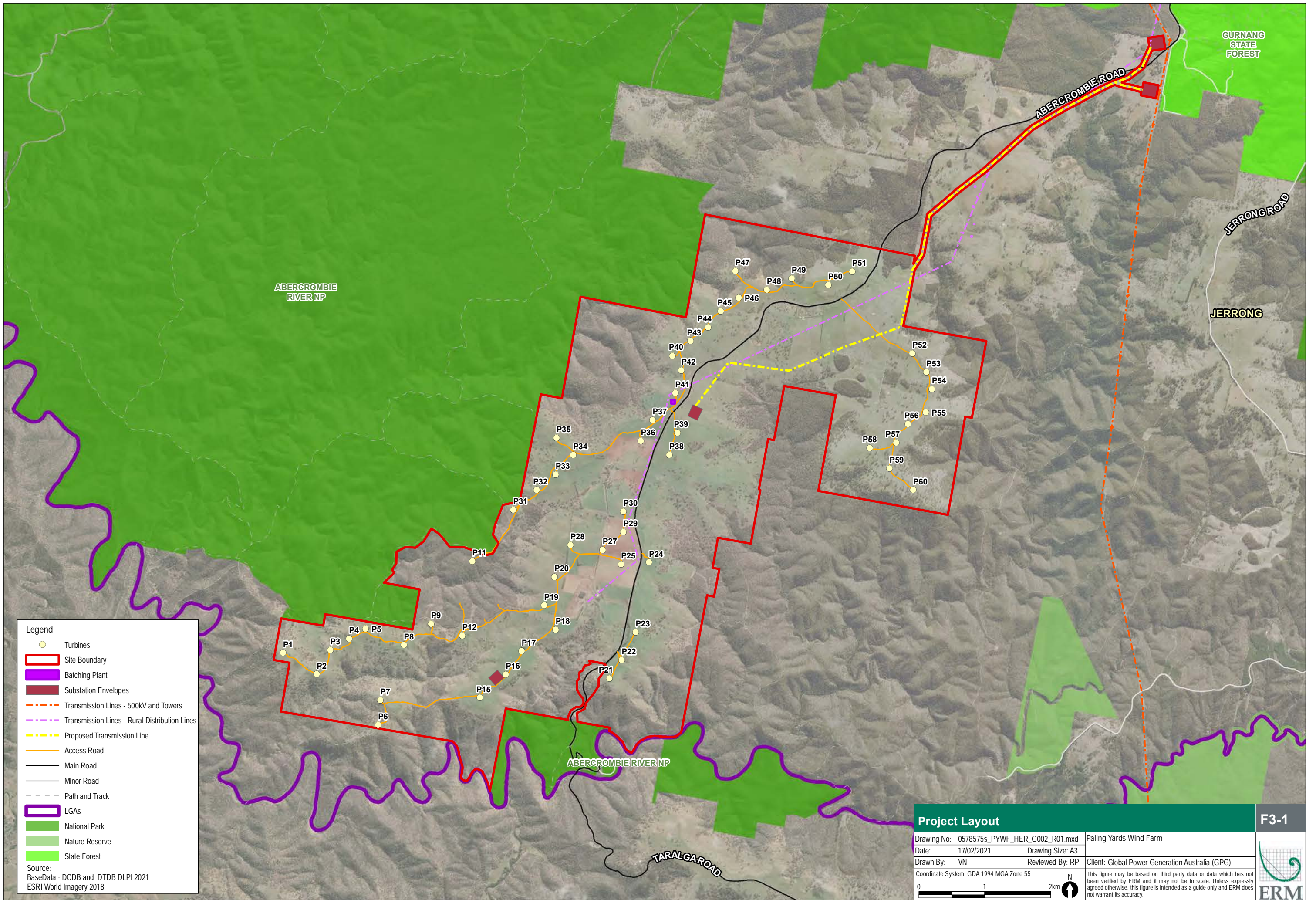
GPG proposes to construct and operate a Wind Farm and associated infrastructure in Paling Yards, NSW.

The proposed PYWF will include the following elements:

- approximately 52 wind turbines with a maximum height of 240 m;
- corresponding individual kiosks for the housing of equipment;
- three wind monitoring masts, fitted with various instruments such as anemometers, wind vanes, temperature gauges and other electrical equipment;
- obstacle lighting to selected turbines (if required);
- wind farm and substation control room and facilities building;
- on-site electrical substation and approximately 9.0 km of overhead power lines of up to 550 kv;
- removal of native vegetation and additional vegetation planting to provide screening (if required);
- upgrade to existing local road infrastructure and internal unsealed tracks; and
- temporary batching plant to supply concrete.

It is expected that construction of the PYWF would commence in early 2022 and continue for a period of approximately two years. The expected operational life of the PYWF is 30 years.

The proposed layout of the Project is provided in *Figure 3-1*.



Legend

- Turbines
- Site Boundary
- Batching Plant
- Substation Envelopes
- Transmission Lines - 500kV and Towers
- Transmission Lines - Rural Distribution Lines
- Proposed Transmission Line
- Access Road
- Main Road
- Minor Road
- Path and Track
- LGAs
- National Park
- Nature Reserve
- State Forest

Source:
BaseData - DCDB and DTDB DLPI 2021
ESRI World Imagery 2018

Project Layout		F3-1
Drawing No: 0578575s_PYWF_HER_G002_R01.mxd	Paling Yards Wind Farm	
Date: 17/02/2021	Drawing Size: A3	
Drawn By: VN	Reviewed By: RP	
Coordinate System: GDA 1994 MGA Zone 55		Client: Global Power Generation Australia (GPG)
N		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.

4. PROPOSED ASSESSMENT METHODOLOGY

The following section provides an overview of the proposed methodology for completing the ACHAR, including Aboriginal community consultation, background research and register searches, field survey methodology, and development of management recommendations.

4.1 Aboriginal Community Consultation

ERM proposes to consult with the Registered Aboriginal Parties (RAPs) in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010) (Consultation Guidelines). Consultation will aim to seek input from Aboriginal people regarding cultural heritage significance of sites and places within the Project Area, and seek their advice regarding proposed management of this significance.

This proposed methodology is provided in accordance with Stage 2 of the consultation guidelines – presentation of information about the proposed project. In providing this proposed methodology, ERM aims to seek feedback from the RAPs on how the assessment will be conducted. Additionally, ERM asks that the RAPs provide information on any known cultural heritage sites and places within the project area, so that these may be appropriately considered in our assessment.

ERM will manage all information provided by the RAPs with respect and confidentiality, ensuring the protection of cultural knowledge and stories.

4.2 Develop Archaeological and Environmental Context

To commence preparation of the ACHAR, ERM will review previous archaeological reports and environmental data, to prepare contextual sections of the report. Archaeological context will provide an overview of previously identified sites and places of cultural significance, and inform the development of predictive modelling and the field survey methodology. Environmental context will help shape our understanding of changes to the landscape over time, and the types of material resources that may be identified during the assessment.

Archaeological and environmental contexts will be prepared by reviewing and examining the following data sources:

- Heritage NSW Aboriginal Heritage Information Management System (AHIMS) Database;
- NSW Government eSpade soil landscapes data;
- NSW Government geological data;
- previous archaeological reports for the area;
- Oberon Shire Council resources, including histories and environmental mapping; and
- Cultural information provides by RAPs.

4.3 Develop Predictive Model of Archaeological Sites

Following review of background information and available data sources, ERM will prepare a predictive model for Aboriginal archaeological sites within the Project Area. This predictive model will utilise data from the AHIMS database, previous reports, and academic research regarding Aboriginal cultural site locations. ERM's predictive model is in preliminary development at the time of issuing this methodology, and has been provided in Section 5 for the information of the RAPs. The predictive model will be used to further refine the field survey methodology, in consultation with the RAPs.

4.4 Field Survey Methodology

An archaeological survey will be undertaken over 3 days in late March 2021 and will aim to identify all Aboriginal sites present within the Project Area, including the identification of any PADs, and confirm the findings of previous investigations.

ERM proposes to undertake the survey with the following conditions:

- A site meeting will be held with the RAPs at the commencement of the field survey, to discuss sensitive landforms or locations, proposed targeted survey areas, and any relevant cultural information;
- the survey will be undertaken on foot, with up to four RAPs in attendance. Survey will be limited to areas that can be traversed on foot;
- the survey will consist of all participants traversing the Project Area using walking transects approximately 5 m apart (subject to visibility and accessibility);
- the transect locations will be determined by the result of the predictive model and will target different landform types within the Project Area, in particular:
 - areas of archaeological potential such as raised landforms in close proximity to semi-permanent water sources;
 - areas of exposure and ground visibility;
 - any areas of interest to the RAPs;
- the location of previously recorded Aboriginal sites will be surveyed in detail to ascertain the present status of the site;
- identified objects will be recorded in situ and will remain on site; 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.

4.5 Assessment of Significance

Following field survey and discussion of sites with the RAPs, ERM will develop an assessment of significance for each Aboriginal heritage value identified within the Project Area. The assessment of significance will be prepared in accordance with best practice guidelines, including the *Australia ICOMOS Charter for Places of Cultural Significance* (the Burra Charter).

4.6 Development of Conclusions and Recommendations

The ACHAR will be completed with the development of conclusions and recommendations. The conclusions will summarise the results of the reporting, including field survey and significance assessment. Recommendations will be prepared based on these conclusions, and in consultation with the RAPs. Recommendations may include preparation of a cultural heritage management plan, micro-siting of wind turbines, or salvage collection of objects or sites that will be impacted. RAPs will be provided with a copy of the completed ACHAR prior to finalisation, to provide the opportunity for feedback and commentary. Any comments received at this time will be incorporated into the report upon finalisation.

5. HERITAGE BACKGROUND

The following section provides a brief summary of the heritage background relevant to the Project Area, to provide RAPs with a preliminary overview of known Aboriginal archaeological resources in the area.

5.1 Review of Previous Reports

There have been a number of previous Aboriginal cultural heritage reports prepared for the Project Area, summarised below:

- Heritage Concepts prepared a draft Cultural Heritage Assessment in 2005.
- Anderson Environmental Consultants prepared a Cultural Heritage Impact Assessment report for the proposed Paling Yards Wind Farm in June 2013.
- ERM prepared a supplementary Cultural Heritage Assessment in November 2013, to respond to commentary from the Office of Environment and Heritage (OEH) (former).

The report prepared by Heritage Concepts in 2005 recorded 14 Aboriginal archaeological sites across the landscape. Anderson Environmental Consultants attempted to relocate these sites during pedestrian survey in 2013, although it is noted that ground visibility was limited at the time. Anderson Environmental Consultants identified eight artefact scatters during their inspection of the Project Area, although it is unclear from the reporting whether these coincide with the sites identified in 2005, or were newly identified sites. The Anderson Environmental Consultants report recommended that impact to known archaeological sites be avoided by micro-siting of turbines and infrastructure.

The report prepared by ERM in November 2013 provided additional significance assessment of the sites identified by Anderson Environmental Consultants, after OEH review indicated that the significance assessment presented did not meet the test of adequacy. ERM provided additional assessment of the eight sites identified in the 2013 report, and clarified the archaeological and cultural significance levels for each. A summary of the revised assessment is provided in Table 5-1 below.

Table 5-1 Site Significance Assessments (ERM, 2013)

Landscape Units and Sites	Archaeological Sensitivity	Scientific Significance	Aboriginal cultural significance
Head of gullies	Moderate	Moderate	Moderate
Low rises (near water)	Moderate	Moderate	Moderate
Slight slope areas (near water)	Moderate	Moderate	Moderate
Site P1	Moderate	Low	High
Site P2	Moderate	Low	High
Site P3	Low	Low	High
Site P4	Low	Low	High
Site P5	Low/Moderate	Moderate	High
Site P6	Low/Moderate	Moderate	High
Site P7	Low/Moderate	Moderate	High
Site P8	Moderate	Moderate	High

5.2 AHIMS Search Results

The Heritage NSW Aboriginal Heritage Information Management System (AHIMS) database provides information concerning previously recorded Aboriginal sites in NSW. An extensive search of the AHIMS database was conducted on 12 January 2021, using the following details:

Client Service ID: 560618
Datum: GDA Zone 55
Eastings: 746036 to 760022
Northings: 6211088 to 6222645
Buffer: 200 m
Number Sites: 26

A total of 26 registered Aboriginal sites were identified within the search area, including 13 within the Project Area (*Figure 5-1*). Of the sites identified by the search, the majority are recorded as Artefact Scatters (n=21), some with associated Potential Archaeological Deposits (PAD). One Stone Quarry site was recorded within the search area.

The results of the full AHIMS search are summarised in Table 5-2 below.

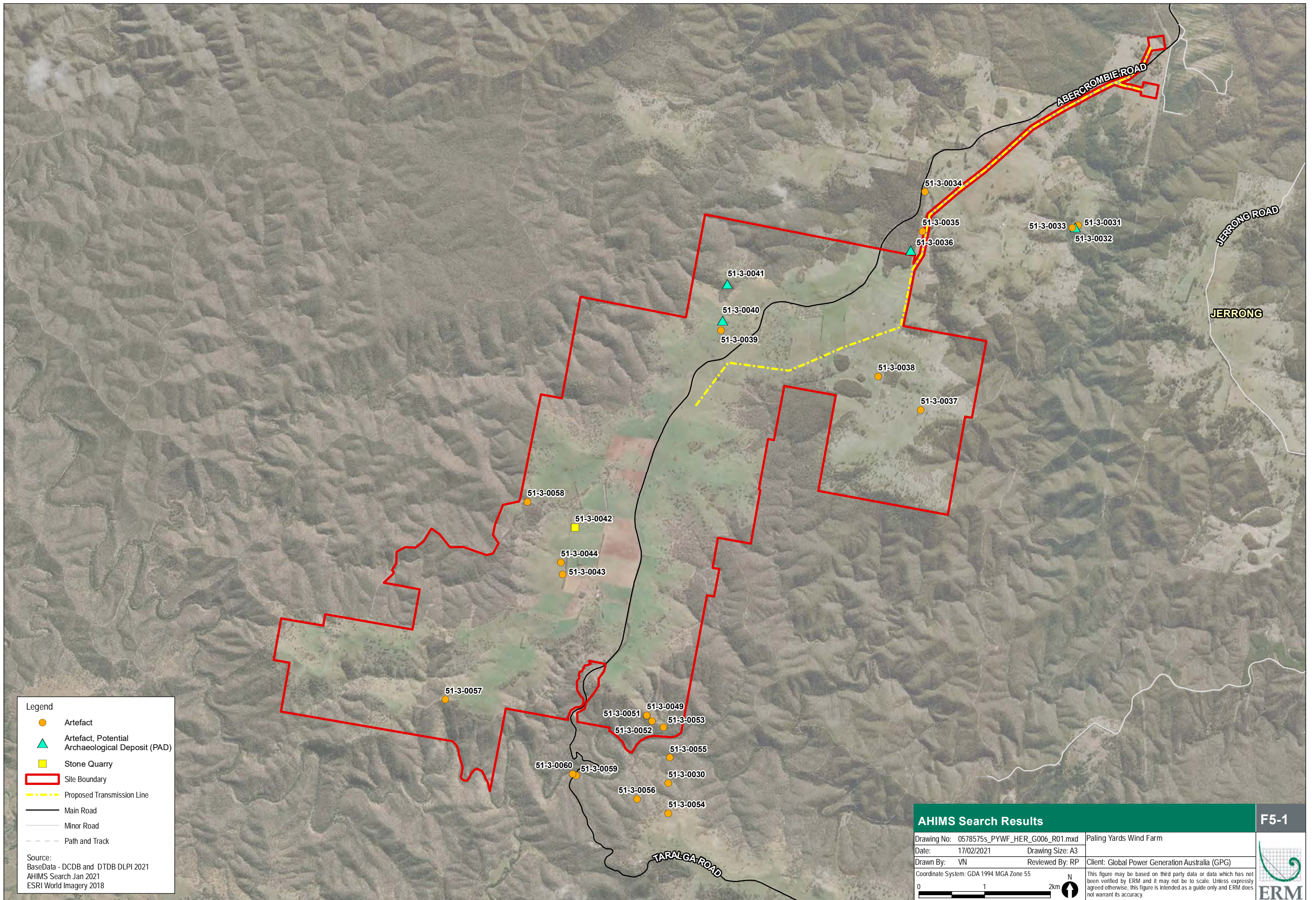
Table 5-2 AHIMS Extensive Search Results

Site Type	Total Number
Artefact	21
Artefact; Potential Archaeological Deposit	4
Stone Quarry	1

5.3 Preliminary Predictive Model

Based on the results of the AHIMS Extensive search, the following predictive statements are made:

- Aboriginal archaeological sites within the Project Area are most likely to be stone artefact sites, including isolated finds and low-moderate density artefact scatters;
- Aboriginal artefacts are most likely to be identified along ridges and crests throughout the Project Area;
- Artefact scatters are likely to be identified within 200m of permanent watercourses; and
- There is a low likelihood of identifying culturally modified trees within the Project Area, due to previous land clearances.



Legend

- Artefact
- ▲ Artefact, Potential Archaeological Deposit (PAD)
- Stone Quarry
- Site Boundary
- Proposed Transmission Line
- Main Road
- Minor Road
- Path and Track

Source:
 BaseData - DCDB and DTDB DLPI 2021
 AHIMS Search Jan 2021
 ESRI World Imagery 2018

AHIMS Search Results		F5-1
Drawing No: 0578575s_PYWF_HER_G006_R01.mxd	Palling Yards Wind Farm	
Date: 17/02/2021	Drawing Size: A3	
Drawn By: VN	Reviewed By: RP	Client: Global Power Generation Australia (GPG)
Coordinate System: GDA 1994 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.

6. FEEDBACK

ERM requests that you review this proposed methodology for the PYWF ACHA and respond with any comments on this information package, as well as advise of your availability to attend the fieldwork in late March 2021 prior to **COB 26 March 2021**.

Please provide feedback to **Stephanie Moore** at the following contact details:

Post: Locked Bag 3012, Australia Square, NSW 2000

Phone: 02 8584 8868

Email: stephanie.moore@erm.com

ERM also ask if you hold any knowledge of sites within or near the study area or have any specific information concerning the cultural values of the study area, we would be grateful if you could let us know. Our contact details are listed above. Any cultural knowledge provided by Aboriginal stakeholders will be treated in confidence and the information will be distributed according to their wishes.

Yours sincerely,

For Environmental Resources Management Australia Pty Ltd



Stephanie Moore
Heritage Consultant



Murray Curtis
Partner

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Germany	Russia
Ghana	Senegal
Guyana	Singapore
Hong Kong	South Africa
India	South Korea
Indonesia	Spain
Ireland	Sweden
Italy	Switzerland
Japan	Taiwan
Kazakhstan	Tanzania
Kenya	Thailand
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Myanmar	Vietnam

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APPENDIX H ABORIGINAL COMMUNITY CONSULTATION – RESPONSES TO PROPOSED METHODOLOGY

Stephanie Moore

From: pejar1@bigpond.com
Sent: Wednesday, 17 March 2021 11:30 AM
To: Stephanie Moore
Subject: RE: Paling Yards Wind Farm - Field Survey Dates and Information
Attachments: Workers Insurance Certificate of Currency.pdf; Certificate of currency - Liability.pdf

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Morning Stephanie

Sorry for not getting back to you sooner, I do apologise.

We have no problem with the methodology. I will need to let you know closer to the date who will be attending on our behalf.

I have attached our insurances as requested and our current rate of pay is \$130 per hour plus travel at 96.5 cents per km.

If there is anything further you require, then please do not hesitate to contact me on the numbers listed below.

Kind regards

Delise Freeman
CEO
Pejar Local Aboriginal Land Council
80 Combermere Street or
PO Box 289
Goulburn NSW 2580
0417254813 (mobile)
02 - 48223552 (phone)

From: Stephanie Moore <Stephanie.Moore@erm.com>
Sent: Wednesday, 17 March 2021 11:24 AM
To: pejar1@bigpond.com
Cc: Elspeth Mackenzie <Elspeth.Mackenzie@erm.com>; Erin Finnegan <Erin.Finnegan@erm.com>
Subject: Paling Yards Wind Farm - Field Survey Dates and Information

Good Morning,

ERM recently contacted you to provide a copy of the Proposed Cultural Heritage Assessment Methodology for the Paling Yards Wind Farm.

We have not yet received any comments on the proposed methodology, and would like to enquire as to whether you have any feedback you would like us to address. The feedback period will remain open until Friday 26 March,

however we would welcome any comments prior to this date. I have attached a copy of the Proposed Methodology to this email for ease of access.

Additionally, ERM would like to advise that we propose to undertake field survey between **Tuesday 30 March and Thursday 1 April 2021**.

Fieldwork will consist of pedestrian survey of the proposed infrastructure (including turbine locations, access road, and transmission lines) and will be undertaken over three full, consecutive days.

ERM would like to enquire about your availability to attend the field survey on the nominated dates. If your organisation is able to provide a representative, please respond as soon as possible with the representative's name and contact number, a copy of your organisations insurances, and your current rate schedule. This information should be provided to Stephanie Moore (Stephanie.moore@erm.com) by Friday 26 March at the latest, to confirm your intention to attend. Should you have any questions, please don't hesitate to reach out by phone or email.

Details regarding meeting time and location will be confirmed next week, following discussion with the proponent and landholders.

We look forward to hearing from you, and look forward to working with you soon.

Kind Regards,
Steph

Stephanie Moore
Heritage Consultant
She/Her

M.ICOMOS

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APPENDIX I ABORIGINAL COMMUNITY CONSULTATION - ISSUE OF DRAFT ACHAR

Alyce Haast

From: Elspeth Mackenzie
Sent: Friday, 7 May 2021 4:25 PM
To: Stephanie Moore
Subject: Paling Yards Wind Farm - draft ACHAR for review
Attachments: 0578575_PYWF_CHAR_DRAFT_Rev01 Report Only.pdf

Hi All,

On behalf of Stephanie I am sending you a copy of the draft ACHAR for the Palings Yards Wind Farm survey.

Any comments you may have on this report and its recommendations would be appreciated. The review period will close on Friday 4th June.

The report is a very large size so I have excluded the appendices to be able to email it. If you would like to see a copy of the appendices, please let me know.

Cheers

Elspeth Mackenzie

Senior Heritage Consultant

ERM

Level 4 | 35 Terminal Ave | Plaza Offices East
Canberra Airport | ACT | 2609
PO Box 4160 | Kingston | ACT | 2604

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P +612 5133 5374

E elspeth.mackenzie@erm.com | **W** www.erm.com

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APPENDIX J ABORIGINAL COMMUNITY CONSULTATION - COMMENTS ON DRAFT ACHAR

Comments on the draft ACHAR were received from groups who did not wish their information to be disclosed. A summary of the feedback provided is included in the consultation log

APPENDIX K ABORIGINAL COMMUNITY CONSULTATION - PROJECT UPDATE

Alyce Haast

Subject: Canceled: 0578575 Palings Yard Wind Farm Project Team Catch-up
Location: Microsoft Teams Meeting

Start: Fri 30/09/2022 1:00 PM
End: Fri 30/09/2022 1:30 PM
Show Time As: Free

Recurrence: Weekly
Recurrence Pattern: every 2 week(s) on Friday from 1:00 PM to 1:30 PM

Meeting Status: Tentatively accepted

Organizer: Elspeth Mackenzie
Required Attendees: Alyce Haast; Louis Penny; Joanne Woodhouse; Nick Ramsey; Ruby Culley; Rene Provis; Lorena Boyle; Karie Bradfield; Murray Curtis; Kellie Wilson; Ross Winckworth; Elspeth.Mackenzie@shell.com

Importance: High

I have nothing to update since our last catch-up, so will put this off until next fortnight.

Cheers
Elspeth

Hi team

This is a fortnightly team catch up to progress the Paling Yards Wind Farm EIS Technical Inputs.

I have made an RFI document you can populate at <Q:\Newcastle\Projects\0578575 Global Power Generation Australia P GPG-Paliing Yards EIS Tech.AA\3. Correspondence\0578575 Paling Yards Wind Farm - ERM RFI March 2022.xlsx>

Below is the current budget and spend for the remaining tasks:

GMS	DISCIPLINE	ORIGINAL BUDGET	REMAINING BUDGET
Phase 04	All – SEARs Gap Analysis	\$3,325.00	\$3,325.00
Phase 05: Task 01	Biodiversity	\$85,220.00	\$12,258.72
Phase 05: Task 02	Heritage	\$41,142.81	\$21,739.30
Phase 05: Task PE	Heritage Assistance - PE	\$272.19.00	\$7.50
Phase 05: Task 03	Hydrology	\$14,920.00	\$13,738.74
Phase 05: Task 04	Social Impact	\$22,845.00	\$22,845.00
Phase 05: Task 05	Bushfire	\$13,495.00	\$11,114.80
Phase 05: Task 06	Hazards and Risks: EMF	\$4,130.00	\$4,130.00
Phase 05: Task 07	Stakeholder Engagement Outcomes – ERM Review	\$428.76.00	\$214.38
Phase 06: Task 01	Stakeholder Engagement Outcomes - KJA	\$9,381.24	\$9,381.24
Phase 07: Task 02	Stakeholder Engagement – Task Management & Coordination	\$3,054.00	\$1,381.49
Phase 07: Task 03	Stakeholder Engagement – Collateral	\$9,618.00	\$4,282.83
Phase 07: Task 04	Stakeholder Engagement – Door Knock	\$9,946.00	\$9,946.00
Phase 07: Task 05	Stakeholder Engagement – Visual Impact	\$5,405.00	\$5,405.00

Microsoft Teams meeting

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195471110@teams.bjn.vc

Video Conference ID: 123 720 704 8

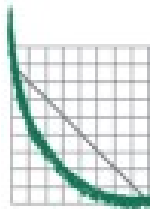
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Alyce Haast

From: Alyce Haast
Sent: Wednesday, 1 December 2021 9:17 AM
To: 'pejar1@bigpond.com'
Subject: Paling Yard Project Update

Hi Delise,

Thank you for your continued interest in the Paling Yards Project.

We just wanted to provide a quick update on the project as it has been some time since our last communication as part of the ACHAR review phase of the project.

As you would be aware, the project will be assessed as a State Significant Development. At present the client is awaiting the Secretaries Environmental Assessment Requirements (SEARs) for the project which will confirm the level of detailed investigation required to support the project's Environmental Impact Statement (EIS). Once issued the SEARs will be reviewed to ensure that the ACHAR previously completed meets the SEARS requirements.

The client is also in the process of reviewing potential design modifications for the Project. Where these design changes would include potential impacts to areas which have not previously been subject to survey, further archaeological survey and assessment would be undertaken. We will be back in touch once we have further detail regarding this.

Please let us know if you have any further questions in the meantime,

Cheers,

Alyce Haast
Senior Heritage Consultant

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E Alyce.Haast@erm.com | W www.erm.com



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Alyce Haast

From: Alyce Haast
Sent: Wednesday, 1 December 2021 9:17 AM
To: didgengunawalclan@yahoo.com.au
Subject: Paling Yard Project Update

Hi Paul,

Thank you for your continued interest in the Paling Yards Project.

We just wanted to provide a quick update on the project as it has been some time since our last communication as part of the ACHAR review phase of the project.

As you would be aware, the project will be assessed as a State Significant Development. At present the client is awaiting the Secretaries Environmental Assessment Requirements (SEARs) for the project which will confirm the level of detailed investigation required to support the project's Environmental Impact Statement (EIS). Once issued the SEARs will be reviewed to ensure that the ACHAR previously completed meets the SEARS requirements.

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Please let us know if you have any further questions in the meantime,

Cheers,

Alyce Haast
Senior Heritage Consultant

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E Alyce.Haast@erm.com | W www.erm.com



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Alyce Haast

From: lilly carroll <didgengunawalclan@yahoo.com.au>
Sent: Wednesday, 1 December 2021 9:21 AM
To: Alyce Haast
Subject: Re: Paling Yard Project Update

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Thanks Alyce

[Sent from Yahoo Mail for iPhone](#)

On Wednesday, December 1, 2021, 9:17 am, Alyce Haast <Alyce.Haast@erm.com> wrote:

Hi Paul,

Thank you for your continued interest in the Paling Yards Project.

We just wanted to provide a quick update on the project as it has been some time since our last communication as part of the ACHAR review phase of the project.

As you would be aware, the project will be assessed as a State Significant Development. At present the client is awaiting the Secretaries Environmental Assessment Requirements (SEARs) for the project which will confirm the level of detailed investigation required to support the project's Environmental Impact Statement (EIS). Once issued the SEARs will be reviewed to ensure that the ACHAR previously completed meets the SEARS requirements.

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Please let us know if you have any further questions in the meantime,

Cheers,

Alyce Haast

Senior Heritage Consultant

ERM

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**APPENDIX L ABORIGINAL COMMUNITY CONSULTATION -
SUPPLEMENTARY METHODOLOGY ISSUE**



Paling Yards Wind Farm

Amendment to the Proposed Aboriginal
Heritage Assessment Methodology

14 April 2022

Project No.: 0578575

Document details	
Document title	Paling Yards Wind Farm
Document subtitle	Amendment to the Proposed Aboriginal Heritage Assessment Methodology
Project No.	0578575
Date	14 April 2022
Version	1.0
Author	Alyce Haast
Client Name	Global Power Generation Australia Pty Ltd

Document history

Version	Revision	Author	Reviewed by	ERM approval to issue		Comments
				Name	Date	
Draft	01	Alyce Haast	Elspeth Mackenzie		14.04.2022	Released for client comment

Signature Page

14 April 2022

Paling Yards Wind Farm

Amendment to the Proposed Aboriginal Heritage Assessment Methodology

DRAFT

Alyce Haast
Senior Heritage Consultant

DRAFT

Elsbeth Mackenzie
Project Manager /Senior Heritage Consultant

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Level 15
309 Kent Street
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Acronyms and Abbreviations

Name	Description
ACHAR	Aboriginal Cultural Heritage Assessment Report
AHIMS	Aboriginal Heritage Information Management System
DECCW	NSW Department of Environment, Climate Change and Water (former)
EIS	Environmental Impact Statement
ERM	Environmental Resources Management Australia Pty Ltd
GPG	Global Power Generation Australia Pty Ltd
LGA	Local Government Area
OEH	NSW Office of Environment and Heritage (former)
PAD	Potential Archaeological Deposit
PLALC	Pejar LALC
PYWF	Paling Yards Wind Farm
RAPs	Registered Aboriginal Parties

1. INTRODUCTION

Environmental Resource Management Australia Pty Ltd (ERM) was commissioned by Global Power Generation Australia Pty Ltd (GPG) to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) associated with the proposed Paling Yards Wind Farm (PYWF) (the 'Project').

The DRAFT ACHAR was completed in May 2021 and was supported by archaeological survey undertaken in April 2021. Following completion of the DRAFT ACHAR, design amendments were made to the project which resulted in an increased Project Area and design footprint.

It is proposed to amend the existing DRAFT ACHAR to incorporate assessment of the additional portions of the Project Area. The current methodology has been prepared to identify the steps that will be taken to update the existing ACHAR including a proposal for additional archaeological survey.

The PYWF is being assessed as a State Significant Development, with the application for approval being supported by the preparation of an Environmental Impact Statement (EIS).

The ACHAR will form one of the technical studies prepared to support the EIS. The ACHAR 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 ACHAR will be prepared to identify, assess, and develop management recommendations for any identified Aboriginal Cultural Heritage within the Project Area. Updates to the existing ACHAR will include Aboriginal community consultation, field investigations and associated data analysis and reporting.

This document provided details of the proposed updated assessment and survey methodology. This document will be provided to all Registered Aboriginal Parties (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.

2. SITE LOCATION

The proposed PYWF is located in Paling Yards, NSW, approximately 100 km south of Bathurst. The Site is within the Upper Lachlan Shire Local Government Area (LGA), and within the boundaries of the Pejar Local Aboriginal Council (PLALC). The location of the proposed development is shown in *Figure 2-1*.

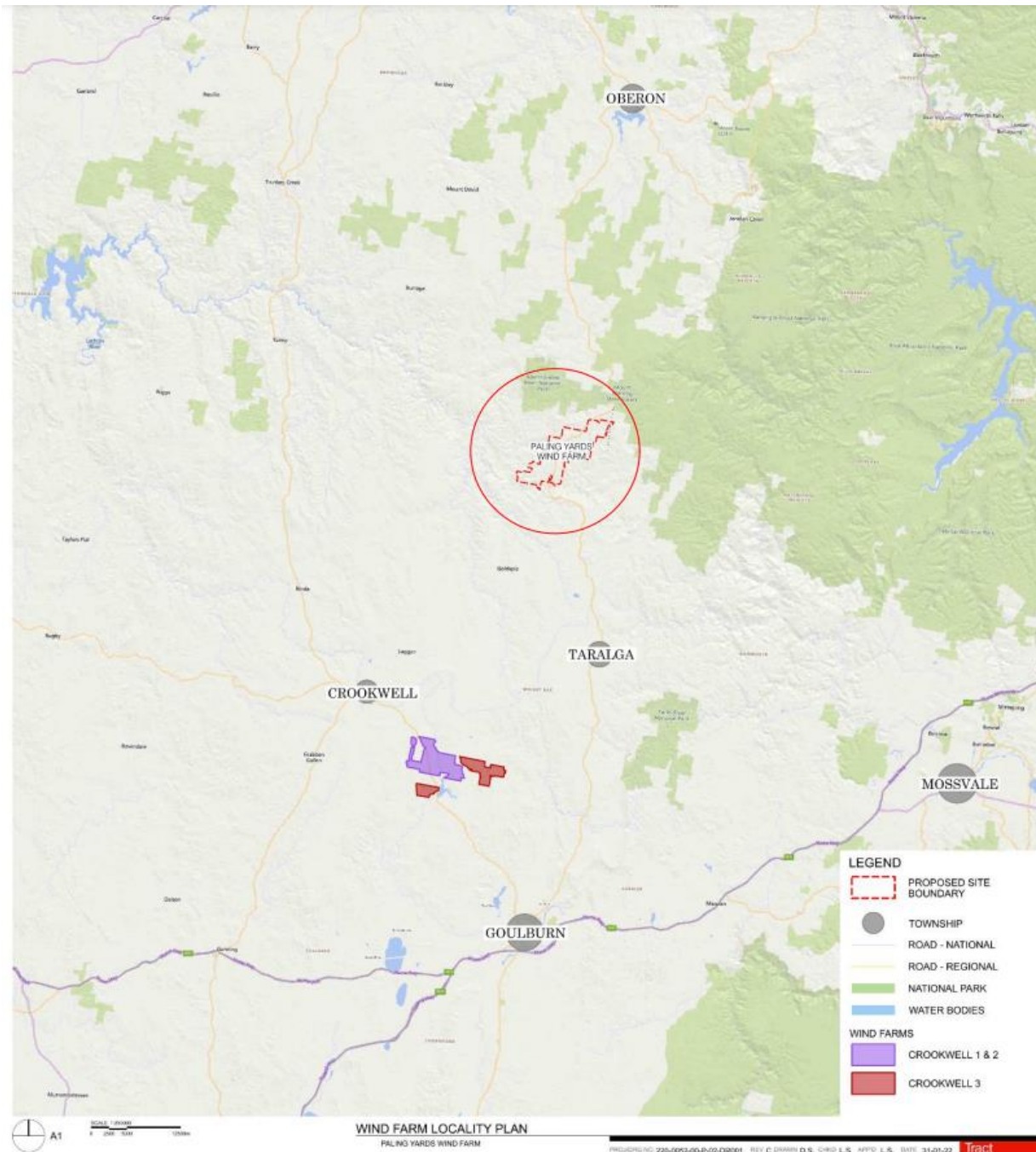
The Site is approximately 4,600 hectares, encompassing the following land parcels:

DP	Allotment
753019	Lots 1, 2, 3, 4, 30, 31 and 32
753037	Lot 1, 2, 5, 6, 7, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 26, 27, 28, 34, 36, 39, 40, 41, 42, 43, 44, 45, 46, 48, 49, 53 and 67
753064	Lots 2, 41, 56 and 67
1025920	Lots 2 and 41
257010	Lot 13
621232	Lot 51
1068141	Lot 7005
1068142	Lot 7002

In addition, associated infrastructure, including transmission lines, will be constructed on the following allotments:

DP	Allotment
753037	Lots 2, 5, 16, and 40
753064	Lots 56 and 67

Figure 2.1: Locality Map Showing the Project Area (Source: Tract)



3. PROPOSED DEVELOPMENT

GPG proposes to construct and operate a Wind Farm and associated infrastructure in Paling Yards, NSW.

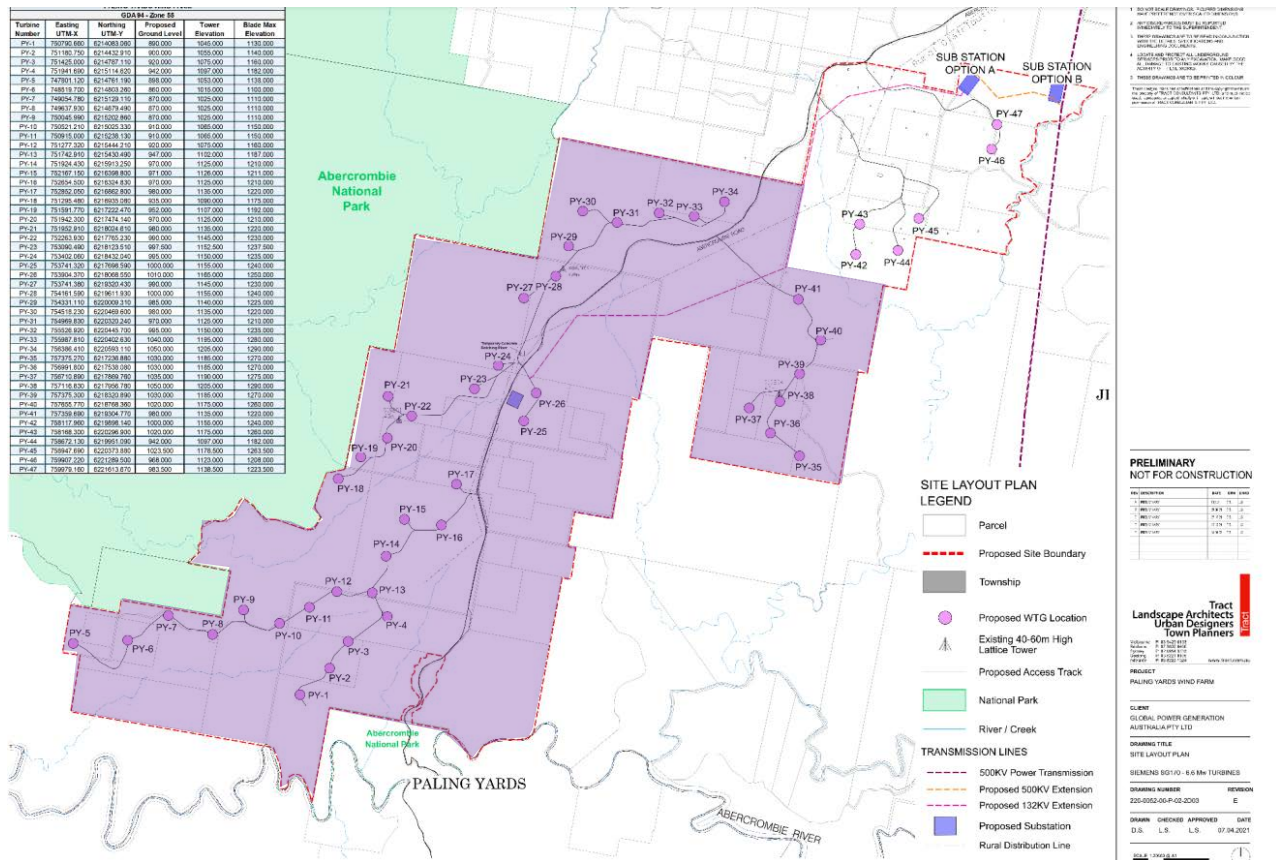
The proposed PYWF will include the following elements:

- Up to 47 wind turbines with a maximum height of 240 m;
- Up to 3 wind monitoring masts fitted with associated instruments;
- On-site electrical substations within approximately 9km of overhead power line; and
- Control room, maintenance buildings, switchgear and associated control systems in the vicinity of the wind turbine towers.
- Preparation and construction of internal roads to turbine and substation locations;
- Temporary laydown and batching plants during construction; and
- removal of native vegetation and additional vegetation planting to provide screening (if required)

It is expected that construction of the PYWF would commence in late 2022 and continue for a period of approximately two years. The expected operational life of the PYWF is 30 years.

Design changes have increased the footprint of the Project from 3900 hectares to 4,600 hectares. The original design footprint is shown in purple in *Figure 3.1*. The current design footprint is illustrated by the red dashed line.

Figure 3.1: Proposed site boundary additions (red dashed line) with former project boundary approximated in purple (Source: Tract)



4. RESULTS OF PREVIOUS ASSESSMENTS

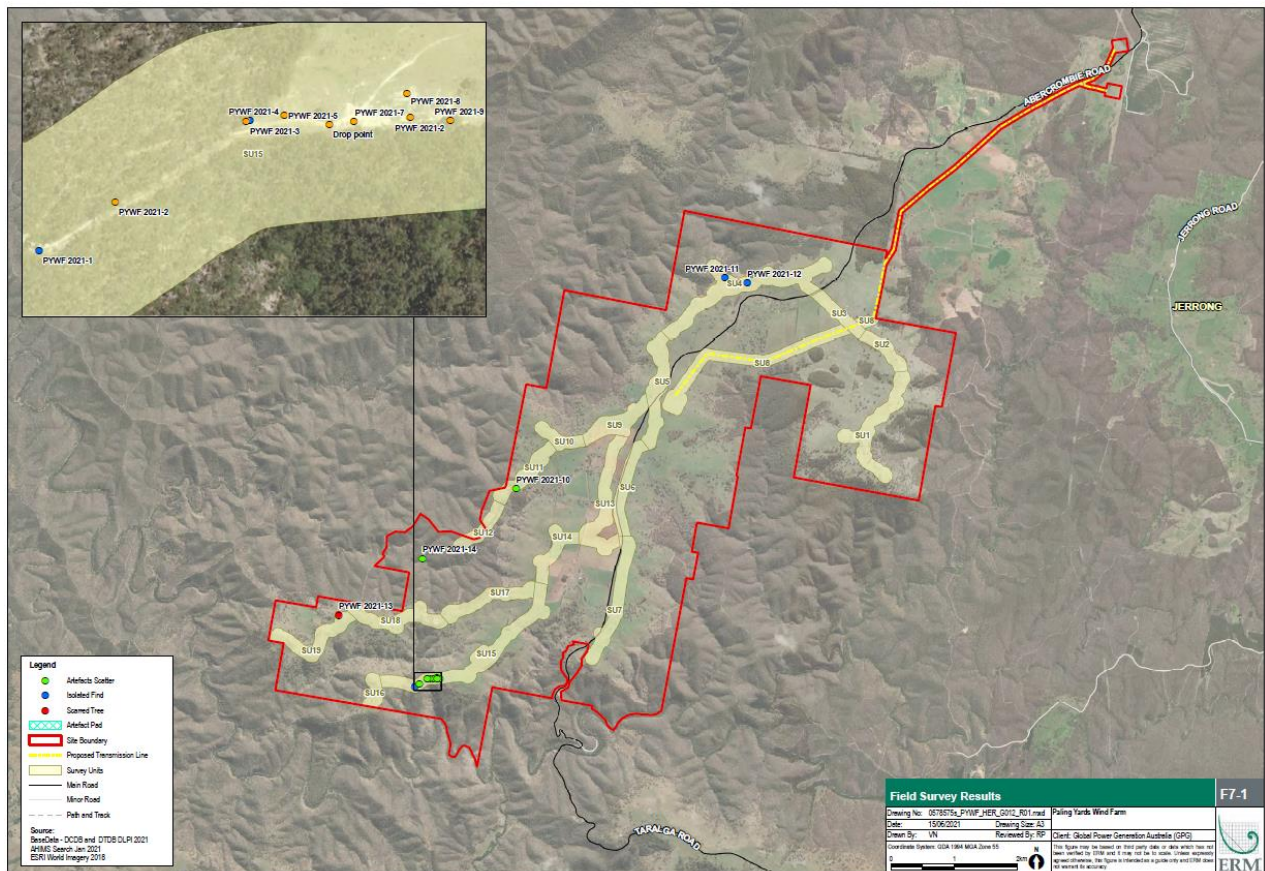
The Paling Yards Wind Farm Project Area has been subject to two previous Aboriginal cultural heritage assessment, undertaken in 2005 and 2013. The 2005 assessment identified 14 Aboriginal sites, while the 2013 assessment identified a further eight sites. The identified sites consisted of artefact scatters and isolated finds, and were assessed as having low to moderate significance (in relation to scientific, aesthetic and historical values), and high significance (in relation to social/cultural values).

Field survey of the Project Area undertaken in 2021 for the current assessment was limited to the proposed PYWF development footprint, and did not include the connecting transmission line. The survey examined the location of the previously identified sites that were within, or in close proximity to, the proposed development footprint. Additionally, the field survey aimed to identify any additional Aboriginal archaeological material that may be present within the proposal area. The field survey was unable to identify any of the objects recorded during the 2005 or 2013 surveys; however, 14 new sites were recorded. Of these, two were in close proximity to previously recorded sites.

In addition to the sites, the field survey has identified a number of areas of archaeological sensitivity in addition to defined areas of potential archaeological deposit (PAD). These areas were considered to be areas of higher potential for cultural heritage to be present but unlike areas of PAD were not able to be associated with distinct landforms.

The area subject to the 2021 field survey is illustrated in *Figure 4.1*.

Figure 4.1: Areas subject to previous field survey (Source: ERM)



5. PROPOSED ASSESSMENT METHODOLOGY

The following section provides an overview of the proposed methodology for updating the ACHAR, including additional phases of Aboriginal community consultation, additional desktop and field investigations proposed, and the reassessment of the identified management recommendations based on the results of the additional assessment.

5.1 Aboriginal Community Consultation

ERM will continue to consult with the Projects Registered Aboriginal Parties (RAPs) in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010) (Consultation Guidelines). Consultation relating to the updated ACHAR will include the following steps:

- Provision of an updated project methodology (this document) outlining the proposed mechanisms to update the report and additional proposed investigative approaches. This document will be provided with a 28-day review period.
- Completion of additional cultural heritage survey with representatives from the RAP groups.
- Provision of an updated draft ACHAR for RAP review. This document will be provided with a 28-day review period.

Throughout this process ERM will seek further feedback from the RAPs regarding the cultural significance of sites and places within the updated Project Area and seek advice regarding proposed management.

ERM will manage all information provided by the RAPs with respect and confidentiality, ensuring the protection of cultural knowledge and stories.

5.2 Develop Archaeological and Environmental Context

ERM will review and update the existing ACHAR with environmental and archaeological background information as relevant to the updated Project Area. The following sources would be reviewed to develop an environmental and archaeological context for the new portions of the Project Area:

- Heritage NSW Aboriginal Heritage Information Management System (AHIMS) Database;
- NSW Government eSpade soil landscapes data;
- NSW Government geological data;
- previous archaeological reports for the area;
- Oberon Shire Council resources, including histories and environmental mapping; and
- Cultural information provided by RAPs.

Following review of this background information, updates to the Projects predictive model would be made (where required).

5.3 Supplementary Field Survey Methodology

A supplementary field survey archaeological survey will be undertaken over 2 days in late May/ early June 2022 and will involve only previously un-surveyed portions of the Project Area. Survey will focus on the proposed impact footprint and include review of all accessible landscapes associated with access tracks, the proposed turbine locations and any associated infrastructure. Survey will also focus on ground truthing the location of any previously recorded Aboriginal sites within the survey area.

To ensure consistency with the previous survey, the following methodology is proposed:

- A site meeting will be held with the RAPs at the commencement of the field survey, to discuss sensitive landforms or locations, proposed targeted survey areas, and any relevant cultural information;
- a pedestrian survey will be completed across accessible portions of the proposed additional impact footprint. Participants will complete a transects of the proposed additional impact footprint with participants spread over a 50m wider corridor for proposed access tracks and participants surveying within 100m radius of all proposed turbine locations;
- the survey will also target known Aboriginal heritage sites (AHIMS registered sites) within the survey area to ground truth the current status of each site and its recorded site location;
- the survey will target a sample of each landform proposed for impact within the survey area;
- areas of potential cultural heritage sensitivity such as raised landforms in close proximity to semi-permanent water sources will be subject to more detailed survey;
- areas of exposure and ground visibility will be subject to more detailed survey; and
- any areas of interest to the RAPs will be subject to more detailed investigation.

Survey would also be utilised as an opportunity for the RAPs to provide cultural information regarding the survey area and the Project Area as a whole. Any information provided would be treated in confidence and distributed according to the wishes of the RAPs.

5.4 Assessment of Significance

Following field survey and discussion of sites with the RAPs, ERM will develop an assessment of significance for all identified Aboriginal heritage value identified during supplementary survey. The assessment of significance will be prepared in accordance with best practice guidelines, including the *Australia ICOMOS Charter for Places of Cultural Significance* (the Burra Charter).

5.5 Development of Conclusions and Recommendations

Following the updated assessment of significance for each site, a series of conclusions and recommendations will be developed. The conclusions will summarise the results of the reporting, including field survey and significance assessment. Recommendations will be prepared based on these conclusions, and made in consultation with the RAPs. Recommendations may include preparation of a cultural heritage management plan, micro-siting of wind turbines, or salvage collection of objects or sites that will be impacted. RAPs will be provided with a copy of the completed ACHAR prior to finalisation, to provide the opportunity for feedback and commentary. Any comments received at this time will be incorporated into the report upon finalisation.

6. FEEDBACK

ERM requests that you review this proposed methodology for updates to the PYWF ACHAR and respond with any comments on this information package, as well as advise of your availability to attend the fieldwork in late May/ Early June 2022 prior to **COB Tuesday 17 May 2022**.

Please provide feedback to **Alyce Haast** at the following contact details:

Post: Locked Bag 3012, Australia Square, NSW 2000

Phone: 02 8586 8755

Email: alyce.haast@ERM.com

ERM also ask if you hold any knowledge of sites within or near the study area or have any specific information concerning the cultural values of the study area, we would be grateful if you could let us know. Our contact details are listed above. Any cultural knowledge provided by Aboriginal stakeholders will be treated in confidence and the information will be distributed according to their wishes.

Yours sincerely,

For Environmental Resources Management Australia Pty Ltd

Alyce Haast
Senior Heritage Consultant

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Hong Kong	South Africa
India	South Korea
Indonesia	Spain
Ireland	Sweden
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Malaysia	UAE
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Mozambique	US
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Alyce Haast

From: Alyce Haast
Sent: Thursday, 14 April 2022 5:12 PM
To: pejar1@bigpond.com
Subject: Paling Yard Wind Farm - Updated assessment methodology
Attachments: 0578575_Proposed Methodology_Addendum_2022 Survey footprint_220414.pdf

Hi Delise

Just providing a quick update on the Paling Yard Wind Farm Project (PYWF) including next steps for the cultural heritage assessment.

You may recall that a heritage survey and ACHAR were completed for this project mid last year. Since that time some design refinements have been made which has expanded the Project Area of the PYWF and necessitated an update to the ACHAR to assess these new areas.

In order to undertake this assessment we have developed a methodology which will guide the processes which we go through to update the report. Updates will include an additional site survey component likely to occur end May/ Early June. I have attached the draft methodology for your review and comment.

We request that you review the methodology and provide any comments you may have on it by Tuesday 17 May 2022.

Cheers,

Alyce Haast
Senior Heritage Consultant

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E Alyce.Haast@erm.com | W www.erm.com



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Alyce Haast

From: Alyce Haast
Sent: Thursday, 14 April 2022 5:11 PM
To: didgengunawalclan@yahoo.com.au
Subject: Paling Yard Wind Farm - Updated assessment methodology
Attachments: 0578575_Proposed Methodology_Addendum_2022 Survey footprint_220414.pdf

Hi Paul and Lily,

Just providing a quick update on the Paling Yard Wind Farm Project (PYWF) including next steps for the cultural heritage assessment.

You may recall that a heritage survey and ACHAR were completed for this project mid last year. Since that time some design refinements have been made which has expanded the Project Area of the PYWF and necessitated an update to the ACHAR to assess these new areas.

In order to undertake this assessment we have developed a methodology which will guide the processes which we go through to update the report. Updates will include an additional site survey component likely to occur end May/ Early June. I have attached the draft methodology for your review and comment.

We request that you review the methodology and provide any comments you may have on it by Tuesday 17 May 2022.

Cheers,

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Senior Heritage Consultant

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APPENDIX M ABORIGINAL COMMUNITY CONSULTATION - COMMENTS ON SUPPLEMENTARY METHODOLOGY

Comments on the supplementary methodology were received from one group who did not wish their information to be disclosed. A summary of the feedback provided is included in the consultation log

APPENDIX N ABORIGINAL COMMUNITY CONSULTATION – ISSUE OF UPDATED ACHAR

Alyce Haast

From: Alyce Haast
Sent: Wednesday, 28 September 2022 1:14 PM
To: 'pejar1 pejar1'
Subject: RE: Paling Yards Wind Farm Draft ACHAR for review

Hi Delise,

Just following up on the below, We are very keen to have your feedback on the draft report and any further details you may like to provide to help inform the cultural heritage values assessment.

I also wanted to follow up to see if you have had a chance to prepare the invoice for the fieldwork component?

Cheers,

Alyce Haast
Senior Heritage Consultant

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From: Alyce Haast
Sent: Thursday, September 8, 2022 11:08 PM
To: pejar1 pejar1 <pejar1@bigpond.com>
Subject: Paling Yards Wind Farm Draft ACHAR for review

Hi Delise,

Just a quick update,

We have now completed the updated draft ACHAR for the Project which is attached for your review. We would request you provide any comments by the **Friday 7 October 2022**. If there is any chance you could provide your comments before this date it would be most appreciated.

Please let me know if you have any comments for incorporation into the report or any questions,

Alyce Haast
Senior Heritage Consultant

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E Alyce.Haast@erm.com | W www.erm.com

Alyce Haast

From: Alyce Haast
Sent: Thursday, 8 September 2022 11:08 PM
To: pejar1 pejar1
Subject: Paling Yards Wind Farm Draft ACHAR for review
Attachments: 0578575 Paling Yards Aboriginal Heritage Assess_DRAFT_for RAP review.pdf

Hi Delise,

Just a quick update,

We have now completed the updated draft ACHAR for the Project which is attached for your review. We would request you provide any comments by the **Friday 7 October 2022**. If there is any chance you could provide your comments before this date it would be most appreciated.

Please let me know if you have any comments for incorporation into the report or any questions,

Alyce Haast
Senior Heritage Consultant

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Alyce Haast

From: Alyce Haast
Sent: Thursday, 8 September 2022 11:01 PM
To: didgengunawalclan@yahoo.com.au
Subject: Paling Yards Wind Farm Draft ACHAR for review and invoicing update
Attachments: 0578575 Paling Yards Aboriginal Heritage Assess_DRAFT_for RAP review.pdf

Hi Paul and Lilly,

Just a quick update,

We have now completed the updated draft ACHAR for the Project which is attached for your review. We would request you provide any comments by the **Friday 7 October 2022**. If there is any chance you could provide your comments before this date it would be most appreciated.

I have also followed up with the client with regards to when the invoice you have submitted will be paid, I have yet to hear back but will send you an update when I hear back with a timeframe,

Please let me know if you have any questions,

Cheers,

Alyce Haast
Senior Heritage Consultant

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APPENDIX O ABORIGINAL COMMUNITY CONSULTATION - COMMENTS ON UPDATED ACHAR

Alyce Haast

From: lilly carroll <didgengunawalclan@yahoo.com.au>
Sent: Friday, 9 September 2022 6:57 PM
To: Alyce Haast
Subject: Re: Paling Yards Wind Farm Draft ACHAR for review and invoicing update

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Alyce

We are happy from our end towards your draft and payment has also been received thanks kindly Paul

[Sent from Yahoo Mail for iPhone](#)

On Thursday, September 8, 2022, 11:04 pm, Alyce Haast <Alyce.Haast@erm.com> wrote:

Hi Paul and Lilly,

Just a quick update,

We have now completed the updated draft ACHAR for the Project which is attached for your review. We would request you provide any comments by the **Friday 7 October 2022**. If there is any chance you could provide your comments before this date it would be most appreciated.

I have also followed up with the client with regards to when the invoice you have submitted will be paid, I have yet to hear back but will send you an update when I hear back with a timeframe,

Please let me know if you have any questions,

Cheers,

Alyce Haast

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APPENDIX P EXTENSIVE AHIMS SEARCH

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
51-3-0044	Paling Yards Wind Farm A14	GDA	55	752021	6216134	Open site	Valid	Artefact : 2		100454
	Contact Searle	Recorders	Heritage Concepts					Permits		
51-3-0042	Paling Yards Wind Farm A12	GDA	55	752237	6216664	Open site	Valid	Stone Quarry : -		100454
	Contact Searle	Recorders	Heritage Concepts					Permits		
51-3-0051	Paling Yard 1	GDA	55	753324	6213813	Open site	Valid	Artefact : 8		
	Contact	Recorders	Mr.Jason Anderson					Permits		
51-3-0038	Paling Yards Wind Farm A8	GDA	55	756839	6218960	Open site	Valid	Artefact : 13		100454
	Contact Searle	Recorders	Heritage Concepts					Permits		
51-3-0035	Paling Yards Wind Farm A5	GDA	55	757514	6221162	Open site	Valid	Artefact : 4		100454
	Contact Searle	Recorders	Heritage Concepts					Permits		
51-3-0034	Paling Yards Wind Farm A4	GDA	55	757550	6221760	Open site	Valid	Artefact : 15		100454
	Contact Searle	Recorders	Heritage Concepts					Permits		
51-3-0037	Paling Yards Wind Farm A7	GDA	55	757486	6218451	Open site	Valid	Artefact : 6		100454
	Contact Searle	Recorders	Heritage Concepts					Permits		
51-3-0013	Jerrong;	AGD	55	761410	6218790	Open site	Valid	Artefact : -	Open Camp Site	2907
	Contact	Recorders	Helen Brayshaw,Mary Dallas Consulting Archaeologists (MDCA)					Permits		
51-3-0060	Abercrombie River Bridge AS2	GDA	55	752198	6212924	Open site	Valid	Artefact : -		103815
	Contact	Recorders	Mr.Matthew Barber,NGH Heritage - Fyshwick					Permits	4198	
51-3-0054	Paling Yard 4	GDA	55	753652	6212329	Open site	Valid	Artefact : 4		
	Contact	Recorders	Mr.Jason Anderson					Permits		
51-3-0055	Paling Yard 5	GDA	55	753678	6213172	Open site	Valid	Artefact : 8		
	Contact	Recorders	Mr.Jason Anderson					Permits		
51-3-0041	Paling Yards Wind Farm A11	GDA	55	754551	6220359	Open site	Valid	Artefact : 16, Potential Archaeological Deposit (PAD) : -		100454
	Contact Searle	Recorders	Heritage Concepts					Permits		
51-3-0057	Paling Yard 7	GDA	55	750265	6214056	Open site	Valid	Artefact : 2		
	Contact	Recorders	Mr.Jason Anderson					Permits		
51-3-0030	Bummeroo	AGD	55	753540	6212600	Open site	Valid	Artefact : 40		
	Contact T Russell	Recorders	Ms.Sue Wesson					Permits		
51-3-0032	Paling Yards Wind Farm A2	GDA	55	759833	6221218	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		100454
	Contact Searle	Recorders	Heritage Concepts					Permits		

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
51-3-0036	Paling Yards Wind Farm A6	GDA	55	757336	6220871	Open site	Valid	Artefact : 19, Potential Archaeological Deposit (PAD) : -		100454
	<u>Contact</u> Searle	<u>Recorders</u> Heritage Concepts						<u>Permits</u>		
51-3-0031	Paling Yards Wind Farm A1	GDA	55	759882	6221255	Open site	Valid	Artefact : 45		100454
	<u>Contact</u> Searle	<u>Recorders</u> Heritage Concepts						<u>Permits</u>		
51-3-0049	PALING YARDS	GDA	55	753324	6213813	Open site	Valid	Artefact : 1		
	<u>Contact</u>	<u>Recorders</u> Mr.Jason Anderson						<u>Permits</u>		
51-3-0053	Paling Yard 3	GDA	55	753580	6213637	Open site	Valid	Artefact : 6		
	<u>Contact</u>	<u>Recorders</u> Mr.Jason Anderson						<u>Permits</u>		
51-3-0033	Paling Yards Wind Farm A3	GDA	55	759790	6221214	Open site	Valid	Artefact : 5		100454
	<u>Contact</u> Searle	<u>Recorders</u> Heritage Concepts						<u>Permits</u>		
51-3-0040	Paling Yards Wind Farm A10	GDA	55	754478	6219808	Open site	Valid	Artefact : 8, Potential Archaeological Deposit (PAD) : -		100454
	<u>Contact</u> Searle	<u>Recorders</u> Heritage Concepts						<u>Permits</u>		
51-3-0056	Paling Yard 6	GDA	55	753178	6212544	Open site	Valid	Artefact : 35		
	<u>Contact</u>	<u>Recorders</u> Mr.Jason Anderson						<u>Permits</u>		
51-3-0059	Abercrombie River Bridge AS1	GDA	55	752255	6212899	Open site	Valid	Artefact : -		103815
	<u>Contact</u>	<u>Recorders</u> Mr.Matthew Barber,NGH Heritage - Fyshwick						<u>Permits</u>		
51-3-0052	Paling Yard 2	GDA	55	753404	6213730	Open site	Valid	Artefact : 4		
	<u>Contact</u>	<u>Recorders</u> Mr.Jason Anderson						<u>Permits</u>		
51-3-0039	Paling Yards Wind Farm A9	GDA	55	754451	6219658	Open site	Valid	Artefact : 1		100454
	<u>Contact</u> Searle	<u>Recorders</u> Heritage Concepts						<u>Permits</u>		
51-3-0058	Paling Yard 8	GDA	55	751514	6217053	Open site	Valid	Artefact : 55		
	<u>Contact</u>	<u>Recorders</u> Mr.Jason Anderson						<u>Permits</u>		
51-3-0043	Paling Yards Wind Farm A13	GDA	55	752045	6215954	Open site	Valid	Artefact : 1		100454
	<u>Contact</u> Searle	<u>Recorders</u> Heritage Concepts						<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

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Paling Yards Development Pty Ltd

Paling Yards Wind Farm

Historic Heritage Due Diligence
Assessment

25 November 2022

Project No.: 0578575



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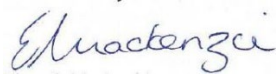
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Signature Page

25 November 2022

Paling Yards Wind Farm

Historic Heritage Due Diligence Assessment



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Acronyms and Abbreviations

Name	Description
AHC	Australian Heritage Commission
Burra Charter	The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance
CEMP	Construction Environment Management Plan
CHL	Commonwealth Heritage List
disturbed land or land already previously disturbed by activity	Land is disturbed if it has been the subject of a human activity that has changed the land's surface -being changes that remain clear and observable.
DPE	Department of Planning and Environment
EIS	Environmental Impact Statement
EMS	Environment Management Strategy
EP&A Act	<i>NSW Environmental Planning and Assessment Act 1979</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
ERM	Environmental Resources Management Australia Pty Ltd
EWMS	Environment Work Method Statement
GPG	Global Power Generation Australia Pty Ltd
GSV	Ground Surface Visibility
Heritage Act	<i>NSW Heritage Act 1977</i>
HHDD	Historic Heritage Due Diligence
LEP	Local Environmental Plan
LGA	Local Government Area
NHL	National Heritage List
NPW Act	<i>NSW National Parks and Wildlife Act 1974</i>
NPW Regulation	<i>NSW National Parks and Wildlife Regulation 2009</i>
OEH (former)	Office of Environment and Heritage (former) NSW
Project Area	The land subject to investigation in this report
PYWF	Paling Yards Wind Farm
RNE	Register of the National Estate
SEARs	Secretary's Environmental Assessment Requirements
SHI	State Heritage Inventory
SHR	State Heritage Register
SSD	State Significant Development
SU	Survey Unit
The Project	The Proposed Development

EXECUTIVE SUMMARY

Environmental Resources Management Australia Pty Ltd was commissioned by Global Power Generation Australia to prepare a Historic Heritage Due Diligence Report (HHDD) for the site of the proposed Paling Yards Wind Farm, located in Paling Yards, NSW, approximately 100 km south of Bathurst. The proposed PYWF will include up to 47 wind turbines, and associated infrastructure, include access tracks, transmission lines, an electrical substation and weather monitoring masts across 4,600 hectares. It is expected that construction of the PYWF would commence in early 2023 and continue for a period of approximately two years. The expected operational life of the PYWF is 30 years.

This HHDD examines non-Aboriginal (Historic) heritage values within the Project Area. This report has been prepared in accordance with the following guidelines:

- *The Australia International Council on Monuments and Sites, Charter for Places of Cultural Significance* (also known as the Burra Charter, Australia ICOMOS 2013);
- *Assessing Significance for Historical Archaeological Sites and 'Relics'* (Heritage Branch, Department of Planning 2009);
- *NSW Heritage Manual* (Heritage Office 1996); and
- *Assessing Heritage Significance* (NSW Heritage Office 2001).

Preparation of the report has included:

- Heritage register and database searches;
- desktop research, including publically available libraries and archives;
- field survey of the proposed infrastructure footprint (the 'Survey Area', which is the same as the 'Development Footprint', and included a 25 m buffer on linear infrastructure and a 100 m buffer on proposed turbine locations);
- field assessment of previously identified sites within the Project Area;
- assessment of heritage significance; and
- preparation of management and mitigation recommendations.

A search of all available statutory and non-statutory heritage registers indicated no listed places within the Project Area. As assessment of the proposed PYWF was undertaken by Heritage Concepts in 2005, and identified a total of five historic heritage sites referred to as PYWF H15 – Stillwell burial ground, PYWF H16 – Stockyards, PYWF H17 – Steam boiler, PYWF H18 – Mingary Park Airstrip and PYWF H19 – 'Quobleigh' basalt chimney and plantings. A review of the field survey undertaken by Heritage Concepts indicates that all five of the identified sites are within the Project Area under assessment in this report.

A preliminary field survey of the Project Area was undertaken by ERM Archaeologist, Stephanie Moore in March 2021 with a secondary field survey undertaken by ERM Senior Archaeologist, Alyce Haast in July 2022. The survey aimed to ground truth previously recorded historic heritage sites within the Project Area, and identify any previously unknown sites that may be impacted by the Project. Field survey was limited by several factors, including dense grasses, patches of thistles that could not be traversed, and steep terrain. Where areas could not be accessed on foot due to these limitations, desktop assessment based on the results of the background research has been undertaken.

The field survey supported the desktop assessment that the five previously identified historic heritage sites and/or historic features are outside the proposed Development Footprint for the PYWF. No new historic heritage sites were identified during the field survey. The field survey results allowed for validation of the significance assessment undertaken by Heritage Concepts.

This report has concluded that there are four sites of local heritage significance and one historic feature which does not meet the threshold for local significance within the PYWF Project Area. All five identified historic heritage sites/ features are outside the proposed development footprint, and will not be subject to direct impact as a result of the proposed works. Visual impacts have been assessed as nil to negligible.

It is recommended that contractors engaged by GPG should prepare an Environmental Management Strategy, an Environmental Work Method Statement and/or a Construction Environmental Management Plan that ensures that all onsite personnel are aware of their obligations and requirements in relation to the archaeological provisions of the *Heritage Act 1977* through the attendance of a site-specific heritage induction.

Additionally, it is recommended that works proceed under an Unexpected Finds Protocol, which should form part of the project environmental management documentation, and be prepared in consultation with an appropriately qualified heritage practitioner.

1. INTRODUCTION

Environmental Resources Management Australia Pty Ltd (ERM) was commissioned by Global Power Generation Australia (GPG; or 'the Proponent') to prepare a Historic Heritage Due Diligence Report (HHDD) for the site of the proposed Paling Yards Wind Farm (PYWF, or 'the Project'). This report has been prepared to support the Environmental Impact Statement (EIS) being prepared to support the development application for the Paling Yard Wind Farm.

1.1 Objectives

This report aims to:

- Identify historic heritage resources within the Project Area, including archaeological potential and built heritage values;
- Present historical contextual data to aid in the development of an archaeological predictive model;
- Evaluate the impact of the proposed works on any identified historic heritage resources; and
- Provide recommendations for the mitigation of impacts and management of identified historic heritage resources.

1.2 Site Location

The proposed PYWF is located in Paling Yards, NSW, approximately 100 km south of Bathurst. The Project Area is within the Oberon Local Government Area (LGA). The Project Area is within the County of Georgiana, Parish of Jerrong. The location of the proposed development is shown in *Figure 1.1*.

The Project Area is approximately 4,600 hectares, encompassing the following land parcels:

DP	Allotment
753019	Lots 1, 2, 3, 4, 30, 31 and 32
753037	Lot 1, 2, 5, 6, 7, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 26, 27, 28, 34, 36, 39, 40, 41, 42, 43, 44, 45, 46, 48, 49, 53 and 67
753064	Lots 2, 41, 56 and 67
1025920	Lots 2 and 41
257010	Lot 13
621232	Lot 51
1068141	Lot 7005
1068142	Lot 7002

In addition, associated infrastructure, including transmission lines, will be constructed on the following allotments:

DP	Allotment
753037	Lots 2, 5, 16, and 40
753064	Lots 56 and 67

For the purposes of this report, the 'Project Area' encompasses all lands as identified above. The 'Development Footprint' consists of proposed Project infrastructure, with a 25 m buffer on linear infrastructure and a 100 m buffer on proposed turbine locations.

1.3 Description of the Proposed Development

The proposed PYWF will include the following elements:

- Up to 47 wind turbines with a maximum height of 240 m;
- Up to 3 wind monitoring masts fitted with associated instruments;
- On-site electrical substations within approximately 9km of overhead power line; and
- Control room, maintenance buildings, switchgear and associated control systems in the vicinity of the wind turbine towers.
- Preparation and construction of internal roads to turbine and substation locations;
- Temporary laydown and batching plants during construction; and
- Removal of native vegetation and additional vegetation planting to provide screening (if required)

It is expected that construction of the PYWF would commence in 2023 and continue for a period of approximately two years. The expected operational life of the PYWF is 30 years.

The proposed layout of the Project is provided in *Figure 1.2*.

1.4 Methodology

This HHDD examines non-Aboriginal (Historic) heritage values within the Project Area. This report has been prepared in accordance with the following guidelines:

- *The Australia International Council on Monuments and Sites, Charter for Places of Cultural Significance* (also known as the Burra Charter, Australia ICOMOS 2013);
- *Assessing Significance for Historical Archaeological Sites and 'Relics'* (Heritage Branch, Department of Planning 2009);
- *NSW Heritage Manual* (Heritage Office 1996); and
- *Assessing Heritage Significance* (NSW Heritage Office 2001).

Preparation of the report has included:

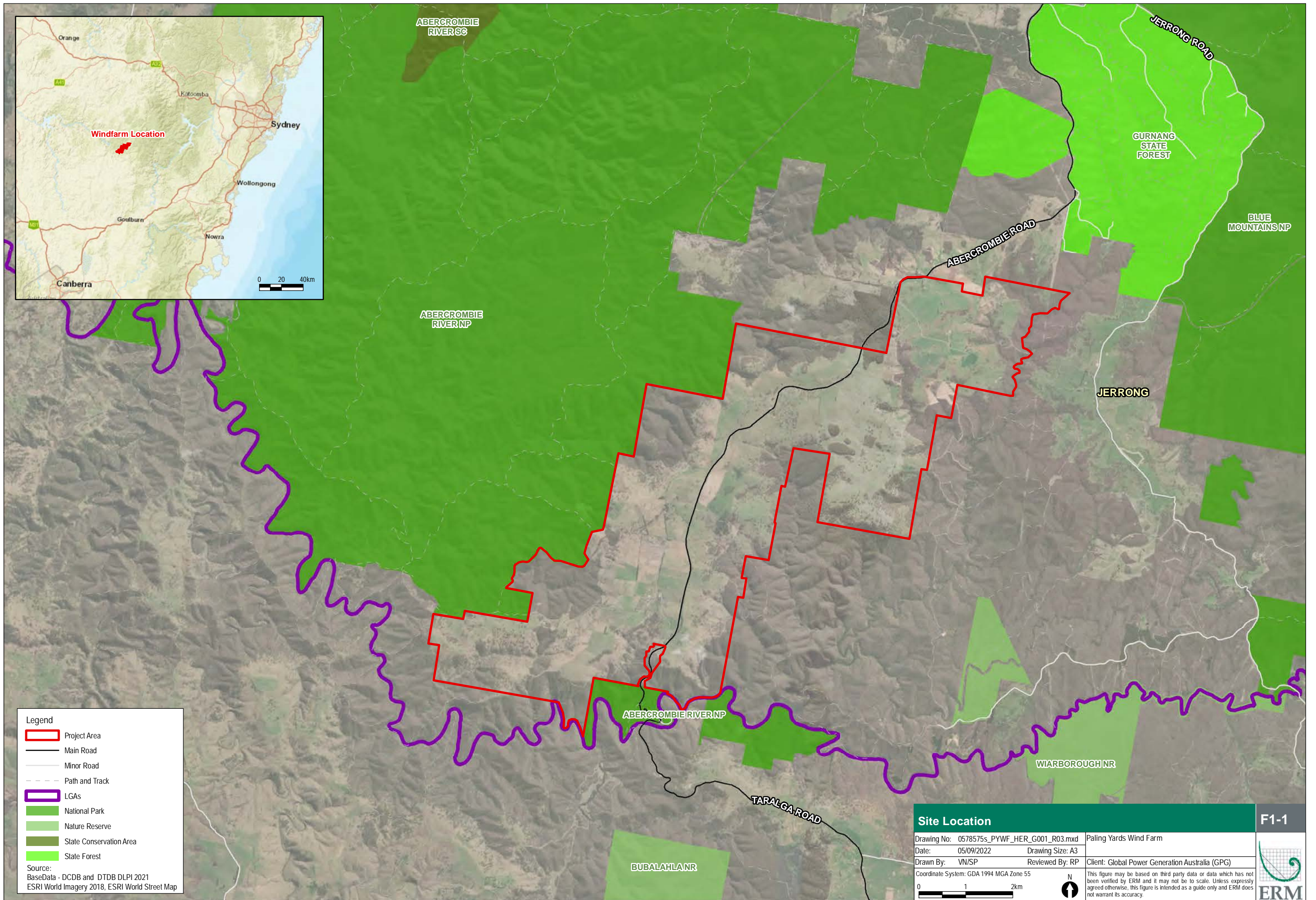
- Heritage register and database searches;
- desktop research, including publicly available libraries and archives;
- field survey of the proposed infrastructure footprint (the 'Survey Area', which is the same as the 'Development Footprint', and included a 25 m buffer on linear infrastructure and a 100 m buffer on proposed turbine locations;
- field assessment of previously identified sites within the Project Area;
- assessment of heritage significance; and
- preparation of management and mitigation recommendations.

1.5 Authorship

Table 1.1 below provides an overview of the ERM Staff involved in the preparation of this report, and their relevant qualifications.

Table 1.1 Authorship and Relevant Qualifications

Name	Title	Role	Relevant Qualifications
Stephanie Moore	Heritage Consultant	Author	Bachelor of Arts (Honours) (Archaeology and Palaeoanthropology), University of New England, 2014 Master of Heritage Conservation, University of Sydney, 2019
Alyce Haast	Senior Heritage Consultant	Author	Bachelor of Science (Archaeology), University of Western Australia, 2012 Master of Professional Archaeology, University of Western Australia, 2014
Erin Finnegan	Principal Heritage Consultant	Technical Review	Bachelor of Arts (Cultural Anthropology), Macalester, 1998 Post Graduate Diploma – Museum and Heritage Studies, University of Cape Town 2003 Master of Philosophy (Archaeology), University of Cape Town, 2006
Karie Bradfield	Partner	Quality Assurance Review	Bachelor of Engineering (Chemical), University of Sydney, Australia, 1998

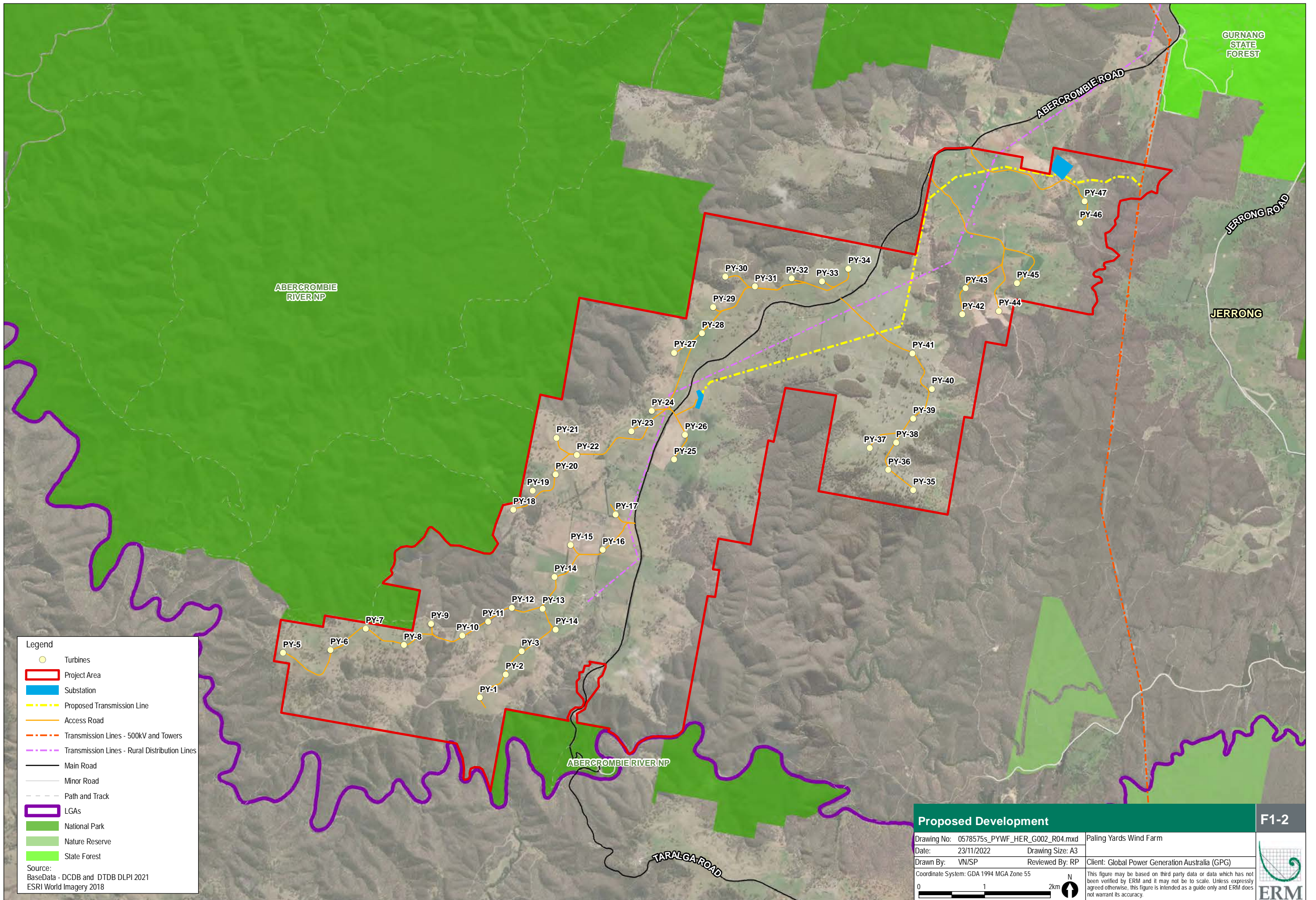


Legend

- Project Area
- Main Road
- Minor Road
- Path and Track
- LGAs
- National Park
- Nature Reserve
- State Conservation Area
- State Forest

Source:
 BaseData - DCDB and DTDB DLPI 2021
 ESRI World Imagery 2018, ESRI World Street Map

Site Location		F1-1
Drawing No: 0578575s_PYWF_HER_G001_R03.mxd	Paling Yards Wind Farm	 <small>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.</small>
Date: 05/09/2022	Drawing Size: A3	
Drawn By: VN/SP	Reviewed By: RP	
Client: Global Power Generation Australia (GPG)		
Coordinate System: GDA 1994 MGA Zone 55		
 0 1 2km	 N	



Legend

- Turbines
- Project Area
- Substation
- Proposed Transmission Line
- Access Road
- Transmission Lines - 500kV and Towers
- Transmission Lines - Rural Distribution Lines
- Main Road
- Minor Road
- Path and Track
- LGAs
- National Park
- Nature Reserve
- State Forest

Source:
 BaseData - DCDB and DTDB DLPI 2021
 ESRI World Imagery 2018

Proposed Development		F1-2
Drawing No: 0578575s_PYWF_HER_G002_R04.mxd	Paling Yards Wind Farm	
Date: 23/11/2022	Drawing Size: A3	
Drawn By: VN/SP	Reviewed By: RP	
Coordinate System: GDA 1994 MGA Zone 55		Client: Global Power Generation Australia (GPG)
		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.

2. LEGISLATIVE REQUIREMENTS

2.1 NSW Legislation

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

2.1.1 NSW Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EP&A Act) requires that environmental impacts are considered in land use planning, including impacts on Aboriginal and non-Aboriginal heritage. Various planning instruments prepared under the Act identify permissible land use and development constraints.

2.1.1.1 State Significant Development

This Project has been designated as a State Significant Development (SSD 29064077) under Section 4.12 (8) of the EP&A Act. A development application for a State Significant Development must be accompanied by an EIS prepared in the form prescribed by the regulations. To guide the preparation of an EIS the Department of Planning and Environment (DPE) issues the Secretaries Environmental Assessment Requirements (SEARs) which guides the level of assessment required to support development of the Project EIS.

The SEARs (SSD 29064077) for the Project were issued on 9 March 2022 which noted that ‘an assessment of the impacts to historic heritage having regards to the NSW Heritage Manual’ is required. This report has been developed to meet this requirement of the SEARs.

This assessment has therefore been prepared in accordance with the requirements of the following guidelines:

- NSW Heritage Manual (1996);
- *The Australia International Council on Monuments and Sites, Charter for Places of Cultural Significance* (also known as the Burra Charter, Australia ICOMOS 2013);
- *Assessing Significance for Historical Archaeological Sites and ‘Relics’* (Heritage Branch, Department of Planning 2009); and
- *Assessing Heritage Significance* (NSW Heritage Office 2001).

2.1.1.2 Local Environmental Plans

The EP&A Act allows for the preparation of planning instruments to direct development within NSW. This includes Local Environment Plans (LEP), which are administered by local government, and principally determine land use and the process for development applications. LEPs usually include a schedule of identified heritage items.

The Project Area is within the Oberon LGA, and is therefore governed by the Oberon LEP 2013.

2.1.2 NSW Heritage Act 1977

The *NSW Heritage Act 1977* establishes the NSW Heritage Council and the State Heritage Register (SHR). The aim of the Act is to conserve the heritage of NSW. The aim of heritage management is not to prevent change and development, but to ensure that the heritage significance of recognised heritage items is not harmed by changes and developments.

The SHR is a separate listing to the State Heritage Inventory (SHI) and includes items which are accorded SHR listing through gazettal in the NSW Government Gazette. Nominated items are considered by the NSW Heritage Council, which then makes a recommendation to the Minister for Environment and Heritage. The Heritage Council is empowered to place Interim Heritage Orders (IHO) on an item of potential state significance. The assessment of significance is made against the criteria shown in *Table 2.1*.

Table 2.1 NSW State Significance Criteria

NSW Criterion
(a) Historical <i>An item is important in the course, or pattern, of NSW's cultural or natural history.</i>
(b) Association <i>An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history.</i>
(c) Aesthetic <i>An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW.</i>
(d) Social <i>An item has strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons.</i>
(e) Scientific <i>An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history.</i>
(f) Rarity <i>An item possesses uncommon, rare or endangered, aspects of NSW's cultural or natural history.</i>
(g) Representativeness <i>An item is important in demonstrating the principal characteristics of a class of NSW's a) cultural or natural places: or b) cultural or natural environments.</i>

2.1.2.1 State Heritage Inventory

The SHI contains over 25,000 heritage items on statutory lists in NSW. This information is provided by local councils and State government agencies. The level of information for each heritage item can range from basic identification information such as name, address and listing to full information such as detailed descriptions, histories, significance and images. While Heritage NSW seeks to keep the SHI up to date, the most recent statutory listings may not yet be included.

2.2 Non Statutory Considerations

2.2.1 National Trust Register

The National Trust of Australia maintains a register of landscapes, townscapes, buildings, industrial sites, cemeteries and other heritage places which the Trust determines to have cultural significance. This register is non-statutory, but provides an indication of places considered significant by the wider community.

There are no known National Trust items within the Project Area.

2.2.2 The Burra Charter

The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance (Adopted 31 October 2013) (The Burra Charter) sets a standard of practice for those who provide advice, make decisions about, or undertake works to places of cultural significance including owners, managers and custodians. The Charter provides specific guidance for physical and procedural actions that should occur in relation to significant places. A copy of the 2013 charter can also be accessed at: <http://australia.icomos.org/wp-content/uploads/The-Burra-Charter-2013-Adopted-31.10.2013.pdf>.

This HHDD report has been prepared in accordance with this document and to the standards it describes.

2.2.3 Register of the National Estate

The Register of the National Estate (RNE) is now an archive of information about more than 13,000 places throughout Australia including many places of local or state significance. The RNE was closed in 2007 and is no longer a statutory list. The closure of the RNE does not diminish protection of Commonwealth heritage places.

The RNE is maintained on a non-statutory basis as a publicly available archive and educational resource. RNE places can be protected under the EPBC Act if they are also included in another Commonwealth statutory heritage list or are owned or leased by the Commonwealth. In addition, places in the RNE may be protected under appropriate state, territory or local government heritage legislation.

There are no RNE listed places within the Project Area.

3. HISTORICAL CONTEXT

This chapter presents the historical context of the Project Area. It includes a review of primary and secondary resources including available heritage assessments, reports, publications, historical maps and aerial imagery for the local area. This material will be used to help determine the Project Area's site development over time.

3.1 Historical Environment

3.1.1 Heritage Register and Database Search Results

A search of the relevant statutory heritage register searches was conducted on 12 January 2021 and 1 August 2022 as part of the desktop Heritage Assessment.

- Australian Heritage Database, which includes:
 - Commonwealth Heritage List (CHL);
 - Register of the National Estate (RNE); and
 - National Heritage List (NHL);
- NSW SHR and SHI; and
- Oberon LEP 2013.

The search area encompassed the Project Area with a 5 km buffer surrounding. A summary of the search results is provided in *Table 3.1* below.

Table 3.1 Statutory Heritage Register Search Summary

Register Name	Description	Findings
Commonwealth Heritage List	The Commonwealth Heritage List includes natural, Indigenous and historical heritage places owned or controlled by the Australian Government. Items on the list have satisfied the minister as having one or more Commonwealth Heritage values.	There are no Commonwealth Heritage listed places within or in proximity to the proposed works.
National Heritage List	The Australian National Heritage List contains natural, historic, and Indigenous places deemed to be of outstanding heritage significance to Australia. Before a site is placed on the list a nominated place is assessed against nine criteria by the Australia Heritage Council.	There are no National Heritage listed places within or in proximity to the proposed works.
State Heritage Register	The State Heritage Register is a list of places and objects of particular importance to the people of NSW. The register lists a diverse range of over 1,650 items, in both private and public ownership. To be listed, an item must be significant for the whole of NSW.	There are no State Heritage Listed items within the project boundary.
Oberon Local Environmental Plan 2013	Local Environmental Plans (LEPs) contain a register of environmental heritage items important to the locality. These registers are included as Schedule 5 of all NSW LEPs, and include built items, archaeological sites and conservation areas.	There are no locally listed heritage sites within the project boundary.
Section 170 Heritage Registers	Section 170 of the Heritage Act requires all NSW state agencies to identify, conserve and manage the heritage assets owned, managed and occupied by that agency. In order to facilitate this, Section 170 heritage registers were established for all NSW government agencies. These registers are held and maintained by each state agency and updated as assets are acquired, altered, or decommissioned.	As the project boundary does not coincide with any NSW government property, Section 170 register searches were not required for this assessment.

3.2 Historical Overview

The following historical overview has been drawn from the Cultural Heritage Impact Assessment prepared by Anderson Environmental Consultants in 2013, and the *Thematic History of Oberon Shire*, prepared by Philippa Gemmell-Smith in 2004.

3.2.1 Aboriginal History of Paling Yards

The Oberon Shire Local Government Area (LGA) is situated along the border of the traditional lands of the Gundungurra and Wiradjuri peoples. The Project Area, which is within the southern portion of the Oberon Shire, sits predominantly within Gundungurra lands.

There is anecdotal evidence to suggest that Aboriginal people were occupying the region year round, with European explorers noting sightings of local tribes in May of 1819 (Gemmell-Smith, 2004). The Gundungurra people of the Burra Burra band inhabited the area around Oberon, “from the Abercrombie to Taralga and Carrabungla” (Macalister, 1907). Men from this tribe were included in Charles Throsby’s expedition from Sydney to Bathurst in 1819, providing guiding and interpretation services to the European explorers. Gundungurra people would have utilised aquatic and terrestrial resources for subsistence, including fish and shellfish, yams, tubers, and medicinal plants, and goanna, kangaroo, possum and waterfowl. Gundungurra lands contained a number of scarred trees, some showing evidence of resource gathering, the majority of which are likely to have been removed through land clearance. It is also indicated by Gundungurra elders that carved trees were used to mark ceremonial areas and sacred sites, including burials. The Oberon area also contains source material sites and evidence of stone quarrying, primarily for the manufacturing of various types of stone tools.

3.2.2 Early European Exploration

Oberon Shire was initially explored by Francis Barallier and a team of five European men, accompanied by two Aboriginal guides, in 1802. Barallier believed he had crossed the Blue Mountains, but was disappointed to discover further ridges and gullies upon crossing Byrne’s Gap (Gemmell-Smith, 2004). Barallier was followed in 1819 by Charles Throsby, who was the first recorded white man on the Oberon Plateau. Throsby’s party commenced their journey at Moss Vale, crossing the Wollondilly and Abercrombie Rivers. The party was guided by Coocoogong and also included Aboriginal interpreters Duel and Bian. While moving through the region, Throsby recorded the Aboriginal names for places. Later explorer John Oxley, who followed Throsby’s route in 1820, did not record any local names.

3.2.3 Early European Settlement

In the early 1800s, Governor Macquarie proclaimed all land west of the Macquarie River, and south along the Campbell River to Rockley, as Government stock reserve. The first land grants west of the Blue Mountains were made to Lieutenant William Lawson and William Cox. Lawson was the first landholder in the region, having brought his cattle over the mountains to the junction of the Fish and Campbell Rivers in 1815. Lawson’s property, which he named ‘Macquarie’ contained a house and outbuildings, which are still extant. Further properties were erected surrounding ‘Macquarie’ in the early 1820s, including ‘Sidmouth Valley’, ‘Raineville’ and ‘Blenhem’.

The Paling Yards/Porters Retreat area was settled around the 1830s, with several sheep runs recorded by early surveyors. The properties were owned by ‘Captain Browne’, ‘Captain King’, Archibald McColl and Patrick Mahoney. By 1842 John Tingcombe had established Wallangriva on 640 acres at Paling Yards, in proximity to further properties owned by McColl (Gemmell-Smith, 2004). Parish Maps from the late 1800s and early 1900s indicate that the Project Area encompasses lands held by Tingcombe, McColl, and Thomas Stillwell amongst others (see *Figures 3.1 and 3.2*)

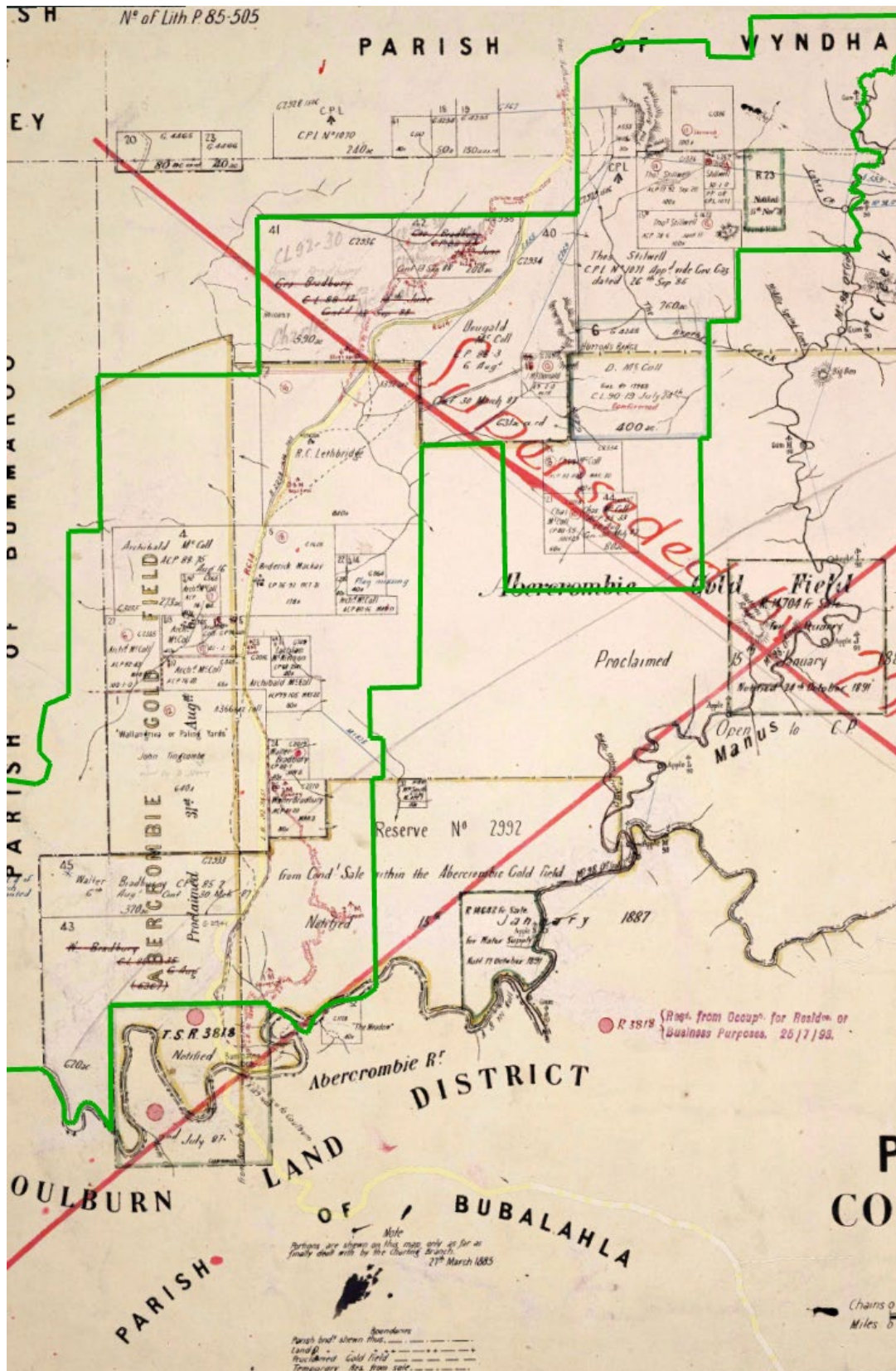


Figure 3.1 Parish of Jerrong 1890 (location of Project Area marked) (NSW Historical Land Records Viewer)

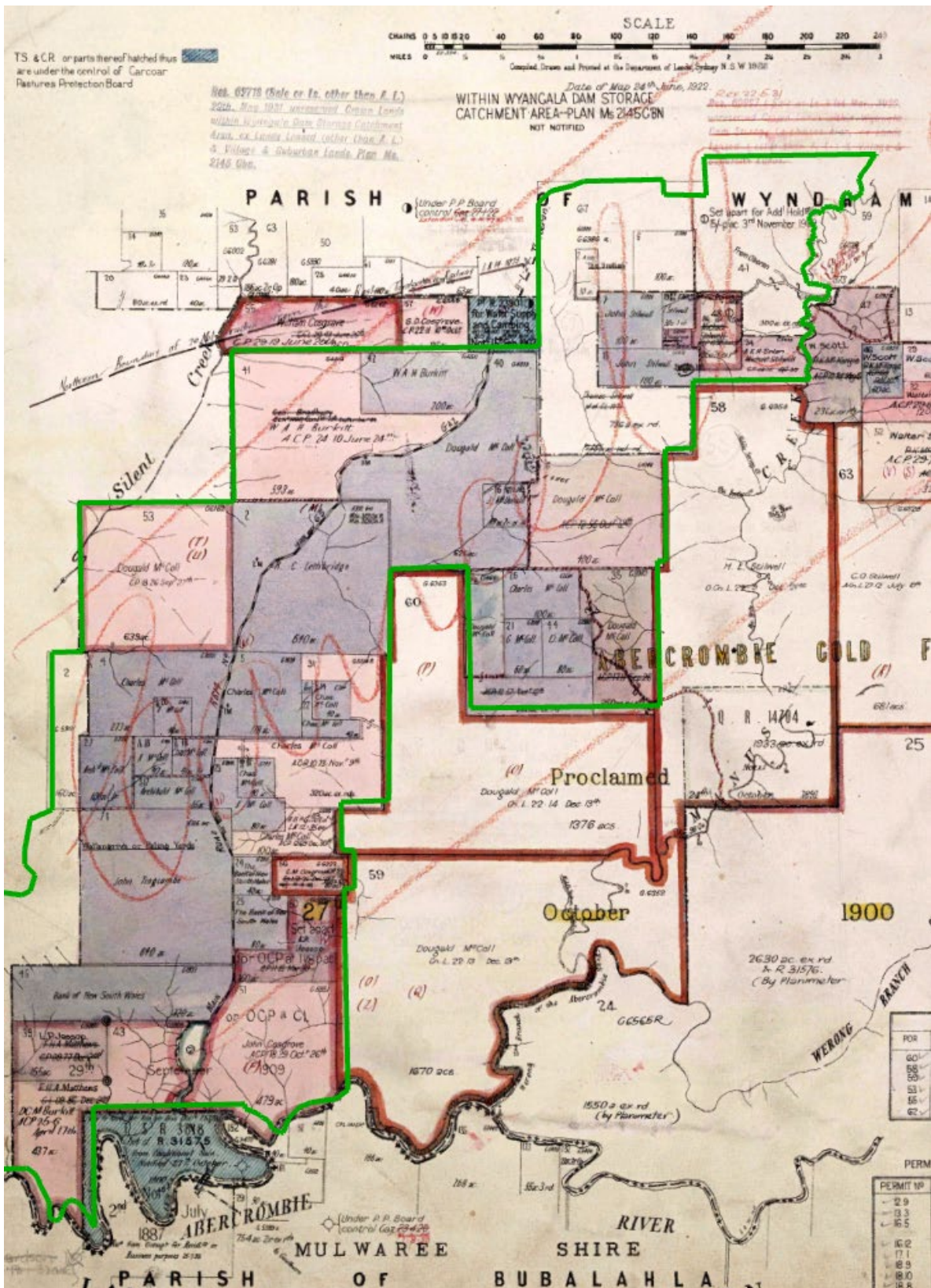


Figure 3.2 Parish of Jerrong 1922 (approximate location of Project Area marked) (NSW Historical Land Records Viewer)

3.2.4 Development around Paling Yards/Porters Retreat

Paling Yards and nearby Porters Retreat remain remote rural communities with limited amenity or urban development. The closest townships are Oberon (47 km north) and Taralga (24 km south), small rural townships with limited local services available. The surrounding region supports timber logging around Gurnang (approximately 5 km north-east), while Paling Yards predominantly supports sheep and cattle farming, with some crop farming still occurring in the region.

Immediately north/north west of the Project Area are Abercrombie River National Park and Abercrombie River State Conservation Area, which consist of publically accessible parklands with hiking trails and campgrounds. The Oberon Correctional Centre is location approximately 15 km north-east of the Project Area.

3.2.5 Land Use and Disturbance

The largest source of disturbance throughout the Project Area is farming, having resulted in land clearances, construction of buildings (homesteads and sheds), installation of fences, construction of dams and irrigation systems, and intensive stock grazing. Construction of roads and access tracks throughout the properties has also resulted in significant ground disturbance. Some of the access tracks have involved considerable construction activity, including importation of gravels and compaction of road surfaces. Intensive grazing has also resulted in overall land disturbance, especially in low lying marshy areas where heavy trampling may lead to significant mixing of topsoil. A review of historical aerial imagery shows cleared land with few structures, similar to what is evident today (*Figure 3.3 and Figure 3.4*).



Figure 3.3: Historic Aerial Image, Taralga 1963, Showing Northern Portion of the Project Area

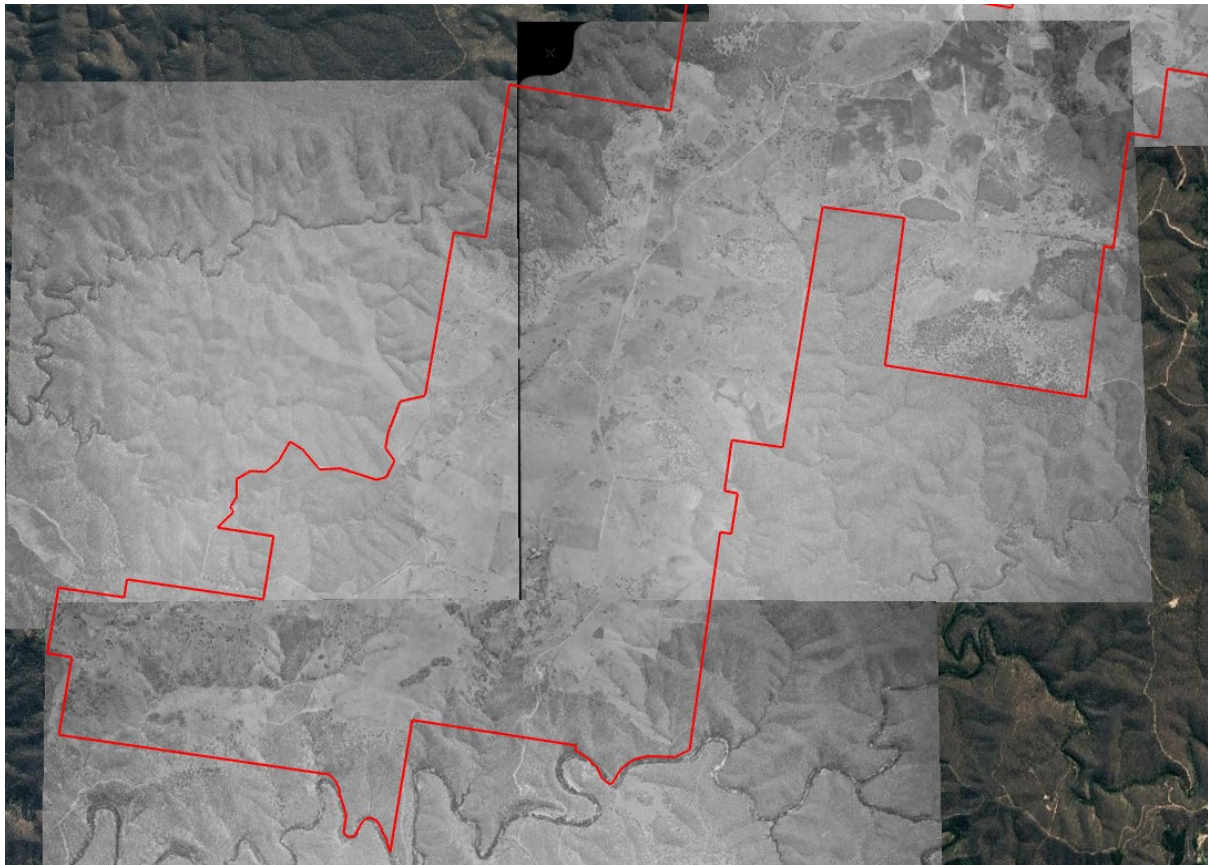


Figure 3.4 Historic Aerial Image, Taralga 1963, Showing the Southern Portion of the Project Area

3.3 Previous Reporting

The Project Area has previously been assessed for historic heritage values by Heritage Concepts in 2005, and Anderson Environmental in 2013. Summaries of these reports are provided below.

3.3.1 *Draft Aboriginal and Historic Archaeological Assessment and Statement of Heritage Impact – Paling Yards Wind Farm (Heritage Concepts 2005)*

In 2005, Heritage Concepts prepared a draft Aboriginal and Historic Archaeological Assessment report for an early iteration of the proposed PYWF. Due to project alterations and delays, the report was never finalised. Heritage Concepts undertook archaeological survey of the study area, concentrating on three locations: Round Hill/Mount Browne, Huttons Ridge, and Defiance Ridge.

Field survey results included the identification of five historic heritage sites, which are summarised in *Table 3.2* below and shown in *Figure 3.4*. At the time of assessment, all five identified heritage sites are within proximity of proposed Project infrastructure.

Heritage Concepts stated that *“the historical use of the study area reflects the establishment of early rural settlements...”*. Preliminary assessment indicated that all five sites would meet the threshold for local significance. None of the identified sites are listed on any statutory registers.

Comparison of the recorded site locations against the proposed site layout shows that no recorded historic heritage items are within the Development Footprint.

Table 3.2 Summary of Identified Historic Heritage Sites

Site ID	Site Name	Description (Heritage Concepts, 2005)	Within Development Footprint?	Within Project Area
PYWF H15	Stillwell Burial Ground	Located on a gentle slope overlooking the "Hilltop" access road is the property cemetery. This small private burial ground is unfenced and has simple grave markers to designate the burials. Members of the Stillwell family are buried here.	No – approximately 90 m away	Yes
PYWF H16	Stockyards	Located along the Hilltop access road adjacent to the property boundary within the Goulburn - Oberon Road. It is unclear when the stockyards were constructed, but they appear to be several decades old.	No – approximately 5 m away	Yes
PYWF H17	Steam Boiler	A derelict steam boiler is located adjacent to Brothers Creek. It was originally used to drive a steam locomotion at a sawmill north of the study area. The steam boiler dates to between 1889 and 1951. The boiler reflects the engineering technology of the time, both in its own design and manufacture and the uses to which it was put. The boiler is a piece of movable heritage as is exemplified by its transition between at least two locations	No – approximately 80 m away	Yes
PYWF H18	Mingary Park Airstrip	The airstrip is associated with Max Hazelton, being constructed in direct response to his crash in the area in 1954. Hazelton was pioneer of Australian aviation, with his company commencing operations ferrying stock and station agents around New South Wales. His company grew to the point where it offered regular passenger services. The crash of his Auster J5F Aglet trainer sparked the biggest aviation search of the time. Constructed as an emergency landing strip, the airstrip was also used for more mundane requirements, such as a landing place for local crop dusters. Built in the mid-1950s the airstrip is a basic runway constructed of compacted earth following the natural incline of the site; site is currently used as pasture and it appears that the airstrip is no longer in use.	No – approximately 70 m away	Yes

Site ID	Site Name	Description (Heritage Concepts, 2005)	Within Development Footprint?	Within Project Area
PYWF H19	Quobleigh basalt chimney and plantings	Site represents the remains of an early homestead site, within the currently occupied property on Lot 20 DP753037. The main house structure has been destroyed, with the only evidence of the location being a mortared basalt chimney, some flagging stones and garden features. The chimney has been constructed of locally available materials and suggests a mid - 1800s construction. The garden boundary and plantings reflect the historic layout and curtilage of the property. The house appears to have been a small rural dwelling and would have been similar in form to many early rural houses.	No – approximately 195 m away	Yes

3.3.2 Indigenous and non-Indigenous Archaeological Heritage for Proposed Paling Yards Wind Farm (Anderson Environmental 2013)

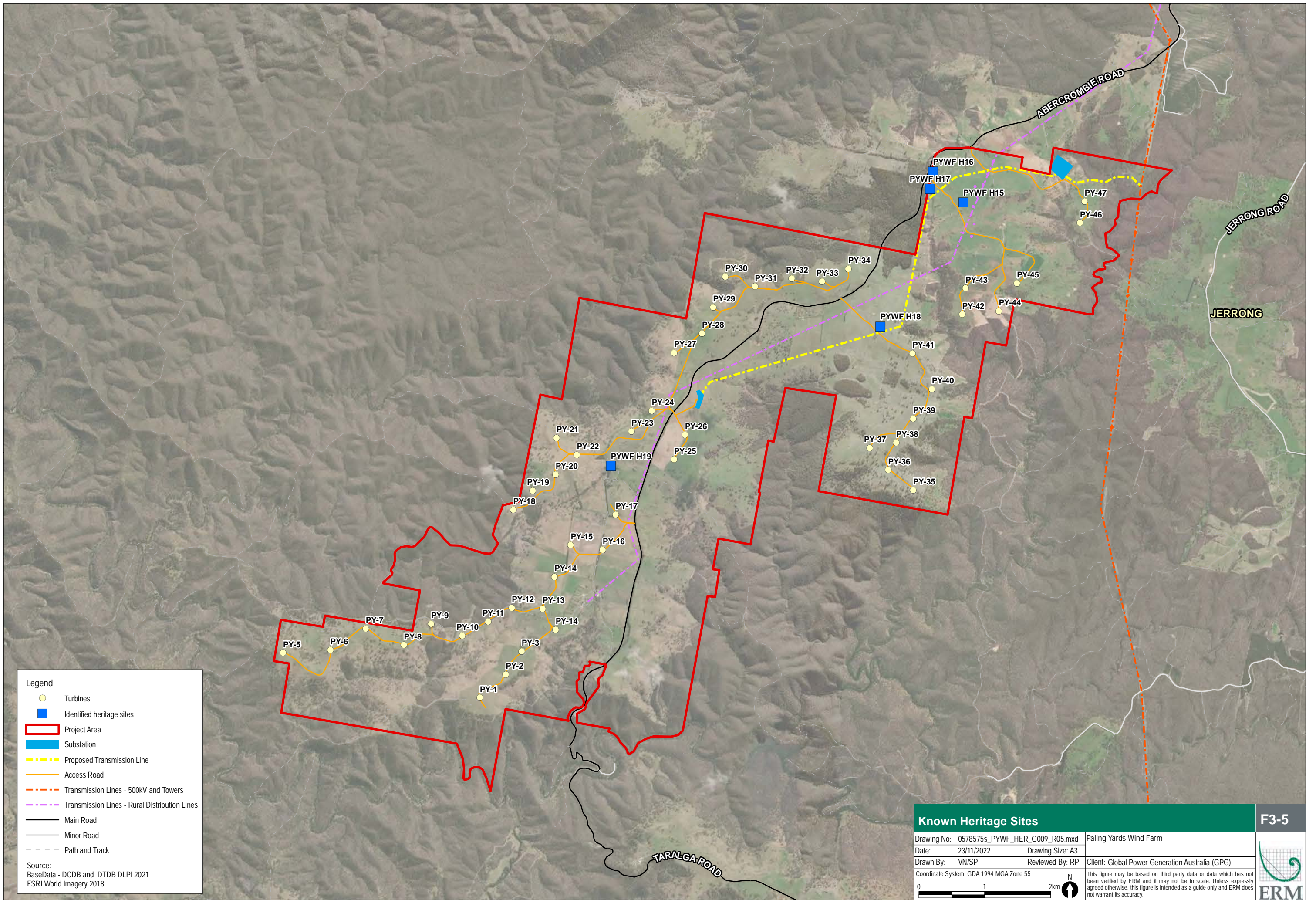
Anderson Environmental prepared this report in 2013 for the proposed Paling Yards Wind Farm, in response to Director-General's Assessment requirements. Anderson Environmental prepared an Aboriginal and Historic heritage assessment that included Aboriginal community consultation and archaeological survey. The report highlights the historic heritage sites recorded by Heritage Concepts and indicates that at the time of their assessment, none of these identified sites would be impact by the proposed Project works. No further historic heritage sites were detected by Anderson Environmental during their site survey.

3.4 Historic Heritage Predictive Model

Review of historical aerial imagery shows no surface expressions of historical archaeological sites within Project Area. Modern residences are noted throughout the Wind Farm Project Area, although these do not appear to be related to historical occupation of the region.

Based on the results of background research and review of previous studies, the following predictive statement are made:

- The Project Area has low potential to contain historical archaeological resources;
- Historic heritage items found within the Project Area are likely to relate to early farming and development of rural homesteads; and
- Historic heritage items identified within the Project Area are likely to be of local significance.



Legend

- Turbines
- Identified heritage sites
- Project Area
- Substation
- Proposed Transmission Line
- Access Road
- Transmission Lines - 500kV and Towers
- Transmission Lines - Rural Distribution Lines
- Main Road
- Minor Road
- Path and Track

Source:
BaseData - DCDB and DTDB DLPI 2021
ESRI World Imagery 2018

Known Heritage Sites		F3-5
Drawing No:	0578575s_PYWF_HER_G009_R05.mxd	Paling Yards Wind Farm
Date:	23/11/2022	Drawing Size: A3
Drawn By:	VN/SP	Reviewed By: RP
Client:	Global Power Generation Australia (GPG)	
Coordinate System:	GDA 1994 MGA Zone 55	
0 1 2km		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.
		ERM

4. PHYSICAL ANALYSIS

4.1 Field Survey Methodology

A field survey of the Project Area was undertaken over two field seasons between 2021 and 2022. The first field season was undertaken by Stephanie Moore (ERM Archaeologist) between 30 March and 1 April 2021. The second field season was undertaken by Alyce Haast (ERM Senior Archaeologist) between 27 and 28 July 2022. The survey aimed to ground truth previously recorded historic heritage sites within the Project Area, and identify any previously unknown sites that may be impacted by the Project. The methodology for the survey included:

- the survey was undertaken on foot, where possible (see *Section 4.2*);
- the survey consisted of all participants walking along proposed access tracks and transmission lines within a 50 m corridor (25 m either side of the centreline) and within a 100 m radius of all proposed turbine locations;
- the survey targeted known historic heritage sites within the broader Project Area (not necessarily the Development Footprint); and
- areas of potential, as identified through background research, were targeted during survey.

This methodology was adopted to pursue the discovery of new archaeological sites, facilitate the accurate recording of such sites, and provide sufficient information to provide an assessment of the historic significance of the Project Area.

4.1.1 Limitations

Field survey was limited by several factors, including dense grasses, patches of thistles that could not be traversed, and steep terrain. Where areas could not be accessed on foot due to these limitations, desktop assessment based on the results of the background research has been undertaken.

4.2 Field Survey Results

4.2.1 Description of the Survey Area

As noted in Section 1.4, field survey was restricted to an area of 25 m either side of proposed linear infrastructure, and within 100 m of proposed Turbine locations (the Survey Area). The following presents the context of the Project Area, with specific details of conditions within the Survey Area during assessment.



The broader Project Area generally consisted of grazing paddocks, densely vegetated with grass and weeds. Grass varied in density and height, although it was most common for paddocks to have thick knee to waist height grass across the Survey Area. Weeds were also noted throughout, particularly thistle, which impeded survey at some locations. There was generally very poor ground surface visibility (0-9%), with ground exposures noted along access tracks, around gates and fences, or within previously ploughed areas. The Project Area contains farm infrastructure, such as fences, sheds, dams, and homesteads. During survey, the majority of the Project Area was being grazed by sheep, or cattle.



4.2.2 Survey Results



The Survey Area has been recorded in Survey Units (SUs) for ease of reference. The SUs were decided arbitrarily, and generally represent a grouping of proposed turbines and access tracks within the same area. Where access was not available to a group of turbines in proximity to one another, these have been grouped as an SU to simplify reporting (see *Figure 4.1*).



Table 4.2 below provides an overview of each SU examined during the field survey of the Project Area. No new historic heritage sites or objects were identified during the survey. All previously recorded heritage sites were relocated. These sites are outside the SUs investigated as part of this assessment, but all sites were examined to provide an updated account of site condition. Further details of these sites are provided in *Table 4.3* below.



Table 4.1 Survey Results



Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph
SU1	Grazing	<p>SU1 was not accessible on foot due to dense thistle and fencing impeding access. The area of SU1 that could be seen was heavily vegetated and GSV was noted to be very poor.</p> <p>There are no known heritage sites within SU1, and historical research indicates no potential for unknown heritage sites to be encountered.</p>	Nil	
SU2	Grazing	<p>SU2 is thickly vegetated grazing land, overgrown with thistle. An access track through the thistle had been recently slashed, providing traversable areas. GSV throughout this SU was very poor.</p> <p>Land throughout SU2 varies, with a general slope from north to south across the SU. The ground surface was generally undulating and a series of large rocks was noted beneath grass coverage.</p> <p>There are no know heritage sites within SU2, and historical research indicates no historical potential.</p>	Nil	



Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph
SU3	Grazing	<p>SU3 is thickly vegetated grazing land, overgrown with thistle. An access track through the thistle had been recently slashed, providing traversable areas. GSV throughout this SU was very poor.</p> <p>Land throughout SU3 varies, with a general slope from north to south across the SU. The ground surface was generally undulating and a series of large rocks was noted beneath grass coverage.</p> <p>There are no known heritage sites within SU3, and the area has low potential for historical sites.</p>	Nil	
SU4	Grazing / Cropping	<p>SU4 is predominantly densely vegetated grazing land, as seen across the Project Area. The southern portion of the SU was located along a ridgeline in which there is an extended area of cropped land which has recently been harvested. In this area, ground visibility was very good. No evidence of historical features was identified.</p> <p>There are no known heritage sites within SU4, and the area contains low potential for historical sites.</p>	Nil	



Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph
SU5	Grazing	<p>SU5 exhibited dense grass coverage across the length of the area, and a decision was made to provide desktop assessment of this area, rather than physically inspect. There are no previously recorded sites within the area</p> <p>There are no known sites within SU5, and no indication of historical potential.</p>	Nil	
SU6	Grazing	<p>SU6 consisted of undulating hills with dense, short grass throughout. The SU is situated on the eastern side of Abercrombie road, within Cattle grazing paddocks. Ground visibility was near zero, with the only noted exposures caused primarily by cattle trampling.</p> <p>No sites were identified within SU6, and historical research indicates no historical potential.</p>	Nil	



Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph
SU7	Grazing	<p>SU7 continues the cattle grazing paddocks of SU7 through the same landscape of rolling hills. Ground visibility is very poor, with dense short grass coverage.</p> <p>No sites were identified, and the area has low historical potential.</p>	Nil	
SU8	Grazing	<p>SU8 was not physically inspected across the entire length. Portions were inspected while accessing SU3, and a decision was made to present a desktop assessment, due to poor visibility. The area is densely vegetated and utilised for cattle grazing.</p> <p>Based on visual inspection from the boundary of the SU and review of desktop information it was identified that the SU was located across a series of mid slope landforms associated with an area of undulating hillslopes. While the SU crosses Middle Station Creek and a number of other unnamed tributaries these tributaries are considered unlikely to provide suitable access to water resources when compared with other slopes within the Project Area.</p> <p>No known sites are located within this area, and historical research indicates no potential for historical sites to be identified.</p>	Nil	



Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph
SU9	Grazing	<p>SU9 consists of rolling hills covered with heavy grass to at least knee height. The landform varies from ridges to mid slopes throughout.</p> <p>No known sites are located within this area, and no new sites were identified during field survey. SU9 retains low historical potential.</p>	Nil	
SU10	Grazing	<p>SU10 primarily consists of upper slope and ridge landforms along the western edge of the Project Area. This SU has dense, short grass throughout, with minimal tree cover. Ground visibility was very low across the SU.</p> <p>No existing sites are located within this area, and no new sites were identified during the field survey. S10 retains low historical potential.</p>	Nil	


Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph
SU11	Grazing	<p>SU11 consists of upper slopes and ridges along the western edge of the Project Area. Ground coverage was generally thick with poor visibility across the majority of the SU. There is a thicket of trees within the SU, with broad exposures resulting from drainage erosion beneath.</p> <p>No sites were identified, and the area retains low historical potential.</p>	Nil	
SU12	Grazing	<p>SU12 was not physically inspected, as the landforms involved were steep and covered with thistles. From the vantage point in SU11, it was clear that ground visibility would be very low across the SU.</p> <p>There are no known sites within this area, and the landscape generally contains low historical potential.</p>	Nil	



Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph
SU13	Grazing	<p>SU13 contains rolling hills, with the majority of the SU consisting of mid to upper slopes. The SU contains high, dense grasses with very limited ground surface visibility. There is also very little tree coverage throughout the SU, with much of the area cleared for grazing.</p> <p>No new sites were identified, and no areas of historical potential are noted.</p>	Nil	
SU14	Grazing	<p>SU14 consist of rolling hills, with upper and mid slopes the most common landscape features. Throughout the majority of the SU, grass coverage was thick and to at least knee height. In some areas, particularly along ridges, grass was shorter and some exposures were noted. Ground visibility was still minimal, although improved over other parts of the Project Area.</p> <p>There are no known heritage sites within this SU, and no areas of historical potential are identified.</p>	Nil	



Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph
SU15	Grazing	<p>SU15 is a large SU, with varied landforms included. The northern end of the SU is densely grassed paddocks along the crest of a hill, while the southern portion contains steep slopes leading into a valley. In the valley, ground surface visibility was very good, owing to erosion and surface wash.</p> <p>No known historical sites are within this SU, and the area presents low historical potential.</p>	Nil	
SU16	Grazing	<p>SU16 was not physically inspected. There are no known sites within this area, and historical research indicates low historical potential.</p>	Nil	



Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph
SU17	Grazing	<p>SU17 consisted of grazing paddocks and an existing access road which has been gravelled. Outside the access tracks, ground surface visibility was generally very low, due to dense grass coverage.</p> <p>No sites were identified within this SU, and no areas of historical potential have been identified.</p>	Nil	
SU18	Grazing	<p>SU18 is situated along the ridgeline, with some areas of upper and midslope featured. Generally, the SU consists of grazing land with poor visibility. There are several stands of trees within the SU</p> <p>No sites were identified, and the SU retains low historical potential.</p>	Nil	

Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph
SU19	Grazing	SU19 contained densely grassed grazing land with minimal ground exposures. The landforms are primarily upper slopes and crests. Ground visibility was poor throughout, with minimal exposures noted. No sites were identified within this SU, and no areas of historical potential have been identified.	Nil	
SU20	Grazing	SU20 was comprised of a series of rolling hills rising towards a tall ridgeline located in the centre of the SU. The majority of the SU was heavily vegetated with dense manicured grasses. Visibility across the survey unit was limited to dam walls and existing access tracks which were in poor condition due to recent rains. The development of access tracks in the eastern portion of the SU had involved significant land disturbance with the tracks cut into the side of otherwise sloped landforms. The SU had been subject to extensive clearing with limited scattered trees present across the SU. Existing agricultural infrastructure within the SU was limited to existing paddock fences, access tracks and small dams. No sites were identified within this SU, and no areas of historical potential have been identified.	Nil	

Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph
SU21	Grazing	<p>SU21 was comprised of a gently sloped hillslope/spur extending towards Mount Brown Gully. The hillslope included localised weed species which did not directly obscure the ground surface resulting in high levels of surface visibility. Built infrastructure across SU21 was limited to existing paddock fencing and the creation of two dams.</p> <p>No sites were identified within this SU, and no areas of historical potential have been identified.</p>	Nil	
SU22	Grazing	<p>SU22 was located across a steeply sloped densely vegetated landscape which crossed Mount Brown Gully. Review of the landscape from adjacent vantage points suggested that visibility across the survey unit would have been low due to the dense woodland and heavy leaf litter.</p> <p>Aerial imagery suggests that SU22 is largely comprised of dense brush with a clearance located in the north eastern portion. Visible infrastructure is limited to existing transmission line infrastructure and a small access track. Based on the steep nature of the surrounding landform and dense nature of the surrounding bushland, no potential historic heritage values have been identified at this location.</p>	Nil	Not available

Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph
SU23	Grazing	<p>SU23 was located across a gently to moderately sloped spur line. The SU was primarily utilised for grazing with large areas of pastoral grasses. Evidence of disturbance across this SU included development of the existing access track and mounds of local stone which appeared to have been moved utilising mechanical methods.</p> <p>Built infrastructure within this SU was limited to minor paddock fencing. No sites were identified within this SU, and no areas of historical potential have been identified.</p>	Nil	
SU24	Grazing	<p>SU24 was located across an undulating landscape which included areas of gentle to steep slope. The SU was primarily used for grazing and had evidence of some level of landscape modification through the construction of several dams immediately adjacent to the SU. Visibility across the SU was extremely low with dense grasses and scrub obscuring the ground surface. No sites were identified within this SU, and no areas of historical potential have been identified.</p>	Nil	

Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph
SU25	Grazing	SU25 extended across a series of undulating hillslopes and was comprised largely of existing access tracks which had been cut into the existing hill slopes. A small portion of the SU extended towards a gently sloped pastoral landscape adjacent to Brothers Creek. With exception of existing pastoral fence lines access gates from Abercrombie Road. The SU is located directly south of previously identified heritage item H16- Stockyards	Nil	
SU26	Grazing	SU26 extended across an undulating landform which incorporated areas of valley, slope and crest. The SU included areas of open pasture, as well as areas of localised agricultural plantings. Existing disturbances across the SU included impacted associated with vegetation clearance, agricultural land use and the development of access tracks. No sites were identified within this SU, and no areas of historical potential have been identified.	Nil	

Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph
SU27	Grazing	<p>SU27 was located across a mid-slope landform adjacent to a tributary of Brothers Creek. The SU broadly followed an existing access track which had been cut into the surrounding slope. The southern portion of the SU was located across a gently to moderately sloped landform. Exposures within the southern portion of SU revealed a clay based subsoil suggesting that the ground surface in this portion of the SU had been stripped of its topsoil as a result of past land uses.</p> <p>Evidence of built infrastructure were limited to minor paddock fencing and gates. No sites were identified within this SU, and no areas of historical potential have been identified.</p>	Nil	
SU28	Grazing	<p>SU28 was located across a moderately sloped spur landform leading towards Brothers Creek. The SU extending from a crest landform with extensive areas of outcropping stone which was obscured by dense scrub. The central and southern portions of the SU was largely comprised of pastoral grasses.</p> <p>Evidence of built infrastructure were limited to minor paddock fencing and gates. No sites were identified within this SU, and no areas of historical potential have been identified.</p>	Nil	







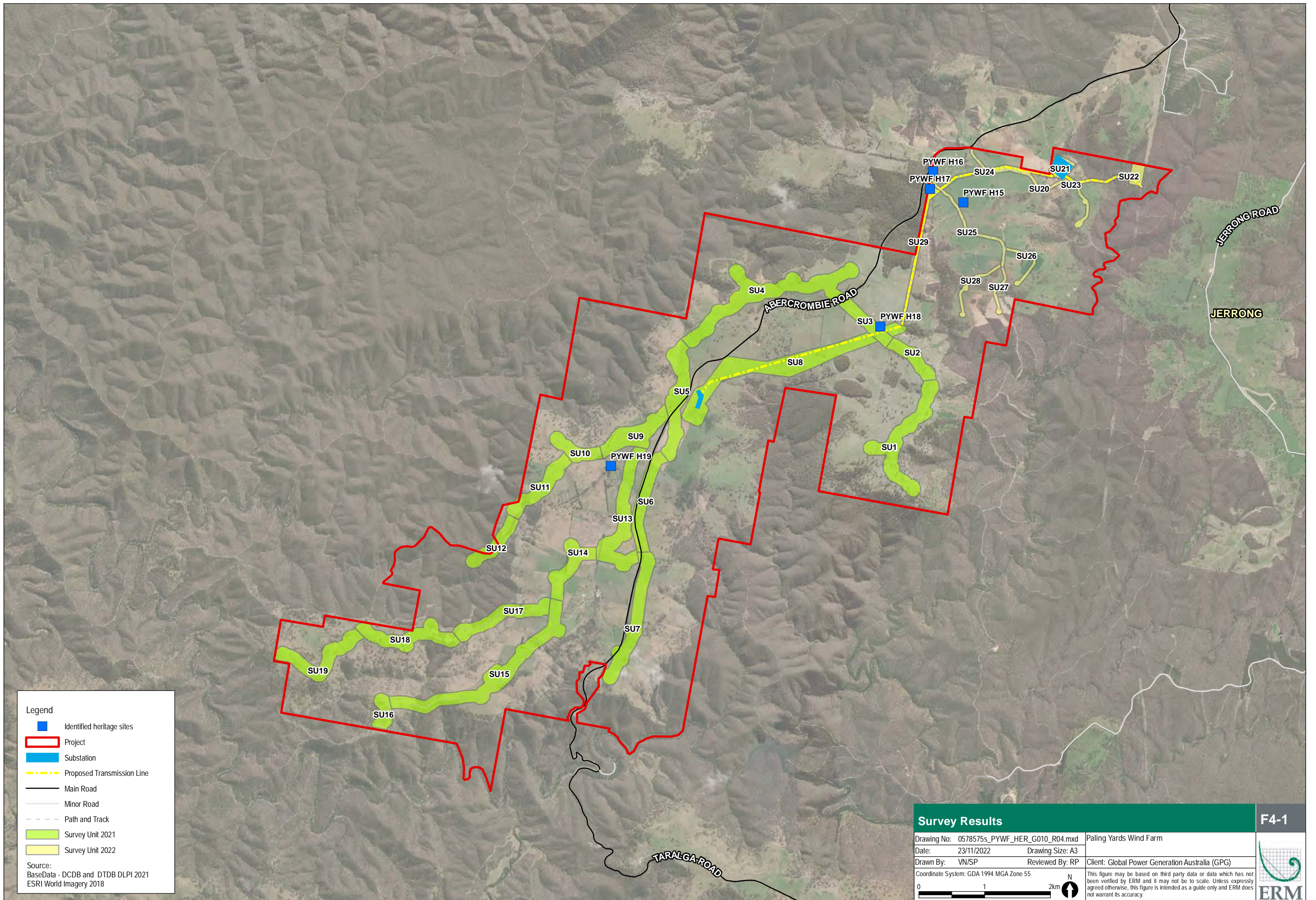
Survey Unit	Land Use Zone	Description	Sites Identified?	Photograph
SU29	Grazing	<p>SU29 was located across a series of rolling hills which were bisected by a number of low order tributaries of Brothers Creek. Access to the SU was limited to the northern half of the SU with crossings of Brothers Creek and boggy soil conditions limiting access to the southern portion. Views of the southern portion of the SU from accessible areas confirmed that this area was heavily vegetated and would have had extremely low levels of visibility.</p> <p>The southern portion of the SU included a low lying gently sloped land bordering Brothers Creek. While outside the formal survey area boundaries this area was traversed to access the southern portion of the SU. The Steam Boiler is further discussed below.</p>	H17 Steam Boiler	

Table 4.2 Previously Recorded Sites within the Project Area

Site Number	Site Name	Proximity to proposed works	Description	Photograph
Paling Yards H15	Stillwell Burial Ground	110m of proposed access track.	<p><i>Located on a gentle slope overlooking the 'Hilltop' access road is the property cemetery. This small private burial ground is unfenced and has simple grave markers to designate the burials. Members of the Stillwell family are buried here. (Anderson Environmental, 2019)</i></p> <p>The Stillwell Burial Ground includes five stone headstones with the majority facing a easterly direction. The burial ground is located on a gentle slope which overlooks areas of open pasture and Brothers Creek. The Burial ground appears to currently be contained to an approximate area of 10m x 10m with internments dating between 1980 and 2003. The recent internments suggest that this burial ground continues to be actively used. A total of five stone headstones are located across the burial ground with the northern most two having been further formalised with a number of stones placed around the burial. Two white crosses are also located at the burial ground which appear to have represented temporary burial markers which have since been replaced by stone headstones. Shallow soil depressions suggest that the internments extended east-west with the headstones representing the western extent of each burial.</p>	

Site Number	Site Name	Proximity to proposed works	Description	Photograph
Paling Yards H16	Stockyards	Approximately 30m north of proposed access track	<p><i>Located along the Hilltop access road adjacent to the property boundary within the Goulburn-Oberon Road. It is unclear when the stockyards were constructed but they appear to be several decades old. (Anderson Environmental, 2019)</i></p> <p>The Stockyards have been constructed of a mixture of wooden and metal components. Wooden components are comprised of round logs and beams (post-and-rail) with construction uneven with regards to log spacing and shape of the timber. The timber construction is interspersed with some metal fences including stock gates. The Stockyards extend across approximately 30m x 15m. The Stockyards do not appear to be actively used.</p>	
Paling Yards H17	Steam Boiler	Approximately 100m from Access road and transmission line	<p><i>A derelict steam boiler is located adjacent to Brothers Creek. It was originally used to drive a steam locomotion at a sawmill north of the Project Area. (Anderson Environmental, 2019)</i> The boiler is in poor condition, with elements detached, modifications made to the original design and degrading metal (Heritage Concepts 2005)</p> <p>The steam boiler is located to the north of Brothers Creek and includes furnace, boiler and smokestack components.</p>	

Site Number	Site Name	Proximity to proposed works	Description	Photograph
Paling Yards H18	Mingary Park Airstrip	Approximately 90 m north of proposed access track	<p><i>Built in 1950s and is a basic runway constructed of compacted earth following the natural incline of the site; site is currently used as pasture it appears that the airstrip is no longer in use. (Anderson Environmental, 2013)</i></p> <p>The airstrip is no longer visible from ground level, although in aerial imagery the general alignment can be identified. There is no evidence of current or recent usage of the airfield.</p>	
Paling Yards H19	'Quobleigh' basalt chimney and plantings	Approximately 215 m south-east of proposed access track	<p><i>Site represents the remains of an early homestead site. The main house structure has been destroyed, with the only evidence of the location being a mortared basalt chimney, some flagging stones and garden features. (Anderson Environmental, 2013)</i></p> <p>The chimney remains in good condition, and there is still legible evidence of the rough location of the former homestead visible on the ground surface. The chimney is situated close to a recently constructed home, indicating preference of this site for habitation.</p> <p>No consultation was undertaken with the landholder in regard to this site and its history, as there is a low likelihood of impact from the proposed works.</p>	



Legend

- Identified heritage sites
- Project
- Substation
- Proposed Transmission Line
- Main Road
- Minor Road
- Path and Track
- Survey Unit 2021
- Survey Unit 2022

Source:
BaseData - DCDB and DTDB DLPI 2021
ESRI World Imagery 2018

Survey Results		F4-1
Drawing No: 0578575s_PYWF_HER_G010_R04.mxd	Paling Yards Wind Farm	
Date: 23/11/2022	Drawing Size: A3	Client: Global Power Generation Australia (GPG) <small>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.</small>
Drawn By: VN/SP	Reviewed By: RP	
Coordinate System: GDA 1994 MGA Zone 55		

5. ASSESSMENT OF HERITAGE SIGNIFICANCE

The following section provides an assessment of the overall Aboriginal and Historic cultural heritage significance of the Project Area. The Project Area has been assessed against the NSW significance assessment criteria for potential for social, historical, scientific, and aesthetic values, contributing to the overall significance of the area.

5.1 Assessment of Heritage Significance

This assessment has validated the sites and preliminary significance assessment prepared by Heritage Concepts in 2005, as presented in *Tables 5.1 to Table 5.5*. As no new sites were identified within the Project Area, no additional significance assessment has been undertaken.

Table 5.1 Stillwell Burial Ground - Significance Assessment

Criterion	Discussion	Significance Level
a) An item is important in the course, or pattern, of NSW's cultural or natural history	The Stillwell's have lived in the area since the mid-1850s and represent a continuing family tradition of living, working and dying on the land. The burial ground is a physical representation of the Stillwell family's presence in the area, from initial settlement until now. Although the early graves are unmarked, it is likely that several early pioneers of the area are buried in the cemetery. Although not a formalised, bounded burial ground, the cemetery reflects the rural use of the land and the farming families which have worked the area for generations.	Local
b) An item has strong or special association with the life and works of a person, or group of persons, of importance in NSW's cultural or natural history	The item does not meet the threshold for listing under this criterion.	None
c) An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area)	The burial ground is located adjacent to the alignment of the original Goulburn-Oberon road and would have been a feature known to many within the area. It's current location, while encapsulating the rural aesthetic, is tucked away, and the public aspect of access and viewing has been lost. The landscape value of the area remains strong, however, and the setting, aspect and views to and from the burial ground reiterate the agricultural nature of the Stillwell family	Local
d) An item has a strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons	The burial ground is of immense significance to the Stillwell and Maloney families. There have been interments since the property was occupied, with some in the last five years, the burial ground is an active place of contemplation and remembrance. In addition, the site provides a focus to the local community. Given the small and interdependent nature of small farming communities, it is likely that most people in the area grew up with and knew people buried at this site.	Local
e) An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area)	The item does not meet the threshold for listing under this criterion.	None

Criterion	Discussion	Significance Level
f) An item possess uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area)	The item does not meet the threshold for listing under this criterion.	None
g) An item is important in demonstrating the principal characteristics of a class of NSW's (or the local area's): <ul style="list-style-type: none"> ■ Cultural or natural places; or ■ Cultural or natural environments 	The burial ground is representative of private burial lots on rural properties.	Local

Statement of Significance

The Stillwell burial ground is significant as an early, private burial ground still in use by descendants of the original settlers. Situated on a slope overlooking the location of the original road, the burial ground would have previously been a prominent feature in the landscape, with passers-by able to see the area. Recent burials confirm and continue the traditional pattern of burials on the family property. Allowing stock to graze within the area respects the historic use of the land without compromising the significance of the area as an acknowledged lace of mourning, remembrance and contemplation.

Table 5.2 Stockyards - Significance Assessment

Criterion	Discussion	Significance Level
a) An item is important in the course, or pattern, of NSW's cultural or natural history	The stockyards reflect the historic use of the area as a stock grazing property. (Heritage Concepts, 2005) The site is however is considered unlikely to be of particular importance to NSW cultural or natural history	None
b) An item has strong or special association with the life and works of a person, or group of persons, of importance in NSW's cultural or natural history	The item does not meet the threshold for listing under this criterion.	None
c) An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area)	The item does not meet the threshold for listing under this criterion.	None
d) An item has a strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons	The item does not meet the threshold for listing under this criterion.	None
e) An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area)	The item does not meet the threshold for listing under this criterion.	None

Criterion	Discussion	Significance Level
f) An item possess uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area)	The timber construction has been augmented with metal additions which signify the broad scale transition away from timber in farm construction. The timber yards represent an historic construction method. While these items are becoming increasing rare as timber construction is phased out, at present, the feature is considered to be a common occurrence across the landscape	None
g) An item is important in demonstrating the principal characteristics of a class of NSW's (or the local area's): <ul style="list-style-type: none"> ■ Cultural or natural places; or ■ Cultural or natural environments 	Although most stockyards are constructed from metal, timber stockyards are not currently rare within the landscape. (Heritage Concepts, 2005)	None

Statement of Significance

The stockyards confer a strong visual sense of historic property use and represent an historic agricultural aesthetic. Although not rare within the local area, they represent a feature which will become increasingly rare with the modernisation of materials in most rural contexts. (Heritage Concepts, 2005)

Table 5.3 Steam Boiler - Significance Assessment

Criterion	Discussion	Significance Level
a) An item is important in the course, or pattern, of NSW's cultural or natural history	The item does not meet the threshold for listing under this criterion.	None
b) An item has strong or special association with the life and works of a person, or group of persons, of importance in NSW's cultural or natural history	The item does not meet the threshold for listing under this criterion.	None
c) An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area)	The steam boiler dates to between 1889 and 1951. The boiler reflects the engineering technology of the time, both in its own design and manufacture and the uses to which it was put. The boiler is a piece of movable heritage as is exemplified by its transition between at least two locations. The boiler is in poor condition, with elements detached, modifications made to the original design and degrading metal. (Heritage Concepts, 2005)	Local
d) An item has a strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons	The item does not meet the threshold for listing under this criterion.	None
e) An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area)	The item does not meet the threshold for listing under this criterion.	None
f) An item possess uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area)	The item does not meet the threshold for listing under this criterion.	None

Criterion	Discussion	Significance Level
g) An item is important in demonstrating the principal characteristics of a class of NSW's (or the local area's): <ul style="list-style-type: none"> ■ Cultural or natural places; or ■ Cultural or natural environments 	The item does not meet the threshold for listing under this criterion.	None

Statement of Significance

The steam boiler is significant as a movable heritage item which denoted past land use in the area. The poor condition of the boiler detracts from its significance. (Heritage Concepts, 2005)

Table 5.4 Mingary Park Airstrip - Significance Assessment

Criterion	Discussion	Significance Level
a) An item is important in the course, or pattern, of NSW's cultural or natural history	The airstrip is associated with Max Hazelton, being constructed in direct response to his crash in the area in 1954. The crash of his Auster J5F Aglet trainer sparked the biggest aviation search of the time. Constructed as an emergency landing strip, the airstrip was also used for more mundane requirements, such as a landing place for local crop dusters. (Heritage Concepts, 2005)	Local
b) An item has strong or special association with the life and works of a person, or group of persons, of importance in NSW's cultural or natural history	The airstrip is associated with Max Hazelton, who constructed it after an aeroplane crash. Hazelton was pioneer of Australian aviation, with his company commencing operations ferrying stock and station agents around New South Wales. His company grew to the point where it offered regular passenger services. (Heritage Concepts, 2005)	Local
c) An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area)	The item does not meet the threshold for listing under this criterion.	None
d) An item has a strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons	The item does not meet the threshold for listing under this criterion.	None
e) An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area)	The item does not meet the threshold for listing under this criterion.	None
f) An item possess uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area)	The item does not meet the threshold for listing under this criterion.	None
g) An item is important in demonstrating the principal characteristics of a class of NSW's (or the local area's): <ul style="list-style-type: none"> ■ Cultural or natural places; or ■ Cultural or natural environments 	The item does not meet the threshold for listing under this criterion.	None

Criterion	Discussion	Significance Level
Statement of Significance		
The Mingary Park airstrip was built as a direct consequence of an important aircraft crash. It was situated so as to provide emergency landing facilities in an area that was otherwise poorly serviced. The airstrip has also been used for agricultural air requirements such as crop dusting planes. (Heritage Concepts, 2005)		

Table 5.5 ‘Quobleigh’ Basalt Chimney and Plantings – Significance Assessment

Criterion	Discussion	Significance Level
a) An item is important in the course, or pattern, of NSW’s cultural or natural history	The archaeological remains and extant chimney and garden plantings are associated with the early settlement of the area. The chimney has been constructed of locally available materials and suggests a mid - 1800s construction. The garden boundary and plantings reflect the historic layout and curtilage of the property. The house appears to have been a small rural dwelling and would have been similar in form to many early rural houses. (Heritage Concepts, 2005)	Local
b) An item has strong or special association with the life and works of a person, or group of persons, of importance in NSW’s cultural or natural history	The item does not meet the threshold for listing under this criterion.	None
c) An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area)	The basalt chimney is an attractive, historic landscape feature in more modern surrounds. Displaying excellent craftsmanship, the survival of the chimney following the demise of the rest of the house is testimony to the degree of care and skill which went into its creation. The chimney and garden plantings serve as the visible component of an archaeological site. (Heritage Concepts, 2005)	Local
d) An item has a strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons	The item does not meet the threshold for listing under this criterion.	None
e) An item has potential to yield information that will contribute to an understanding of NSW’s cultural or natural history (or the cultural or natural history of the local area)	Archaeological remains associated with the original dwelling may provide information about the size of the house and construction techniques. Any cultural deposits may provide information on the age, gender and socio-economic grouping of the occupants. (Heritage Concepts, 2005)	Potential Local
f) An item possess uncommon, rare or endangered aspects of NSW’s cultural or natural history (or the cultural or natural history of the local area)	The item does not meet the threshold for listing under this criterion.	None
g) An item is important in demonstrating the principal characteristics of a class of NSW’s (or the local area’s):	The item does not meet the threshold for listing under this criterion.	None
<ul style="list-style-type: none"> ■ Cultural or natural places; or ■ Cultural or natural environments 		

Criterion	Discussion	Significance Level
<p>Statement of Significance PYWF H19 is significant as the site of an early rural house. The site reflects the early settlement patterns and has potential to provide information which is not readily available from historical sources. (Heritage Concepts, 2005)</p>		

5.2 Statement of Significance

The Project Area contains four heritage items of local significance and one heritage feature which does not meet the local significance threshold. The 'Stillwell Burial Ground' (PYWF H15) and 'Quobleigh' basalt chimney and plantings (PYWF H19) relate to early European occupation of the region and the development of large pastoral runs in the area. The 'Steam Boiler' (PYWF H17) relates to the timber industry in the region and moves towards industrialisation of the industry in the late nineteenth century. The 'Mingary Park Airstrip' (PYWF H18) relates to early aviation in NSW, and particularly the role of aviation in the establishment and management of rural properties. These sites are considered to be of local heritage value as markers of early development, and the continued history of pastoralism in the region. While the 'Stockyards' (PYWF H16) was also identified as a historic feature it was not assessed to meet the threshold of local significance.

6. IMPACT ASSESSMENT

6.1 Proposed Impact

The proposed PYWF will include the following elements:

- Up to 47 wind turbines with a maximum height of 240 m;
- Up to 3 wind monitoring masts fitted with associated instruments;
- On-site electrical substations within approximately 9km of overhead power line; and
- Control room, maintenance buildings, switchgear and associated control systems in the vicinity of the wind turbine towers.
- Preparation and construction of internal roads to turbine and substation locations;
- Temporary laydown and batching plants during construction; and
- Removal of native vegetation and additional vegetation planting to provide screening (if required)

Impacts within the Project Area will result from construction of infrastructure, grading of roads, installation of wind turbines, and excavation for installation of services.

6.2 Impact to Historic Heritage Values

As identified in this report, there are four known historic heritage sites within the Project Area and one historic feature which has been assessed as having local significance. The sites are not listed on any statutory heritage registers.

All five sites/ features are located outside the proposed Development Footprint, and will not be directly impacted as a result of the proposed works. In most cases the significance of the identified items are not tied directly to the items relationship to the landscape and consequently potential changes to view lines surrounding these items would not impact on the significance of each item.

The Stillwell Burial Ground has been identified to have significance associated with the landscape qualities of the surrounding landscape. Proposed development in visual proximity to this item is limited to access road upgrades and the placement of a proposed transmission line. The minor nature of these developments would not alter the overall rural landscape as viewed from this item and subsequently is considered to have a negligible impact on the significance of this item.

7. CONCLUSIONS AND RECOMMENDATIONS

7.1 Conclusions

This Historic Heritage Due Diligence Report (HHDD) has been prepared in support of the environmental impact studies being undertaken to seek approval for the Paling Yards Wind Farm, Paling Yards NSW. This report has identified that there are four known heritage sites which meet the threshold for local significance within the Project Area. None of these sites are currently listed on any statutory heritage registers. In addition, one historic feature which did not meet the significance threshold was also noted.

This report has shown that the five known heritage sites/features are outside the proposed development footprint of the Paling Yards Wind Farm, and will not be directly impacted by the proposed works. Potential for visual impacts to these items has similarly been assessed as nil to negligible. Background research and field inspection have also determined that the Project Area retains low historical archaeological potential.

7.2 Recommendations

The following recommendations are provided to mitigate potential impacts to historic heritage values within the Project Area during the proposed works.

7.2.1 Recommendation 1: Heritage Induction and Protocols

GPG staff and all contractors engaged by GPG to complete the works should prepare an Environmental Management Strategy (EMS), an Environmental Work Method Statement (EWMS) and/or a Construction Environmental Management Plan (CEMP) that ensures that all onsite personnel are aware of their obligations and requirements in relation to the archaeological provisions of the *Heritage Act 1977* through the attendance of a site-specific heritage induction. The Heritage Induction should include information on not only the identified sites in this report, but also types of potential historical features and archaeological evidence that may be found during works (this relates to the Unexpected Finds Protocol following). Identified sites should be marked on site plans during operation and construction to ensure no inadvertent impact to the identified items.

7.2.2 Recommendation 2: Unexpected Finds Protocol

Historic heritage items could include relics (defined by the *Heritage Act 1977* as 'any deposit, artefact, object or material evidence that relates to the settlement of the area that comprises NSW, not being Aboriginal settlement; and is of State or local heritage significance') or archaeological features (works). Archaeological remains that may be uncovered during construction are most likely to include evidence of former farming practices, or domestic rubbish. The following steps are provided below in the event that archaeological remains are identified during construction:

- where a potential historic heritage item is found during works, all works within the vicinity of the item, or with the potential to impact the item should cease and a temporary exclusion zone established;
- an appropriately qualified heritage consultant should examine the item to assess its significance and further archaeological potential;
- where a relic is found, the NSW Heritage Council should be notified and approval will likely be required prior to the continuation of works. Other archaeological deposits should be recorded and assessed for significance and potential salvage by an appropriately qualified heritage consultant; and
- works only recommence when relevant approvals and an appropriate and approved management strategy instigated.

The Unexpected Finds Procedure should be included in the EMS/EWMS/CEMP.

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Paling Yards Development Pty Ltd

Paling Yards Wind Farm Transport Route

Heritage Due Diligence Assessment

09 May 2023

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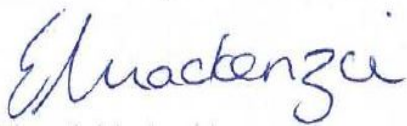
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Paling Yards Transport Route

Heritage Due Diligence Assessment



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Acronyms and Abbreviations

Name	Description
AHC	Australian Heritage Commission
Burra Charter	The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance
CEMP	Construction Environment Management Plan
CHL	Commonwealth Heritage List
disturbed land or land already previously disturbed by activity	Land is disturbed if it has been the subject of a human activity that has changed the land's surface -being changes that remain clear and observable.
DPE	Department of Planning and Environment
EIS	Environmental Impact Statement
EMS	Environment Management Strategy
EP&A Act	<i>NSW Environmental Planning and Assessment Act 1979</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
ERM	Environmental Resources Management Australia Pty Ltd
EWMS	Environment Work Method Statement
GPG	Global Power Generation Australia Pty Ltd
HDD	Heritage Due Diligence
Heritage Act	<i>NSW Heritage Act 1977</i>
LEP	Local Environmental Plan
LGA	Local Government Area
NHL	National Heritage List
NPW Act	<i>NSW National Parks and Wildlife Act 1974</i>
NPW Regulation	<i>NSW National Parks and Wildlife Regulation 2009</i>
OEH (former)	Office of Environment and Heritage (former) NSW
Project Area	The land subject to investigation in this report
PYWF	Paling Yards Wind Farm
RNE	Register of the National Estate
SEARs	Secretary's Environmental Assessment Requirements
SHI	State Heritage Inventory
SHR	State Heritage Register
SSD	State Significant Development
The Project	The Proposed Development

EXECUTIVE SUMMARY

Environmental Resources Management Australia Pty Ltd was commissioned by Global Power Generation Australia to prepare a Heritage Due Diligence Assessment for the proposed transportation route for the Paling Yards Wind Farm Project (Project Area), located in Paling Yards, NSW.

To facilitate the construction of the turbines at the Project Area, components will need to be transported from the Port of Newcastle. It is proposed that the majority of the equipment and components will be transported along the New England Highway, Hunter Expressway, Golden Highway, Castlereagh Highway, and Great Western Highway. As the oversized components will require additional space to be manoeuvred along the roads, several road upgrades and amendments are proposed along this route. Most major towns will be avoided, however the route does travel through Merriwa, Gulgong, Mudgee, Ilford, Capertee, Cullen Bullen, Wallerawang, Bathurst, and Black Springs.

This report assesses the potential impact of road amendment and upgrade works on known historic (non-Aboriginal) heritage items and registered Aboriginal cultural heritage sites along the proposed transport route.

The key findings of this Heritage Due Diligence assessment are summarised below:

- No registered historic heritage items or Aboriginal cultural heritage sites have been identified within the transport route or planned road upgrade and amendment locations.
- Seven (7) LEP listed heritage items are within 25 m of the planned road upgrade locations, and all are in the Mid-Western Regional LGA, specifically Mudgee and Gulgong. The proposed road upgrades have been assessed as having no impact direct or indirect on these heritage items.
- 194 statutory and 14 non-statutory listed historic heritage items are adjacent to the transport route, however none of the road upgrades and amendments planned along the transport route are within 25 m of these heritage items, and do not pose a direct or indirect risk of impact to their heritage values.
- There are no AHIMS-registered Aboriginal cultural heritage sites within 200 m of planned road upgrade and amendment locations.

It is recommended that works proceed under an Unexpected Finds Protocol, which should form part of the project environmental management documentation. It is recommended that contractors engaged by GPG should prepare an Environmental Management Strategy, an Environmental Work Method Statement and/or a Construction Environmental Management Plan that ensures that all onsite personnel are aware of their obligations and requirements in relation to the archaeological provisions of the *Heritage Act 1977* through the attendance of a site-specific heritage induction.

1. INTRODUCTION

Environmental Resources Management Australia Pty Ltd (ERM) was commissioned by Global Power Generation Australia (GPG; or 'the Proponent') to prepare a Heritage Due Diligence Assessment Report (HDD) for the proposed Paling Yards Wind Farm (PYWF, or 'Project Area'). The Project requires wind turbine components to be transported from the Port of Newcastle to the Project Area in Paling Yards, NSW, and several road upgrades and amendments are proposed to facilitate the transport of oversized components. This report addresses the impact that these roadway modifications will have on known historic and Aboriginal cultural heritage.

1.1 Objectives

This report aims to:

- Identify historic and Aboriginal cultural heritage places along the transport route from the Newcastle Port to the Project Area;
- Evaluate the impact of the proposed works on any identified heritage item or sites; and
- Provide recommendations for the mitigation and management of potential impacts and to identified historic heritage items and Aboriginal cultural heritage sites.

1.2 Location and Description of the Project Transport Route

The proposed PYWF is located in Paling Yards, NSW, approximately 100 km south of Bathurst. The Project Area is within the Oberon Local Government Area (LGA). The Project Area is within the County of Georgiana, Parish of Jerrong.

The PYWF Traffic Impact Assessment has considered the transportation of the imported turbine blade roots and other materials from the Port of Newcastle to the Project Area during the construction phase. The transportation of the blade roots requires careful consideration due to their large size and geometric specifications, and therefore a route that will accommodate the blade roots will also accommodate the transportation requirements of all other smaller turbine components.

The recommended transport route is one via Mudgee which covers approximately 654 km. This route considers the transportation of the blades out of the Port of Newcastle via Selwyn Street and then north via Industrial Drive. The route continues onto Maitland Road through Tarro then onto New England Highway through Belford (via John Renshaw Dr and the Hunter Express-way). From New England Highway, the route continues onto the Golden Highway through Jerry Plains. The vehicles will then exit the Golden Highway to travel north on Denman Road through Elderton and Wybong via Wybong Road. The route then connects back to the Golden Highway off Denman Road and continues west through Sandy Hollow. The vehicles will then exit the Golden Highway at Dunedoo and begin travelling south onto Castlereagh Highway through Mudgee. The route continues south to Wallerawang where it connects with the Great Western Highway moving west towards Bathurst via Kelso. Once at Kelso the vehicles will travel south onto Littlebourne Street and continue onto O'Connell Road through Oberon which connects with Abercrombie Road. Once on Abercrombie Road, vehicles will travel to their designated locations via six access intersections (SLR, 2023) (*Figure 1.1*).

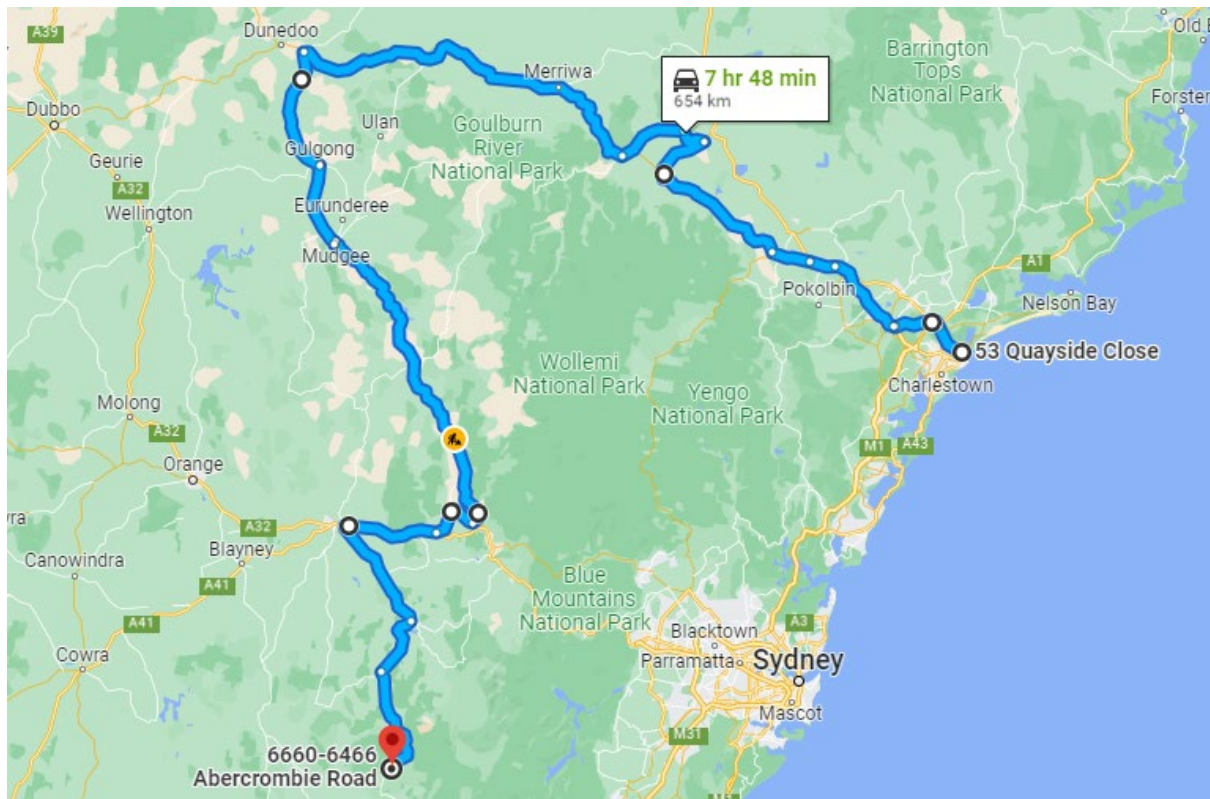




Figure 1-1 Proposed transport route from Port of Newcastle to PYWF

As the blade roots will require space to be manoeuvred while being transported, 36 pinch points along the route were assessed to determine if changes or upgrades may be required to accommodate the oversize cargo. At most of these pinch points, recommended works were limited to replacing fixed signage with removeable signage and installation of gravel or asphalt hardstands to allow for the additional swing radius required for the wind turbine blade roots.



Of the 36 pinch points assessed, five were recommended as requiring works that could have a minor environmental impact, and five were recommended as requiring works that could have a larger environmental impact. These ten pinch points are described in **Table 1.1**.

This report will address the potential impact of these road amendment and upgrade works on known heritage sites along the proposed transport route.



Table 1-1 Transport Route Pinch Points Requiring Works with Environmental Impacts

Location	KM Index	Description of Works	Environmental Impact	Image from Traffic Impact Assessment (SLR, 2023)
Fisher Street (Castlereagh Highway) onto Medley Street (Castlereagh Highway) at Gulgong.	370.0	<p>Blades to travel around this right-hand corner on the correct side of the road. Hardstand is required on the inside of the corner. Several signs and a barrier will need to be relocated.</p> <p>Additionally, some trees on the overhang will need to be trimmed. Spotter to guide the load through this pinch point.</p>	Minor	
Castlereagh Highway, Mudgee.	383.0-393.0	Minor upgrades are required.	Minor	

Location	KM Index	Description of Works	Environmental Impact	Image from Traffic Impact Assessment (SLR, 2023)
Market St onto Douro St at Mudgee.	386.0	Prime mover to stay on the correct side of the road, however the trailer will need to travel on the inside of the corner and over the centre median strip. The centre median strip will need to be concreted, and kerbs lowered. Additionally, some signs will need to be made removable and some no parking areas put in place.	Minor	
Douro St onto Horatio St at Mudgee.	386.5	Blades to travel around this corner on the incorrect side of the road. The centre median strip will need to be concreted, and kerbs lowered. Some trees will need to be removed, and some no parking areas put in place. Additionally, some signs will need to be made removable.	Larger	

Location	KM Index	Description of Works	Environmental Impact	Image from Traffic Impact Assessment (SLR, 2023)
Horatio St onto Sydney Road at Mudgee.	367.0	Blades to travel around this corner on the incorrect side of the road. Several signs need to be made removable.	Larger	
Great Western Highway roundabout at Kelso.	532.0	A light pole will need to be relocated and several signs will need to be made removable.	Minor	

Location	KM Index	Description of Works	Environmental Impact	Image from Traffic Impact Assessment (SLR, 2023)
Great Western Highway onto Littlebourne St at Kelso.	533.0	Loads will turn from the correct side of Great Western Highways onto the wrong side of Littlebourne St and move to the correct side after the traffic island. The tail swing will overhang onto the eastbound lanes of the Great Western Highway Several signs will need to be made removable.	Minor	
O'Connell Road Range: Dogleg corner	580.0	Very steep ascend with several very tight turns. A large number of modifications are required on several of the corners. This will require some embankments cut back, some vegetation removal as a minimum.	Larger	

Location	KM Index	Description of Works	Environmental Impact	Image from Traffic Impact Assessment (SLR, 2023)
O'Connell Road onto Abercrombie Road at Oberon.	574.0	Right-hand turn at the roundabout from the wrong side. A large amount of hardstand is required on the inside and outside of the corner of the roundabout between O'Connell Road and Abercrombie Road. Two trees and four signs need to be removed.	Larger	
Abercrombie Road, intersection of Campbells River Roads at Black Springs.	597.0	Left-hand turn to stay on Abercrombie Rd. Several signs need to be removed on the. A small amount of hardstand is required on the western portion of Abercrombie road to widen the southern leg.	Larger	

1.3 Methodology

This report is the result of a desktop assessment of non-Aboriginal (historic) and Aboriginal cultural heritage values which are identified in the vicinity of the transport route. A 25 m buffer of the road was applied to identify any heritage items or sites that would require an impact assessment for proposed road upgrades. This report has been prepared in accordance with the following guidelines:

- *The Australia International Council on Monuments and Sites, Charter for Places of Cultural Significance* (also known as the Burra Charter, Australia ICOMOS 2013);
- *Assessing Significance for Historical Archaeological Sites and 'Relics'* (Heritage Branch, Department of Planning 2009);
- *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (Department of Environment, Climate Change and Water, 2010);
- *NSW Heritage Manual* (Heritage Office 1996); and
- *Assessing Heritage Significance* (NSW Heritage Office 2001).

Preparation of the report has included:

- Heritage register and database searches;
- assessment of heritage significance; and
- preparation of management and mitigation recommendations.

1.4 Authorship

Table 1-2 below provides an overview of the ERM Staff involved in the preparation of this report, and their relevant qualifications.

Table 1-2 Authorship and Relevant Qualifications

Name	Title	Role	Relevant Qualifications
Meghyn Mathison	Heritage Consultant	Author	Bachelor of Arts (Ancient History), University of Queensland, 2022 Bachelor of Science (Archaeological Science), University of Queensland, 2022
Elspeth Mackenzie	Principal Heritage Consultant	Author	Bachelor of Arts with Honours (Anthropology & Archaeology), 2002; Master of Cultural Heritage, 2005.
Erin Finnegan	Principal Heritage Consultant	Technical Advisor	Bachelor of Arts (Cultural Anthropology), 1998; Master of Philosophy (Archaeology), 2006

2. LEGISLATIVE REQUIREMENTS

2.1 NSW Legislation

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

2.1.1 NSW Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EP&A Act) requires that environmental impacts are considered in land use planning, including impacts on Aboriginal and non-Aboriginal heritage. Various planning instruments prepared under the Act identify permissible land use and development constraints.

2.1.1.1 State Significant Development

This Project has been designated as a State Significant Development (SSD 29064077) under Section 4.12 (8) of the EP&A Act. A development application for a State Significant Development must be accompanied by an EIS prepared in the form prescribed by the regulations. To guide the preparation of an EIS the Department of Planning and Environment (DPE) issues the Secretaries Environmental Assessment Requirements (SEARs) which guides the level of assessment required to support development of the Project EIS.

The SEARs (SSD 29064077) for the Project were issued on 9 March 2022.

2.1.1.2 Local Environmental Plans

The EP&A Act allows for the preparation of planning instruments to direct development within NSW. This includes Local Environment Plans (LEP), which are administered by local government, and principally determine land use and the process for development applications. LEPs usually include a schedule of identified heritage items.

The Project transport route traverses eleven (11) local government areas (LGAs), and is therefore governed by the following LEPs:

- Newcastle City Council LEP 2012;
- Maitland City Council LEP 2011;
- Cessnock City Council LEP 2011;
- Singleton Council LEP 2013;
- Muswellbrook Shire Council LEP 2009;
- Upper Hunter Shire Council LEP 2013;
- Warrumbungle Shire Council LEP 2013;
- Mid-Western Regional Council LEP 2012;
- Lithgow City Council LEP 2014;
- Bathurst Regional Council LEP 2014; and
- Oberon Council LEP 2013;

2.1.2 NSW Heritage Act 1977

The *NSW Heritage Act 1977* establishes the NSW Heritage Council and the State Heritage Register (SHR). The aim of the Act is to conserve the heritage of NSW. The aim of heritage management is not to prevent change and development, but to ensure that the heritage significance of recognised heritage items is not harmed by changes and developments.

The SHR is a separate listing to the State Heritage Inventory (SHI) and includes items which are accorded SHR listing through gazettal in the NSW Government Gazette. Nominated items are considered by the NSW Heritage Council, which then makes a recommendation to the Minister for Environment and Heritage. The Heritage Council is empowered to place Interim Heritage Orders (IHO) on an item of potential state significance. The assessment of significance is made against the criteria shown in **Table 2-1**.

Table 2-1 NSW State Significance Criteria

NSW Criterion
(a) Historical <i>An item is important in the course, or pattern, of NSW's cultural or natural history.</i>
(b) Association <i>An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history.</i>
(c) Aesthetic <i>An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW.</i>
(d) Social <i>An item has strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons.</i>
(e) Scientific <i>An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history.</i>
(f) Rarity <i>An item possesses uncommon, rare or endangered, aspects of NSW's cultural or natural history.</i>
(g) Representativeness <i>An item is important in demonstrating the principal characteristics of a class of NSW's a) cultural or natural places: or b) cultural or natural environments.</i>

2.1.2.1 State Heritage Inventory

The SHI contains over 25,000 heritage items on statutory lists in NSW. This information is provided by local councils and State government agencies. The level of information for each heritage item can range from basic identification information such as name, address and listing to full information such as detailed descriptions, histories, significance, and images. While Heritage NSW seeks to keep the SHI up to date, the most recent statutory listings may not yet be included.

2.2 Non Statutory Considerations

2.2.1 National Trust Register

The National Trust of Australia maintains a register of landscapes, townscapes, buildings, industrial sites, cemeteries, and other heritage places which the Trust determines to have cultural significance. This register is non-statutory but provides an indication of places considered significant by the wider community.

2.2.2 The Burra Charter

The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance (Adopted 31 October 2013) (The Burra Charter) sets a standard of practice for those who provide advice, make decisions about, or undertake works to places of cultural significance including owners, managers and custodians. The Charter provides specific guidance for physical and procedural actions that should occur in relation to significant places. A copy of the 2013 charter can also be accessed at: <http://australia.icomos.org/wp-content/uploads/The-Burra-Charter-2013-Adopted-31.10.2013.pdf>.

This DD report has been prepared in accordance with this document and to the standards it describes.

2.2.3 Register of the National Estate

The Register of the National Estate (RNE) is now an archive of information about more than 13,000 places throughout Australia including many places of local or state significance. The RNE was closed in 2007 and is no longer a statutory list. The closure of the RNE does not diminish protection of Commonwealth heritage places.

The RNE is maintained on a non-statutory basis as a publicly available archive and educational resource. RNE places can be protected under the EPBC Act if they are also included in another Commonwealth statutory heritage list or are owned or leased by the Commonwealth. In addition, places in the RNE may be protected under appropriate state, territory or local government heritage legislation.

There are thirteen (13) RNE listed places adjacent to the transport route, however none of these are located within 25 m of the proposed road upgrades.

3. HERITAGE DATABASE SEARCH RESULTS

The following databases were searched in May 2023 to identify any known historic heritage items or Aboriginal cultural heritage sites in proximity to the transport route and associated upgrades:

- Australian Heritage Database, which includes
 - Commonwealth Heritage List (CHL);
 - Register of the National Estate (RNE); and
 - National Heritage List (NHL);
- NSW SHR and SHI;
- The National Trust of Australia (NSW);
- Local Environmental Plans (LEPs) for the following Local Government Areas (LGAs):
 - Newcastle City Council LEP 2012;
 - Maitland City Council LEP 2011;
 - Cessnock City Council LEP 2011;
 - Singleton Council LEP 2013;
 - Muswellbrook Shire Council LEP 2009;
 - Upper Hunter Shire Council LEP 2013;
 - Warrumbungle Shire Council LEP 2013;
 - Mid-Western Regional Council LEP 2012;
 - Lithgow City Council LEP 2014;
 - Bathurst Regional Council LEP 2014; and
 - Oberon Council LEP 2013;
- Aboriginal Heritage Information Management System (AHIMS).

3.1 Statutory Listings – Search Results

3.1.1 *NSW State Heritage Register and State Heritage Inventory*

There is a total of nine (9) sites listed on the SHR and SHI (not including those listed as part of a Local Environmental Plan) that are adjacent to the transport route. None of the road upgrades and amendments planned along the transport route in this LGA are within 25 m of these heritage items, and the activities do not pose direct or indirect risk of impact to their heritage values.

Table 3-1 NSW State Heritage Register and Inventory Database Search Results

Site ID	Site Name	Address	LGA
00237	Smith's Flour Mill (former)	91 Newcastle Road East Maitland	Maitland
01886	St Peters Anglican Church Group and Glebe Cemetery	47 William Street East Maitland	Maitland
01185	Maitland Railway Station and yard group	Main Northern railway Maitland	Maitland
00159	Merton	4883 Jerrys Plains Road Denman	Muswellbrook
00170	Edinglassie	710 Denman Road, Muswellbrook	Muswellbrook
00211	Rous Lench	Denman Road, Edinglassie	Muswellbrook
01780	Binnawee Homestead and Outbuildings	111 Lester's Lane Mudgee	Mid-Western Regional
01082	Ben Bullen Railway Station group	Wallerawang-Gwabegar railway, Ben Bullen	Lithgow City
01904	The Grange	3249 O'Connell Road, Bathurst	Bathurst

3.1.2 Newcastle City Council Local Environmental Plan

There is a total of twenty-eight (28) LEP listed heritage items adjacent to the transport route in the Newcastle City Council LGA. None of the road upgrades and amendments planned along the transport route in this LGA are within 25 m of these heritage items, and the activities do not pose direct or indirect risk of impact to their heritage values.

Table 3-2 Newcastle City Council LEP heritage items

Item no.	Locality	Item name	Address	Significance
I34	Beresfield	Newcastle Crematorium	176 Anderson Drive	Local
I35	Beresfield	Beresfield Public School	181 Anderson Drive	Local
I176	Hexham	Railway station	Maitland Road	Local
I177	Hexham	Former Travellers Rest Hotel	23 Maitland Road	Local
I178	Hexham	Oak Factory	189 Maitland Road	Local
I179	Hexham	Hannel Family Vault	398B Maitland Road	Local
I180	Tarro	Hexham Shipbuilding Yards	404 Maitland Road	Local
I182	Hexham	Former Uniting Church and Hall	63 Old Maitland Road	Local
I183	Hexham	J & A Brown's Hexham Workshops	100 Old Maitland Road	Local
I184	Hexham	Former Glen Lovett Hall	187 Old Maitland Road	Local
I185	Hexham	Former Hexham Public School	227 Old Maitland Road	Local
I186	Hexham	Goninans Administration Building	230 Old Maitland Road	Local
I187	Hexham	Hexham Bridge	Pacific Highway	Local
I266	Mayfield	Simpsons Cottage	64 Industrial Drive	Local

Item no.	Locality	Item name	Address	Significance
I282	Mayfield East	Mayfield East Public School	34 Crebert Street	Local
I286	Mayfield East	Australia Wire Rope Building	6 George Street	Local
I291	Mayfield West	Former migrant camp	609 Maitland Road	Local
I332	Minmi	Minmi to Hexham Railway	Minmi to Hexham	Local
I516	Sandgate	Sandgate Cemetery	108 Maitland Road	Local
I517	Sandgate	Railway Spur—Sandgate Cemetery	108 Maitland Road	Local
I518	Sandgate	Office—Sandgate Cemetery	116 Maitland Road	Local
I519	Sandgate	2HD Studio	173 Maitland Road	Local
I546	Tarro	Tarro Substation	4A Anderson Drive	Local
I547	Tarro	Our Lady of Lourdes Church	42 Anderson Drive	Local
I548	Tarro	Residence	29 Eastern Avenue	Local
I549	Tarro	Tarro Community Hall	2A Northern Avenue	Local
I550	Tarro	Pumping station	3 Woodberry Road	Local
I551	Tarro	Substation	3 Woodberry Road	Local

3.1.3 Maitland City Council Local Environmental Plan

There is a total of sixteen (16) LEP listed heritage items adjacent to the transport route in the Maitland City Council LGA. None of the road upgrades and amendments planned along the transport route in this LGA are within 25 m of these heritage items, and the activities do not pose direct or indirect risk of impact to their heritage values.

Table 3-3 Maitland City Council LEP heritage items

Item no.	Locality	Item name	Address	Significance
I64	East Maitland	St Joseph's Church	73 King Street	Local
I71	East Maitland	Former AJS Bank	120 Melbourne Street	Local
I78	East Maitland	Former Smith's Flour Mill	99–101 Newcastle Street	State
I79	East Maitland	Lands Office	141 Newcastle Street	Local
I101	Lochinvar	Victoria House	7 Cantwell Road	Local
I104	Lochinvar	Holy Trinity Church	New England Hwy	Local
I105	Lochinvar	Catholic cemetery	New England Hwy	Local
I106	Lochinvar	Police station	24 Station Lane	Local
I119	Maitland	Government railway	Various locations (as identified on the Heritage Map)	Local
I166	Maitland	Maitland Hospital group	550–560 High Street	Local
I168	Maitland	The Family Hotel	607 High Street	Local

Item no.	Locality	Item name	Address	Significance
I175	Maitland	"Helyhurst"	76 Regent Street	Local
I180	Maitland	Maitland Railway Station and Yard group	Station Street	State
I229	Rutherford	Cemetery	New England Hwy	Local
I231	South Maitland	"Rose Mary"	15 Cross Street	Local
I232	South Maitland	St Paul's Church group	80–82 Devonshire Street and 14 Cross Street	Local

3.1.4 Cessnock City Council Local Environmental Plan

There is a total of twenty-five (25) LEP listed heritage items adjacent to the transport route in the Cessnock City Council LGA. None of the road upgrades and amendments planned along the transport route in this LGA are within 25 m of these heritage items, and the activities do not pose direct or indirect risk of impact to their heritage values.

Table 3-4 Cessnock City Council LEP heritage items

Item no.	Locality	Item name	Address	Significance
I30	Branxton	Sandstone kerbs, gutters and roads	John Rose Avenue	Local
I31	Branxton	Horse trough	63 Maitland Street	Local
I34	Branxton	The Branxton Inn	31 Maitland Street	Local
I35	Branxton	Commercial Hotel	45 Maitland Street	Local
I36	Branxton	Royal Federal Hotel	50 Maitland Street	Local
I37	Branxton	Shops and houses	50, 56–58, 60, 62, 64, 68, part of 70 and 72 Maitland Street	Local
I38	Branxton	"Dura"	61 Maitland Street	Local
I39	Branxton	Bank of NSW (former)	65 Maitland Street	Local
I85	East Branxton	Branxton General Cemetery	Lindsay Street	Local
I89	Greta	St Mary's Anglican Church	Anvil Street	Local
I91	Greta	Greta Masonic Hall (former)	67 High Street	Local
I92	Greta	Inn (former)	72 High Street	Local
I93	Greta	Tattersalls/Greta Hotel	88 High Street	Local
I94	Greta	Greta Post Office (former)	94 High Street	Local
I95	Greta	Greta Council Chambers (former)	96 High Street	Local
I96	Greta	Greta Courthouse (former)	98 High Street	Local
I97	Greta	Two storey shop	110 High Street	Local
I98	Greta	Horse trough	High Street	Local

Item no.	Locality	Item name	Address	Significance
I99	Greta	Greta median strip	High Street and New England Highway (between Water and Wyndham Streets)	Local
I100	Greta	Sandstone kerbs, gutters, drains and dam	High, Anvil, Wyndham, Bell, Chapman and Waters Streets and New England Highway	Local
I102	Greta	Greta Police Station, lock up and residence (former)	1 Water Street	Local
I103	Greta	Greta Public School — Gothic classroom building	2a Wyndham Street	Local
I213	Greta	Bridges	Anvil, Hunter, Leconfield, Nelson and Wyndham Streets and Wilderness Road	Local
I226	Branxton	Cliff Street Hall (former bakehouse)	70 Maitland Street	Local
I230	Greta	Methodist Church (former)	43 High Street	Local

3.1.5 Singleton Council Local Environmental Plan

There is a total of eight (8) LEP listed heritage items adjacent to the transport route in the Singleton Council LGA. None of the road upgrades and amendments planned along the transport route in this LGA are within 25 m of these heritage items, and the activities do not pose direct or indirect risk of impact to their heritage values.

Table 3-5 Singleton Council LEP heritage items

Item no.	Locality	Item name	Address	Significance
I27	Jerrys Plains	Post office and store	13 Pagan Street	Local
I28	Jerry Plains	St James' Anglican Church	27–31 Pagan Street	Local
I29	Jerrys Plains	Jerrys Plains Catholic Church	45–47 Pagan Street	Local
I31	Jerrys Plains	“Arrowfield” estate	The Golden Highway	Local
I32	Jerrys Plains	“Strowan”	3065 The Golden Highway	Local
I39	Mt Thorley	“Abbey Green” and outbuildings	478 Putty Road	Local
I40	Mt Thorley	Brick farm house	The Golden Highway	Local
I143	Redbournberry	Redbournberry Bridge over Hunter River	128 Main Road	Local

3.1.6 Muswellbrook Shire Council Local Environmental Plan

There is a total of six (6) LEP listed heritage items adjacent to the transport route in the Muswellbrook Shire Council LGA. None of the road upgrades and amendments planned along the transport route in this LGA are within 25 m of these heritage items, and the activities do not pose direct or indirect risk of impact to their heritage values.

Table 3-6 Muswellbrook Shire Council LEP heritage items

Item no.	Locality	Item name	Address	Significance
I39	Giants Creek	St John's Anglican Church	1824 Merriwa Road	Local
I40	Giants Creek	Former school and residence	1828 Merriwa Road	Local
I41	Giants Creek	Ellamara	1831 Merriwa Road	Local
I84	Muswellbrook	Edinglassie	710 Denman Road	State
I85	Muswellbrook	Rous Lench	710 Denman Road	State
I127	Sandy Hollow	Shale Oil Retorts	1590 Merriwa Road	Local

3.1.7 Upper Hunter Shire Council Local Environmental Plan

There is a total of twelve (12) LEP listed heritage items adjacent to the transport route in the Upper Hunter Shire Council LGA. None of the road upgrades and amendments planned along the transport route in this LGA are within 25 m of these heritage items, and the activities do not pose direct or indirect risk of impact to their heritage values.

Table 3-7 Upper Hunter Shire Council LEP heritage items

Item no.	Locality	Item name	Address	Significance
I28	Scone	Shop (former Willow Tree Hotel and former butcher shop)	97–99 Guernsey Street and 65 Liverpool Street	Local
I113	Merriwa	Fitzroy Hotel	Corner Bow and Bettington Streets	Local
I114	Merriwa	Royal Hotel	Corner Bettington and Vennacher Streets	Local
I115	Merriwa	Home Hardware (former Astros Theatre)	Bettington Street	Local
I116	Merriwa	Cottage Museum	Bow Street	State
I126	Merriwa	Bed and breakfast guesthouse (former CBC Bank)	Bettington Street	Local
I132	Merriwa	Council Building and Chambers	Vennacher Street	Local
I146	Collaroy	Collaroy Homestead group, including church, lockup, shearing shed and quarters and Soldiers Settlement Hall	Merriwa Road (900 Mudgee Road)	Local
I147	Cassilis	Munmurra Road woolshed	Kuloo Road	Local

Item no.	Locality	Item name	Address	Significance
I148	East Gungah	Grave of Peter George	209 Main Road and Golden Highway	Local
I152	Merriwa	Bow Palaeontological site	Merriwa- Cassilis Road (at road cutting)	Local
I158	Merriwa	Wyndham	Golden Highway (3km east of Merriwa)	Local

3.1.8 Warrumbungle Shire Council Local Environmental Plan

There is a total of two (2) LEP listed heritage items adjacent to the transport route in the Warrumbungle Shire Council LGA. None of the road upgrades and amendments planned along the transport route in this LGA are within 25 m of these heritage items, and the activities do not pose direct or indirect risk of impact to their heritage values.

Table 3-8 Warrumbungle Shire Council LEP heritage items

Item no.	Locality	Item name	Address	Significance
I1	Birriwa	Birriwa Private Cemetery	3894 Castlereagh Highway	Local
I24	Denison Town	Denison Town General Cemetery	48 Black Stump Way	Local

3.1.9 Mid-Western Regional Council Local Environmental Plan

There is a total of fifty (51) LEP listed heritage items adjacent to the transport route in the Mid-Western Regional Council LGA. Planned road upgrades and amendments in this LGA are located within 25 m of the following seven (7) heritage items:

- I79 (High School on the corner of Horatio and Douro Streets, Mudgee)
- I135 (House at 88 Market Street, Mudgee)
- I136 (Government Offices (old Council Chambers) at 90 Market Street, Mudgee)
- I140 (Bandstand in Robertson Park on Market Street, Mudgee)
- I141 (Parkview Guesthouse at 99 Market Street, Mudgee)
- I181 (Robertson Park on Market Street, Mudgee)
- I333 (House at 110 Medley Street, Gulgong).

Analysis of potential impact type, and level of consequence is presented in Section 4.1.

Table 3-9 Mid-Western Regional Council LEP heritage items

Item no.	Locality	Item name	Address	Significance
I13R	NA	Catholic Church	Parish of Warrangunia	Local
I18R	NA	Cemetery	Parish of Hearne	Local
I23	Mudgee	"Macs Corner Store", Shop/residence	Northeast corner Church and Horatio Streets	Local
I31	Mudgee	House	8 Cox Street	Local
I31R	Ilford	School Residence	Parish of Warranguni	Local
I33R	Ilford	Wishing Well	Road Reserve at Cherry Tree Hill	Local
I49	Mudgee	House	9 Douro Street	Local
I50	Mudgee	Duplex houses	13 Douro Street	Local
I51	Mudgee	Duplex houses	17 Douro Street	Local
I52	Mudgee	"Rexton", House	18 Douro Street	Local
I53	Mudgee	House	28 Douro Street	Local
I54	Mudgee	House	80–82 Douro Street	Local
I55	Mudgee	Memorial Park	Douro Street (opposite Lovejoy Street)	Local
I72	Mudgee	House	44 Horatio Street	Local
I73	Mudgee	House	60 Horatio Street	Local
I74	Mudgee	Terrace houses	81–83 Horatio Street	Local
I75	Mudgee	House	99 Horatio Street	Local
I76	Mudgee	House	105 Horatio Street	Local
I79	Mudgee	High school	Corner Horatio and Douro Streets	Local
I135	Mudgee	House	88 Market Street	Local
I136	Mudgee	Government Offices (Old Council Chambers)	90 Market Street	Local
I137	Mudgee	Court House annex	94 Market Street	Local
I138	Mudgee	Court House	96 Market Street	Local
I140	Mudgee	Bandstand, Robertson Park	Market Street	Local
I141	Mudgee	Parkview Guesthouse	99 Market Street	Local
I142	Mudgee	Courthouse Hotel	111 Market Street	Local
I143	Mudgee	Museum	126 Market Street	Local

Item no.	Locality	Item name	Address	Significance
I144	Mudgee	House	141 Market Street	Local
I145	Mudgee	House	144 Market Street	Local
I146	Mudgee	Old stables (now house)	146 Market Street	Local
I147	Mudgee	Terrace houses	155–159 Market Street	Local
I148	Mudgee	House	177 Market Street	Local
I172	Mudgee	Mudgee Public School	44 Perry Street (additions)	Local
I173	Mudgee	Mudgee Public School	44 Perry Street (original building)	Local
I175	Mudgee	House, Headmaster's residence	48 Perry Street	Local
I181	Mudgee	Robertson Park	Market Street	Local
I182	Mudgee	Memorial Park	Douro Street	Local
I184	Mudgee	River Red Gum tree	Short Street, Police Station property	Local
I187	Mudgee	Pitched stone kerb and gutter	West side Court Street, between Nos 50 and 76	Local
I222	Gulgong	House	Caledonian Street	Local
I311	Gulgong	House	200 Mayne Street	Local
I313	Gulgong	House	Main Road No 55 (near Medley Street)	Local
I333	Gulgong	House	110 Medley Street	Local
I388	Gulgong	Gulgong Cemetery	Castlereagh Highway	Local
I392	NA	Old gold mine	Parish of Guntawang	Local
I394	Hargraves	St Stephen's Church of England	Corner Merinda and Church Streets	Local
I402	Mudgee	Burrundulla Station and homes	NA	Local
I403	Mudgee	"Caerleon Park", Homestead	Gulgong Road	Local
I409	Piambong	Binawee homestead and outbuildings	111 Lesters Lane	State
I410	Piambong	"Wandu", Limosin Stud	Gulgong Road	Local
I1005	NA	Tannabutta General Cemetery	Parish of Tannabutta	Local

3.1.10 Lithgow City Council Local Environmental Plan

There is a total of twenty-five (25) local heritage sites adjacent to the transport route in the Lithgow City Council LGA.

None of the road upgrades and amendments planned along the transport route in this LGA are within 25 m of these heritage items, and the activities do not pose direct or indirect risk of impact to their heritage values.

Table 3-10 Lithgow City Council LEP Heritage sites

Item no.	Locality	Item name	Address	Significance
A061	Round Swamp	Round Swamp Cemetery	5249 Castlereagh Highway	Local
A088	Cullen Bullen	Cullen Bullen General Cemetery	Castlereagh Highway	Local
A111	Blackmans Flat	Blackmans Flat Roman Catholic Cemetery	Castlereagh Highway	Local
I108	Marrangaroo	Marrangaroo Prayer Chapel	3 Reserve Road	Local
I110	Marrangaroo	River Cottage	587 Great Western Highway	Local
I113	Wallerawang	Old Wallerawang School (former National School)	Main Street	Local
I117	Cullen Bullen	Cullen Bullen School	15–23 Castlereagh Highway	Local
I121	Capertee	Cottage 1	Railway Street	Local
I123	Capertee	Capertee Lock-Up	Castlereagh Highway	Local
I124	Capertee	School Masters Residence	35 Castlereagh Highway	Local
I125	Capertee	Cottage and store	Castlereagh Highway	Local
I126	Capertee	Store and cottage	65 Castlereagh Highway	Local
I127	Capertee	Royal Hotel	67 Castlereagh Highway	Local
I128	Capertee	Cottage 3	Castlereagh Highway	Local
I130	Capertee	Glengar	5016 Castlereagh Highway	Local
I174	Ben Bullen	Ben Bullen Railway Station and Platform	Castlereagh Highway	State
I191	Lidsdale	The Cottage	Castlereagh Highway	Local
I198	Lidsdale	Square and Compass Inn (former)	70 Ian Holt Drive	Local
I199	Lidsdale	Woodlands	111 Ian Holt Drive	Local
I203	Lidsdale	Lidsdale House and Gardens	1384 Castlereagh Highway	Local
I204	Lidsdale	House opposite Lidsdale House	1385–1387 Castlereagh Highway	Local
I205	Lidsdale	Farmhouse	1449 Castlereagh Highway	Local
I206	Blackmans Flat	Berwindi	1470 Castlereagh Highway	Local
I231	Meadow Flat	Meadow Flat Public School	Great Western Highway	Local

Item no.	Locality	Item name	Address	Significance
I439	Marrangaroo	Tunnel Hill tunnels and overbridge	Main Western Railway	Local

3.1.11 Bathurst Regional Council Local Environmental Plan

There is a total of eleven (11) LEP listed heritage items adjacent to the transport route in the Bathurst Regional Council LGA. None of the road upgrades and amendments planned along the transport route in this LGA are within 25 m of these heritage items, and the activities do not pose direct or indirect risk of impact to their heritage values.

Table 3-11 Bathurst Regional Council LEP heritage items

Item no.	Locality	Item name	Address	Significance
I93	Brewongle	Westham	3118 O'Connell Road	Local
I94	Brewongle	The Grange	3249 O'Connell Road	State
I95	Brewongle	Private cemetery on The Grange	3249 O'Connell Road	State
I96	Brewongle	Mayfield	3390 O'Connell Road	Local
I97	Brewongle	Leeholme Homestead and outbuildings	3664 O'Connell Road and 47 Tarana Road	Local
I142	Glanmire	Woodside (formerly Woodside Inn)	4823 Great Western Highway	Local
I187	Napoleon Reef	Little Acres (formerly school and residence)	390 Napoleon Reef Road	Local
I191	O'Connell	Euarra Homestead and observatory	3036 O'Connell Road	Local
I214	Raglan	Violet Hill (former Springdale and Abbotsford)	5350 Great Western Highway	Local
I276	Walang	Green Swamp Inn (former)	281 Walang Drive	Local
I298	Yetholme	The Old Schoolhouse	16 Stafford Street	Local

3.1.12 Oberon Council Local Environmental Plan

There is a total of eight (8) LEP listed heritage items adjacent to the transport route in the Oberon Council LGA. None of the road upgrades and amendments planned along the transport route in this LGA are within 25 m of these heritage items, and the activities do not pose direct or indirect risk of impact to their heritage values.

Table 3-12 Oberon Council LEP heritage items

Item no.	Locality	Item name	Address	Significance
I42	O'Connell	Bolton Vale	1789 O'Connell Road	Local
I43	O'Connell	Former butcher's shop	2431 O'Connell Road	Local
I44	O'Connell	O'Connell Hotel	2408 O'Connell Road	Local

Item no.	Locality	Item name	Address	Significance
145	O'Connell	O'Connell Roman Catholic Church group	O'Connell Road	Local
146	O'Connell	Pise barn, slab barn, post office, shop and cottage	2509 O'Connell Road	Local
147	O'Connell	School house	2430 O'Connell Road	Local
149	O'Connell	St Francis Church and Roman Catholic Cemetery	O'Connell Road	Local
150	O'Connell	St Thomas' Cemetery, Church and Hall	3860–3870 Beaconsfield Road	Local

3.2 Non-Statutory Listings – Search Results

3.2.1 Australian Heritage Database

There are a total of thirteen (13) sites listed on the Australian Heritage Database that are adjacent to the transport route. None of the road upgrades and amendments planned along the transport route are within 25 m of these heritage items, and do not pose a direct or indirect risk of impact to their heritage values.

Table 3-13 Australian Heritage Database Search Results

Site ID	Site Name	Register	Class	Address
1263	Lands Board Office, Newcastle St, East Maitland, NSW, Australia	Register of the National Estate	Historic	141 New England Highway (corner of Newcastle and Banks Streets), East Maitland
14410	St James Anglican Church, Pagan St, Jerrys Plains, NSW, Australia	Register of the National Estate	Historic	Pagan Street, Jerry's Plains
1219	Greta Courthouse (former), High St, Greta, NSW, Australia	Register of the National Estate	Historic	98 High Street, Greta
100769	Old Cassilis Woolshed, Golden Hwy, Cassilis, NSW, Australia	Register of the National Estate	Historic	Ballantyne Station
1344	Edinglassie, 710 Denman Rd, Muswellbrook, NSW, Australia	Register of the National Estate	Historic	710 Denman Rd, Muswellbrook
462	Binnawee Homestead, Lesters La, Mudgee, NSW, Australia	Register of the National Estate	Historic	Lesters La, Mudgee
488	Public School, 44 Perry St, Mudgee, NSW, Australia	Register of the National Estate	Historic	44 Perry St, Mudgee
486	Mudgee Courthouse, 96 Market St, Mudgee, NSW, Australia	Register of the National Estate	Historic	96 Market St, Mudgee
917	Green Swamp Inn, Great Western Hwy, Walang, NSW, Australia	Register of the National Estate	Historic	Great Western Hwy, Walang
799	Portable Ballroom (former), Great Western Hwy, Glanmire, NSW, Australia	Register of the National Estate	Historic	Great Western Hwy, Glanmire
885, 886 and 887	St Thomas Anglican Church, Beaconsfield - O'Connell Rd, O'Connell, NSW, Australia	Register of the National Estate	Historic	St Thomas Rectory, 3870 Beaconsfield Rd, O'Connell NSW 2795

3.3 The National Trust of Australia (NSW)

There is one (1) heritage item listed on the National Trust of Australia (New South Wales) database that is within the vicinity of the transport route. This item is not within 25 m of the planned road upgrades and amendment, and the proposed scope of work does not pose potential director indirect risk of impact to its heritage values.

Table 3-14 The National Trust of Australia (NSW) Database Search Results

Site Name	Address
Grossmann House	71-73 Church Street, Maitland, NSW

3.4 Aboriginal Cultural Heritage

3.4.1 Aboriginal Heritage Information Management System

The Aboriginal Heritage Information Management System (AHIMS) database was searched for sites within a 200 m radius of the planned road upgrades and amendments. It is important to note that because this database search was limited to sites with planned road upgrades, there is the potential for works to impact Aboriginal heritage located outside of these areas. Works also have the potential to impact previously unidentified cultural heritage sites.

There are no Aboriginal heritage sites recorded on the AHIMS database within 200 m of the planned road upgrades.

3.5 Summary of Heritage Database Search Results

The database searches indicate that all eleven LGAs contain sites with local or state heritage significance adjacent to the planned transport route. Of these, the Mid-Western Regional Council is the only LGA that contains sites within 25 m of the proposed work upgrades (see Table 3-9).

A summary of the search results is provided in **Table 3-15** below.

Table 3-15 Summary of Heritage Database Searches

Register Name	Findings
CHL	There are no Commonwealth Heritage listed places within or in proximity to the proposed works.
NHL	There are no National Heritage listed places within or in proximity to the proposed works.
NSW SHR and SHI (other than LEP items)	There are nine (9) SHR items adjacent to the transport route, but none within 25 m of proposed road upgrades.
Newcastle City Council LEP 2012	There are twenty-eight (28) LEP listed heritage items adjacent to the transport route, but none within 25 m of proposed road upgrades.
Maitland City Council LEP 2011	There are sixteen (16) LEP listed heritage items adjacent to the transport route, but none within 25 m of proposed road upgrades.
Cessnock City Council LEP 2011	There are twenty-five (25) LEP listed heritage items locally listed heritage sites adjacent to the transport route, but none within 25 m of proposed road upgrades.
Singleton Council LEP 2013	There are eight (8) LEP listed heritage items adjacent to the transport route, but none within 25 m of proposed road upgrades.
Muswellbrook Shire Council LEP 2009	There are six (6) LEP listed heritage items adjacent to the transport route, but none within 25 m of proposed road upgrades.
Upper Hunter Shire Council LEP 2013	There are twelve (12) LEP listed heritage items adjacent to the transport route, but none within 25 m of proposed road upgrades.

Register Name	Findings
Warrumbungle Shire Council LEP 2013	There are two (2) LEP listed heritage items adjacent to the transport route, but none within 25 m of proposed road upgrades.
Mid-Western Regional Council LEP 2012	There are fifty-one (51) LEP listed heritage items listed site adjacent to the transport route. Seven of the heritage items are within 25 m of proposed road upgrades.
Lithgow City Council LEP 2014	There are twenty-five (25) LEP listed heritage items adjacent to the transport route, but none within 25 m of proposed road upgrades.
Bathurst Regional Council LEP 2014	There are eleven (11) LEP listed heritage adjacent to the transport route, but none within 25 m of proposed road upgrades.
Oberon Local Environmental Plan 2013	There are eight (8) LEP listed heritage items adjacent to the transport route, but none within 25 m of proposed road upgrades.
Aboriginal Heritage Information Management System (AHIMS)	There are no Aboriginal heritage sites recorded on the AHIMS database within 200 m of the planned road upgrades.
National Trust of Australia (NSW)	There is one (1) heritage item listed by the National Trust of Australia within the vicinity of the transport route. This is not within 25 m of the proposed road upgrades.
Register of the National Estate	There are thirteen (13) heritage items listed on the Register of the National Estate adjacent to the transport route. None of these are within 25 m of the proposed road upgrades.

4. IMPACT ASSESSMENT

4.1 Proposed Scope of Works – Road Upgrades and Amendments

The proposed works for the transport route will include the following elements (see Appendix C):

- ID: 17A: at the corner of Fisher Street (Castlereagh Highway) onto Medley Street (Castlereagh Highway) at Gulgong:
 - Adding hardstand to the inside corner of Fisher Street onto Medley Street;
 - Relocation of several signs and a barrier; and
 - Trimming of some trees.
- ID19: at the corner of Market Street (Castlereagh Highway) and Douro Street (Castlereagh Highway) at Mudgee:
 - Concreting centre median strip, and lowering kerbs; and
 - Make some signs removable and establish some no parking areas.
- ID20: at the corner of Douro Street (Castlereagh Highway) and Horatio Street (Castlereagh Highway) at Mudgee:
 - Concreting centre median strip, and lowering kerbs;
 - Removal of some trees; and
 - Make some signs removable and establish some no parking areas.
- ID21: at the corner of Horatio Street (Castlereagh Highway) and Sydney Road (Castlereagh Highway) at Mudgee:
 - Make some signs removable.
- ID27: at the roundabout at Kelso (Great Western Highway, Ashworth Drive and Muldoon Avenue):
 - Relocation of a light pole; and
 - Make some signs removable.
- ID28: at the roundabout at Kelso (Great Western Highway onto Littlebourne Street):
 - Make some signs removable.
- ID29: at the dogleg corner of O'Connell Road Range (near 1347 O'Connell Road, Oberon):
 - Embankments cut back; and
 - Some vegetation removal, and possible additional works.
- ID30: at the roundabout at Oberon (O'Connell Road onto Abercrombie Road):
 - Adding hardstand on the inside and outside corner of the roundabout; and
 - Removal of two (2) trees and four (4) signs.
- ID31: at the Abercrombie road intersection of Campbells River Road at Black Springs:
 - Adding a small amount of hardstand on the western portion of Abercrombie road.

Impacts within the identified upgrade areas will result from addition of hardstand, and the removal of signs and trees, to facilitate transport of the wind turbine components.

4.2 Impact to Heritage Values – Transport Route

There are 201 statutory and 14 non-statutory listed heritage items located adjacent to the transport route.

- Nine (9) sites listed on the NSW SHR and SHI (excluding LEP listed items);
- Twenty-eight (28) heritage items listed in the Newcastle City Council LEP 2012;
- Sixteen (16) heritage items listed in the Maitland City Council LEP 2011;
- Twenty-five (25) heritage items listed in the Cessnock City Council LEP 2011;
- Eight (8) heritage items listed in the Singleton City Council LEP 2013;
- Six (6) heritage items listed in the Muswellbrook Shire Council LEP 2009;
- Twelve (12) heritage items listed in the Upper Hunter Shire Council LEP 2013;
- Two (2) heritage items listed in the Warrumbungle Shire Council LEP 2013;
- Fifty-one (51) heritage items listed in the Mid-Western Regional Council LEP 2012;
- Twenty-five (25) heritage items listed in the Lithgow City Council LEP 2014;
- Eleven (11) heritage items listed in the Bathurst Regional Council LEP 2014;
- Eight (8) heritage items listed in the Oberon LEP 2013; and
- Non-statutory listings: One (1) site listed by the National Trust of Australia; and thirteen (13) sites listed on the Register of the National Estate;

As identified in this Section 3, there are seven listed heritage items sites within 25 m of proposed road upgrades and amendment locations. These sites are all listed on the Mid-Western Regional Council's LEP 2012.

None of the road upgrades and amendments planned along the transport route are within 25 m of the remaining 194 statutory or 14 non-statutory heritage items, and do not pose a direct or indirect risk of impact to their heritage values.

The sections below outline the metrics utilised to undertake a preliminary impact assessment. Table 4.3 below provides details of proposed project impacts at all locations where known heritage items have been identified in proximity to proposed road upgrade works.

Consequence Ratings

The following 'consequence ratings' are used to provide an assessment of level of impact to the heritage item. The consequence ratings have been devised to illustrate the level of impact and provide a framework against which mitigation and management recommendations can be made.

Table 4-1 Consequence Ratings

Rating	Consequence or Impact to heritage item
5 - Major	Permanent detrimental impact to the heritage item would occur, beyond salvage and where replacement is not possible. The impact would cause irreversible negative impact to the overall heritage significance of the heritage item or place.
4 - Major	Permanent detrimental impact on one or more of the following would occur but may be reduced through mitigation measures: the significance, any of the values that contribute to significance, the functionality of the item or place, and / or the item or place's availability for access.
3 - Significant	Some damage or change may occur that would require remedial action, and permanent impact would occur to one or more of the following: the significance, any of the values that contribute to significance, the functionality of the item or place, and / or the item or place's availability for access.

Rating	Consequence or Impact to heritage item
2 - Minor	Minor damage or change could be relatively and easily remedied or repaired, with no permanent negative impact to the heritage item's significance or heritage values contributing to significance, the functionality of the item or place, or the item or place's availability for access.
1 - Insignificant	Damage or change, if it occurred at all, would be of an extremely slight or minor nature.

Type of Impact

The following impact definitions (Table 4.2) have been utilised in the impact assessment to demonstrate the effect of the proposed works on identified heritage items.

Table 4-2 Types of Impact

Type of Impact	Description
Direct	Direct impact is defined as physical impact on the heritage item or its listed curtilage. Direct impact may result from construction activities, proposed road upgrades, or transportation of materials.
Indirect/Potential	Indirect or temporary impact may include reduction of the listed curtilage of an item, temporary visual impact, or temporary modification of the item. Potential impact is identified where an item has been identified in proximity to works, and has been flagged for further review.
No impact	The heritage item will not be impacted by the proposed works

Table 4-3 Impact Assessment at Road Upgrade and Amendment sites

Locality	ID #	Heritage item	Impact Type	Potential Impact	Consequence Rating	Assessment
Mudgee	I79	High School	No impact	The centre median strip of Duoro Street will need to be concreted, and kerbs lowered. Some signs will need to be made removable at the intersection of Market Street and Duoro Street, and some no parking areas put in place.	1 - Insignificant	Proposed activity will not intersect with LEP heritage curtilages
Mudgee	I135	House				
Mudgee	I136	Government Offices (old Council Chambers)				
Mudgee	I140	Bandstand, Robertson Park				
Mudgee	I141	Parkview Guesthouse				
Mudgee	I181	Robertson Park, Market Street				
Gulgong	I333	House	No impact	Blades to travel around this right-hand corner on the correct side of the road. Hardstand is required on the	1 - Insignificant	Required hardstand is on opposite corner of the 4-way intersection from the heritage item. Blade swing only over mapped LEP listed heritage curtilage. Proposed trees to be trimmed are

Locality	ID #	Heritage item	Impact Type	Potential Impact	Consequence Rating	Assessment
				<p>inside of the corner. Several signs and a barrier will need to be relocated. Some trees on the overhang will need to be trimmed.</p>		<p>within the heritage curtilage, however this activity (trimming) is minor, temporary in nature, and therefore unlikely to have a significant impact to the listed heritage values of '1133 House'. As the heritage item does not form part of a Heritage Conservation Area, there is no specific requirements to apply for a permit for tree pruning from Council.</p>

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

This Heritage Due Diligence Assessment has been prepared in support of the Aboriginal Cultural Heritage Assessment Report (ACHAR) and Historic Heritage Due Diligence report (HHDD) that have previously been provided for the PYWF. This report has assessed the potential impact of road amendment and upgrade works on known historic heritage items and registered Aboriginal cultural heritage sites along the proposed transport route.

The key findings of this assessment are summarised below:

- No registered historic heritage items or Aboriginal cultural heritage sites have been identified within the transport route or planned road upgrade and amendment locations.
- Seven (7) LEP listed heritage items are within 25 m of the planned road upgrade locations, and all are in the Mid-Western Regional LGA, specifically Mudgee and Gulgong. The proposed road upgrades have been assessed as having no impact direct or indirect on these heritage items.
- 194 statutory and 14 non-statutory listed historic heritage items are adjacent to the transport route, however none of the road upgrades and amendments planned along the transport route are within 25 m of these heritage items, and do not pose a direct or indirect risk of impact to their heritage values.
- There are no AHIMS-registered Aboriginal cultural heritage sites within 200 m of planned road upgrade and amendment locations.

5.2 Recommendations

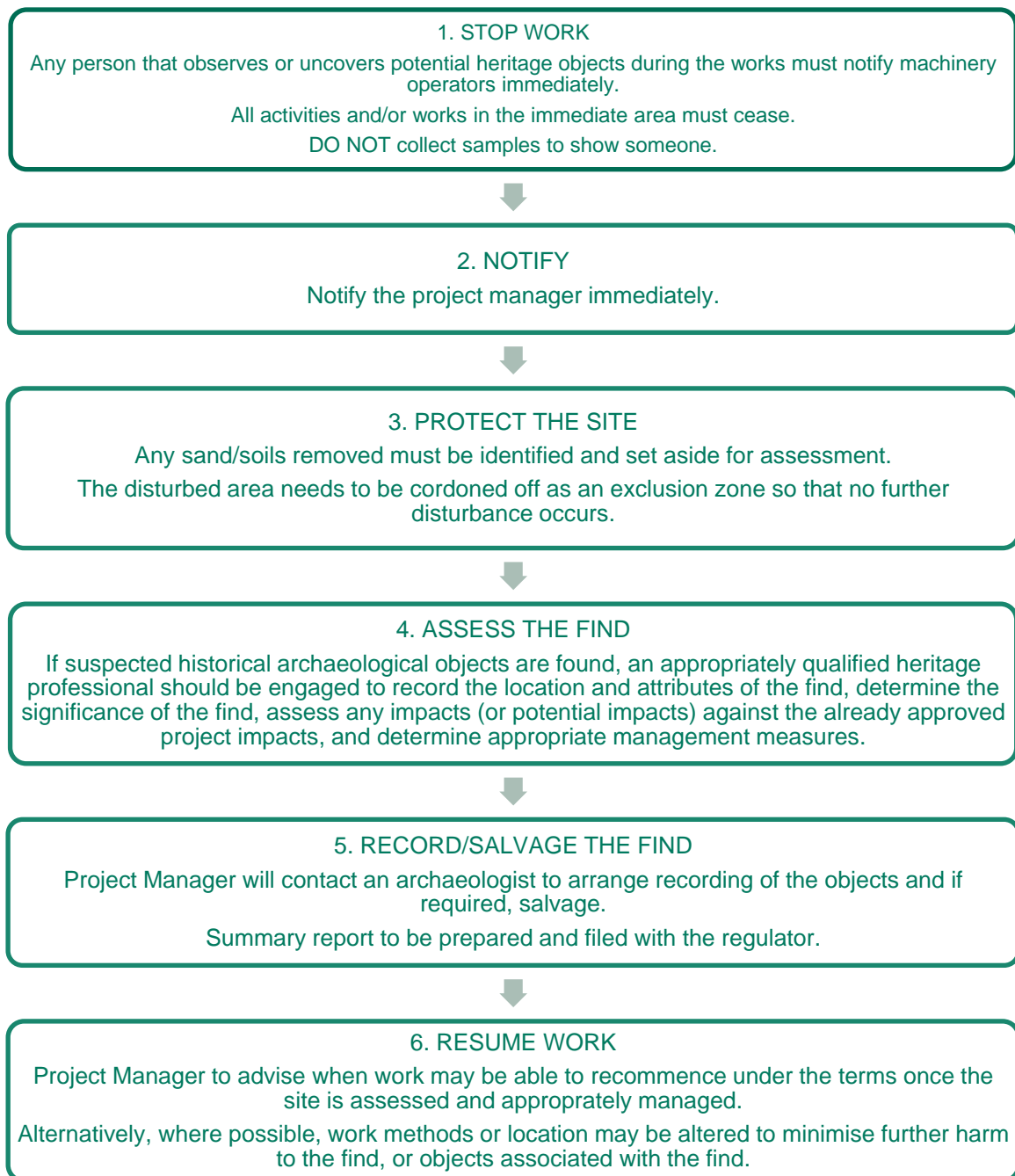
The following recommendations are provided to mitigate potential impacts to heritage values within the Project Area during the proposed works.

5.2.1 Recommendation 1: Unexpected Finds Protocol

Historic heritage items could include relics (defined by the *Heritage Act 1977* as ‘any deposit, artefact, object or material evidence that relates to the settlement of the area that comprises NSW, not being Aboriginal settlement; and is of State or local heritage significance’) or archaeological features. It is unlikely that Aboriginal cultural material will be unearthed owing the high level of previous ground disturbance along road verges. (works).

Historical artefacts or material may be unearthed unexpectedly around the proposed works. These could potentially be located on the ground surface or subsurface. In the event of the discovery of any historical artefacts or material during project activities, the steps in Figure 5.1 below should be followed.

Figure 5-1 Unexpected Finds Procedure



5.2.2 Recommendation 2: Cultural Heritage Induction and Protocols

GPG staff and all contractors engaged by GPG to complete the works should prepare an Environmental Management Strategy (EMS), an Environmental Work Method Statement (EWMS) and/or a Construction Environmental Management Plan (CEMP) that ensures that all onsite personnel are aware of their obligations and requirements in relation to the archaeological provisions of the *Heritage Act 1977* through the attendance of a site-specific heritage induction prior to the commencement of Project works. The Heritage Induction should include information on not only the identified sites in this report, but also types of potential historical features and archaeological evidence that may be found during works (this relates to the Unexpected Finds Protocol in Recommendation 1). Identified heritage items should be marked on site plans during operation and construction to ensure no inadvertent impact to the identified items.

6. REFERENCES

- Aussie Towns. 2021. "Mudgee, NSW". Accessed 5 May 2023, from <https://www.aussietowns.com.au/town/mudgee-nsw>
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- SLR, 2023. Paling Yards Wind Farm: State Significant Development SSD-29064077 Traffic Impact Assessment. Prepared for Paling Yards Development Pty Ltd.

APPENDIX A SCHEDULE OF WORKS

Legend	
	No environmental impacts
	Minor environmental impacts
	Larger environmental impacts
	The proposed entire route (Route 2 in Rex J Andrews report) can be reviewed via the link below:
	https://goo.gl/maps/8KqByBnVx3f113mk9

This spreadsheet presents a summary of the route assessment undertaken by Rex J Andrews with links to relevant aerial and street view providers.

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
0	0.0	Mayfield berth #4 onto Selwyn Street at Mayfield.	No upgrades are required as shown in the below swept path assessment.	Spotter to guide the load through this pinchpoint.



NearMap Link

<https://apps.nearmap.com/maps/#/@-32.9004700,151.7531300,18.00z,0d/V+R/20221026?locationMarker>

Google Maps Link

<https://goo.gl/maps/864FhMSaF9P2026?locationMarker>



Legend	
	No environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
1	0.4	Rail crossing over Selwyn Street at Mayfield.	No upgrades are required.	Travel directly ahead over the crossing. Large width clearance and good ground clearance over this crossing. Police and escorts to control local traffic either side of the crossing. Rail company (ARTC) approval will need to be obtained to travel over this crossing.

NearMap Link

<https://apps.nearmap.com/maps/#/@-32.8985287,151.7599307,20.00z,0d/V/20221026?locationMarker>

Google Maps Link

<https://goo.gl/maps/864FhMSaF9P2>



Legend	
	No environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
2	1.3	Selwyn Street onto Industrial Drive, via George Street at Mayfield.	No upgrades are required as shown in the below swept path assessment.	Right hand turn from Selwyn Street through George Street and onto Industrial Drive. Load to travel right from Selwyn Street onto George Street, before turning to the incorrect side of Industrial Drive. Once on Industrial Drive, the loads will travel over the centre median strip to return to the correct side of the road. Spotter to guide load through this pinchpoint.

NearMap Link

<https://apps.nearmap.com/maps/#/@-32.8985389,151.7599235,21.00z,0d/V+R/20221026?locationMarker>

Google Maps Link

<https://goo.gl/maps/qXeHvBtCp4D2026?locationMarker>



Legend	
	No environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
3	4.9	Industrial Drive under traffic signals at Steel River Blvd intersection	No upgrades are required.	The lowest traffic signal on route is at the intersection of Steel River Blvd. Trucks that exceed 5.3 metres will need to travel in the right-hand lane. Spotter to guide load through this pinchpoint.

NearMap Link
<https://apps.nearmap.com/maps/#/@-32.8842439,151.7244190,20.00z,0d/V/20230115?locationMarker>
 Google Maps Link
<https://goo.gl/maps/YmqhiS2iR582>



Legend	
	No environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
4	5.5	Industrial Drive onto Maitland Road at Mayfield West.	No upgrades are required as shown in the below swept path assessment.	The blades will need to cross to the incorrect side of Industrial Drive 150 metres prior to the intersection. Once on Maitland Road, the blades will return to the correct side 120 metres past the intersection. Spotter to guide load through this pinchpoint.

NearMap Link

<https://apps.nearmap.com/maps/#/@-32.8819800,151.7191100,18.00z,0d/V/20221026?locationMarker>

Google Maps Link

<https://goo.gl/maps/Kn49dhWG2qG2>



Legend	
	No environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
5	6.4	Maitland Road over rail bridge	No upgrades are required.	Travel directly ahead in the right-hand lane. Approval from rail company (ARTC) is required to cross this structure. Spotter to guide load through this pinchpoint.

NearMap Link
<https://apps.nearmap.com/maps/#/@-32.8766400,151.7135900,18.00z,0d/V+R/20221026?locationMarker>

Google Maps Link
<https://goo.gl/maps/W2JWWjhfqv5UMviB7>



Legend	
	No environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
6	13.9	New England Highway under gantry	No upgrades are required.	This is the lowest structure on route. There is no bypass around the gantry. A maximum loaded height of 5.9 metres should not be exceeded. Spotter to guide load through this pinchpoint.

NearMap Link
<https://apps.nearmap.com/maps/#/@-32.8141100,151.6767500,18.00z,0d/V+R/20221004?locationMarker>
 Google Maps Link
<https://goo.gl/maps/YTMofe7Aick004?locationMarker>

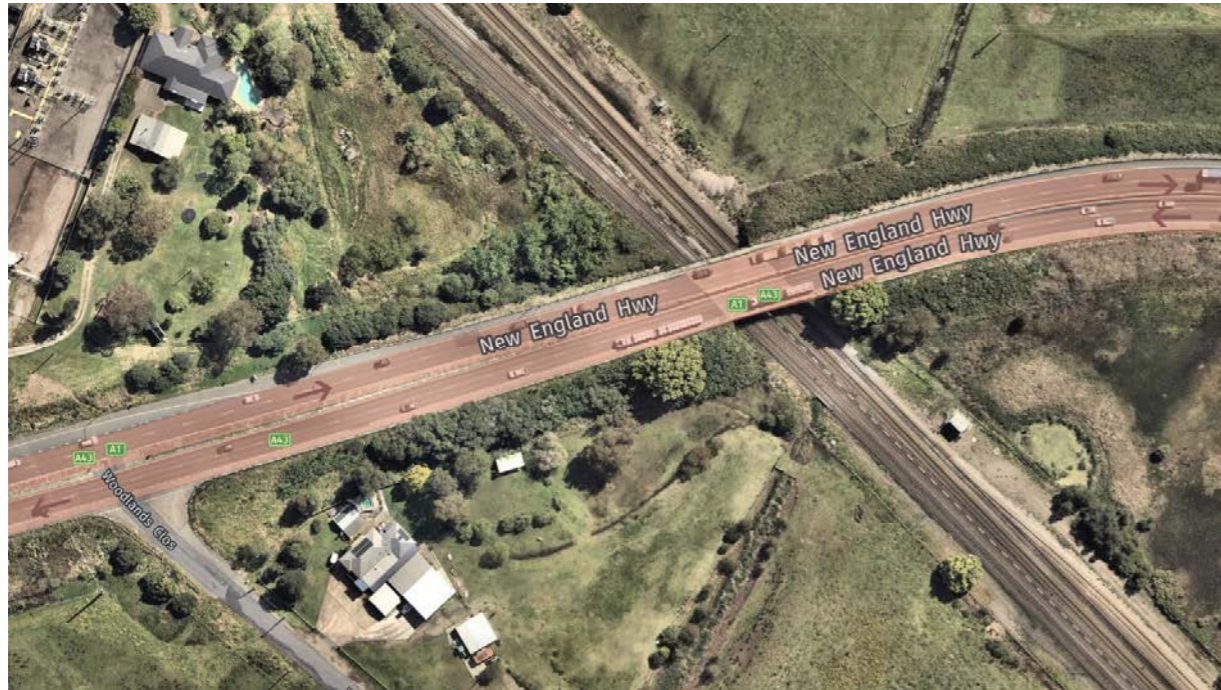


Legend	
	No environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
7	15.1	New England Highway over rail bridge, Tarro.	No upgrades are required.	Travel directly ahead in the right-hand lane. Approval from rail company (ARTC) is required to cross this structure. Travel over this structure may have specific conditions. Spotter to guide load through this pinchpoint.

NearMap Link
<https://apps.nearmap.com/maps/#/@-32.8106200,151.6715000,18.00z,0d/V+R/20221004?locationMarker>

Google Maps Link
<https://goo.gl/maps/tTnWLwQC2hzSPhAp6>



Legend	
	No environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
7A	28.7	John Renshaw Drive onto the Hunter Expressway at Buchanan.	No upgrades are required as shown in the below swept path assessment.	Loads to turn left onto the slip lane. Spotter to guide the load through the corner.

NearMap Link

Google Maps Link

<https://apps.nearmap.com/maps/#/@-32.8293879,151.5317395,19.00z,0d/V/20230331?locationMarker>

<https://goo.gl/maps/pWq3RxePzz9sYLBe8>



Legend	
	No environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)	NearMap Link	Google Maps Link
8	67.3	The New England Highway onto the Golden Hwy, Whittingham.	No upgrades are required.	(Left-hand turn) The NSW Government is currently upgrading this intersection. At this stage the data that is available for the upgrades shows the section of road does not change considerably. However, we will monitor the progress of the upgrades, and that any changes will be thoroughly looked at.	https://apps.nearmap.com/maps/#/@-32.6428100,151.2339900,18.00z,0d/V+R/20220503?locationMarker	https://goo.gl/maps/nAnfkYfeUn42



Legend	
	No environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
9	68.0	Golden Highway over rail bridge, Whittingham.	No upgrades are required.	Travel directly ahead in the centre of the road. Approval from rail company (ARTC) will be required to cross this structure. Travel over this structure may have specific conditions. Spotter to guide load through this pinchpoint.

NearMap Link

<https://apps.nearmap.com/maps/#/@-32.6423721,151.2272542,19.00z,0d/V+R/20220503?locationMarker>

Google Maps Link

<https://goo.gl/maps/5NwDQofandvvMKfY9>



Legend	
	No environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
10	77.3	Golden Highway over rail bridge, Mount Thorley.	No upgrades are required.	Travel directly ahead in the centre of the road. Approval from rail company (ARTC) required to cross this structure. Travel over this structure may have specific conditions. Spotter to guide load through this pinchpoint.

NearMap Link
<https://apps.nearmap.com/maps/#/@-32.6255519,151.1356291,22.00z,0d/V+R/20220503?locationMarker>

Google Maps Link
<https://goo.gl/maps/qTxSbkxPu87L5hx4A>



Legend	
	No environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
11	80.6	Golden Highway over rail bridge, Mount Thorley.	No upgrades are required.	Travel directly ahead in the centre of the road. Approval from rail company (ARTC) required to cross this structure. Travel over this structure may have specific conditions. Spotter to guide load through this pinchpoint.

NearMap Link
<https://apps.nearmap.com/maps/#/@-32.6173413,151.1080047,21.00z,0d/V+R/20220503?locationMarker>

Google Maps Link
<https://goo.gl/maps/ipGU4USXmWZ8GkJs6>



Legend	
	No environmental impacts

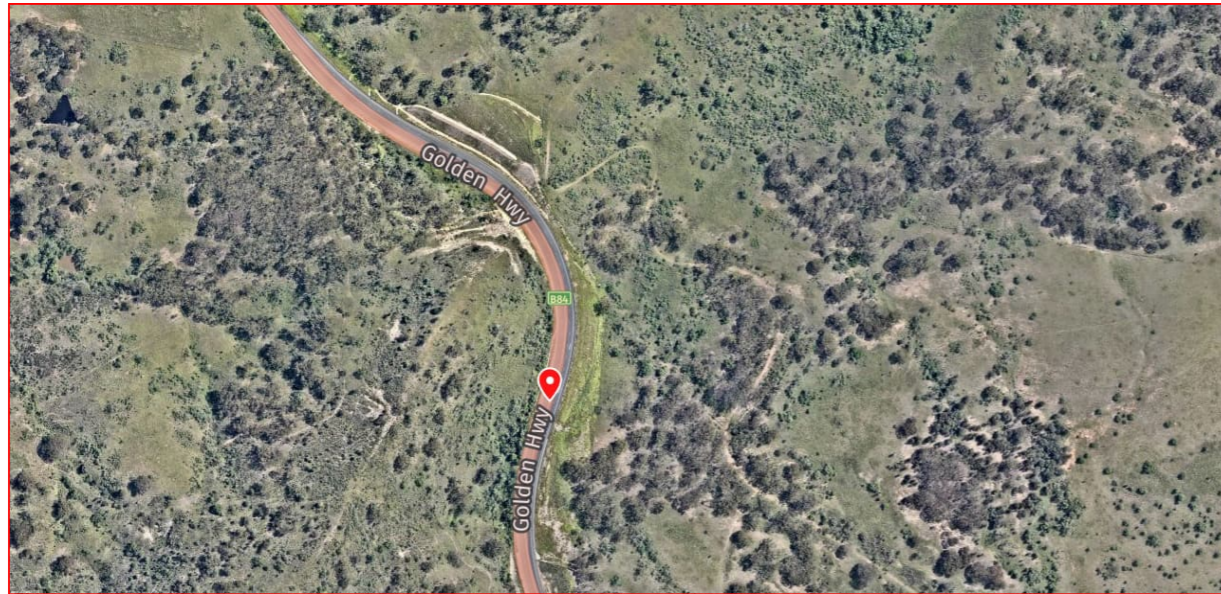
ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
12	80.8	Putty Road under Mt Thorley Road, Mount Thorley	No upgrades are required.	Travel under the bridge in the left lane. Mt. Thorley underpass is 6.3 metres in the centre of the road. Towers to pass under this structure on the correct side. Spotter to guide load through this pinchpoint.

NearMap Link	Google Maps Link
https://apps.nearmap.com/maps/#/@-32.6176400,151.1025000,18.00z,0d/V+R/20220503?locationMarker	https://goo.gl/maps/SMzSLP1kvQYDMqa86



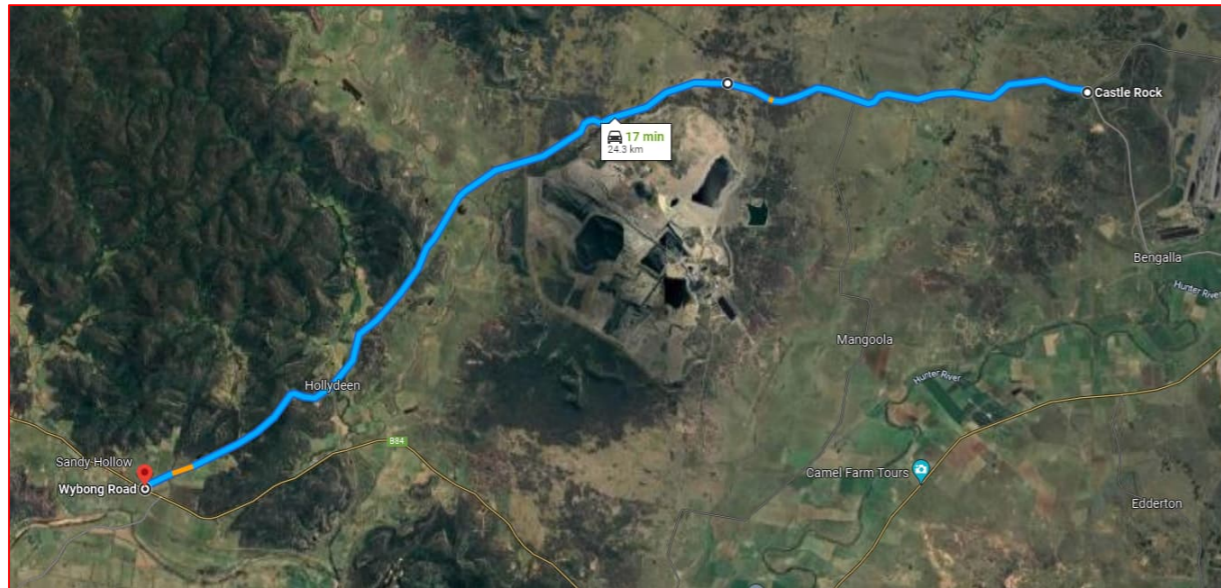
Legend	
	No environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)	NearMap Link	Google Maps Link
13	126.0	Golden Highway, Ogilvy	No upgrades are required.	Travel directly ahead up a 6% gradient. This section of road has a steep mountain range that will require additional pull trucks to assist loads that exceed 80T gross weight. Spotter to guide load through this pinchpoint.	https://apps.nearmap.com/maps/#/@-32.4112431,150.7429618,17.00z,0d/V+R/20220209?locationMarker	https://goo.gl/maps/58Tj9ojs7CC2



Legend	
	No environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)	NearMap Link	Google Maps Link
14	158.0-183.0	Wybong Road, Bengalla	No upgrades are required.	This road is owned and maintained by Muswellbrook Council. Approval will be required to travel on this section of the route. Obtain approval from the local council.	Not available.	https://goo.gl/maps/ekGZA5wFFK55Mvmc7



Legend
No environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
15	314.0	Golden highway onto the Castlereagh, Leadville.	No upgrades are required as shown in the below swept path assessment.	Left hand turn. Blades to travel onto the incorrect side of the road for this procedure. Spotter to guide the load through this pinchpoint.

NearMap Link

<https://apps.nearmap.com/maps/#/@-32.0372871,149.4771025,20.00z,0d/V+R?locationMarker>

Google Maps Link

<https://www.google.com/maps/@-32.0373378,149.4771067,291m/data=!3m1!1e3>



Legend	
	No environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
16	343.0	Castlereagh Highway in Birriwa	No upgrades are required.	Loads to travel over the crossing in the center of the road. Approval required crossing this line, likely cross with caution. Spotter to guide load through this pinchpoint.

NearMap Link
<https://apps.nearmap.com/maps/#/@-32.1221276,149.4653748,20.00z/Od/V+R?locationMarker>

Google Maps Link
<https://www.google.com/maps/@-32.1222853,149.4652342,122m/data=!3m1!1e3>



Legend	
	No environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
17	370.0	Castlereagh Highway Goolma Road intersection, Gulgong.	No upgrades are required.	Travel directly ahead. Spotter to guide load through this pinchpoint. Police and pilots to supply traffic control as per the procedure for this section of road. Spotter to guide load through this pinchpoint.

NearMap Link

<https://apps.nearmap.com/maps/#/@-32.3654438,149.5259977,18.00z,0d/V+R?locationMarker>

Google Maps Link

<https://www.google.com/maps/@-32.3653277,149.5259539,488m/data=!3m1!1e3>



Legend	
	No environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
17A	370.0	Fisher Street (Castlereagh Highway) onto Medley Street (Castlereagh Highway) at Gulgong.	Minor upgrades are required as shown in the below swept path assessment.	Blades to travel around this right hand corner on the correct side of the road. Hardstand is required on the inside of the corner. Several signs and a barrier will need to be relocated. Additionally, some trees on the overhang will need to be trimmed. Spotter to guide the load through this pinchpoint.

NearMap Link

Google Maps Link

<https://apps.nearmap.com/maps/#/@-32.3669781,149.5319960,20.00z,0d/V+R?locationMarker>

<https://goo.gl/maps/GxJvNXi8vB6h7oLS6>



Legend	
	Minor environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
18	383.0-393.0	Castlereagh Highway, Mudgee.	Minor upgrades are required. See the next tab for additional information.	Follow the main road (Castlereagh Highway) through Mudgee. Loaded trailers are to avoid travelling through Mudgee on school days between 7:00am - 10:00am and 2:00pm - 4:30pm.

NearMap Link
<https://apps.nearmap.com/maps/#/@-32.5904090,149.5836966,18.00z,0d/V+R?locationMarker>

Google Maps Link
<https://www.google.com/maps/@-32.5901998,149.5843574,410m/data=!3m1!1e3>



Legend	
	Minor environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
19	386.0	Market St onto Douro St at Mudgee	Minor upgrades are required as shown in the below swept path assessment.	Prime mover to stay on the correct side of the road, however the trailer will need to travel on the inside of the corner and over the centre median strip. The centre median strip will need to be concreted, and kerbs lowered. Additionally, some signs will need to be made removable and some no parking areas put in place. Spotter to guide the load through this pinchpoint.

NearMap Link	Google Maps Link
https://apps.nearmap.com/maps/#/@-32.5904090,149.5836966,18.00z,0d/V+R?locationMarker	https://www.google.com/maps/@-32.5901998,149.5843574,410m/data=!3m1!1e3



Legend	
	Minor environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
20	386.5	Douro St onto Horatio St at Mudgee.	Minor upgrades are required as shown in the below swept path assessment.	Blades to travel around this corner on the incorrect side of the road. The centre median strip will need to be concreted, and kerbs lowered. Some trees will need to be removed, and some no parking areas put in place. Additionally, some signs will need to be made removable. Spotter to guide the load through this pinchpoint.

NearMap Link
<https://apps.nearmap.com/maps/#/@-32.5982900,149.5818300,18.00z,0d/V?locationMarker>

Google Maps Link
<https://goo.gl/maps/VARs5R2ooQWShcim6>



Legend	
	Larger environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
20A	387.0	Douro Street onto Horatio Street at Mudgee.	No upgrades are required as shown in the below swept path assessment.	Blades to travel through this roundabout on the correct side of the road. Spotter to guide the load through this pinchpoint.

NearMap Link <https://apps.nearmap.com/maps/#/@-32.5992817,149.5870716,20.00z,0d/V+R?locationMarker>

Google Maps Link <https://goo.gl/maps/LtMDGuX6cbAL8eri6>



Legend	
	No environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
21	367.0	Horatio St onto Sydney Road at Mudgee	Upgrades are required as shown in the below swept path assessment. However, blades will be lifted/tilted upwards to minimise ecological impacts where possible.	Blades to travel around this corner on the incorrect side of the road. Several signs need to be made removable. Spotter to guide the load through this pinchpoint.

NearMap Link

<https://apps.nearmap.com/maps/#/@-32.6004600,149.5970900,18.00z,0d/V?locationMarker>

Google Maps Link

<https://goo.gl/maps/z2USgGmixFP1vfR58>



Legend	
	Larger environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
22	477.0	Castlereagh Highway Rail Crossing, Ben Bullen.	No upgrades are required.	Left hand than right hand dogleg turn. Loads to travel over the crossing in the center of the road. Approval is required from the rail company (ARTC) crossing this line. Likely cross with caution. Spotter to guide the load through this pinchpoint.

NearMap Link

<https://apps.nearmap.com/maps/#/@-33.2194000,150.0223200,18.00z,0d/V+R?locationMarker>

Google Maps Link

<https://goo.gl/maps/5ZtGAGDHBTq1vX2r8>



Legend	
	No environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
23	499.0	Main Street onto Pipers Flat Road	No upgrades are required.	Towers to cross to the inside of the corner. Spotter to guide load through this pinchpoint. Police and pilots to supply traffic control as per the procedure for this section of road.

NearMap Link

<https://apps.nearmap.com/maps/#/@-33.3973033,150.0824060,21.00z,0d/V+R/20230218?locationMarker>

Google Maps Link

<https://goo.gl/maps/TsL2Ur8tUJJ5CfZe9218?locationMarker>



Legend	
	No environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)	NearMap Link	Google Maps Link
24	502.0	Main Street onto Pipers Flat Road	No upgrades are required.	Towers to cross to the inside of the corner. Spotter to guide load through this pinchpoint. Police and pilots to supply traffic control as per the procedure for this section of road.	https://apps.nearmap.com/maps/#/@-33.4109182,150.0639861,19.00z,0d/V+R/20211231?locationMarker	https://www.google.com/maps/place/33%C2%B024'39.1%22S+150%C2%B003'50.8%22E/@-33.4110583,150.0638235,241m/data=!3m1!1e3!4m4!3m3!8m2!3d-33.4108611!4d150.0641111



Legend	
	No environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
25	502.0	Pipers Flat Road, Wallerawang.	No upgrades are required.	Travel directly ahead. Loads to travel over the crossing in the center of the road. Approval from the rail company (ARTC) is required for crossing this line. Likely cross with caution.

NearMap Link
<https://apps.nearmap.com/maps/#/@-33.4102600,150.0588700,18.00z,0d/V+R/20211231?locationMarker>

Google Maps Link
<https://goo.gl/maps/KyEM8hfusLqAGavq9>



Legend	
	No environmental impacts

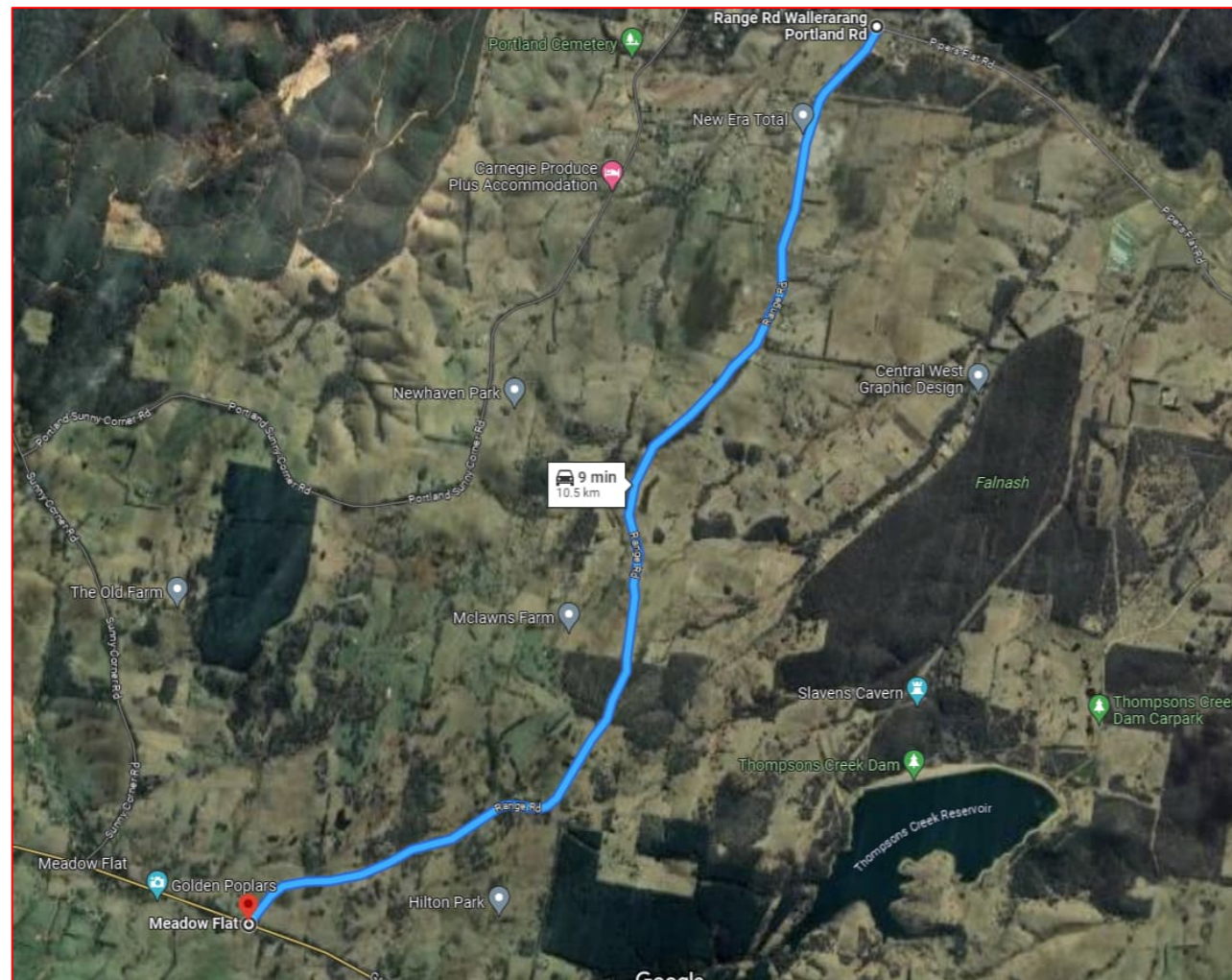
ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
26	510.0 - 520.0	Range Road, Portland	No upgrades are required.	This section of road will need trees to be pruned. However trees will be maintained.


NearMap Link

Not available.

Google Maps Link

<https://goo.gl/maps/dezKvGygnYWownJT9>



Legend	
	No environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
27	532.0	Great Western Highway roundabout at Kelso.	Minor upgrades are required as shown in the below swept path assessment.	A light pole will need to be relocated and several signs will need to be made removable. Spotter to guide the load through this pinchpoint.

NearMap Link
<https://apps.nearmap.com/maps/#/@-33.4206900,149.6254400,18.00z/Od/V+R/20221208?locationMarker>

Google Maps Link
<https://www.google.com/maps/@-33.4206287,149.6251443,241m/data=!3m1!1e3>



Legend	
	Minor environmental impacts



ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
28	533.0	Great Western Highway onto Littlebourne St at Kelso.	Minor upgrades are required as shown in the below swept path assessment.	Loads will turn from the correct side of Great Western Highways onto the wrong-side of Littlebourne St and move to the correct side after the traffic island. The tail swing will overhang onto the eastbound lanes of the Great Western Highway so the roundabout will need to be blocked from all directions. Several signs will need to be made removable. Spotter to guide the load through this pinchpoint.

NearMap Link

<https://apps.nearmap.com/maps/#/@-33.4197300,149.6154400,18.00z/Od/V/20221208?locationMarker>

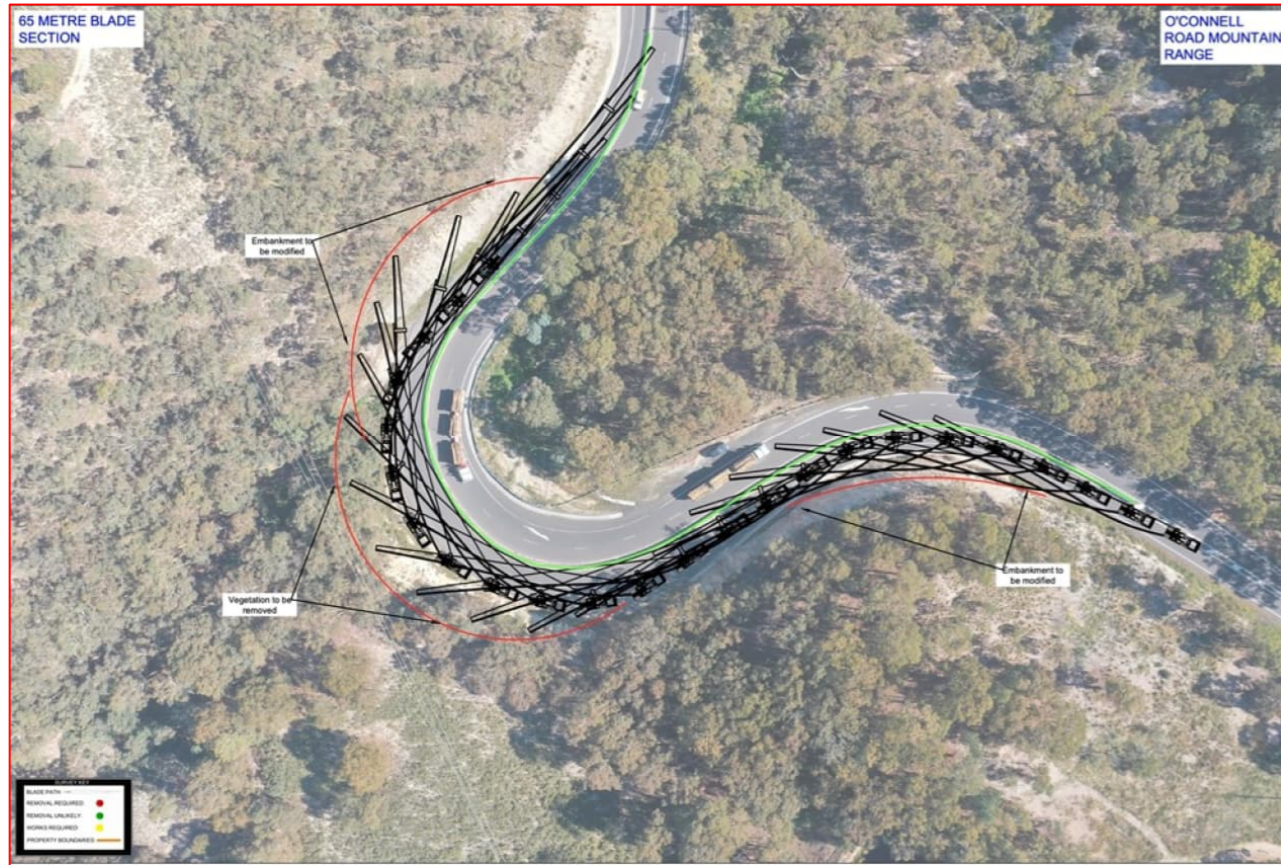
Google Maps Link

<https://www.google.com/maps/@-33.4193399,149.6148107,203m/data=!3m1!1e3>



Legend	
	Minor environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)	NearMap Link	Google Maps Link
29	580.0	O'Connell Road Range: Dogleg corner	Upgrades are required as shown in the below swept path assessment. However, blades will be lifted/ tilted upwards to minimise ecological impacts where possible.	Very steep ascend with several very tight turns. A large number of modifications are required on several of the corners. This will require some embankments cut back, some vegetation removal as a minimum. Spotter to guide the load through this pinchpoint.	https://apps.nearmap.com/maps/#/@-33.6090160,149.7798739,16.00z,0d/V?locationMarker	https://goo.gl/maps/Lq6yNM3MBwZGpASC6



Legend	
	Larger environmental impacts

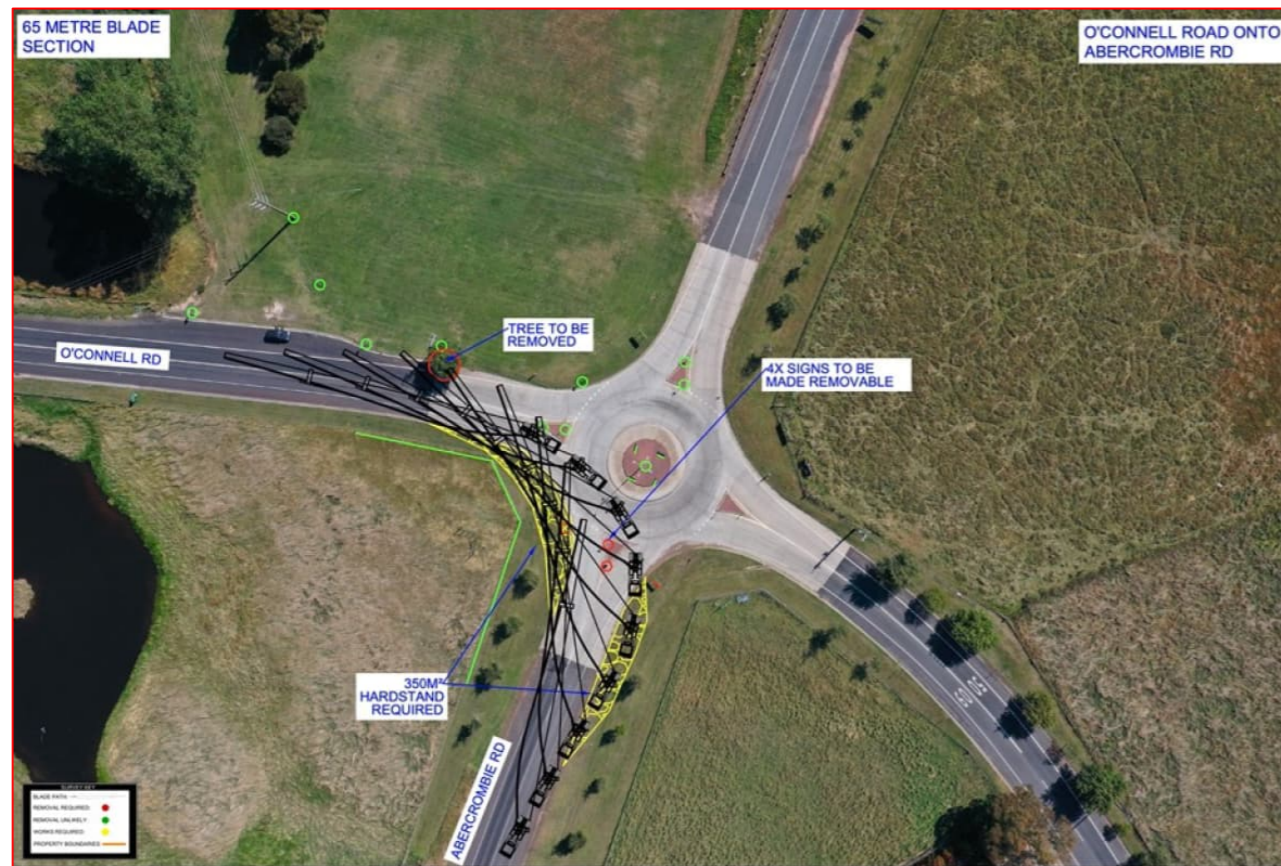
ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
30	574.0	O'Connell Road onto Abercrombie Road at Oberon.	Upgrades are required as shown in the below swept path assessment. 2 trees and 4 signs need to be removed.	Right-hand turn at the roundabout from the wrong side. A large amount of hardstand is required on the inside and outside of the corner of the roundabout between O'Connell Road and Abercrombie Road. Spotter to guide the load through this pinchpoint.

NearMap Link

Google Maps Link

<https://apps.nearmap.com/maps/#/@-33.6985400,149.8450500,18.00z,0d/V?locationMarker>

<https://goo.gl/maps/nV3yqxLL9SV7xy6z8>



Legend	
	Larger environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)	NearMap Link	Google Maps Link
31	597.0	Abercrombie Road, intersection of Campbells River Roads at Black Springs.	Upgrades (hardstand area) are required as shown in the below swept path assessment.	Left-hand turn to stay on Abercrombie Rd. Several signs need to be removed on the. A small amount of hardstand is required on the western portion of Abercrombie road to widen the southern leg. Spotter to guide the load through this pinchpoint.	https://apps.nearmap.com/maps/#/@-33.8477804,149.7430512,18.21z,0d/V+R/20221208?locationMarker	https://goo.gl/maps/wPBfjVRiyWCrVtFU6



Legend	
	Larger environmental impacts

ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
32	627.0 – 635.0	Abercrombie Road	No upgrades are required as shown in the below swept path assessments.	This is an undulating section of road with numerous sweeping bends. Blades up to 70m will navigate this section without issue. Trees should be checked closer to commencement to ensure no trimming is required. Spotter to guide the load through this pinchpoint. All loads over 70T gross will require a backup prime mover to assist with the gradient on this section of road. Assistance from a steer operator may be required.

NearMap Link
Not available.

Google Maps Link
<https://www.google.com/maps/dir/-34.1093412,149.7931008/-34.0791667,149.8318889/@-34.0950686,149.8033645,3829m/am=t/data=!3m1!1e3!4m2!4m1!3e0>



ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
32	627.0 – 635.0	Abercrombie Road	No upgrades are required as shown in the below swept path assessments.	This is an undulating section of road with numerous sweeping bends. Blades up to 70m will navigate this section without issue. Trees should be checked closer to commencement to ensure no trimming is required. Spotter to guide the load through this pinchpoint. All loads over 70T gross will require a backup prime mover to assist with the gradient on this section of road. Assistance from a steer operator may be required.

NearMap Link

Not available.

Google Maps Link

<https://www.google.com/maps/dir/-34.1093412,149.7931008/-34.0791667,149.8318889/@-34.0950686,149.8033645,3829m/am=t/data=!3m1!1e3!4m2!4m1!3e0>



ID	KM index	Item	Required Upgrades	Anticipated Environmental Impact (if any)
32	627.0 – 635.0	Abercrombie Road	No upgrades are required as shown in the below swept path assessments.	This is an undulating section of road with numerous sweeping bends. Blades up to 70m will navigate this section without issue. Trees should be checked closer to commencement to ensure no trimming is required. Spotter to guide the load through this pinchpoint. All loads over 70T gross will require a backup prime mover to assist with the gradient on this section of road. Assistance from a steer operator may be required.

NearMap Link

Not available.

Google Maps Link

<https://www.google.com/maps/dir/-34.1093412,149.7931008/-34.0791667,149.8318889/@-34.0950686,149.8033645,3829m/am=t/data=!3m1!1e3!4m2!4m1!3e0>



Legend	
	No environmental impacts

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Hong Kong	South Korea
India	Spain
Indonesia	Sweden
Ireland	Switzerland
Italy	Taiwan
Japan	Tanzania
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Kenya	UAE
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Mozambique	Vietnam

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