

APPENDIX 7 ADDENDUM ABORIGINAL CULTURAL HERITAGE ASSESSMENT REPORT





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ABORIGINAL CULTURAL HERITAGE ASSESSMENT & HISTORIC HERITAGE ADDENDUM REPORT

STUBBO SOLAR FARM: ACCESS TRACKS AND BLUE SPRINGS ROAD

MID-WESTERN REGIONAL COUNCIL LOCAL GOVERNMENT AREA, NSW MAY 2021

Report prepared by

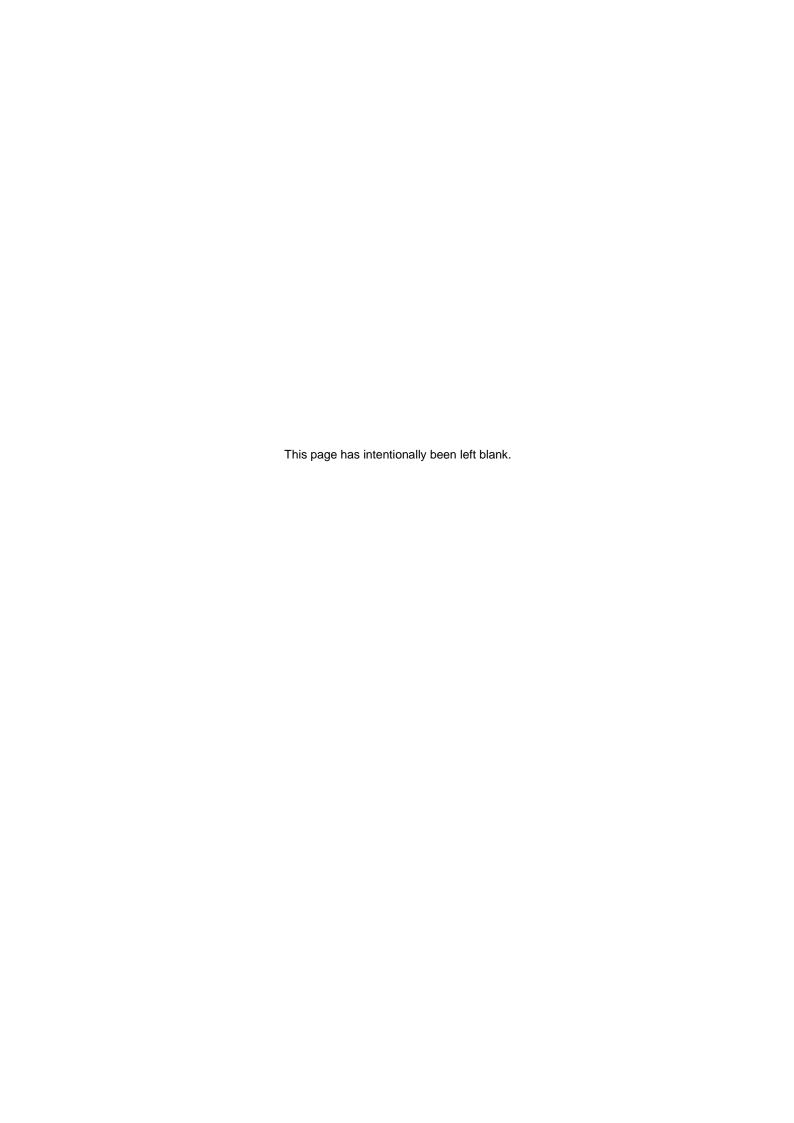
OzArk Environment & Heritage

for UPC\AC Renewables Australia

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ABORIGINAL CULTURAL HERITAGE ASSESSMENT REPORT COVER SHEET

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Enquiries should be addressed to OzArk Environment & Heritage.

Acknowledgement

OzArk acknowledge Traditional Owners of the area on which this assessment took place and pay respect to their beliefs, cultural heritage and continuing connection with the land. We also acknowledge and pay respect to the post-contact experiences of Aboriginal people with attachment to the area and to the elders, past and present, as the next generation of role models and vessels for memories, traditions, culture and hopes of local Aboriginal people.

ABBREVIATIONS AND GLOSSARY

ACHAR Aboriginal Cultural Heritage Assessment Report. As set out in the Code of

Practice for Archaeological Investigation of Aboriginal Objects in New South Wales, all developments where harm to Aboriginal objects is likely must be

assessed in an ACHAR.

ACHCRs Aboriginal Cultural Heritage Consultation Requirements for Proponents.

Guidelines for conducting Aboriginal community consultation for

developments where harm to Aboriginal objects is likely.

ACHMP Aboriginal Cultural Heritage Management Plan.

AHIMS Aboriginal Heritage Information Management System. Administered by

Department of Premier and Cabinet, AHIMS is the central register of all

Aboriginal sites within NSW.

Assemblage: All artefacts recorded at a location. In this report, assemblage refers to stone

artefacts as this was the only artefact class recorded.

Carboniferous A geological time period between 359–299 million years ago.

Code of Practice Code of Practice for Archaeological Investigation of Aboriginal Objects in New

South Wales under Part 6 NPW Act. Issued by DECCW in 2010, the Code of Practice is a set of guidelines that allows limited test excavation without the

need to apply for an AHIP.

DPIE NSW Department of Planning, Industry and Environment

EIS Environmental Impact Statement. A required document for major projects

documenting all potential impacts to the environment, including heritage, that

may arise due to the development.

GSE Ground surface exposure

GSV Ground surface visibility

Heritage NSW Government department tasked with ensuring compliance with the NPW Act.

Heritage NSW is advised by the Aboriginal Cultural Heritage Advisory

Committee (ACHAC) and is part of the Department of Premier and Cabinet.

NPW Act National Parks and Wildlife Act 1974. Primary legislation governing Aboriginal

cultural heritage within NSW.

OEH Office of the Environment and Heritage. Now Heritage NSW.

PAD	Potential archaeological deposit. Indicates that a particular location has
	potential to contain subsurface archaeological deposits, although no
	Aboriginal objects are visible.
RAP	Registered Aboriginal Party. An individual or group who have indicated
	through the ACHCR process that they wish to be consulted regarding the

SEARs Secretary's Environmental Assessment Requirements issued by the NSW Department of Planning and Environment.

project.

EXECUTIVE SUMMARY

OzArk Environment & Heritage (OzArk) has been engaged by UPC\AC Renewables Australia (UPC\AC; the proponent) to complete an addendum *Aboriginal Cultural Heritage Assessment Report* (ACHAR) and Historic Heritage Assessment Report for works required for access routes to the proposed Stubbo Solar Farm, located north of Gulgong, NSW. The addendum study area consists of three access easements and the existing Blue Spring Road from its intersection with Cope Road to the location of the two eastern access easements.

The pedestrian survey of the addendum study area was undertaken 4–5 April 2021 by OzArk Cultural Heritage Specialist Harrison Rochford. Two Registered Aboriginal Party (RAP) site officers participated in the survey each day. The survey covered two eastern access easements, one western access easement and the extent of the Blue Spring Road between its intersection with Cope Road to where the eastern access easements intersect with the road.

No Aboriginal or historic sites were recorded inside the addendum study area.

Aboriginal Cultural Heritage

Recommendations concerning Aboriginal cultural values within the addendum study area are as follows:

- Following development consent of the project, the proponent will develop an Aboriginal Cultural Heritage Management Plan (ACHMP) which is to be agreed to by the RAPs and Department of Planning, Industry and the Environment (DPIE). The ACHMP will also include an unanticipated finds protocol, unanticipated skeletal remains protocol and longterm management of any artefacts.
- 2. All land-disturbing activities must be confined to within the development footprint and associated tracks and/or cable crossings. Should the parameters of the proposed work extend beyond this, then further archaeological assessment may be required.

Historic Heritage

Recommendations concerning the historic values within the addendum study area are as follows:

- 1. Should development consent for the project be granted, archaeological management strategies to manage and mitigate the impact of the solar farm development are set out in **Section 11.2**.
- 2. Following development consent of the project, an unanticipated finds protocol for historic heritage must be developed and then used during the construction and ongoing use of the project. If items of historic heritage significance are uncovered during the project, then the *Unanticipated Finds Protocol for Historic Heritage* will be enacted (Appendix 3).

3. To avoid the potential for harm to historic objects on unassessed adjacent landforms, all ground surface disturbing activities must be confined to the development footprint and associated tracks and/or cable crossings.

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1 Introduction

1.1 DESCRIPTION OF THE PROPOSAL

OzArk Environment & Heritage (OzArk) has been engaged by UPC\AC Renewables Australia (UPC\AC; the proponent) to complete an addendum *Aboriginal Cultural Heritage Assessment Report* (ACHAR) and Historic Heritage Assessment Report for works required for access routes to the proposed Stubbo Solar Farm, located north of Gulgong, NSW (the project). The project is in the Mid-Western Regional Council Local Government Area (LGA) (**Figure 1-1**).

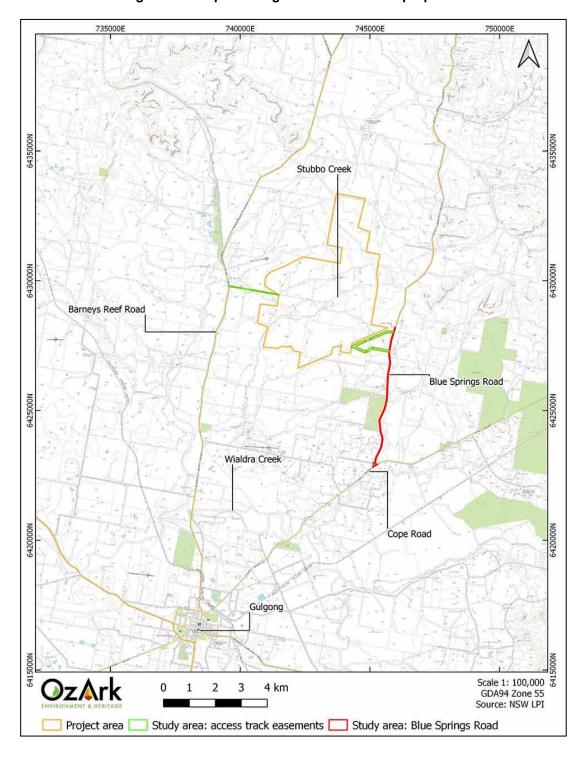


Figure 1-1: Map showing the location of the proposal.

1.2 BACKGROUND

In May 2019, RPS drafted a Preliminary Environmental Assessment (PEA) for the proposed Stubbo Solar Farm (RPS 2019). Part of the report included preliminary assessments for Aboriginal and historical heritage. A preliminary targeted inspection was undertaken regarding heritage. In April 2020, RPS refined the heritage information and supplied results in a Scoping Report to support the request to the Department of Planning, Industry and Environment (DPIE) for the Secretary's Environmental Assessment Requirements (SEARs) for the project. The Scoping Report was lodged on 15 April 2020 and the SEARs were issued on 5 May 2020. The SEARs included requirements and recommendations regarding the heritage assessment within the study area.

In December 2020, OzArk finalised an ACHAR to comply with the SEARS issued for the project (OzArk 2020). This included the completion of the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (ACHCRs). The assessment resulted in 23 Aboriginal sites being recorded, and two previously recorded AHIMS sites located. No historic heritage sites were recorded during the survey. It was concluded that 24 sites would be avoided by the project and impacts to one site, an isolated find (Rosevale IF-01), would be unavoidable.

Since the completion of the ACHAR, it has been requested by Mid-Western Regional Council that Blue Springs road be upgraded and the proponent has accepted the request. The potential access route options from Blue Springs Road and Barneys Reef Road to the solar farm boundary were presented in the OzArk 2020 ACHAR, but the addition of Blue Springs Road has provided the opportunity to provide clarification and further assessment of the proposed access tracks. The ACHAR addendum will accompany the Environmental Impact Statement (EIS) for the State Significant Development (SSD) proposal.

1.3 Proposed work

There are three potential access/egress routes to the Stubbo Solar Farm project area, as well as proposed upgrades to Blue Springs Road, that are the subject of this assessment. The proposed works at the locations are as follows:

• Blue Springs Road – the existing sealed road at Blue Springs Road will be the main access route to the project area from Cope Road. Approximately 5.5 kilometers (km) of the road are proposed to be widened to provide a safer access to construction and operation vehicles. The proposed works will aim to provide widening as per Austroads standards in some sections of the road (7 metre [m] sealed section with a 1 m shoulder on each side and potential for safety or drainage infrastructure). However, for the purpose of this assessment, the extent of the widening is based on a worst-case scenario of up be 10 m from the current centerline, although the study area has incorporated up to 15 m

from the centerline in both sides. Works at this location may include minor earthworks and roadside vegetation clearing.

- Main access routes two routes have been proposed for access to the site from Blue Springs Road.
 - The northern route (preferred option) follows the existing TransGrid 330 kilovolt (kV) transmission line easement and maintenance track between Blue Springs Road and the proposed development footprint of the solar farm.
 - The southern route (if TransGrid does not allow the use and upgrade of the northern route) follows an existing paddock track and works will involve earthworks , excavation and minor waterway crossings. The southern route has been designed to avoid tree clearing.
- Emergency access route comprises a proposed emergency access/egress route to the project area from Barneys Reef Road. The works would include minor earthmoving but there are no impacts to trees.

Figure 1-2 shows the study area along Blue Springs Road.

1.4 STUDY AREA

The study area at Blue Springs Road consists of 5.5 km of road corridor that traverses low slopes. Copes Creek runs parallel to the study area along Blue Springs Road in the northern section, 30 m to the east at the closest point. Vegetation cover varies between dense regrowth and some areas of isolated mature trees.

The proposed access easements consist of approximately 22 hectares (ha) of land currently used for grazing or as a transmission line easement. The study area is across a low grade slope from north to south. The headwaters of Gum Creek run north—south through the study area. The only uncleared areas are adjacent to Gum Creek.

The proposed western emergency access study area includes 3 ha of paddock land across flat landforms and low slopes 200 m south of Pine Creek at the closest point. The study area has been cleared and largely follows existing tracks.

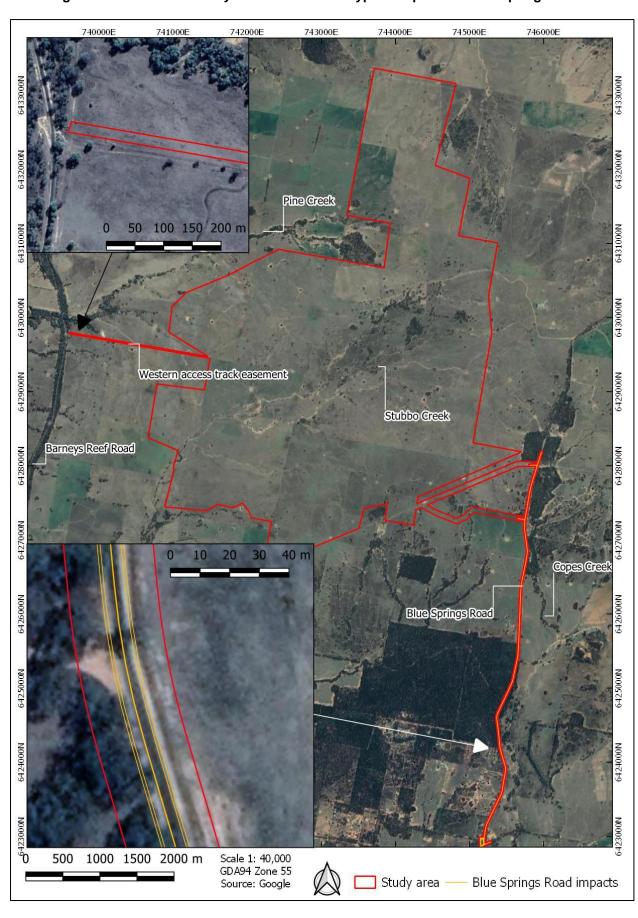


Figure 1-2: Addendum study area with detail of typical impacts at Blue Springs Road.

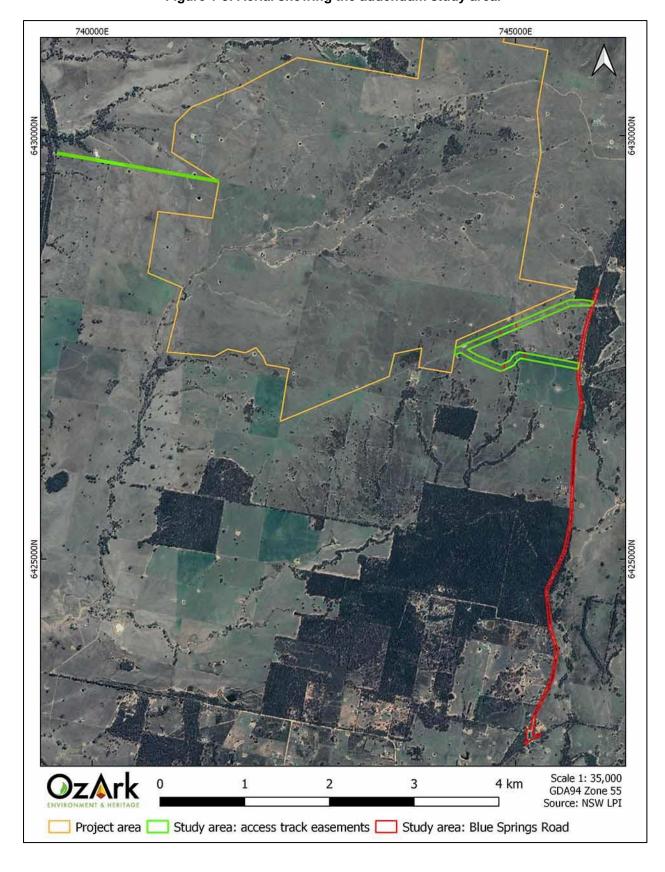


Figure 1-3: Aerial showing the addendum study area.

2 THE ARCHAEOLOGICAL ASSESSMENT

2.1 DATE OF ARCHAEOLOGICAL ASSESSMENT

The fieldwork component of this assessment was undertaken by OzArk on the 15th and 16th of April 2021.

2.2 OZÁRK INVOLVEMENT

2.2.1 Field assessment

The fieldwork component of the heritage assessment was undertaken by:

 Harrison Rochford (OzArk Cultural Heritage Specialist — M. Phil [Arts and Social Sciences], B Liberal Studies [Hons] [Psychology/ Ancient History] University of Sydney).

2.2.2 Reporting

The reporting component of the heritage assessment was undertaken by:

- Report Author: Harrison Rochford
- Contributor and reviewer: Dr Alyce Cameron (OzArk Senior Archaeologist, BA [Hons] and PhD [Archaeology & palaeoanthropology] Australian National University)

2.3 RELEVANT LEGISLATION

Cultural heritage is managed by several state and national Acts. Baseline principles for the conservation of heritage places and relics can be found in the *Burra Charter* (Burra Charter 2013). The *Burra Charter* has become the standard of best practice in the conservation of heritage places in Australia, and heritage organisations and local government authorities have incorporated the inherent principles and logic into guidelines and other conservation planning documents. The *Burra Charter* generally advocates a cautious approach to changing places of heritage significance. This conservative notion embodies the basic premise behind legislation designed to protect our heritage, which operates primarily at a state level.

Several Acts of parliament provide for the protection of heritage at various levels of government.

2.3.1 State legislation

Environmental Planning and Assessment Act 1979 (EP&A Act)

This Act established requirements relating to land use and planning. The framework governing environmental and heritage assessment in NSW is contained within the following parts of the EP&A Act:

- Part 4: Local government development assessments, including heritage. May include schedules of heritage items
 - Division 4.7: Approvals process for state significant development

- Part 5: Environmental impact assessment on any heritage items which may be impacted by activities undertaken by a state government authority or a local government acting as a self-determining authority
 - Division 5.2: Approvals process for state significant infrastructure.

National Parks and Wildlife Act 1974 (NPW Act)

Amended during 2010, the NPW Act provides for the protection of Aboriginal objects (sites, objects and cultural material) and Aboriginal places. Under the Act (Part 6), an Aboriginal object is defined as: any deposit, object or material evidence (not being a handicraft for sale) relating to indigenous and non-European habitation of the area that comprises NSW, being habitation both prior to and concurrent with the occupation of that area by persons of European extraction, and includes Aboriginal remains.

An Aboriginal place is defined under the NPW Act as an area which has been declared by the Minister administering the Act as a place of special significance for Aboriginal culture. It may or may not contain physical Aboriginal objects.

As of 1 October 2010, it is an offence under Section 86 of the NPW Act to 'harm or desecrate an object the person knows is an Aboriginal object'. It is also a strict liability offence to 'harm an Aboriginal object' or to 'harm or desecrate an Aboriginal place', whether knowingly or unknowingly. Section 87 of the Act provides a series of defences against the offences listed in Section 86, such as:

- The harm was authorised by and conducted in accordance with the requirements of an Aboriginal Heritage Impact Permit (AHIP) under Section 90 of the Act;
- The defendant exercised 'due diligence' to determine whether the action would harm an Aboriginal object; or
- The harm to the Aboriginal object occurred during the undertaking of a 'low impact activity' (as defined in the regulations).

Under Section 89A of the Act, it is a requirement to notify the Secretary of the Department of Planning, Industry and Environment (DPIE) of the location of an Aboriginal object. Identified Aboriginal items and sites are registered on Aboriginal Heritage Information Management System (AHIMS) that is administered by Heritage NSW.

2.3.2 Commonwealth legislation

Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

The EPBC Act, administered by the Commonwealth Department of the Environment and Energy, provides a framework to protect nationally significant flora, fauna, ecological communities and heritage places. The EPBC Act establishes both a National Heritage List and Commonwealth Heritage List of protected places. These lists may include Aboriginal cultural sites or sites in which

Aboriginal people have interests. The assessment and permitting processes of the EPBC Act are triggered when a proposed activity or development could potentially have an impact on one of the matters of national environment significance listed by the Act. Ministerial approval is required under the EPBC Act for proposals involving significant impacts to national/commonwealth heritage places.

Other

The Aboriginal and Torres Strait Islander Heritage Protection Act 1984 is aimed at the protection from injury and desecration of areas and objects that are of significance to Aboriginal Australians. This legislation has usually been invoked in emergency and conflicted situations.

The *Protection of Movable Cultural Heritage Act 1986* includes legislation that prevents objects of cultural heritage significance, such as those that are sacred to Aboriginal peoples' heritage, from being exported out of Australia.

2.3.3 Applicability to the proposal

The current proposal will be assessed under Division 4.7 of the EP&A Act as a State Significant Development (SSD).

Any Aboriginal sites within the study area are afforded legislative protection under the NPW Act.

It is noted there are no Commonwealth or National heritage listed places within the study area, and as such, the heritage provisions of the EPBC Act and other Commonwealth Acts do not apply.

2.4 ASSESSMENT APPROACH

The current assessment follows the *Code of Practice for the Investigation of Aboriginal Objects in New South Wales* (Code of Practice; DECCW 2010).

Field assessment and reporting followed the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011).

2.5 PURPOSE AND OBJECTIVES

The purpose of the current study is to identify and assess heritage constraints relevant to the proposed works.

2.5.1 Aboriginal archaeological assessment objectives

The current assessment will apply the Code of Practice in the completion of an Aboriginal archaeological assessment to meet the following objectives:

<u>Objective One</u>: Undertake background research on the study area to formulate a predicative model for site location within the study area

Objective Two: Identify and record objects or sites of Aboriginal heritage significance within

the study area, as well as any landforms likely to contain further

archaeological deposits

Objective Three: Assess the likely impacts of the proposed work to Aboriginal cultural

heritage and provide management recommendations.

2.6 REPORT COMPLIANCE WITH THE CODE OF PRACTICE

The Code of Practice establishes requirements that should be followed by all archaeological investigations where harm to Aboriginal objects may be possible. **Table 2-1** tabulates the compliance of this report with the requirements established by the Code of Practice.

Table 2-1: Report compliance with the Code of Practice.

Code of Practice Requirement	Context of the Requirement	Concordance in this report
Requirement 1	Review previous archaeological work	See subheadings below
Requirement 1a	Previous archaeological work	Section 5.2
Requirement 1b	AHIMS searches	Section 5.3.1
Requirement 2	Review the landscape context	Section 3
Requirement 3	Summarise and discuss the local and regional character of Aboriginal land use and its material traces	Section 5.4
Requirement 4	Predict the nature and distribution of evidence	See subheadings below
Requirement 4a	Predictive model	Section 5.4
Requirement 4b	Predictive model results	Section 5.4.5
Requirement 5	Archaeological survey	See subheadings below
Requirement 5a	Survey sampling strategy	Section 6.1
Requirement 5b	Survey requirements	This Requirement was fulfilled during the undertaking of the survey
Requirement 5c	Survey units	Section 6.1
Requirement 6	Site definition	Section 5.4.5
Requirement 7	Site recording	See subheadings below
Requirement 7a	Information to be recorded	Not applicable to this report as no new sites were recorded.
Requirement 7b	Scales for photography	All artefact photographs employed a centimetre scale bar.
Requirement 8	Location information and geographic reporting	See subheadings below
Requirement 8a	Geospatial information	All artefact locations were logged using a non-differential handheld GPS.
Requirement 8b	Datum and grid coordinates	All coordinates are provided in GDA Zone 55.
Requirement 9	Record survey coverage data	Section 6.3
Requirement 10	Analyse survey coverage	Section 6.3
Requirement 11	Archaeological Report content and format	This report adheres to this Requirement.
Requirement 12	Records	OzArk undertakes to maintain all survey records for at least five years.
Requirement 13	Notifying OEH and reporting	See subheadings below

Code of Practice Requirement	Context of the Requirement	Concordance in this report
Requirement 13a	Notification of breaches	Not applicable
Requirement 13b	Provision of information	Not applicable
Requirement 14	Test excavation which is not excluded from the definition of harm	The test excavation did not take place in any of the landforms identified in Requirement 14.
Requirement 15	Pre-conditions to carrying out test excavation	See subheadings below
Requirement 15a	Consultation	Consultation has included the ACHCRs, see Section 4 .
Requirement 15b	Test excavation sampling strategy	Not applicable
Requirement 15c	Notification Not applicable	
Requirement 16	Test excavation that can be carried out in accordance with this Code	See subheadings below
Requirement 16a	Test excavations	Not applicable
Requirement 16b	Objects recovered during test excavations	Not applicable
Requirement 17	When to stop test excavations	Not applicable

3 LANDSCAPE CONTEXT

An understanding of the environmental contexts of a study area is requisite in any Aboriginal archaeological investigation (DECCW 2010). It is a particularly important consideration in the development and implementation of survey strategies for the detection of archaeological sites. In addition, natural geomorphic processes of erosion and/or deposition, as well as humanly activated landscape processes, influence the degree to which these material culture remains are retained in the landscape as archaeological sites; and the degree to which they are preserved, revealed and/or conserved in present environmental settings.

3.1 TOPOGRAPHY

The study area is located at the eastern edge of the NSW South Western Slopes bioregion, specifically, the Inland Slopes sub-bioregion. The South Western Slopes bioregion extents from Albury in the south to Dunedoo in the north. The topography of the addendum study area consists of gentle to moderate slopes intersected with minor drainage lines (**Figure 3-1**). The landform types have been categorised into gentle to moderate slopes and drainage lines (see **Figure 3-2**).

3.2 GEOLOGY AND SOILS

The majority of the addendum study area falls within the Cope Hills Granite landscape as characterised by Mitchell (2002). This landscape generally consists of undulating and rolling hills on Carboniferous period granite and granodiorite and has a general elevation between 500–740 metres (m). Soils are generally a gritty gradational red earth with red texture-contrast soils. Smaller sections along Blue Spring Road, falls within the Talbragar–Upper Macquarie Terrace Sands and Gravels landscape (Mitchell 2002). The general elevation of these areas is usually between 350–500 m. The soils are generally red-brown and red-yellow earthy sands with some yellow texture-contrast soils on the valley margins.

3.3 HYDROLOGY

The addendum study area is adjacent to Copes Creek, which is located on the eastern side of Blue Spring Roads. A minor creek, Gum Creek intersects the eastern access track easements. Pine Creek is approximately 190 m north (at its closest point) to the western access track easement.

3.4 VEGETATION

The vegetation inside the Blue Springs Road corridor consists of regrowth vegetation with some mature native trees present. The eastern and western access track easements consisted primarily of grasses or weeds.

3.5 CLIMATE

This bioregion is characterised by hot summers and no dry season, with more temperate climates appearing at higher elevations. The mean annual temperature is 11–17 degrees Celsius and the mean annual rainfall is 360–1266 millimetres (mm).

3.6 LAND-USE HISTORY AND EXISTING LEVELS OF DISTURBANCE

Blue Springs Road is an existing sealed road, while the access track easements are primarily used for grazing modified or native pastures. Parts of the access track easements have also been used for limited cropping. The southern section of Blue Springs Road is inside the extent of the historic Gulgong Gold Field, though is located along the former gold fields eastern border and as such s unlikely to have been used for gold mining purposes. The north option of the eastern access easements is an existing TransGrid 330 kilovolt (kV) transmission line easement.

3.7 CONCLUSION

The topography, hydrology and climate of the general area would have been conducive to occupation and use by Aboriginal people. This was confirmed during the main assessment of the project area (OzArk 2020).

The historic and ongoing use of the land for grazing purposes and as a road corridor, means that any Aboriginal sites located within the addendum study area are likely to have been at least partially disturbed.

Figure 3-1: Topography of the study area.







2. View of an ephemeral drainage line within the study area.

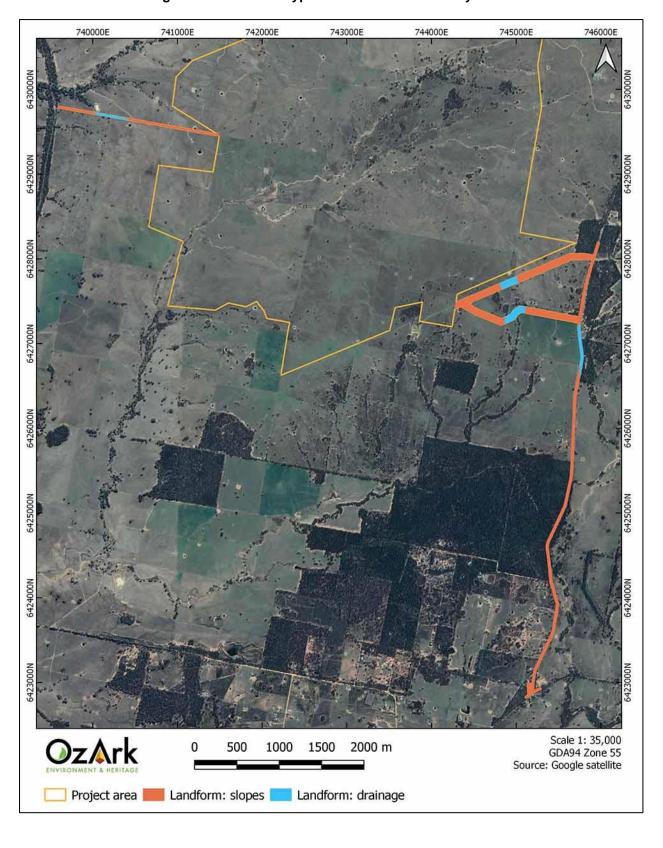


Figure 3-2: Landform types of the addendum study area.

4 ABORIGINAL COMMUNITY CONSULTATION

4.1 ABORIGINAL COMMUNITY CONSULTATION

The Aboriginal cultural heritage assessment of the proposal has followed the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (ACHCRs) (DECCW 2010b). Consultation pertaining to this addendum ACHAR is included as **Appendix 1 Figure 1**.

The ACHCRs include four main stages and these are summarised in the following sections and are detailed in full in OzArk 2020.

4.1.1 ACHCRs Stage 1

The aim of Stage 1 is to identify the Registered Aboriginal Parties (RAPs) who wish to be consulted about the proposal. Stage 1 concluded on 2 July 2020.

These groups or individuals constitute the RAPs for the project.

- Muronggialinga
- Wellington Valley Wiradjuri Aboriginal Corporation (WVWAC)
- Paul Brydon
- Corroboree Aboriginal Corporation (CAC)
- Gallanggabang Aboriginal Corporation (GAC)
- Gunjeewong Cultural Heritage Aboriginal Corporation (GCHAC)
- Mudgee Local Aboriginal Land Council (MLALC)
- Warrabinga Native Title Claimants Aboriginal Corporation
- North-Eastern Wiradjuri

4.1.2 ACHCRs Stages 2 & 3

The aim of Stages 2 and 3 is provide information about the proposal to the RAPs and to acquire information regarding Aboriginal cultural values associated with the proposal either through consultation and/or field work. Often these two stages are run together, and the detailed project information is provided in the assessment methodology that is issued to all RAPs for their consideration.

On 7 July 2020 RAPs were sent information about the project and a copy of the assessment methodology. RAPs were provided the stipulated 28 days in which to review and comment on these documents as per Stage 3 of the ACHCRs. The closing date for comment was 4 August 2020. Comments on the assessment methodology and any responses are summarised in the original ACHAR (OzArk 2020: 17).

4.1.3 ACHCRs Stage 4

Stage 4 involves the production of a draft ACHAR that is issued to all RAPs for their consideration. The ACHAR will document the results of the assessment, outline opportunities for the conservation of Aboriginal cultural values, and suggest recommendations for the management of Aboriginal objects should impacts to these objects be unavoidable.

The draft ACHAR was sent to all RAPs on 27 October 2020, with a closing date of 24 November 2020. Comments on the ACHAR and any responses are summarised in the report (OzArk 2020: 18).

4.1.4 Addendum study areas

A project update letter was sent to all RAPs informing them of the addendum study areas (road upgrade and access tracks) and survey methodology which will be used to assessed them. A copy of the letter sent is included as **Appendix 1 Figure 2**. A log of all correspondence in relation to the addendum study areas is provided in **Appendix 1 Figure 1**.

4.2 ABORIGINAL COMMUNITY INVOLVEMENT IN THE ASSESSMENT

The field survey was undertaken 15–16 April 2021. The following RAPs or representatives of RAPs participated in the fieldwork as site officers:

- Steven (George) Flick (Muronggialinga) 15 April 2021
- Brenda Waters (WVWAC and GAC) 15 April 2021
- Tammy Peterson (MLALC) 16 April 2021
- Lincoln Pennell (Warrabinga Native Title Claimants Aboriginal Corporation) 16 April 2021

4.2.1 Comments arising from the assessment

No specific cultural values were shared during the field assessment, except for the observation that every site and artefact is important to Aboriginal people. There were multiple discussions during the field assessment concerning archaeological potential and which areas of the study area were most likely to contain sites. The discussions concluded that there were high levels of disturbance in the addendum study areas and that large sites were unlikely to be identified.

5 ABORIGINAL ARCHAEOLOGY BACKGROUND

5.1 ETHNO-HISTORIC SOURCES OF REGIONAL ABORIGINAL CULTURE

At the time of European settlement, the study area was situated within the territory of people belonging to the *Wiradjuri* tribal and linguistic group (Tindale 1974). The Wiradjuri tribal area is situated within the Murray Darling Basin and extends across three general physiographic regions: the highlands or central tablelands in the east, the riverine plains in the west, and the transitional western slopes zone in-between (Navin Officer 2005: 48).

The Wiradjuri is one of the largest language groups within New South Wales extending across the districts of Mudgee, Bathurst, Dubbo, Parkes, West Wyalong, Forbes, Orange, Junee, Cowra, Young, Holbrook, Wagga Wagga, Narrandera, Griffith, and Mossgiel (Tindale, 1974). While the area was noted to have a single basic language, various dialects could be found throughout the region (Tindale 2000). The study area is located within the central tablelands and on the eastern margin of the Wiradjuri territory.

Oral tradition records the presence of over 20 clans within the broader Bathurst–Mudgee region, organised according to matrilineal descent (Navin Officer 2005: 48). Clans were made up of a number of fairly independent groups, of up to 20 members, in friendly contact with each other, moving separately for much of the year over a shared territory (Pearson 1981; Haglund 1985).

Within the Wiradjuri region, the presence of Aboriginal people in the Darling Basin has been dated to 40,000 years ago (Hope 1981 as cited in Haglund 1985). A spread east into the mountains is thought to have occurred between 14,000 to 12,000 years ago.

5.2 REGIONAL ARCHAEOLOGICAL CONTEXT

OzArk (2020) provides a summary of the regional archaeological context.

5.3 LOCAL ARCHAEOLOGICAL CONTEXT

5.3.1 Desktop database searches conducted

A desktop search was conducted on the following databases to identify any potential previously recorded heritage within the vicinity of the project area. The results of this search are summarised in **Table 5-1** and presented in detail in **Appendix 2**.

Table 5-1: Aboriginal cultural heritage: desktop-database search results.

Name of Database Searched	Date of Search	Type of Search	Comment
Commonwealth Heritage Listings	12 June 2020	Mid-Western Regional Council LGA	No places listed on either the National or Commonwealth heritage lists are located within the study area
National Native Title Claims Search	12 June 2020	NSW	One Native Title Claim covers the study area: Warrabinga- Wiradjuri #7

Name of Database Searched	Date of Search	Type of Search	Comment
AHIMS	12 June 2020	6 x 6 km centred on the study area	63 AHIMS sites were recorded within the vicinity but only two occur within the study area.
Local Environmental Plan (LEP)	12 June 2020	Mid-Western Regional LEP of 2012	None of the Aboriginal places noted occur near the study area.

As per **Table 5-1**, it is noted that the study area includes land currently subject to Native Title Claim (NC2018/002, NSD857/2017, Warrabinga-Wiradjuri #7).

The addendum study area was included in the search of the Aboriginal Heritage Information Management System (AHIMS) database on 12 June 2020 returned 63 records for Aboriginal heritage sites within a 6 km radius search area around the project area (GDA Zone 55 Eastings: 734662–751633; Northings: 6420682–6437259 with no buffer) (see **Table 5-2** and **Figure 5-1**).

The most frequent site type in the vicinity of the project area is artefact scatters (49%), isolated finds (17%), and isolated finds with PAD (11%). Axe grinding grooves and / or waterholes and wells (3%), burial/s (3%) and shelters with deposit (3%) are slightly more frequently recorded than the remaining site types. Aboriginal resource and gathering with PAD, art sites with either an artefact scatter or grinding grooves, modified trees, PADs, and stone arrangements, only occur once each within the designated search area (**Table 5-2**).

Table 5-2: Site types and frequencies of AHIMS sites near the addendum study area.

Site Type	Number	% Frequency
Artefact scatter	31	49
Isolated find	11	17
Isolated find and PAD	7	11
Axe grinding groove	2	3
Axe grinding groove and/or waterhole/well	2	3
Burial/s	2	3
Shelter with deposit	2	3
Aboriginal resource and gathering and PAD	1	2
Art (pigment / engraving) and artefact scatter	1	2
Art (pigment / engraving) and grinding groove	1	2
Modified tree	1	2
PAD	1	2
Stone arrangement	1	2
Total	63	100

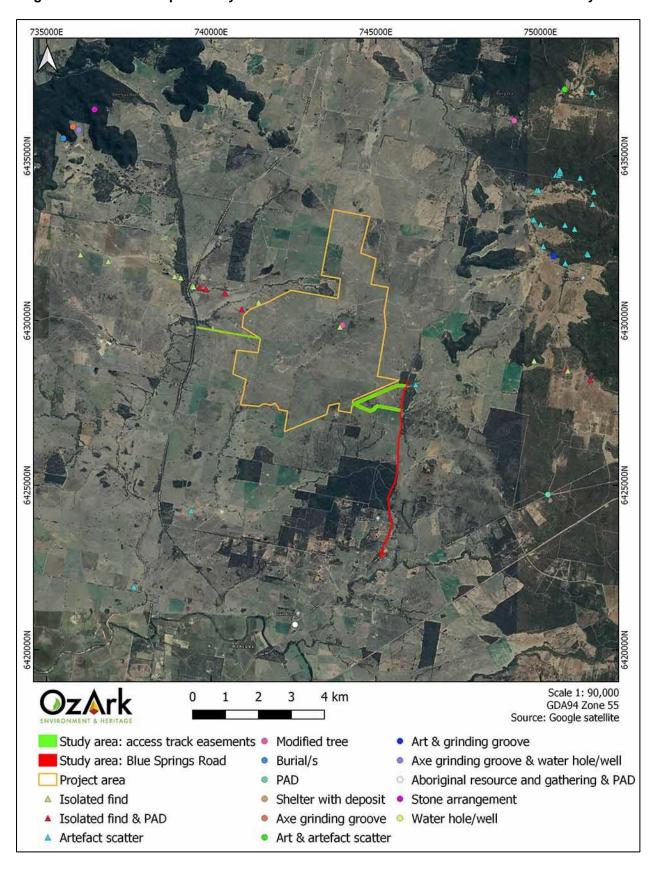


Figure 5-1: Location of previously recorded AHIMS sites in relation to the addendum study area.

5.4 PREDICTIVE MODEL FOR SITE LOCATION

Across Australia, numerous archaeological studies in widely varying environmental zones and contexts have demonstrated a high correlation between the permanence of a water source and the permanence and/or complexity of Aboriginal occupation. Site location is also affected by the availability of and/or accessibility to a range of other natural resources including: plant and animal foods; stone and ochre resources and rock shelters; as well as by their general proximity to other sites/places of cultural/mythological significance. Consequently, sites tend to be found along permanent and ephemeral water sources, along access or trade routes or in areas that have good flora/fauna resources and appropriate shelter.

In formulating a predictive model for Aboriginal archaeological site location within any landscape it is also necessary to consider post-depositional influences on Aboriginal material culture. In all but the best preservation conditions very little of the organic material culture remains of ancestral Aboriginal communities survives to the present. Generally, it is the more durable materials such as stone artefacts, stone hearths, shells, and some bones that remain preserved in the current landscape. Even these, however, may not be found in their original depositional context since these may be subject to either (a) the effects of wind and water erosion/transport—both over short- and long-time scales—or (b) the historical impacts associated with the introduction of European farming practices including grazing and cropping, land degradation, and farm related infrastructure. Scarred trees, due to their nature, may survive for up to several hundred years but rarely beyond.

5.4.1 Settlement strategies

The archaeological studies undertaken within the vicinity of the study area are all development driven, and the spatial distribution of Aboriginal sites recorded during these assessments (see OzArk 2020) are more due to the assessments than due to any type of settlement pattern. However, the general pattern is that most sites are present close to watercourses. A number of Aboriginal sites have been identified in and around the project area, in the vicinity of creeks and drainage lines, as well as remnant vegetation. In relation to the addendum study area itself, the minor creek lines and tributaries would have helped enable occupation, perhaps on a seasonal basis or depending on water flow.

5.4.2 Past land use

Crucial for the preservation of archaeological deposits is the history of past land use in an area. Parts of the addendum study area has been used for sheep and cattle grazing, as well as limited cropping, while Blue Springs Road is an existing road corridor. The effect of grazing on site integrity is negligible, except where cattle and sheep contribute to erosion along the banks of watercourses. Cropping and the use of ploughing, does affect the integrity of archaeological

Aboriginal sites, in particular open camp sites, especially if such sites have potential for subsurface deposits. However, ploughing will usually only affect the top 20 cm of topsoil, and so there is the potential for intact subsurface deposits below the plough-zone.

The clearing of vegetation inside the addendum study area is widespread, including within the road corridor, despite some remnant trees remaining in particular areas. This is likely to have had an impact on any modified trees which may have been present.

5.4.3 Previous studies and recorded sites

The results of past archaeological investigations near the project area and the addendum study area indicates that the most common site type will be stone artefact sites (isolated finds and artefact scatters). Other site types, such as grinding grooves, modified trees and rock shelters are rare or non-existent. Stone artefact sites tend to be associated with elevated level ground associated with water sources, and a number of these sites have also been recorded with PAD. Of the stone artefact sites recorded during previous assessments, quartz is the predominant material for stone artefacts in the area, though volcanic materials, silcrete, quartzite, mudstone, chert, and chalcedony could also be present based on nearby results.

The original assessment of the project area resulted in 23 Aboriginal sites being recorded and two previously recorded AHIMS sites being located. The majority of sites recorded inside the project area are artefact scatters or isolated finds, some of which also had PAD associated with them. As such, the most likely site type to be recorded inside the addendum study area are artefact scatters.

5.4.4 Landform modelling

Preliminary landform modelling (**Figure 3-2**) shows that the addendum study area is intersected with several drainage lines. The overall topography of the addendum study area is gentle to moderate slopes. Based on the original assessment (see OzArk 2020: 41), the most likely landform to contain Aboriginal sites is the drainage landforms, followed by the flats and then slopes. Based on landform modelling, the addendum study area could have artefact scatters or isolated finds present, though, if present, are unlikely to be of a high density.

5.4.5 Conclusion

Based on knowledge of the environmental contexts of the study area and a desktop review of the known local and regional archaeological record, the following predictions are made concerning the probability of those site types being recorded within the study area:

<u>Isolated finds</u> may be indicative of the random loss or deliberate discard of a single
artefact, the remnant of a now dispersed and disturbed artefact scatter, or an otherwise
obscured or sub-surface artefact scatter. They may occur anywhere within the landscape
but are more likely to occur in topographies where open artefact scatters typically occur.

- As isolated finds can occur anywhere, particularly within disturbed contexts, it is predicted that this site type could be recorded within the study area. Isolated finds have been recorded in the region and several isolated finds have been previously recorded within the project area.
- Open artefact scatters are defined as two or more artefacts, not located within a rock shelter, and located no more than 50 m away from any other constituent artefact. This site type may occur almost anywhere that Aboriginal people have travelled and may be associated with hunting and gathering activities, short- or long-term camps, and the manufacture and maintenance of stone tools. Artefact scatters typically consist of surface scatters or sub-surface distributions of flaked stone discarded during the manufacture of tools but may also include other artefactual rock types such as hearth and anvil stones. Less commonly, artefact scatters may include archaeological stratigraphic features such as hearths and artefact concentrations which relate to activity areas. Artefact density can vary considerably between and across individual sites. Small ground exposures revealing low density scatters may be indicative of a background scatter rather than a spatially or temporally distinct artefact assemblage. These sites are classed as 'open', that is, occurring on the land surface unprotected by rock overhangs, and are sometimes referred to as 'open camp sites'.

Artefact scatters are most likely to occur on level or low gradient contexts, along the crests of ridgelines and spurs, and elevated areas fringing watercourses or wetlands. Larger sites may be expected in association with permanent water sources.

Topographies which afford effective through-access across, and relative to, the surrounding landscape, such as the open basal valley slopes and the valleys of creeks, will tend to contain more and larger sites, mostly camp sites evidenced by open artefact scatters.

- Stone artefact distributions of variable artefact densities are the most common Aboriginal object found within the region. Regional studies show a general correlation between stone artefact sites and distance to permanent or semipermanent watercourses. It is possible further artefact sites will be present inside the addendum study area. Such sites are most likely to be located on flat elevated landforms adjacent or overlooking main creek lines and tributaries.
- Aboriginal scarred trees contain evidence of the removal of bark (and sometimes wood) in the past by Aboriginal people, in the form of a scar. Bark was removed from trees for a wide range of reasons. It was a raw material used in the manufacture of various tools, vessels and commodities such as string, water containers, roofing for shelters, shields and canoes. Bark was also removed because of gathering food, such as collecting wood boring grubs or creating footholds to climb a tree for possum hunting. Due to the multiplicity of uses and the continuous process of occlusion (or healing) following removal, it is difficult to accurately determine the intended purpose for any example of bark removal. Scarred trees may occur anywhere old growth trees survive. The identification of scars as Aboriginal cultural heritage items can be problematical because some forms of natural trauma and European bark extraction create similar scars. Many remaining scarred trees probably date to the historic period when bark was removed by Aboriginal people for both their own purposes and for roofing on early European houses. Consequently, the distinction between European and Aboriginal scarred trees may not be clear.

- The addendum study area is mostly cleared of vegetation; however, it is possible that culturally modified trees may be present in stands of remnant native vegetation and it is noted that one scarred tree has been previously recorded within the project area.
- Quarry sites and stone procurement sites typically consist of exposures of stone material where evidence for human collection, extraction and/or preliminary processing has survived. Typically, these involve the extraction of siliceous or fine grained igneous and meta-sedimentary rock types for the manufacture of artefacts. The presence of quarry/extraction sites is dependent on the availability of suitable rock formations.
 - There are no rock outcrops present inside the addendum study area. As such, this type is not predicted to be present inside the study area.
- <u>Burials</u> are generally found in soft sediments such as aeolian sand, alluvial silts and
 rock shelter deposits. In valley floor and plains contexts, burials may occur in locally
 elevated topographies rather than poorly drained sedimentary contexts. Burials are also
 known to have occurred on rocky hilltops in some limited areas. Burials are generally
 only visible where there has been some disturbance of sub-surface sediments or where
 some erosional process has exposed them.
 - Given the topography, and the nature of the soils which are likely to have a high frequency of quartz gravels, burials are not predicted to be present in the study area.

6 RESULTS OF ABORIGINAL ARCHAEOLOGICAL ASSESSMENT

6.1 SAMPLING STRATEGY AND FIELD METHODS

Standard archaeological field survey and recording methods were employed in this study (Burke & Smith 2004). The survey areas and landforms are summarised in **Table 6-1**. The road corridor of Blue Springs Road is Survey Area 1, the eastern access easements are Survey Area 2, and the western access easement is Survey Area 3.

Due to the relatively small addendum study area, all landforms were surveyed. Survey transects were approximately 30 m wide along Blue Springs Road, with surveyors at 10 m intervals, excluding the road surface. Survey transects were narrower where visibility was higher and in areas of higher archaeological potential (i.e. near watercourses).

Survey transects at the eastern access easements were 60 m wide, with surveyors spaced at 20 m intervals as per RAP feedback on the assessment methodology and as conducted during the main assessment. The western access route is narrower, allowing survey transects of 15 m width with surveyors spaced every 5 m. The pedestrian survey effort is shown in **Figure 6-1**, though note the track log shown is only of one of the surveyors.

Survey Area Hectares (ha) Landforms

1 18 Slopes, drainage
2 22 Slopes, drainage
3 Slopes, drainage

Table 6-1: Survey areas and landforms.

6.2 PROJECT CONSTRAINTS

There were no significant constraints in completing the archaeological assessment of the study area. The main project constraint was the ground surface visibility (GSV) being hampered due to grass and vegetation.

6.3 EFFECTIVE SURVEY COVERAGE

Two of the key factors influencing the effectiveness of archaeological survey are ground surface visibility (GSV) and ground surface exposure (GSE). These factors are quantified to ensure that the survey data provides adequate evidence for the evaluation of the archaeological materials across the landscape. For the purposes of the current assessment, these terms are used in accordance with the definitions provided in the Code of Practice.

GSV is defined as:

... the amount of bare ground (or visibility) on the exposures which might reveal artefacts or other archaeological materials. It is important to note that visibility, on its own, is not a reliable indicator of the detectability of buried archaeological material. Things like

vegetation, plant or leaf litter, loose sand, stone ground or introduced materials will affect the visibility. Put another way, visibility refers to 'what conceals' (DECCW 2010: 39).

GSE is defined as:

... different to visibility because it estimates the area with a likelihood of revealing buried artefacts or deposits rather than just being an observation of the amount of bare ground. It is the percentage of land for which erosion and exposure was sufficient to reveal archaeological evidence on the surface of the ground. Put another way, exposure refers to 'what reveals' (DECCW 2010: 37).

Table 6-2 calculates the effective survey coverage within the study area. In general, **Table 6-2** presents an approximation of the amount of ground surface able to be seen at any location within particular landform units. For example, at any one location within the slopes landforms of the study area approximately 10-30% of the ground surface could be seen. Exposures in these landforms were generally confined to the edges of drainage lines. The amount of visible ground increased in the road corridor and transmission line easement. Visibility within these areas was hampered by leaf litter and gravel road base. Drainage landforms often contained sizeable exposures where the soils had been depleted by erosion.

Effective Coverage Effective Coverage % Area (sq m) (= Survey (= Effective Coverage Survey Survey Unit Visibility **Exposure** Unit Area x Visibility Area / Survey Unit Unit Landform Area (sq m) % % % x Exposure %) Area x 100) Slopes, drainage 180 000 50 30 28 200 15 1 Slopes, 2 220 000 25 10 5 500 2.5 drainage Slopes, 3 drainage 3 000 30 10 90

Table 6-2: Effective survey coverage within the study area.

Table 6-3 demonstrates that the survey efficacy did not change significantly depending on landform. The most archaeologically sensitive areas (i.e. within proximity to a drainage line) were surveyed with higher efficiency, due to the higher GSV present caused by erosion.

Table 6-3: Effective survey coverage and incidences of site recording.

Landform	Landform area (sq m)	Area Effectively Surveyed (sq m) (= Effective Coverage Area)	% of Landform Effectively Surveyed (= Area Effectively Surveyed / Landform x 100)	Number of Sites	Number of Artefacts or Features
Slopes	379 000	22 740	6.3	0	0
Drainage	32 000	3 200	10	0	0

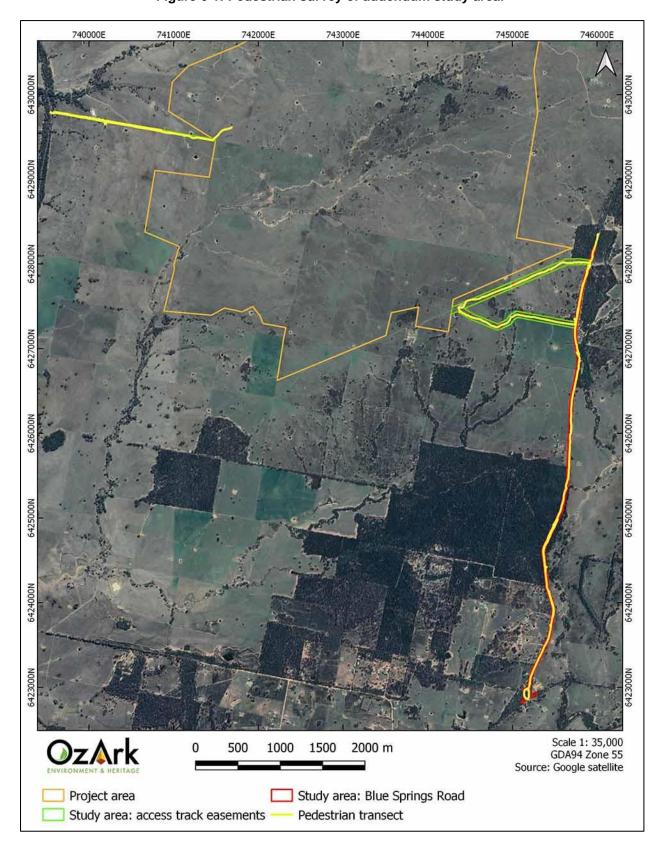


Figure 6-1: Pedestrian survey of addendum study area.

7 DISCUSSION

7.1 DISCUSSION OF SURVEY RESULTS

7.1.1 Summary of survey results

No Aboriginal sites or previously recorded sites were identified during the pedestrian survey of the addendum study area. As such, **Figure 7-1**: Consolidated survey results reproduces the Aboriginal heritage sites recorded during the OzArk 2020 survey to represent all identified Aboriginal heritage sites at the project area.

7.1.2 Discussion

The regional studies, predictive model, and assessment of the project area (OzArk 2020) suggested that artefact scatters and isolated finds would be the most common site type recorded. However, no sites were identified during the survey of the addendum study area. Most of the addendum study area has been previously cleared of vegetation, and the remaining stands of vegetation consist mostly of regrowth with a few mature native trees. None of the mature native trees showed signs of cultural modification. The absence of stone quarries and grinding grooves is attributable to the absence of suitable rock outcropping within the addendum study area.

During the project area assessment (OzArk 2020), Aboriginal sites were predominately recorded in close association with Stubbo Creek or its tributaries. Few sites, especially the more extensive archaeological sites with higher density scatters and larger PADs, were recorded away from these water sources. As the addendum study area is further away from Stubbo Creek and its tributaries, the likelihood of sites decreases, especially as the drainage lines which are near the addendum study area are minor in nature.

The previous disturbance through the addendum study area relates predominately to farming practices, with fences, vehicle tracks, vegetation clearance, and dam construction all causing localised areas of higher disturbance. The existing road corridor of Blue Springs Road has been previously disturbed through the construction and ongoing maintenance of the road. Such disturbances are likely to have already impacted any Aboriginal sites, if they had been present, in the addendum study area.

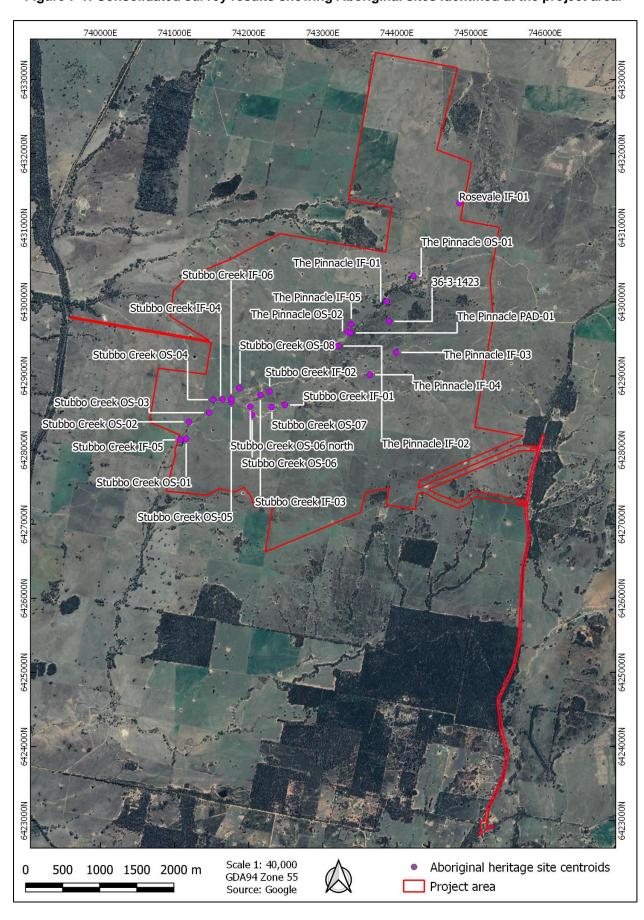


Figure 7-1: Consolidated survey results showing Aboriginal sites identified at the project area.

8 Management of Aboriginal Cultural Heritage Sites

8.1 GENERAL MANAGEMENT PRINCIPLES

Appropriate management of cultural heritage items is primarily determined based on their assessed significance as well as the likely impacts of the proposed development. The following management options are general principles, in terms of best practice and desired outcomes, rather than mitigation measures against individual site disturbance.

- Avoid impact by altering the development proposal or in this case by avoiding impact to a
 recorded Aboriginal site. If this can be done, then a suitable curtilage around the site must
 be provided to ensure its protection both during the short-term construction phase of
 development and in the long-term use of the area. If plans are altered, care must be taken
 to ensure that impacts do not occur to areas not previously assessed.
- If impact is unavoidable then appropriate management of the site/object will be determined through policies set out in an *Aboriginal Cultural Heritage Management Plan* (ACHMP). The ACHMP should include measures for site conservation, as well as detailing methods for the management of sites to be impacted. The management will depend on many factors including the assessed significance of the sites (see OzArk 2020: 91–93). In certain instances, a site may have low archaeological, aesthetic, and historic values but moderate or high cultural value. In these cases, management is aimed to mitigate the loss of the cultural heritage values, rather than the loss of the scientific values. Sites of low scientific significance, such as an isolated find, could, from an archaeological perspective, be removed/destroyed with no further archaeological management being required. However, given the site's cultural value, further management in respect to this site type will be recommended here. For example, due to a site's cultural values, the local Aboriginal community may wish to collect or relocate artefacts, whether temporarily or permanently, and such management will form part of the ACHMP. The ACHMP will be developed in consultation between the proponent, RAPs and DPIE.

8.2 Management and mitigation of recorded Aboriginal sites

No Aboriginal sites were identified during the assessment of the addendum study area. As such, the addendum study area should be included in the ACHMP which will detail the processes for managing unanticipated Aboriginal heritage items or potential human remains encountered during the life of the project.

OzArk Environment & Heritage

11		A
HISTORIC	HERITAGE	ASSESSMENT

9 HISTORIC HERITAGE ASSESSMENT: BACKGROUND

9.1 Brief History of Gulgong

Early European exploration of the region occurred in the 1820s. One of the first land holders and cattle runs in the area was owned by the sons and grandsons of William Cox, who had built the road across the Blue Mountains (ABD 2020). Their cattle run was called 'Guntawang' and was established 1822, 8 km south-west of the present town site of Gulgong.

Conflict with the local Wiradjuri groups, however, soon caused the withdrawal of these early settlers (OzArk 2005). The homestead is still occupied and registered as a Commonwealth and State heritage item. The Rouse brothers took over Guntawang and brought cattle to the property in 1825 and the area eventually became the village of Guntawang.

The Gulgong goldfield was gazetted in 1866 but initial finds were negligible. One of Rouse's shepherds, Tom Saunders, uncovered a large find on the future town site (at Red Hill) on April 14, 1870, thereby sparking a major goldrush.

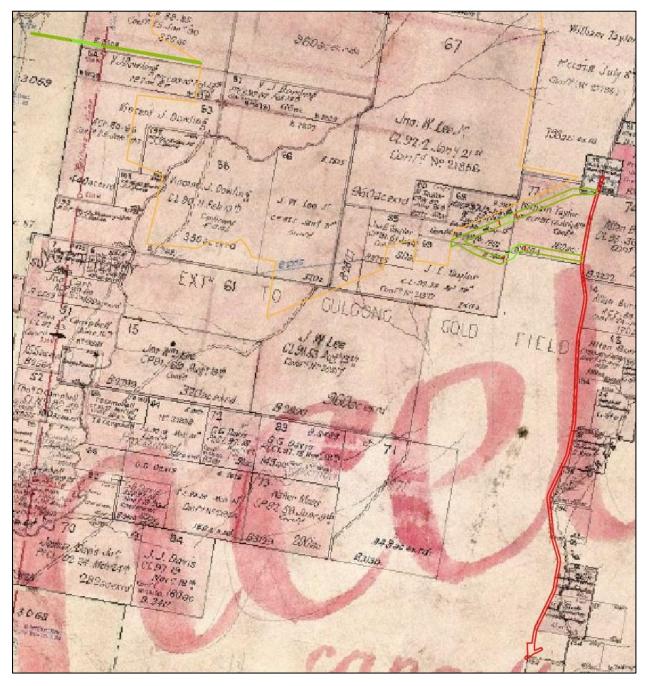
There was spectacular growth in Gulgong during the 1870s, with the mines around Gulgong producing twice as much gold as the Meroo field produced over half a century in 1872 (DUAP 1996: 92). When the town was gazetted in 1872 there were reputedly 20,000 people in the area.

Gulgong became a municipality in 1876 although the gold had already begun to dwindle. By 1881 the population was 1,212 and the boom years were over. From that point, wheat and wool production, boosted by the arrival of the railway in 1909, sustained the town.

The 1886 parish maps of Stubbo (**Figure 9-1**) show that William Taylor and J.L Taylor owned much of the land the eastern access easement is located on, while the western access easement was a Travelling Stock Route (TSR) with the rest owned by Henry D. Lee. The southern portion of Blue Springs Road extends into the northern extension of the Gulgong gold field.

The current day township of Gulgong is well known for its historic streetscape and association with gold mining. The township has approximately 130 National Trust listed buildings, as well as Australia's oldest operating opera house (the Prince of Wales Opera House), and many museums relating to the gold rush and pioneer history of the town. For further information see the 'social impact section' in the main EIS report.

Figure 9-1: Stubbo Parish Map 1886 with addendum study area overlayed in red (Blue Springs Road) and green (access track easements).



9.2 LOCAL CONTEXT

9.2.1 Desktop database searches conducted

A desktop search was conducted on the following databases to identify any potential previously recorded heritage within the vicinity of the project area. The results of this search are summarised in **Table 11-1**. The addendum study area is included in the former searches.

Table 9-1: Historic heritage: desktop-database search results.

Name of Database Searched	Date of Search	Type of Search	Comment
National and Commonwealth Heritage Listings	1 12 June 2020 Commonwealth Heritage List		No items within 10 km of the study area.
State Heritage Register (SHR)	12 June 2020	NSW	No items within 5 km of the study area. The closest listing 8.3 km southwest is the Gulgong Railway Bridge over Wialdra Creek
Historic Heritage Information Management System (HHIMS)	12 June 2020	NSW	No items within 10 km of the study area.
Local Environmental Plan (LEP)	12 June 2020	Mid-Western LEP of 2012	No items within 10 km of the study area.

A search of the Heritage Council of NSW administered heritage databases and the Mid-Western LEP 2012 returned no records for historical heritage sites within the designated search areas.

The closest item listed on the SHR is the Gulgong Railway Bridge over Wialdra Creek located 8.6 km southwest of the addendum study area. The closest LEP historic item is The Lagoon Homestead located 10.8 km southwest of the addendum study area.

9.3 SURVEY METHODOLOGY

Standard archaeological field survey and recording methods were employed in this study (Burke & Smith 2004). The historic heritage assessment of the addendum study area was completed concurrently with the Aboriginal cultural heritage assessment (see **Section 6**).

9.4 PROJECT CONSTRAINTS

There were no significant constraints in completing the archaeological assessment of the addendum study area. GSV posed the greatest constraint during field inspection (see **Section 6.3**), however, not to the extent that the efficacy of the survey was unduly diminished.

10 RESULTS OF HISTORIC HERITAGE ASSESSMENT

10.1 HISTORIC HERITAGE SITES

There are no historic sites recorded within the study area. As such, there will be no impact to any historic sites during the proposed works.

10.2 DISCUSSION

Overall, there was limited potential for historic heritage to be present inside the study area. The heritage values associated with the study area are derived from practices which are unlikely to have physical remains such as grazing. As such, potential remaining physical fabric such as cattle yards, fencing, etc. have been upgraded throughout the use of the study area and no historic remnants were recorded during the survey. In addition, no areas of potential historical deposits were identified during the survey. The structures which make up The Pinnacle homestead are also not of historic heritage significance.

10.3 LIKELY IMPACTS TO HISTORIC HERITAGE FROM THE PROJECT

The project will not impact any historic heritage.

11 Management and Mitigation: Historic Heritage

11.1 GENERAL PRINCIPLES FOR THE MANAGEMENT OF HISTORIC SITES

Appropriate management of heritage items is primarily determined based on their assessed significance as well as the likely impacts of the proposed development.

In terms of best practice and desired outcomes, avoiding impact to any historical item is a preferred outcome, however, where a historical site has been assessed as having no heritage value, impacts to these items does not require any legislated mitigation.

11.2 MANAGEMENT AND MITIGATION OF RECORDED HISTORIC SITES

No items or sites of historic heritage significance were identified in the addendum study area.

As such, if items of historic heritage significance are uncovered during the project, then the *Unanticipated Finds Protocol for Historic Heritage* (**Appendix 3**) must be enacted.

12 RECOMMENDATIONS

12.1 ABORIGINAL CULTURAL HERITAGE

Under Section 89A of the NPW Act it is mandatory that all newly-recorded Aboriginal sites be registered with AHIMS. As a professional in the field of cultural heritage management it is the responsibility of OzArk to ensure this process is undertaken.

To this end it is noted that no Aboriginal sites were recorded during the assessment.

The following recommendations are made based on these impacts and with regard to:

- Legal requirements under the terms of the NPW Act whereby it is illegal to damage, deface or destroy an Aboriginal place or object without the prior written consent of OEH, or its equivalent
- The findings of the current investigations undertaken within the study area
- The interests of the Aboriginal community.

Recommendations concerning Aboriginal cultural values associated with the solar farm access easements and works on Blue Springs Road are as follows:

- Following development consent of the project, the proponent will develop an Aboriginal Cultural Heritage Management Plan (ACHMP) which is to be agreed to by the RAPs and Department of Planning, Industry and the Environment (DPIE). The ACHMP will also include an unanticipated finds protocol, unanticipated skeletal remains protocol and longterm management of any artefacts.
- All land-disturbing activities must be confined to within the development footprint and associated tracks and/or cable crossings. Should the parameters of the proposed work extend beyond this, then further archaeological assessment may be required.

12.2 HISTORIC HERITAGE

The following recommendations are made based on the impacts associated with the solar farm access easements and works on Blue Springs Road and with regard to:

- Legal requirements under the terms of the Heritage Act
- Guidelines presented in the *Burra Charter* (Australia ICOMOS 2013)
- The findings of the current assessment
- The interests of the local community.

No historic heritage items are located inside the study area.

Recommendations concerning the historic values within the addendum study area are as follows:

- 1. Should development consent for the project be granted, archaeological management strategies to manage and mitigate the impact of the solar farm development are set out in **Section 11.2**.
- Following development consent of the project, an unanticipated finds protocol for historic
 heritage must be developed and then used during the construction and ongoing use of
 the project. If items of historic heritage significance are uncovered during the project,
 then the *Unanticipated Finds Protocol for Historic Heritage* will be enacted
 (Appendix 3).
- To avoid the potential for harm to historic objects on unassessed adjacent landforms, all
 ground surface disturbing activities must be confined to the development footprint and
 associated tracks and/or cable crossings.

REFERENCES

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Burke & Smith 2004	Burke H. and Smith C. 2004. <i>The Archaeologist's Field Handbook</i> , Blackwell, Oxford.
Burra Charter 2013	International Council on Monuments and Sites 2013. The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance.
DECCW 2010	DECCW. 2010. Aboriginal cultural heritage consultation requirements for proponents. Department of Environment, Climate Change and Water (now OEH).
DECCW 2010b	DECCW. 2010. Code of Practice for the Protection of Aboriginal Objects in NSW. Department of Environment, Climate Change.
DUAP 1996	NSW Heritage Office and the Department of Urban Affairs and Planning. 1996. <i>Regional Histories of NSW</i> . NSW Government Press.
Heritage Council 2006	Heritage Office of the Department of Planning (now OEH). Historical Archaeology Code of Practice.
Heritage Office 2001	Assessing Heritage Significance.
NPWS 2003	National Parkes and Wildlife Service (NSW). 2003. The Bioregions of New South Wales: Their biodiversity, conservation and history, Chapter 10 The South Western Slopes Bioregion.
OEH 2011	Office of Environment and Heritage. 2011. <i>Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in New South Wales</i> . Department of Environment, Climate Change and Water, Sydney.
OzArk 2020	OzArk Environment and Heritage. 2020. Aboriginal Cultural Heritage and Historic Heritage Assessment Report: Stubbo Solar Farm, Mid-Western Regional Council Local Government Area, NSW. Report to UPC\AC
Tindale 1974	Tindale NB. 1974. The Aboriginal Tribes of Australia. ANU Press, Canberra.
Tindale 2000	Tindale NB. 2000. Wiradjuri. In Tindale's Catalogue of Australian Aboriginal Tribes. South Australian Museum on South Australian Museum Website, South Australia.

APPENDIX 1: ABORIGINAL COMMUNITY CONSULTATION

Appendix 1 Figure 1: Aboriginal Consultation Log (addendum report only).

Date	Organisation	Comment	Method	
		Addendum study areas	I	
29.3.21	Muronggialinga	Rebecca Hardman (RH) sent project update letter	Email	
29.3.21	Wellington Valley Wiradjuri Aboriginal Corporation	RH sent project update letter	Email	
29.3.21	Gallanggabang Aboriginal Corporation	RH sent project update letter	Email	
29.3.21	Mudgee Local Aboriginal Land Council	RH sent project update letter	Email	
29.3.21	Paul Brydon	RH sent project update letter	Email	
29.3.21	Corroboree Aboriginal Corporation	RH sent project update letter	Email	
29.3.21	Gunjeewong Cultural Heritage Aboriginal Corporation	RH sent project update letter	Email	
29.3.21	Warrabinga Native Title Claimants Aboriginal Corporation	RH sent project update letter	Email	
29.3.21	North-Eastern Wiradjuri	RH sent project update letter	Email	
31.3.21	Muronggialinga	RH sent invite to fieldwork	Email	
31.3.21	Wellington Valley Wiradjuri Aboriginal Corporation	RH sent invite to fieldwork	Email	
31.3.21	Mudgee Local Aboriginal Land Council	RH sent invite to fieldwork	Email	
31.3.21	Warrabinga Native Title Claimants Aboriginal Corporation	RH sent invite to fieldwork	Email	
7.4.21	Wellington Valley Wiradjuri Aboriginal Corporation	RH received confirmation attending	Email	
7.4.21	Wellington Valley Wiradjuri Aboriginal Corporation	RH thanked Brad	Email	
7.4.21	Muronggialinga	RH phoned and left message asking if attending	Phone	
7.4.21	Mudgee Local Aboriginal Land Council	RH phoned and left message asking if attending	Phone	
7.4.21	Warrabinga Native Title Claimants Aboriginal Corporation	RH spoke to Jack, is away at the moment. Thinks Tyronne will attend but will confirm on Monday. RH also asked for workers comp. Jack asked for email to remind	Phone	
7.4.21	Muronggialinga	RH received call back confirming attendance	Phone	
8.4.21	Mudgee Local Aboriginal Land Council	RH phoned - N/A	Phone	
8.4.21	Mudgee Local Aboriginal Land Council	RH sent follow up email	Email	
8.4.21	Mudgee Local Aboriginal Land Council	Tony Lonsdale returned call to Harrison Rochford (HR), confirmed Tammy Peterson 0432 154 058 would attend fieldwork on Fri 16/4	Email	
12.4.21	Warrabinga Native Title Claimants Aboriginal Corporation	RH spoke to Jack, confirmed attendance	Phone	
12.4.21	Warrabinga Native Title Claimants Aboriginal Corporation	RH received workers comp	Email	
12.4.21	Warrabinga Native Title Claimants Aboriginal Corporation	RH thanked Jack and asked for site officer details	Email	

Date	Organisation	Comment	Method
12.4.21	Warrabinga Native Title Claimants Aboriginal Corporation	Jack sent site officer details	Email
15.4.21	Muronggialinga	Steven (George) Flick attended fieldwork	In person
15.4.21	Wellington Valley Wiradjuri Aboriginal Corporation	Brenda Waters attended fieldwork	In person
16.4.21	Mudgee Local Aboriginal Land Council	Tammy Peterson attended fieldwork	In person
16.4.21	Warrabinga Native Title Claimants Aboriginal Corporation	Lincoln Pennell attended fieldwork	In person
20.4.21	North-Eastern Wiradjuri	RH received call to update contact details	Phone
18.4.21	Wellington Valley Wiradjuri Aboriginal Corporation	RH received invoice	Email
18.4.21	Warrabinga Native Title Claimants Aboriginal Corporation	RH received invoice	Email
20.4.21	Mudgee Local Aboriginal Land Council	RH received invoice	Email
20.4.21	Mudgee Local Aboriginal Land Council	RH thanked and advised when next pay run is	Email
20.4.21	Wellington Valley Wiradjuri Aboriginal Corporation	RH thanked and advised when next pay run is	Email
20.4.21	Warrabinga Native Title Claimants Aboriginal Corporation	RH thanked and advised when next pay run is	Email

Appendix 1 Figure 2: Example Project Update letter sent to RAPs.



OzArk Environment & Heritage

Newcastle

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29 March 2021



ADDENDUM PROJECT UPDATE ABORIGINAL CULTURAL HERITAGE ASSESSMENT: STUBBO SOLAR FARM, ROAD UPGRADE & ACCESS TRACKS.

Dear Members,

We wish to apologise for the delay in correspondence and thank-you for your ongoing interest as a Registered Aboriginal Party (RAP) for the proposed Stubbo Solar Farm (the project) located north of Gulgong in central-western NSW.

The purpose of this letter is to update you in relation to the progress of the above-mentioned project. As you are aware, on the 27 October 2020 Stage 4 of the Aboriginal Cultural Heritage Consultation Requirements (ACHCRs) commenced with feedback closing on the 24 November 2020.

Since concluding, the project was on public exhibition which ended 19 February 2021. The proponent is currently preparing a response to submissions based on the responses from the public exhibition. As part of the response to submissions, the proponent has elected to upgrade parts of Blue Springs Road and include it as part of the current project.

As such, Blue Springs Road, which is outside the proposed solar farm boundary has not been surveyed as part of the initial site visits. The road is required to be upgraded from the intersection with Cope Road (to the south) up to 100 metres north of the proposed intersection with the project access point (TransGrid easement), a length of approximately five kilometres. The proposed upgrade of Blue Springs Road will consist of widening the road to a seven metre wide sealed section and a one metre shoulder on each side of the road. In addition, the access track easements from Blue Spring Road and Barneys Reef Road to the solar farm boundary will also be surveyed. These easements are approximately 3.3 kilometres and 2 kilometres in length, respectively. Figure 1 shows the location of the addendum study areas for the project.

The proposed assessment methodology for the road upgrade will consist of pedestrian survey of the proposed impact area of the road upgrade. Where there are mature trees, these will be visually checked

for cultural modifications. There are no previously recorded AHIMS sites inside or adjacent to the addendum study areas. We anticipate that it will take two days with one OzArk heritage specialist and two RAP site officers to complete the pedestrian survey of the addendum study areas.

Should you have any queries in relation to the enclosed information please do not hesitate to contact our office (02 6882 0118).

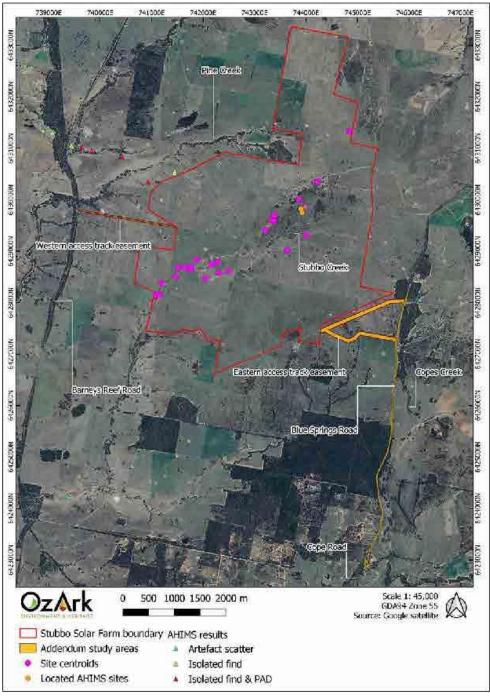
Kind regards,

Alyce Cameron
Senior Archaeologist

Alamonin.

ABORIGINAL HERITAGE ASSESSMENT: STUBBO SOLAR FARM, ROAD UPGRADE.

Figure 1: Addendum study areas.



ABORIGINAL HERITAGE ASSESSMENT: STUBBO SOLAR FARM, ROAD UPGRADE.

Appendix 1 Figure 3: Example of fieldwork invitation.



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31 March 2021



ADDENDUM - ABORIGINAL CULTURAL HERITAGE ASSESSMENT: STUBBO SOLAR FARM, ROAD **UPGRADE & ACCESS TRACKS**

Dear Members,

Thank you for your ongoing interest in this project. As you are aware UPC\AC Renewables Australia (UPC) are proposing to construct and operate the Stubbo Solar Farm and its associated infrastructure including potential for battery storage within a 1,100-hectare (ha) area approximately 10km north of Gulgong in central-western NSW. As part of the project, the proponent has elected to upgrade parts of Blue Springs Road and include it as part of the current project (Figure 1).

OzArk would like to invite you to provide one (1) site officer to participate in the one (1) full day field work, scheduled for Friday 16th April 2021.

FIELD WORK DATE: Friday 16th April 2021

TIME TO MEET: 8am

LOCATION TO MEET: On Site

Intersection of the Cope rd and Blue Springs Road

Stubbo NSW 2852 (Figure 2)

DURATION: One (1) full day

The fee offered is \$ for the full day of participation in the fieldwork for the FEE OFFER:

> experienced Site Officer (excl. GST). This fee is all inclusive of travel, travel time, fuel, accommodation, meal expenses and participation in the field work. Breaks are

not paid.

OZARK FIELD DIRECTOR: Harrison Rochford

NVOICES: Invoices are to be addressed to:

OzArk Environment & Heritage C/- Rebecca Hardman

PO Box 2069 Dubbo, NSW 2830

rebecca@ozarkehm.com.au

PLEASE NOTE. THE ABOVE FIELDWORK MAY BE CANCELLED AT SHORT NOTICE DUE TO CIRCUMSTANCES OUTSIDE OUR CONTROL. SHOULD THIS HAPPEN WE WILL CONTACT YOU AS SOON AS POSSIBLE AND ATTEMPT TO RESCHEDULE FOR A LATER DATE.

COVID-19 REQUIREMENT. YOUR SITE OFFICER WILL BE REQUIRED TO FILL IN AND SIGN THE ATTACHED FORM PRIOR TO ENTERING THE WORK SITE. PLEASE ENSURE THAT YOUR SITE OFFICER WILL BE ABLE TO ANSWER 'NO' TO THE QUESTIONS ON THIS FORM.

You must ensure that you or your representative has enough water and snacks / lunch for the duration of the fieldwork.

Personal Protective Equipment (PPE) - your site officer will need:

- Long pants and long sleeve shirt
- High visibility safety shirt / vest
- Enclosed, sturdy footwear
- Water / Sunscreen / Hat.

You or your representative must be physically fit and will need to identify if you have any medical conditions / allergies that should be known to other people participating in the fieldwork in the event of an emergency. The OzArk field director will send home anyone who they determine to be 'unfit for work' or who may pose a WH&S risk to themselves or others.

Please note, if you are a sending a representative who has any underlying medical conditions or severe allergies, it is important that they have on their person appropriate treatment such as asthma inhalers or EpiPens and notify us accordingly.

As previously noted, due to NSW WH&S legislation we need to have on record current Workers Compensation insurances before going into the field. Unfortunately, we will NOT be able to allow participation in the fieldwork without seeing your current Workers Compensation Certificate of Currency. We currently have on file a copy of your workers compensation.

<u>Please advise our office by Wednesday 7th April 2021, if you are available as well as the name and contact number of the site officer who will participate in the fieldwork.</u> After this date, if we have not heard from you, we will either proceed with the survey with the OzArk archaeologist only or offer this position to other relevant groups.

If you have any feedback or relevant cultural heritage knowledge that you would like to offer, please discuss with the archaeologist during the fieldwork or contact our office.

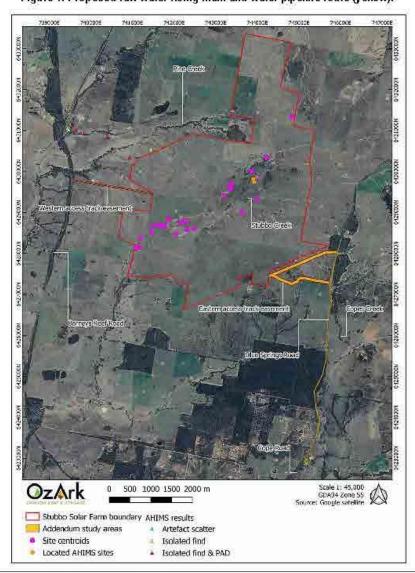
Stubbo Solar Farm, Road Upgrade & Access Tracks

Should you have any queries in relation to the enclosed information please do not he itate to contact our office.

Kind regards,

Rebecca Hardman Office Manager

Figure 1: Proposed raw water rising main and water pipeline route (yellow).



Stubbo Solar Farm, Road Upgrade & Access Tracks





Stubbo Solar Farm, Road Upgrade & Access Tracks

All workers will be required to <u>fill in and sign this form on the morning of the fieldwork</u>. OzArk
will bring copies of the form on the day. The form is reproduced here so that it is understood
what will be required, on acceptance of this fieldwork, please confirm you will be able to
complete this form and answer 'no".



OzArk Environment & Heritage

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Dubbo Cocombeyan Newracie T: 02-6882-0118 enquiry@czarkehm.com.au www.ozerkehm.com.au

145 Wingewarts \$1 PO Box 2059 00660 NSW 2830

COVID-19 RELATED ILLNESS REPORTING FORM

Instructions

- To be completed by all members of an OzArk work crew, including subcontractors and/or community volunteers. All members of the fieldwork team are referred here to as 'workers'.
- If a worker answers Yes to any question below, please send this form to sheridan@ozarkehm.com.au

Date			
Time			
Worke	er riame		
Warke	er mobile number		
Site / I	Location		
Name	of DzArk Field Director		
Quest	tion	Yes	No
1	Have you travelled overseas in the last 14 days?		
2	in the last 14 days, have you travelled domestically from a location that has an active Covid-19 public health order in place?		
3	Have you had contact with a confirmed or suspected case of Covid-19 (Coronavirus)		
4.	Are you experiencing flu like symptoms? Te. fever, sore throat, cough, fatigue, difficulty breathing?		
5.	Do you currently have a fever > 37.3 degrees?		

If my health condition changes at any point during work from the above, I will ensure that I inform the OzArk Fieldwork Director immediately.

Worker Signature	
Date	

If you have answered Yes to 1, 2 or 3, do not enter the workplace, self-isolate as per the relevant current public health order

If you have answered <u>Yes to 4 and 5</u>, do not enter the workplace, contact your GP by phone to arrange a medical assessment.

If you answered No to all of the above, you are able to enter the workplace.

Stubbo Solar Farm, Road Upgrade & Access Tracks

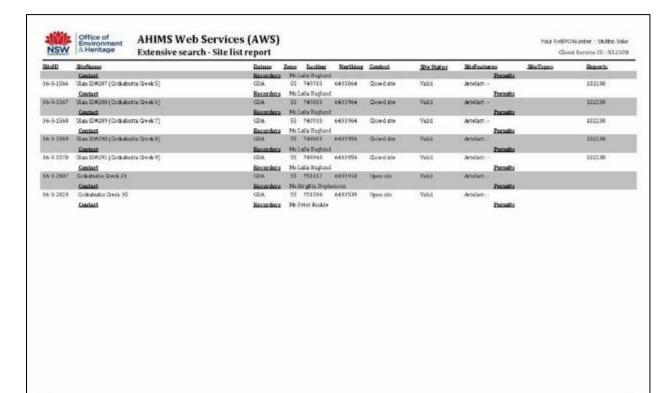
APPENDIX 2: EXTENSIVE AHIMS SEARCH

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16-3-1559	Ulan 10#280 (Cockabutta Co	rek 15]	CDA	55	750603	6434534	Goved stor	Valid	Artifact:-			102138
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Report generated by AHIMS Web Service on 12/06/2020 for Alyce Cameron for the following area at Datum SDA, Zone: 55, Eastings: 734662 · 751633, Northings: 6420682 · 6437259 with a Buffer of 0 meters. Additional Indo: Eacleg cond. modelling etc. Number of Aboriginal sites and Aboriginal objects found is 63.
This observation is not generated to be from trees area remarks. Other of Environment and Northige (NOP) and its employees its data likely for any addition are emission made on the information and enauge-count such

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APPENDIX 3: HISTORIC HERITAGE: UNANTICIPATED FINDS PROTOCOL

A historic artefact is anything which is the result of past activity not related to the Aboriginal occupation of the area. This includes pottery, wood, glass and metal objects as well as the built remains of structures, sometimes heavily ruined.

Heritage significance of historic items is assessed by suitably qualified specialists who place the item or site in context and determine its role in aiding the community's understanding of the local area, or their wider role in being an exemplar of state or even national historic themes.

The following protocol should be followed if previously unrecorded or unanticipated historic objects are encountered:

- 1. All ground surface disturbance in the area of the finds should cease immediately, then:
 - a) The discoverer of the find(s) will notify machinery operators in the immediate vicinity of the find(s) so that work can be halted
 - b) The site supervisor will be informed of the find(s).
- 2. If finds are suspected to be human skeletal remains, then NSW Police must be contacted as a matter of priority.
- 3. If there is substantial doubt regarding the historic significance for the finds, then gain a qualified opinion from an archaeologist as soon as possible. This can circumvent proceeding further along the protocol for items which turn out not to be significant. If a quick opinion cannot be gained, or the identification is that the item is likely to be significant, then proceed to the next step.
- 4. Notify Heritage NSW as soon as practical on 131 555 providing any details of the historic find and its location.
- 5. If in the view of the heritage specialist or Heritage NSW that the finds appear <u>not</u> to be significant, work may recommence without further investigation. Keep a copy of all correspondence for future reference.
- 6. If in the view of the heritage specialist or Heritage NSW that the finds appear to be significant, facilitate the recording and assessment of the finds by a suitably qualified heritage specialist. Such a study should include the development of appropriate management strategies.
- 7. If the find(s) are determined to be significant historic items (i.e. of local or state significance), any re-commencement of ground surface disturbance may only resume following compliance with any legal requirements and gaining written approval from Heritage NSW.