

# ADVERTISED PLAN

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright



**aurecon**  
*Bringing ideas  
to life*

## Barnawartha Solar Farm and Energy Storage

Heritage Due Diligence Assessment

**Barnawartha Pty. Ltd**

Reference: 520618

Revision: 4

2022-07-07



**WIRSOL**  
YOUR PARTNER IN RENEWABLE ENERGY

# Document control record

Document prepared by:

**Aurecon Australasia Pty Ltd**

ABN 54 005 139 873

Aurecon Centre

Level 8, 850 Collins Street

Docklands, Melbourne VIC 3008

PO Box 23061

Docklands VIC 8012

Australia

**T** +61 3 9975 3000

**F** +61 3 9975 3444

**E** melbourne@aurecongroup.com

**W** aurecongroup.com



**ADVERTISED  
PLAN**

**This copied document to be made available  
for the sole purpose of enabling  
its consideration and review as  
part of a planning process under the  
Planning and Environment Act 1987.  
The document must not be used for any  
purpose which may breach any  
copyright**

A person using Aurecon documents or data accepts the risk of:

- a) Using the documents or data in electronic form without requesting and checking them for accuracy against the original hard copy version.
- b) Using the documents or data for any purpose not agreed to in writing by Aurecon.

Document control							aurecon
Report title		Heritage Due Diligence Assessment					
Document code			Project number		520618		
File path							
Client		Barnawartha Pty. Ltd					
Client contact			Client reference				
Rev	Date	Revision details/status	Author	Reviewer	Verifier (if required)	Approver	
0	2021-12-01	Draft	C.Nimmo	A. Carr	J Hill		
1	2022-02-22	Draft	K McFadyen	J Hill	J Hill		
2	2022-03-18	Final	C.Nimmo	K McFadyen	J Hill		
3	2022-03-22	Final	K McFadyen	K Heberling	J Hill		
4	2022-07-22	Final	K McFadyen	K Heberling	J Hill	G. Thraves	
Current revision		4					

Approval			
Author signature		Approver signature	
Name	Kylie McFadyen	Name	Greta Thraves
Title	Senior Archaeologist	Title	Associate

# Contents

Executive summary .....	1
1 Introduction .....	2
1.1 Project background .....	2
1.2 Purpose .....	2
1.3 Location .....	2
1.4 Scope of proposed works .....	2
1.5 Assumptions and limitations .....	3
2 Heritage Legislation .....	5
2.1 Victorian state legislation .....	5
2.1.1 <i>Aboriginal Heritage Act 2006</i> .....	5
2.1.2 <i>Aboriginal Heritage Regulations 2018</i> .....	5
2.1.3 <i>Heritage Act 2017</i> .....	5
2.2 Commonwealth legislation .....	7
2.2.1 <i>Environment Protection and Biodiversity Conservation Act 1999</i> .....	7
3 Desktop Assessment .....	8
3.1 Aboriginal cultural heritage .....	8
3.1.1 Cultural heritage management plan requirement .....	8
3.1.2 Registered Aboriginal Party .....	9
3.1.3 VAHR search .....	9
3.1.4 Predictive model for Aboriginal occupation .....	9
3.2 Historic heritage .....	12
3.2.1 Historic heritage requirements .....	12
3.2.2 Land use history .....	13
3.2.3 Aerial imagery review .....	13
3.2.4 Predictive statement .....	14
4 Site Inspection .....	16
5 Conclusions and Recommendations .....	23
5.1 Aboriginal heritage recommendations .....	23
5.1.1 Cultural Heritage Management Plan requirement .....	23
5.2 Historic heritage recommendations .....	23
5.2.1 Requirement for further historic heritage assessment .....	23

**ADVERTISED  
PLAN**

**This copied document to be made available  
for the sole purpose of enabling  
its consideration and review as  
part of a planning process under the  
Planning and Environment Act 1987.  
The document must not be used for any  
purpose which may breach any  
copyright**

## Figures

Figure 1-1	Barnawartha Project area .....	4
Figure 3-1	Aboriginal heritage existing conditions .....	11
Figure 3-2	Historic aerial image 1948 (DELWP) showing Project area and proposed cable route .....	14
Figure 3-3	Historic heritage existing conditions .....	15
Figure 4-1	Overview of Project area, looking south from Murray Valley Highway .....	17
Figure 4-2	Overview of Project area including a patch of remnant trees, looking north-west from Hermitage Road .....	17
Figure 4-3	Areas of exposure and remnant trees adjacent Hermitage Road, looking south .....	18
Figure 4-4	Farm dam adjacent Hermitage Road, looking west .....	18
Figure 4-5	Example of ground exposure adjacent Baxter-Whelans Road .....	19
Figure 4-6	Culvert within Dry Creek area traversing Baxter-Whelans Road, looking east .....	19
Figure 4-7	Drainage infrastructure associated with tributary of Dry Creek, Baxter-Whelan Road, looking south-east .....	20
Figure 4-8	Culvert within Dry Creek area traversing Baxter-Whelans Road, looking south-east .....	20
Figure 4-9	Culvert at watercourse, on Baxter-Whelans Road, looking east .....	21
Figure 4-10	Area of inundation along Baxter-Whelans Road .....	21
Figure 4-11	Example of ground exposure and inundation along Baxter-Whelans Road .....	22
Figure 4-12	Location of termination point of cable route adjacent Baxter-Whelans Road .....	22

## Tables

Table 3-1: Aboriginal places within five kilometres of the Project area .....	9
Table 3-2: Results of the historic heritage register search .....	12

**This copied document to be made available  
for the sole purpose of enabling  
its consideration and review as  
part of a planning process under the  
Planning and Environment Act 1987.  
The document must not be used for any  
purpose which may breach any  
copyright**

**ADVERTISED  
PLAN**



# Abbreviations

Aboriginal places	Registered cultural heritage places
the Act	<i>Aboriginal Heritage Act 2006</i>
ARP	ARP Australian Solar Pty. Ltd
CHMP	Cultural Heritage Management Plan
CHL	Commonwealth Heritage List
CHS	Cultural Heritage Sensitivity
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
FP-SR	First Peoples-State Relations
the Heritage Act	<i>Heritage Act 2017</i>
HO	Heritage Overlay
HV	Heritage Victoria
LDAD	Low density artefact distribution
LGA	Local Government Area
NHL	National Heritage List
Places	Registered Aboriginal Places
the Project	Barnawartha solar energy facility
RAP	Registered Aboriginal Party
RNE	Register of the National Estate
the Regulations	Aboriginal Heritage Regulations 2018
VAHR	Victorian Aboriginal Heritage Register
VHI	Victorian Heritage Inventory
VHR	Victorian Heritage Register
WHL	World Heritage List

**ADVERTISED  
PLAN**

**This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright**

## Executive summary

A heritage due diligence assessment has been prepared for the proposed Barnawartha Solar Farm and Energy Storage (the Project) located approximately 4 kilometres (km) north-east of Barnawartha and 20 km west of Wodonga, in northern Victoria. The Project area for this investigation comprised approximately 131 hectares of land, with a Project site (Project area), which comprises two private farmland properties either side of Hermitage Road and a proposed cable route for the grid connection along the road reserve (both sides) of Baxter-Whelan Road.

A search of the Victorian Aboriginal Heritage Register (VAHR) revealed that there are no Aboriginal places within the Project area. There is a total of 21 registered Aboriginal places within five kilometres of the Project area. The closest Aboriginal place to the Project area is located approximately 1.5 km north of the intersection of Barnawartha Road and the Murray Valley Highway, along the banks of the Murray River.

No areas of cultural heritage sensitivity (CHS) intersect with the Project area. Dry Creek and its tributaries, and land within 200 metres of these waterways have been identified as areas of archaeological potential. A site inspection was undertaken in accordance with the predictive model developed for the Project area. The site inspection did not result in the location of Aboriginal or historical heritage material within the Project area or any areas of archaeological potential, including sections of Dry Creek and unnamed watercourses crossing Baxter-Whelans Road and the Project area. No culturally scarred trees were present within the Project area.

The *Aboriginal Heritage Act* 2006 (the Act) provides for a system of Registered Aboriginal Party (RAP) who act as decision makers for the management of Aboriginal heritage within their appointed area. The Project area does not have an appointed RAP. There is a RAP Applicant (Bangerang Aboriginal Corporation) who have declared an interest in the area.

A review of relevant historic heritage registers was undertaken and did not identify any historic heritage places or values within the Project area. The Hermitage (VHR H279 and HO5) is located directly north to the Project area. A review of 1948 historic aerial imagery indicates that the majority of the Project area is largely unchanged. There is no indication of former residential dwellings, huts or infrastructure being present within the Project area. No evidence of historic heritage was located during the site inspection.

### Aboriginal heritage recommendations

A mandatory CHMP is not required under the Act for the Project. The activity is defined as 'high impact', however the Project area does not intersect with an area of CHS and therefore a mandatory CHMP is not triggered under the Act.

The site inspection concluded that the areas where Dry Creek and other unnamed watercourses crossed the Project area and proposed cable route had been subject to significant ground disturbance and are therefore not areas of archaeological potential.

Despite there being remnant mature native trees within the Project area, the site inspection did not locate any containing cultural scarring.

It should be noted that if unexpected Aboriginal cultural material is present, it requires management, regardless of the levels of disturbance associated with the discovery. This management will either be through the preparation and approval of a CHMP, or a Cultural Heritage Permit.

### Historic heritage recommendations

In accordance with the *Heritage Act* 2017, there are no historic heritage approval triggers for the Project and there is no legislative requirement to undertake further historic heritage assessments prior to works commencing.

An unexpected finds protocol has been provided in the event that any unexpected archaeological sites are uncovered during construction works.

## 1 Introduction

### 1.1 Project background

Aurecon was commissioned by ARP Australian Solar Pty. Ltd (ARP) to undertake a heritage due diligence assessment to inform the development of the Barnawartha Solar Farm and Energy Storage (the Project) located north-east of Barnawartha, in northern Victoria. The project entity is known as Barnawartha Solar Pty Ltd. Wirsol Energy are co-developing the Project with ARP Australia Solar (ARP).

### 1.2 Purpose

The purpose of this report will assist in identifying any historic heritage and Aboriginal cultural heritage risks to the Project and whether further approvals or assessments are required. This assessment provides identification of any key risk areas of the Project area and provides recommendations for locating project infrastructure to avoid impacts.

The due diligence assessment includes:

- Description of the proposed activities (whether high impact or otherwise).
- A review of background information including results of Aboriginal and historical heritage register searches.
- Creation of a predictive statement identifying Aboriginal places, areas of cultural heritage sensitivity, and historical heritage sites likely to be located within the Project area.
- Site inspection to investigate the presence of Aboriginal and historical heritage places and areas of archaeological potential within the Project area.
- Identification of any legislative requirements to undertake further assessment (mandatory CHMP) under the *Aboriginal Heritage Act* 2006 and the Aboriginal Heritage Regulations 2018 including discussion of significant ground disturbance (if relevant).
- Identification of any legislative requirement to undertake further historical heritage assessment under the *Heritage Act* 2017.
- Recommendations and risk mitigation, which may include the recommendation to prepare a voluntary Cultural Heritage Management Plan (CHMP), or further historical heritage assessment.

### 1.3 Location

The Project area for this investigation comprised approximately 130 hectares of land approximately 4 kilometres north-east of the township of Barnawartha and 18 km west of Wodonga, Victoria. The Project area includes:

- The Project area, which comprises two private farmland properties either side of Hermitage Road
- Road reserves that adjoined the Project area including Hermitage Road, Murray Valley Highway (southern reserve only), Coyles Road, Baxter-Whelan Road and Barnawartha-Howlong Road
- The proposed cable route for the grid connection along the road reserve (both sides) of Baxter-Whelan Road and a section of Hermitage Road.

The Project area is shown in Figure 1-1.

### 1.4 Scope of proposed works

The Project will supply electricity generated from solar irradiation into the National Energy Market, it includes the development of a ~64 Megawatt (MW) Alternating Current (AC) Solar Farm and accompanying 64 MW battery storage facility. The proposed ~64 MWac solar farm and ancillary uses, buildings and works would

facilitate the generation of enough electricity to power ~20,000 average Victorian homes p/annum also saving over ~135,500 tonnes of CO<sub>2</sub>.

The solar farm will be connected via an aboveground cable route to the existing grid via transmission lines along Baxter-Whelans Road to the south of the Project area.

Associated buildings and works (access tracks, construction compounds, worker office and amenities buildings) include:

- Inverter's skid mounted
- Substation including transformer and switchgear
- Building for operations and maintenance personnel
- Warehouse for spare parts
- Olive green containers used for storage of spare solar panels
- A transmission route with the Network Service Provider, Ausnet, to provide grid connection for the Project
- Associated business signage and security fencing.

The construction phase is expected to last for 12-18 months.

## 1.5 Assumptions and limitations

The assumptions and limitations of this report are as follows:

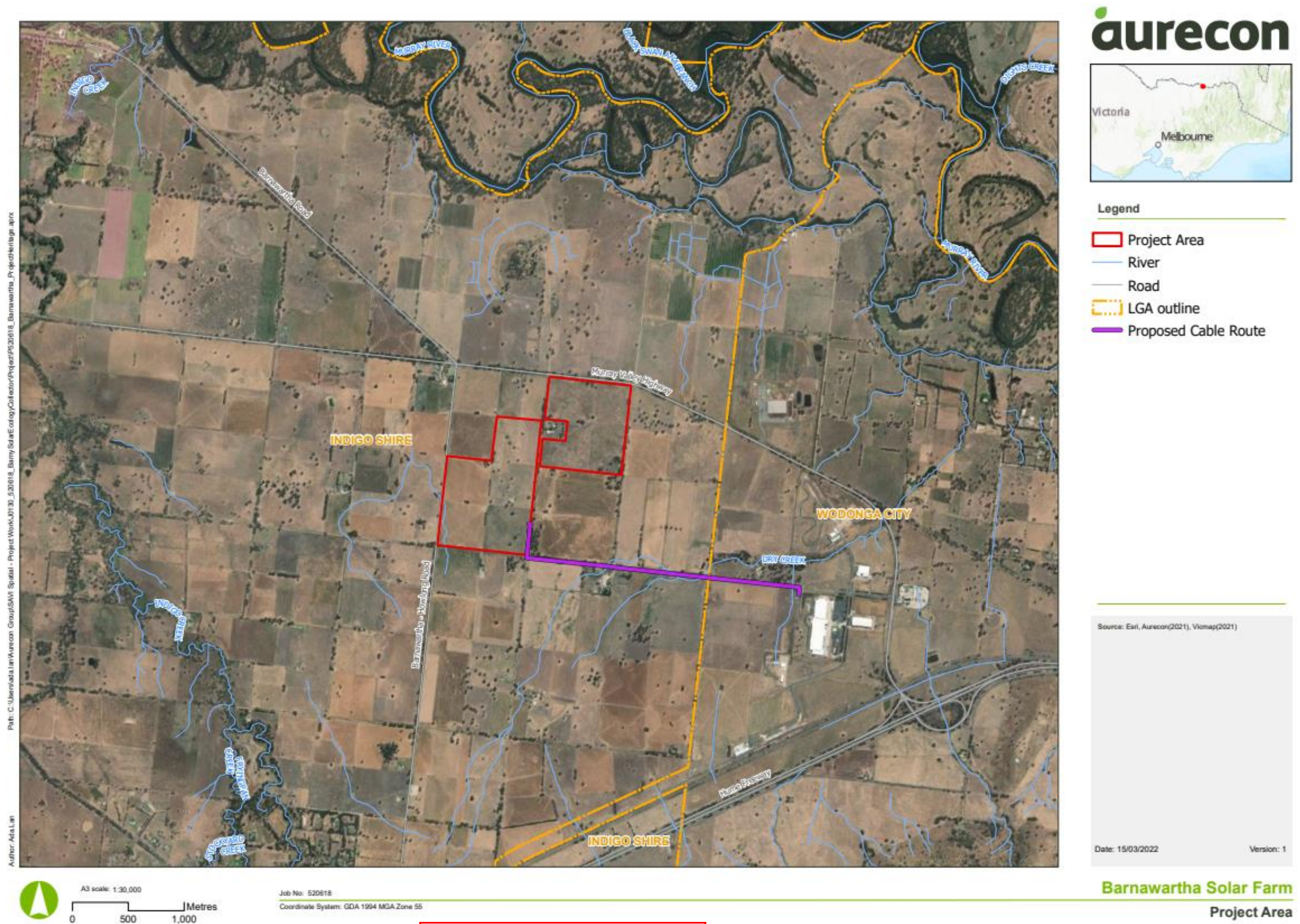
- This assessment is based on the works description provided to Aurecon in October 2021 with an updated Project area and cable route location provided in December 2021, March 2022 and June 2022.
- The Aboriginal and historic heritage register searches were undertaken on 10 November 2021. As such, this report is accurate as at the date of those register searches
- A site inspection was undertaken on 20 December 2021 based on the Project area and cable route location provided
- A comprehensive review of the land use history of the Project area has not been undertaken
- No Aboriginal community consultation was undertaken as part of this heritage due diligence
- This report does not substitute the requirement or recommendation for further heritage assessments to adequately investigate the nature, significance and extent of historic heritage elements or registered Aboriginal places that may be impacted by the Project
- This report does not fulfil the legislative requirements of a CHMP under the *Aboriginal Heritage Act 2006*. Where required a CHMP must be prepared as a separate assessment report
- Should the scope of works or design change considerably beyond the activity description provided to Aurecon, further assessment may be required to determine whether a mandatory CHMP or further historical assessment is required.

**ADVERTISED  
PLAN**

**This copied document to be made available  
for the sole purpose of enabling  
its consideration and review as  
part of a planning process under the  
Planning and Environment Act 1987.  
The document must not be used for any  
purpose which may breach any  
copyright**



**ADVERTISED  
PLAN**



**Figure 1-1 Barnawartha Project area**

**This copied document to be made available  
for the sole purpose of enabling  
its consideration and review as  
part of a planning process under the  
Planning and Environment Act 1987.  
The document must not be used for any  
purpose which may breach any  
copyright**



## 2 Heritage Legislation

### 2.1 Victorian state legislation

#### 2.1.1 *Aboriginal Heritage Act 2006*

The *Aboriginal Heritage Act 2006* (the Act) is administered by First Peoples-State Relations (FP-SR), Department of Premier and Cabinet. It is the principal piece of legislation dictating Aboriginal cultural heritage management requirements in Victoria.

#### 2.1.2 *Aboriginal Heritage Regulations 2018*

The Aboriginal Heritage Regulations 2018 (the Regulations) are designed to give effect to the Act. Key objectives of the Regulations are to:

- Specify the circumstances in which a cultural heritage management plan (CHMP) is required for an activity
- Prescribe standards for the preparation of a CHMP.

A CHMP is a legally binding document that includes a cultural heritage assessment, consultation with Aboriginal stakeholders, management conditions and contingencies. A CHMP is designed to manage Aboriginal cultural heritage issues specific to an activity for a specified area, called an 'activity area'. An approved CHMP also acts like a permit and when adhered to, protects the Sponsor of the CHMP against prosecution under the Act.

Regulation 7 of the Regulations prescribes that a CHMP is required for an activity if:

- a) All or part of the activity area is defined as an area of cultural heritage sensitivity (CHS; see regulation 5 for definitions); and
- b) All or part of the activity is a high impact activity (see regulation 5 for definitions).

If only part of a project includes high impact activities and only part of the activity area is within an area of CHS, a CHMP may be required. A CHMP is also required for an activity, regardless of points a) and b) if any part of the activity requires an Environmental Effects Statement.

A CHMP is not required for an activity if the entirety of the CHS area within the activity area has been subject to significant ground disturbance. Significant ground disturbance is defined in regulation 5 as disturbance by machinery in the course of grading, excavating, digging, dredging or deep ripping, but does not include ploughing (other than deep ripping) of:

- The topsoil or surface rock layer of the ground, or
- A waterway.

The burden of proving that an area has been subject to significant ground disturbance rests with the Sponsor of a CHMP. The Sponsor must provide evidence to support a claim of significant ground disturbance. Evidence may include common knowledge, publicly available records, further information or expert advice or opinion (DPC 2013).

#### 2.1.3 *Heritage Act 2017*

The *Heritage Act 2017* (the Heritage Act) is administered by Heritage Victoria (HV), Department of Environment, Land, Water and Planning. The main purpose of the Heritage Act is to 'provide for the protection and conservation of for the cultural heritage of the State'. The Heritage Act protects all categories of cultural heritage relating to the non-Aboriginal settlement of Victoria including shipwrecks, buildings, structures, objects and archaeological sites.

There are two categories of listing provided for under the Heritage Act:

- Victorian Heritage Register (Section 23), and;
- Victorian Heritage Inventory (Section 117).

## Victorian Heritage Register

This category provides protection for those places, objects, archaeological places, archaeological artefacts or shipwrecks assessed as being of outstanding cultural significance within the State of Victoria. The Heritage Act establishes a Heritage Council, an independent statutory authority which determines which heritage places/objects are included on the Victorian Heritage Register (VHR). Nominations to the VHR can be made to the Executive Director (HV) who will review the nomination and make recommendations to the Heritage Council for inclusion on the VHR.

Under Section 87 and 88 of the Heritage Act it is an offence to knowingly, or negligently, remove, relocate, demolish, damage, despoil, develop, alter or excavation any part of a registered place on the VHR, unless a Permit is granted under the Heritage Act. Permit applications must be submitted to the Executive Director for consideration and determination of the matter. There is a review process for the decisions or conditions of permits through the Heritage Council. Fees for permits to carry out works to a registered place or object are detailed in Section 13 and 14 of the Heritage Regulations 2017 and range in scale depending on the nature and costs of the works involved.

## Victorian Heritage Inventory

The Victorian Heritage Inventory (VHI) includes all known archaeological sites (other than those determined to be of low archaeological value). Archaeological sites are defined as a place (other than a shipwreck) which:

- Contains an artefact, deposit or feature which is 75 or more years old; and
- Provides information of past activity in the State; and
- Requires archaeological methods to reveal information about the settlement, development or use of the place; and
- Is not associated only with Aboriginal occupation of the place.

Under Section 123 of the Heritage Act it is an offence to knowingly or negligently deface, damage, or otherwise interfere with an archaeological site, whether it is included in the VHI or not, without a Consent. A Consent under Section 124 is required from the Executive Director for works or activities, including excavation, in relation to an archaeological site. Fees for consents are detailed in Section 23 of the Heritage Regulations 2017 and range in scale depending on the nature and scale of the works involved.

## ‘D’ listing

Heritage Victoria has introduced a ‘D’ classification in the VHI for places that don’t meet the definitions and requirements for inclusion in the VHI as an archaeological site or those with no cultural heritage significance. There is no requirement to obtain Consent from HV for removal or damage to relics or sites provided with a ‘D’ classification although HV request they are notified in writing.

## Discovering archaeological sites

Under Section 127 of the Heritage Act, if an archaeological site is discovered during an investigation or survey of land for a relevant survey purpose (including survey for an Aboriginal Cultural Heritage Management Plan), the person undertaking the survey or investigation must provide a site card to HV within 30 days after the discovery. Even if the survey does not reveal an archaeological site, HV must be notified and a survey report provided, in accordance with Section 31 of the Heritage Regulations 2017.

If an archaeological site is discovered during construction or excavation on any land, the person in charge of the construction or excavation must as soon as practicable report the discovery to HV.

## Planning and Environment Act 1987

The project area is located within the Indigo Shire, with sections of the cable route also within the City of Wodonga. In accordance with the *Planning and Environment Act 1987*, Indigo Shire and the City of Wodonga Councils have developed a Planning Scheme and as part of their Planning Scheme, has produced a Schedule to the Heritage Overlay (HO), which identifies heritage places. The purpose of the Heritage Overlay and Schedule is to conserve and enhance places of natural or cultural significance and those elements which contribute to their significance (both historical and Aboriginal heritage places). Planning approval may be required from the responsible council to undertake works within a place listed on the Heritage Overlay.

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any

## 2.2 Commonwealth legislation

### 2.2.1 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) includes 'national heritage' as a Matter of National Environmental Significance and protects listed places to the fullest extent under the Constitution. It also establishes the National Heritage List (NHL) and the Commonwealth Heritage List (CHL).

For proposed actions situated on Commonwealth land or which may impact on Commonwealth land, the guidelines *Actions on, or impacting upon, Commonwealth land, and actions by Commonwealth agencies* (Significant Impact Guidelines 1.2) apply. The guidelines require the proponent to undertake a self-assessment process to decide whether or not the action is likely to have a significant impact on the environment, including the heritage value of places. If an action is likely to have a significant impact an EPBC Act referral must be prepared and submitted to the Minister for approval.

The following is a description of each of the heritage lists and the protection afforded places listed on them.

### Commonwealth Heritage List

The CHL is established under the EPBC Act. The CHL is a list of properties owned by the Commonwealth that have been assessed as having significant heritage value. Any proposed actions on CHL places must be assessed for their impact on the heritage values of the place in accordance with *Actions on, or impacting upon, Commonwealth land, and actions by Commonwealth agencies* (Significant Impact Guidelines 1.2). The guidelines require the proponent to undertake a self-assessment process to decide whether or not the action is likely to have a significant impact on the environment, including the heritage value of places. If an action is likely to have a significant impact an EPBC Act referral must be prepared and submitted to the Minister for approval.

**ADVERTISED  
PLAN**

### National Heritage List

The NHL is a list of places with outstanding heritage value to Australia, including places overseas. Any proposed actions on NHL places must be assessed for their impact on the heritage values of the place in accordance with *Matters of National Environmental Significance* (Significant Impact Guidelines 1.1). The guidelines require the proponent to undertake a self-assessment process to decide whether or not the action is likely to have a significant impact on a matter of National Environmental Significance, including the national heritage value of places. If an action is likely to have a significant impact an EPBC Act referral must be prepared and submitted to the Minister for approval.

### Register of the National Estate

The Register of the National Estate (RNE) was formerly compiled as a record of Australia's natural, cultural and Aboriginal heritage places worth keeping for the future. The RNE was frozen on 19 February 2007, which means that no new places have been added or removed since that time. From February 2012 all references to the RNE were removed from the EPBC Act. The RNE is maintained on a non-statutory basis as a publicly available archive.

## 3 Desktop Assessment

## ADVERTISED PLAN

### 3.1 Aboriginal cultural heritage

#### 3.1.1 Cultural heritage management plan requirement

The following sections detail whether a CHMP will be required for the Project in accordance with the relevant legislative pathway for the proposed works. The assessment will be undertaken in line with the Aboriginal Heritage Regulations 2018 (the Regulations) that detail the conditions in which the requirement for a mandatory CHMP will be triggered by the Project.

#### Areas of cultural heritage sensitivity

The Project area does not intersect with an area of CHS. The closest designated area of CHS associated with a waterway is Indigo Creek, approximately 3 km west from the Project area. The cable route intersects with sections of Dry Creek along Baxter-Whelan Road and an unnamed watercourse extending through the Project area in the west. These waterways are not designated areas of CHS, although Aboriginal places have been found in association with Dry Creek where it crosses the Murray Valley Highway.

#### Are the proposed works considered a high impact activity?

In accordance with the Regulations, the proposed works are considered a high impact activity, defined by:

- r 46 (1)(b): The construction of the following is a high impact activity if the construction would result in significant ground disturbance –
  - (xxx) land used to generate electricity, including a wind generation facility.

The cabling would be considered a high impact activity, as defined by:

- r 46 (1)(b)(xxvii): a utility installation, other than a telecommunications facility –
  - (C) the works are a linear project with a length exceeding 100 metres
  - (D) the works affect an area exceeding 25 square metres.

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright

#### Has significant ground disturbance occurred?

Significant ground disturbance is defined in r 5 of the Regulations as disturbance by machinery in the course of grading, excavating, digging, dredging or deep ripping, but does not include ploughing (other than deep ripping) of:

- The topsoil or surface rock layer of the ground, or
- A waterway.

Given the history of the Project area as a farming property it is unlikely to have undergone significant ground disturbance as cultivation and general agricultural practices are not considered to cause significant ground disturbance.

The cable route however has potentially undergone significant ground disturbance, as it is located within the road reserve.

#### Will a mandatory CHMP be required for the Project?

A mandatory CHMP is **not required** under the Act as the Project area does not intersect with an area of CHS.



## 3.1.2 Registered Aboriginal Party

The Act provides for a system of Registered Aboriginal Party (RAP) who act as decision makers for the management of Aboriginal heritage within their appointed area. The RAP has been afforded the statutory right of evaluating and when satisfied, approving any CHMP prepared upon the land in which they have been granted RAP status. All consultation during the preparation of a CHMP must be undertaken through the RAP, in accordance with their consultation protocols.

The Project area does not have an appointed RAP. There is a RAP Applicant (Bangerang Aboriginal Corporation) who have declared an interest in the area. If a CHMP was to be prepared for the Project then it would be evaluated by the FP-SR, the State government administrative body. The level of consultation undertaken with the RAP applicant or any other identified interested Aboriginal groups, is at the discretion of the Sponsor, where a RAP does not exist.

## 3.1.3 VAHR search

A search of the Victorian Aboriginal Heritage Register (VAHR) was completed by Claire Nimmo (Project Archaeologist, Aurecon) on 10 November 2021.

There are 21 registered Aboriginal places, comprising 43 components, within five kilometres of the Project area (Table 3-1 and Figure 3-1). The Aboriginal places comprise nine artefact scatters, eight scarred trees, two low density artefact distributions (LDADs), and two earth features. None of the Aboriginal places are located within the Project area, the closest Aboriginal place to the Project area is located approximately 1.5 km north of the intersection of Barnawartha Road and the Murray Valley Highway, along the banks of the Murray River.

There are five Aboriginal places located within one kilometre of the terminal end of the cable route. All five Aboriginal place are artefact scatters discovered in association with Dry Creek. They were recorded during the preparation of CHMP No 12553 in 2013 for a proposed industrial subdivision of land at Barnawartha.

**Table 3-1: Aboriginal places within five kilometres of the Project area**

Aboriginal place type	Number	Percentage (%)
Artefact scatter	9	42
Scarred Tree	8	35
Earth feature	2	10
Low Density Artefact Distribution	2	10
<b>Total</b>	<b>21</b>	<b>100</b>

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright

## Are there archaeological sensitive landscapes in the Project area?

Dry Creek and its tributaries, and land within 200 m of these waterways have been identified as areas of archaeological potential. The sections of road reserve along the cabling route that intersect with this waterway should be assessed to determine if they are disturbed or intact, and for the presence of Aboriginal cultural material.

Aerial imagery also indicates there are clusters of native trees within the Project area. As scarred trees are the second most frequent Aboriginal place type in the area, there is potential for unrecorded scarred trees to be present within the Project area.

## 3.1.4 Predictive model for Aboriginal occupation

Following a search of the VAHR and a review of the previous literature and relevant archaeological reports, the following predictive summary statements can be made in relation to the project area:

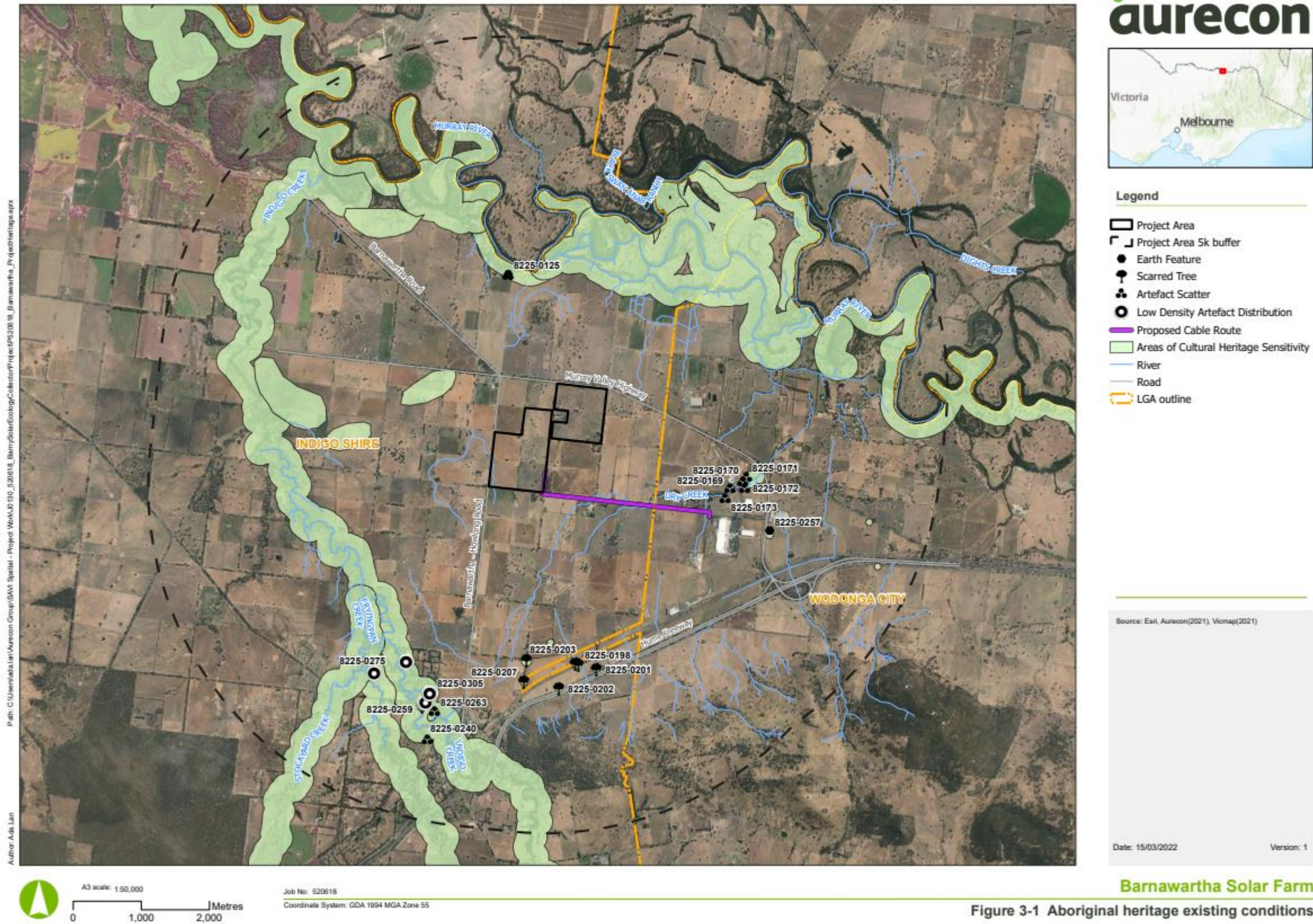
- The Project area comprises a flat and featureless alluvial plain landform

- Artefact scatters and scarred trees are the most likely Aboriginal place types to be found in association with this landform
- Artefact scatters are predicted to be found within close proximity to existing and former waterways and will most likely consist of quartz artefacts
- Scarred trees are likely to occur where mature native vegetation still exists
- Aerial imagery indicates the early clearance of native vegetation for pastoral and agricultural use, indicating a low likelihood of unrecorded scarred trees existing within the Project area
- The level of previous ground disturbance will determine the likelihood of recording intact Aboriginal places
- Site visibility and detection will be heavily influenced by ground exposure and vegetation cover.

## ADVERTISED PLAN

**This copied document to be made available  
for the sole purpose of enabling  
its consideration and review as  
part of a planning process under the  
Planning and Environment Act 1987.  
The document must not be used for any  
purpose which may breach any  
copyright**





This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright

**ADVERTISED PLAN**

Figure 3-1 Aboriginal heritage existing conditions



## 3.2 Historic heritage

### 3.2.1 Historic heritage requirements

#### Are any historic heritage values or elements present within the Project area?

##### Register search

The following heritage registers were searched on 10 November 2021 by Claire Nimmo (Project Archaeologist, Aurecon) to determine whether any known historical heritage places were present within five kilometres of the Project area:

- World Heritage List (WHL)
- National Heritage List (NHL) and
- Commonwealth Heritage List (CHL)
- National Trust (NT)
- Register of the National Estate (non-statutory) (RNE)
- Victorian Heritage Register (VHR)
- Victorian Heritage Inventory (VHI)
- Indigo Shire and Wodonga City Planning Scheme Heritage Overlays (HOs)

**ADVERTISED  
PLAN**

There are no registered historic heritage places located within the Project area. There is a historic heritage place adjacent to the Project area. The Hermitage VHR H279 and HO5 is located directly north to the Project area.

A search of the broader area identified two clusters of historic heritage places to the south in the township of Barnawartha and to the east of the Project area. There is one HO within close proximity to the Project area. HO4 is located approximately 700 metres north of the Project area. HO4 is related to The Hermitage VHR H279 and HO5.

In addition, there are numerous registered HOs within the Barnawartha township. The details of these HOs have not been included in this assessment as they are outside the Project area and highly unlikely to be impacted. The details of heritage places within five kilometres of the Project area are shown in Table 3-2 and displayed in (Figure 3-3).

**Table 3-2: Results of the historic heritage register search**

Register	Listing	Site ID	Proximity to Project area
VHR Indigo Shire Heritage Overlay	The Hermitage	H279 HO5	Outside of the Project area, approximately 35 m north
VHI	Former Barnawartha Station	H8225-0112	Outside of the Project area, approximately 3.6 km south
VHI	Indigo Flour Mill Site	H8225-0118	Outside of the Project area, approximately 3.9 km south
VHI	Innisfaile Homestead	H8225-0114	Outside of the Project area, approximately 2.5 km south
VHI	HS(A)-6	H8225-0006	Outside of the Project area, approximately 4.7 km east
VHI	HS(A)-3	H8225-0003	Outside of the Project area, approximately 4.2 km east

VHI	HS(A)-5	H8225-0005	Outside of the Project area, approximately 4 km east
Indigo Shire Heritage Overlay	Barnawartha House, Gehrig's Winery Barnawartha	HO4	Outside of the Project area, approximately 700 m north

### 3.2.2 Land use history

The Project area was part of the original Barnawartha Pastoral Run. This run was bounded in the north by the River Murray and in the west by the Indigo River before following a south-easterly direction to Indigo Upper, which accorded roughly with its southern boundary. The eastern boundary of the Run was marked by its boundary with Wooragee A run in the southeast and Wodonga run in the northeast. The run was originally estimated at 38,400 acres and was gazetted July 26, 1848, although it was licensed eight years prior to the NSW Orders-in-Council of October 1847. Originally taken up by George Barber, the lease was transferred to David Reid in 1856. In 1865, the run passed into the hands of George Henderson and five years later, to Henry Richardson before being forfeited in 1882 (Spreadborough & Anderson, 1983, p. 36).

### 3.2.3 Aerial imagery review

There appears to be no obvious historical heritage features within the Project area. The landscape is largely cleared for agricultural purposes with one living quarters area visible.

A review of 1948 historic aerial imagery indicates that the majority of the Project area is largely unchanged. There is no indication of former residential dwellings, huts or infrastructure being present within the Project area (Figure 3-2). The remainder of the Project area, much like the surrounding landscape, is undeveloped and used for cultivation and agricultural practices.

## ADVERTISED PLAN

**This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright**



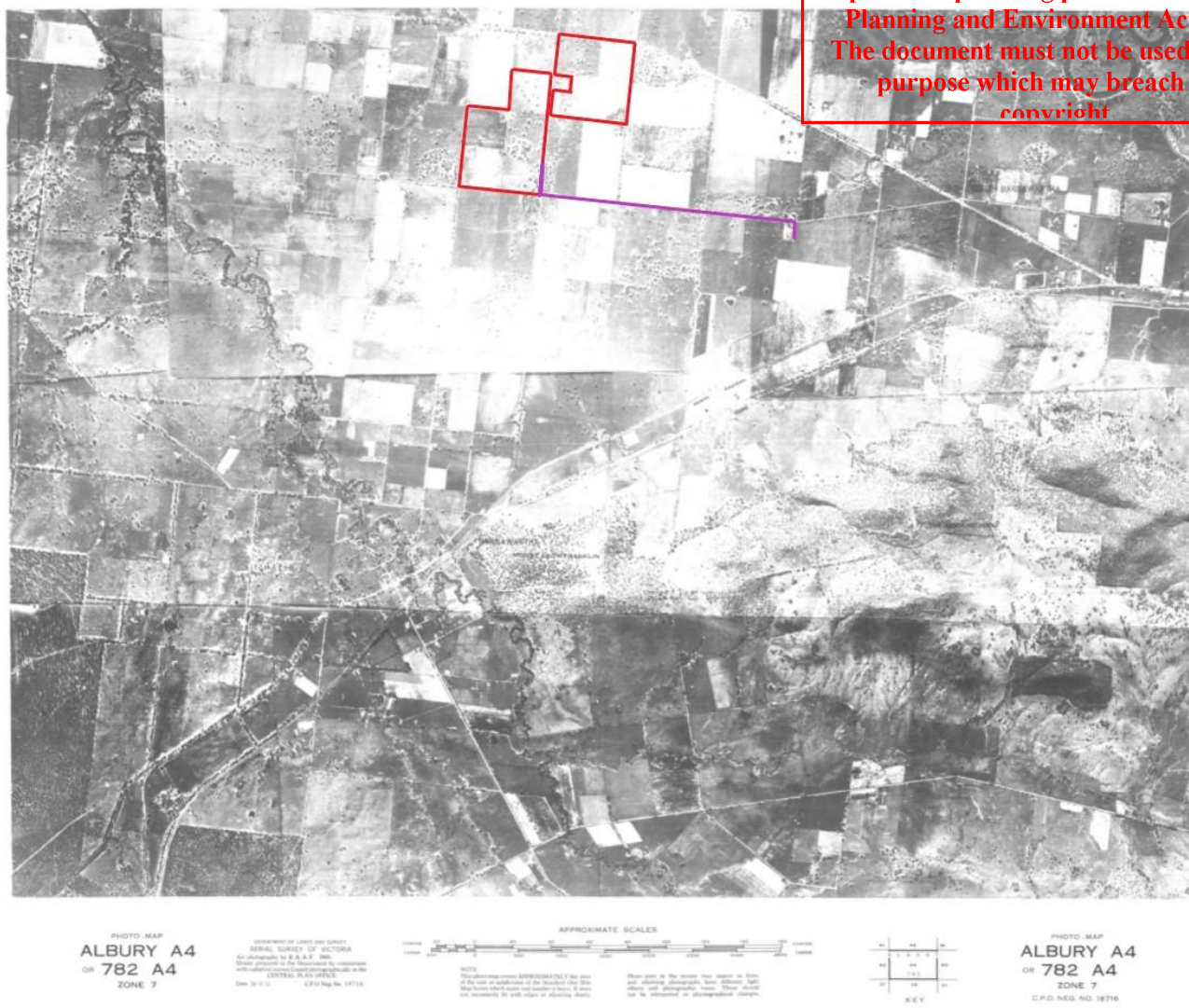


Figure 3-2 Historic aerial image 1948 (DELWP) showing Project area and proposed cable route

### 3.2.4 Predictive statement

Following a search of the above registers, review of the previous literature and analysis of relevant reports, and review of aerial imagery, the following predictive summary statements can be made in relation to the Project area:

- The most likely site type in the Project area would be historic houses or homesteads associated with the settlement of the region, followed by sites such as buildings associated with the past rural industry
- There is low potential for previously unidentified historical heritage places to be present within the Project area due to the lack of identification of any former residential dwellings, huts or infrastructure from the aerial imagery review.

### Will the proposed works impact any recorded historic heritage values or elements?

The proposed works will not impact any registered historic heritage places or values. A register search was conducted and did not identify any known historic heritage place or values present within the Project area.

A brief review of the land use history of the Project area has indicated that it has remained largely undeveloped and used primarily for cultivation and agricultural practices. It is very unlikely that any historic heritage elements or areas of historic archaeological potential are present within the Project area.







## 4 Site Inspection

A site inspection of the Project area was undertaken on 20 December 2021 by Kylie McFadyen (Senior Archaeologist, Aurecon) and Claire Nimmo (Project Archaeologist, Aurecon). The aim of the site inspection was to determine whether any Aboriginal cultural heritage material or historic heritage elements are present within the Project area. The site inspection comprised a pedestrian field survey of the Project area with a focus on areas containing remnant mature trees and the identified areas of archaeological potential located where the proposed cable route intersects with sections of Dry Creek and its tributaries along Baxter-Whelans Road. Any historic built heritage features located within the Project area were also inspected.

The Project area is bounded by Murray Valley Highway in the north, private property and a section of Barnawartha-Howlong Road in the west, private property and a section of Coyles Road in the east and private property and a section of Baxter-Whelans Road at the southern boundary. Hermitage Road extends through the middle of the Project area. A residence and outbuildings are located adjacent the Project area fronting Hermitage Road, however are not included within the Project area. The proposed cable route extends east of the Project area within the road reserve of Baxter-Whelans Road.

The Project area comprises a relatively flat (with some areas of undulation) alluvial plain landform currently used for grazing of cattle and previous cropping activities (Figure 4-1 - Figure 4-3). A number of farm dams are present within the Project area (Figure 4-4) and vegetation comprises exotic weeds and grasses, cereal crops and remnant mature and immature scattered (and in patches) Eucalypts including Red Box (*Eucalyptus polyanthemos*), Blakely's Red-gum (*Eucalyptus blakelyi*), White Box (*Eucalyptus albens*), Yellow Box (*Eucalyptus melliodora*) and Grey Box (*Eucalyptus macrocarpa*).

Ground surface visibility was very low throughout the Project area due to dense vegetation with areas of exposure limited to access tracks, adjacent dams, beneath trees and along road reserves (Figure 4-5). These infrequent areas of ground exposure revealed a dark brown silty clay soil with introduced gravels. The site inspection determined that the Project area has been relatively undisturbed due to historic pastoral activities, however the location of the proposed cable route has experienced significant ground disturbance due to the construction of Baxter-Whelans Road, and the installation of services such as electrical powerlines.

The sections where Dry Creek and its tributaries intersected the proposed cable route were identified to have been altered and disturbed due to the construction of Baxter-Whelans Road and drainage infrastructure including concrete culverts (Figure 4-6- Figure 4-11). Figure 4-12 shows the location of the cable route termination where existing infrastructure is located. Due to previous recent heavy rain, these areas were inundated with water. These areas that were identified in the desktop review as areas of archaeological potential were confirmed to be significantly disturbed, therefore assessed to have a low potential for containing Aboriginal cultural heritage.

The Project area was revised in March 2022 to include an additional area where an unnamed watercourse traversed the Project area in the west. No evidence of this former watercourse is present due to extensive agricultural activities and land modifications leading to significant ground disturbance.

All remnant native trees of an appropriate age and size were inspected for cultural scarring. No culturally scarred trees were identified during the site inspection.

No Aboriginal cultural heritage material was identified in the Project area. No historic heritage elements or values were identified. No areas of Aboriginal or historic heritage subsurface archaeological potential were identified during the site inspection.

**ADVERTISED  
PLAN**

**This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright**



Figure 4-1 Overview of Project area, looking south from Murray Valley Highway



Figure 4-2 Overview of Project area including a patch of remnant trees, looking north-west from Hermitage Road

**ADVERTISED  
PLAN**





Figure 4-3 Areas of exposure and remnant trees adjacent Hermitage Road, looking south



This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright

Figure 4-4 Farm dam adjacent Hermitage Road, looking west





Figure 4-5 Example of ground exposure adjacent Baxter-Whelans Road



Figure 4-6 Culvert within Dry Creek area traversing Baxter-Whelans Road, looking east

**ADVERTISED  
PLAN**





Figure 4-7 Drainage infrastructure associated with tributary of Dry Creek, Baxter-Whelan Road, looking south-east



Figure 4-8 Culvert within Dry Creek area traversing Baxter-Whelans Road, looking south-east

**ADVERTISED  
PLAN**





Figure 4-9 Culvert at watercourse, on Baxter-Whelans Road, looking east



Figure 4-10 Area of inundation along Baxter-Whelans Road

**ADVERTISED  
PLAN**





Figure 4-11 Example of ground exposure and inundation along Baxter-Whelans Road



Figure 4-12 Location of termination point of cable route adjacent Baxter-Whelans Road

# ADVERTISED PLAN

## 5 Conclusions and Recommendations

The Project area does not intersect with a designated area of CHS. A search of the VAHR revealed that there are no known Aboriginal places within the Project area. The closest Aboriginal place to the Project area is 1.5 km north. A cluster of five Aboriginal places are located within one kilometre of the terminal end of the cabling route. All five Aboriginal places are associated with a waterway (Dry Creek) which also intersects the cable route in a number of locations. The desktop review determined that there is potential for unidentified Aboriginal cultural heritage material to exist where the proposed cable route and the Project area intersects these waterways. A site inspection however disproved this due to significant ground disturbance occurring within these areas. The site inspection did not identify any areas of archaeological potential for Aboriginal places to occur and all mature native trees were inspected for cultural scarring.

There are no historic heritage places located within the Project area. A search of the relevant historic heritage registers and the local Heritage Overlay was conducted and identified The Hermitage VHR H279 and HO5 to the north of the Project area. A brief review of the land use history indicated that the Project area has remained relatively undeveloped, with land use practices largely limited to pastoralism. The site inspection did not locate any built historic heritage items or areas of historical archaeological potential. It is highly unlikely that historic heritage elements will be impacted or unearthed during Project construction works. No historic heritage approval triggers have been identified and no further historic heritage assessments are required prior to the commencement of works.

### 5.1 Aboriginal heritage recommendations

#### 5.1.1 Cultural Heritage Management Plan requirement

A mandatory CHMP is not required under the Act for the Project. The activity is defined as 'high impact', however the Project area does not intersect with an area of CHS and therefore a mandatory CHMP is not triggered under the Act.

The site inspection concluded that the waterways including Dry Creek, its tributaries, and an unnamed watercourse in the west were subject to significant ground disturbance and are therefore not areas of archaeological potential.

Despite there being remnant mature native trees within the Project area, the site inspection did not locate any containing cultural scarring.

It should be noted that if unexpected Aboriginal cultural material is present, it requires management, regardless of the levels of disturbance associated with the discovery. This management will either be through the preparation and approval of a CHMP, or a Cultural Heritage Permit.

### 5.2 Historic heritage recommendations

#### 5.2.1 Requirement for further historic heritage assessment

In accordance with the *Heritage Act* 2017, there are no historic heritage approval triggers for the Project and there is no legislative requirement to undertake further historic heritage assessments prior to works commencing.

The unexpected finds procedure below has been provided in the event that any unexpected archaeological sites are uncovered during construction works.

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987.

The document must not be used for any purpose which may breach any copyright



## Unexpected discoveries of historical archaeological sites

All historical archaeological sites in Victoria older than 75 years are protected by the *Heritage Act* 2017, whether they are recorded on the VHI or not. It is an offence to knowingly or negligently deface, damage, or otherwise interfere with an archaeological site without obtaining the appropriate consent from the Executive Director of HV.

Under Section 127 of the *Heritage Act* 2017, if an archaeological site is discovered during construction or excavation on any land, the person in charge of the construction or excavation must as soon as practicable report the discovery to HV. If any unexpected archaeological sites are uncovered during construction works, the following procedure must be followed by ARP and Wirsol and/or their contractors:

### STOP

- Stop any activity which may impact on the discovery
- Ensure that other people working in the area are aware of it and have also stopped work in the area
- Protect the artefacts or site by erecting a temporary barrier

### ADVISE

- A supervisor or the cultural heritage consultant must be consulted if they are on site
- Supervisors are to contact ARP and Wirsol to advise of the discovery
- Supervisors are to advise HV where the discovery was made and provide a description or photograph of the discovery

### MANAGE

- HV, the onsite heritage consultant or supervisor will advise on how to manage the discovery
- Management of the discovery may involve protection, recovery, recording or removal of the artefacts or features and is likely to require a Consent to Damage permit from HV.

**This copied document to be made available  
for the sole purpose of enabling  
its consideration and review as  
part of a planning process under the  
Planning and Environment Act 1987.  
The document must not be used for any  
purpose which may breach any  
copyright**

**ADVERTISED  
PLAN**

**Document prepared by**

**Aurecon Australasia Pty Ltd**

ABN 54 005 139 873

Aurecon Centre

Level 8, 850 Collins Street

Docklands, Melbourne VIC 3008

PO Box 23061

Docklands VIC 8012

Australia

**T** +61 3 9975 3000

**F** +61 3 9975 3444

**E** melbourne@aurecongroup.com

**W** aurecongroup.com

# ADVERTISED PLAN

This copied document to be made available  
for the sole purpose of enabling  
its consideration and review as  
part of a planning process under the  
Planning and Environment Act 1987.  
The document must not be used for any  
purpose which may breach any  
copyright

**aurecon**

*Bringing ideas  
to life*