Premise

ACENERGY

Apsley BESS

ABORIGINAL CULTURAL HERITAGE ASSESSMENT

Report No: 221284_ARC_001
Rev: E
12 August 2022

DOCUMENT AUTHORISATION					
Revision	**Revision Date**	**Report Details**			
A	07/04/22	Draft for client review			
B	20/04/22	Update draft comments and issue to RAPs			
C	25/05/22	Final issue to client			
D	29/07/22	Final submission after client changes			
E	12/08/22	Final for lodgement			
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EXECUTIVE SUMMARY

Premise Australia Pty Ltd (Premise) have been commissioned by ACEnergy to complete an Aboriginal Cultural Heritage Assessment Report (ACHAR) to support a State Significant Development Application (SSDA).

ACEnergy is proposing to develop an approximately 160-megawatt (MW) Battery Energy Storage System (BESS) at Lot 3 DP1012686 and Lot 107 DP756920 (otherwise known as 9010 Mitchell Highway, Apsley, NSW, 2820) in the Dubbo Regional Council (DRC) Local Government Area (LGA).

The site has an area of approximately 18.57 hectares (ha), of which 6 ha is to be occupied by the proposed BESS. The development is known as the Apsley Battery Energy Storage System (Apsley BESS) (SSD: 35160796).

Premise Australia Pty Ltd are preparing an Environmental Impact Statement (EIS) for the proposed development and have been engaged by ACEnergy to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) to accompany the EIS. An archaeological field survey was undertaken over a period of one day on 1 December 2021 by a team of 1 archaeologist and 1 Registered Aboriginal Party (RAP) representative.

It was found that:

- No previously recorded Aboriginal Heritage Information Management System (AHIMS) sites were identified within the study area.
- Two newly recorded Aboriginal sites characterised as isolated finds were recorded during the archaeological survey and will be uploaded to the AHIMS database, however, are outside of the impact area:
  - Apsley IF-1
  - Apsley IF -2
- Two previously recorded AHIMS sites are located adjacent to the study area [redacted]).
- The remainder of the study area is considered to have been subject to moderate levels of disturbance. Associated with cropping and grazing. All sections of the study area including the two isolated finds recorded during site survey were found to demonstrate low archaeological potential.
- As part of the proposed works no recorded AHIMS sites will be impacted and there will be no loss of value.

The following recommendations are made:

- No further archaeological investigation is recommended.
- The study area demonstrates low archaeological potential.
- A buffer area is proposed around the two isolated finds recorded during site survey at a distance of 10m.
- If suspected human remains are located during any stage of the proposed works, work must stop immediately, and the NSW Police notified. An Archaeologist or Physical Anthropologist should be contacted in the first instance where there is uncertainty whether the remains are human.
- An unexpected finds procedure must be in place throughout the proposed works, with procedures in place for notification of Heritage NSW, a heritage consultant and RAPs or the Local Aboriginal Land Council (LALC) where unexpected finds are identified.
- If changes are made to the proposed works further archaeological assessment may be required.

ABBREVIATIONS

ACHAR	Aboriginal Cultural Heritage Assessment Report
ACHMP	Aboriginal Cultural Heritage Management Plan
AHIMS	Aboriginal Heritage Information Management System
ACHCRs	Aboriginal Cultural Heritage Consultation Requirements for Proponents.
BESS	Battery Energy Storage System
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. The test excavation program for this assessment was conducted under the Code of Practice.
DECCW	Department of Environment Climate Change and Water
DPE	NSW Department of Planning and Environment
DRC	Dubbo Regional Council
EP&A Act	*Environmental Planning and Assessment Act*
GSE	Ground surface exposure
GSV	Ground surface visibility
ha	Hectares
LALC	Local Aboriginal Land Council
LGA	Local Government Area
M^2	Square meter
MW	Megawatt
NPW Act	NPW Act National Parks and Wildlife Act 1974. Primary legislation governing Aboriginal cultural heritage within NSW.
OEH	Office of 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.
SEARS	Secretary's Environmental Assessment Requirements (
SEPP	State Environmental Planning Policy
SSD	State Significant Development
SSDA	State Significant Development Application

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1. INTRODUCTION

1.1 Project Background

ACEnergy is proposing to develop an approximately 160-megawatt (MW) Battery Energy Storage System (BESS) at Lot 3 DP1012686 and Lot 107 DP756920 (otherwise known as 9010 Mitchell Highway, Apsley, NSW, 2820) in the Dubbo Regional Council (DRC) Local Government Area (LGA).

The site has an area of approximately 18.57 hectares (ha), of which 6 ha is to be occupied by the proposed BESS. The development is known as the Apsley Battery Energy Storage System (Apsley BESS) (SSD: 35160796).

Premise Australia Pty Ltd (Premise) has been commission by ACEnergy to complete an Aboriginal Cultural Heritage Assessment Report (ACHAR) to accompany the Environmental Impact Statement (EIS) and to support the state significant development application.

1.2 Approval Framework

The proposed development will be assessed as State Significant Development (SSD) under Part 2.2 of the State Environmental Planning Policy (Planning Systems) 2021 (Planning SEPP) and is subject to approval by the Department of Planning and Environment (DPE). The project is submitted as a State Significant Development Application (SSDA) under Part 4 Division 4.7 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The Secretary's Environmental Assessment Requirements (SEARs) for the project were issued on 3rd March 2022 (SSD 35160796). The SEARS specify that an Environmental Impact Statement (EIS) must be prepared and include an ACHAR to identify and describe the Aboriginal cultural heritage values that may be impacted by the proposed development.

The SEARs relating to Aboriginal cultural heritage, and where they are addressed in this report, are listed in **Table 1** and are provided in **Appendix A.**

This ACHAR has been prepared in accordance with the following requirements and guidelines:

- SEARs SSD 35160796.
- Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW 2010) (Consultation Requirements).
- Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (Code of Practice; (Department of Environment, Climate Change & Water [DECCW] 2010).
- Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (Office of Environment & Heritage [OEH] 2011) (The ACHAR Guide).
- The Burra Charter (ICOMOS 2013).

Table 1 – Secretary's Environmental Assessment Requirements

SEARS	Requirement	Section
Planning Secretary's Environmental Assessment Requirements – Key Issues (Heritage)	*...an assessment of the impact to Aboriginal cultural heritage items (cultural and archaeological) in accordance with the Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH, 2011) and the Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW (DECCW, 2010), including results of archaeological test excavations (if required);Aboriginal Cultural Heritage Assessment*	**Section 10 -** Aboriginal Cultural Heritage Assessment **Section 12 -** Impact Assessment and Heritage Management
	...provide evidence of consultation with Aboriginal communities in determining and assessing impacts, developing options and selecting options and mitigation measures (including the final proposed measures), having regard to the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010); and	**Section 3 -** Aboriginal Community Consultation
Heritage NSW - Aboriginal Cultural Heritage - SEARs. Reference: DOC22/76204-1	1. *The EIS must identify and describe the Aboriginal cultural heritage values that exist across the whole area that will be affected by the development and document these in an Aboriginal Cultural Heritage Assessment Report (ACHAR). This may include the need for surface survey and test excavation. The identification of cultural heritage values must be conducted in accordance with the Code of Practice for Archaeological Investigation in NSW (DECCW 2010), and be guided by the Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in New South Wales (OEH 2011).*	**Section 10 -** Aboriginal Cultural Heritage Assessment
	2. *Consultation with Aboriginal people must be undertaken and documented in accordance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010). The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented in the ACHAR.*	**Section 3 -** Aboriginal Community Consultation
	3. *Impacts on Aboriginal cultural heritage values are to be assessed and documented in the ACHAR. The ACHAR must demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the EIS must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and notified to Heritage NSW.*	**Section 12 -** Impact Assessment and Heritage Management
	4. *The assessment of Aboriginal cultural heritage values must include a surface survey undertaken by a qualified archaeologist. The result of the surface survey is to inform the need for targeted test excavation to better assess the integrity, extent, distribution, nature and overall significance of the archaeological record. The results of surface surveys and test excavations are to be documented in the ACHAR.*	**Section 8** - Archaeological Survey
	5. *The ACHAR must outline procedures to be followed if Aboriginal objects are found at any stage of the life of the project to formulate appropriate measures to manage unforeseen impacts.*	**Section 12 -** Impact Assessment and Heritage Management

SEARS	Requirement	Section
	6. The ACHAR must outline procedures to be followed in the event Aboriginal burials or skeletal material is uncovered during construction	**Section 12 -** Impact Assessment and Heritage Management
	NOTE: The process described in the Due Diligence Code of Practice for the protection of Aboriginal objects in NSW (DECCW 2010) is not sufficient to assess the impacts on Aboriginal cultural heritage of Major Projects.	

1.3 Study Area

The Apsley BESS is situated within a larger land holding of approximately 140.8 ha formed of seven (7) individual lots. The site is rectangularly shaped and comprised of two (2) lots, including Lot 3 DP1012686 and Lot 107 DP756920. The BESS will occupy a footprint of approximately 6 ha in the northern portion of Lot 3 DP1012686 and connect to an existing 132 kV transmission line within Lot 107 DP756920. The proposed connection route will transect an unconstructed Crown Road Reserve located approximately 110 metres (m) to the west of the BESS footprint.

The 'host lots' refer to the larger cadastral area within which the 'study area' is located. The total study area for this ACHAR comprises an area of approximately 18.57ha.

The site is rectangular in shape, with infrastructure proposed in bays covering an area approximately 300 metres by 150 metres (4.5 ha). An overhead electricity transmission line runs north to south along the eastern boundary and an overhead or underground cable is proposed to connect the BESS to the existing transmission line.

The study area is located in the Dubbo Regional Local Government Area (LGA) and within the Parish of Wellington and County of Wellington.

The study area is generally cleared of vegetation and currently in use for grazing and cropping purposes. Several isolated non-native trees are present within the study area; however, none are within the proposed footprint of the BESS.

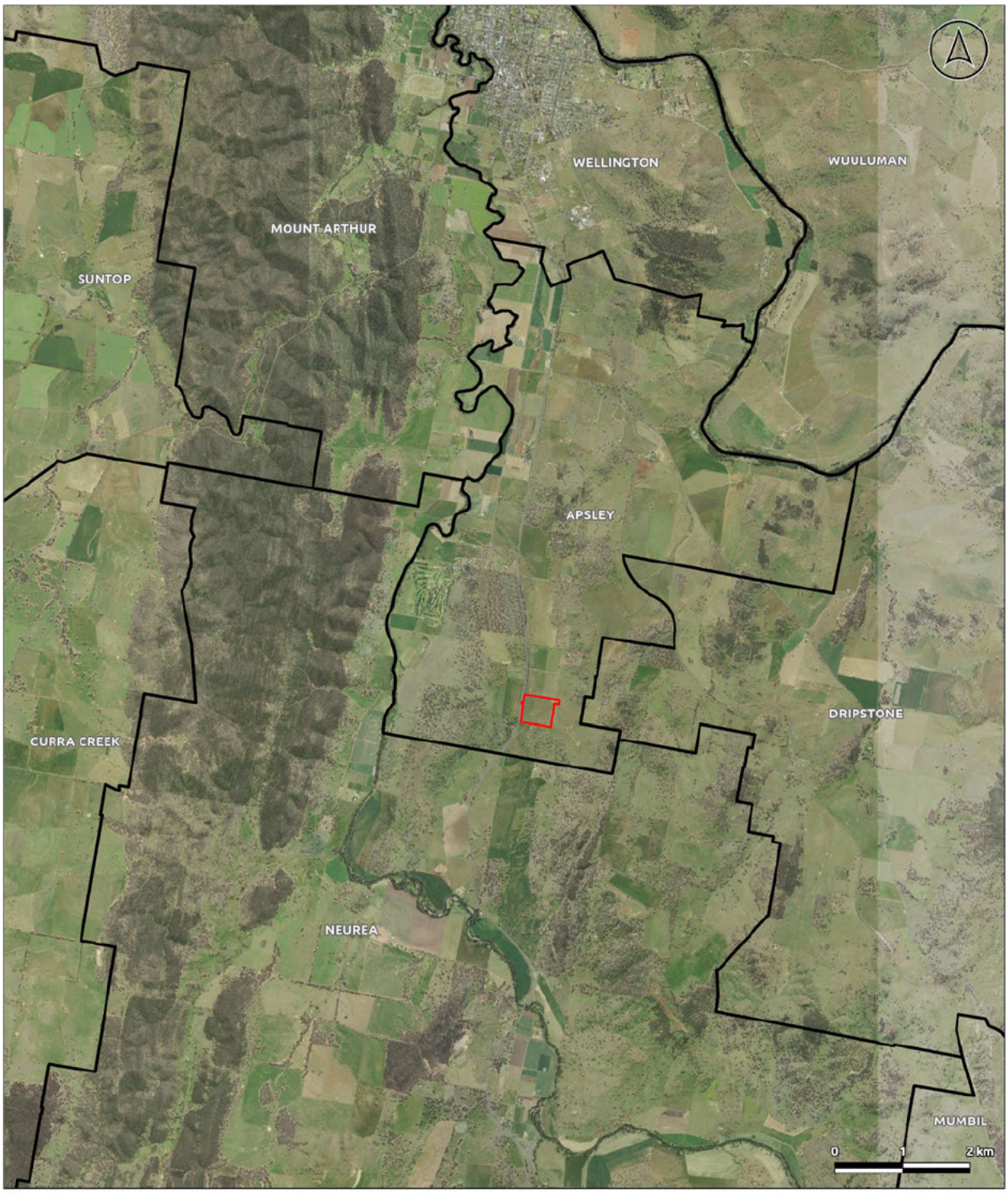
The BESS site is bounded by the Mitchell Highway to the west and cleared agricultural land to the north, east and south. The landscape of the study area is generally flat and has a general western aspect, lying between 366 m and 370 m AHD (Australian Height Datum) from north to south and 368 to 371 m east to west.

The are no watercourses within the site or study area. A single farm dam is located within the north-eastern corner of Lot 3 DP1012686.

The study area falls within the boundaries of the Wellington Local Aboriginal Land Council (Wellington LALC).

The study area is shown in **Figure 1**.

Figure 1 – Study Area



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1.4 Aboriginal Heritage in the Study Area

An extensive search of the online Aboriginal Heritage Information Management System (AHIMS) database identified 2 Aboriginal sites or places within a 2 km radius of the proposed MSF investigation area. The location of recorded Aboriginal sites is provided in **Section 8**.

1.5 Proposed Works

Premise have been engaged to assist ACEnergy preparing a development application for an SSD that involves preparation of a Scoping report and EIS to assess the impacts associated with a proposed Battery Energy Storage System (BESS) to be located at 9010 Mitchell Highway, Apsley, NSW on Lot 3 DP1012686, Lot 107 DP756920 and within a Crown Road reserve (**Figure 1**). The proposed BESS and transmission line traverse cleared agricultural land. As part of the EIS an Aboriginal Cultural Heritage Assessment is required to assess the heritage values of the site and identify any potential impacts.

The proposed works will involve construction of the BESS and temporary laydown areas within Lot 3 DP1012686. A proposed overhead or underground connection to the existing transmission line to the east into Lot 107 DP756920 is also proposed. A proposed access treatment located to the land immediately west of the BESS site falls within the Mitchell Highway road reserve.

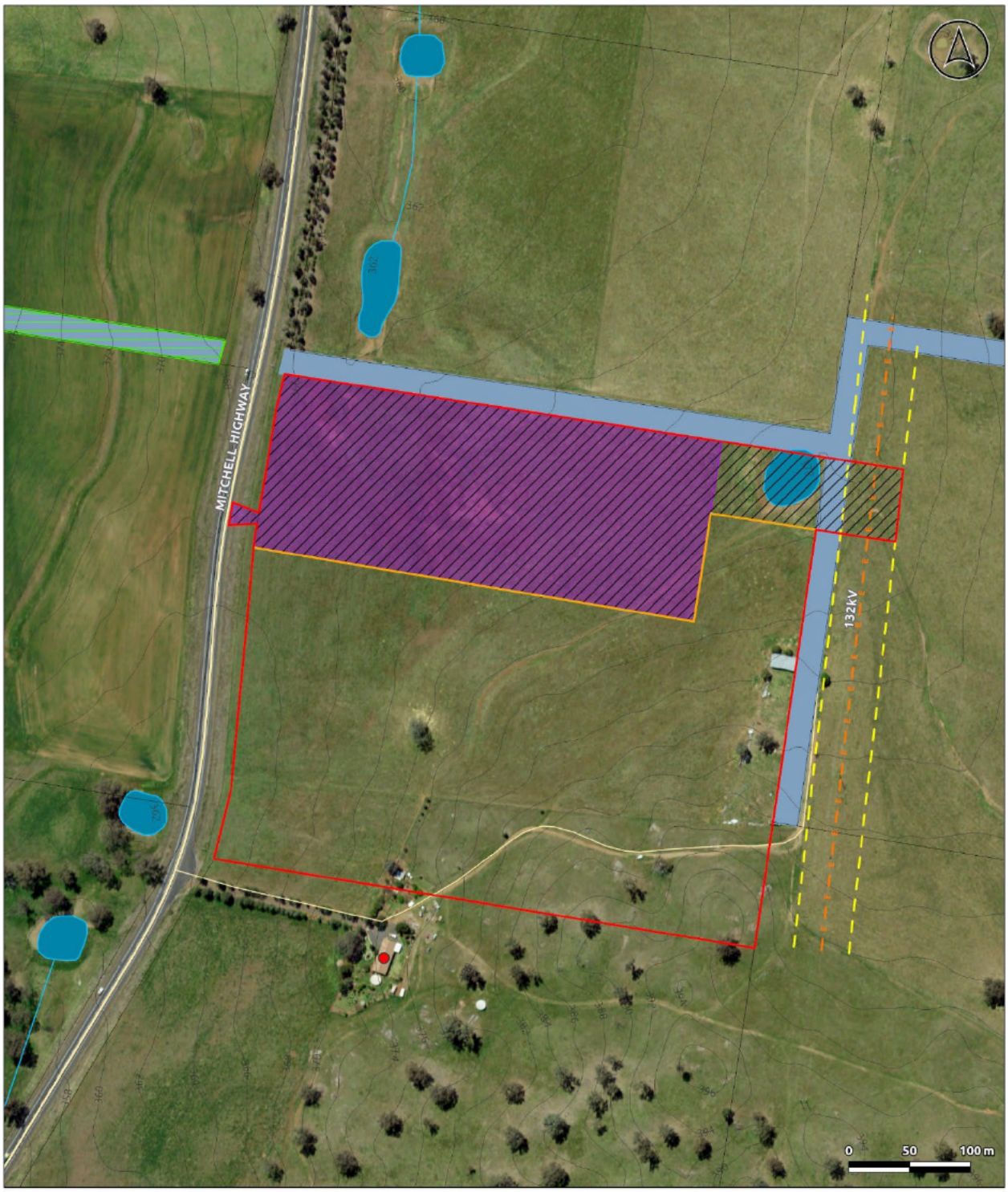
Lot 3 DP1012686 and Lot 107 DP756920 are zoned for Primary Production (RU1) as per the *Dubbo Regional Local Environmental Plan 2022.* The Mitchell Highway is zoned SP2 – Infrastructure (Classified Road).

The proposed works include:

- A new driveway from Mitchell Highway leading to a gated entry to the BESS site;
- Security fencing around the BESS with two rows of landscaping external to the western, northern, and southern fences;
- Permanent carpark and temporary (construction) loading zone adjoining the western security fence;
- 40-foot battery containers, separated into blocks;
- 40-foot inverter and MPVS containers, separated into rows;
- A 132kV switching station in the south-eastern corner of the BESS site; and
- Underground or overhead 132 kV sub-transmission line to connect the BESS to the existing powerlines to the east.

The proposed works are shown in **Figure 2**.

Figure 2 – Proposed Works and Site Analysis



1.6 Assessment Objectives

The objectives of this ACHAR are to:

Assess the Aboriginal cultural heritage values of the study area, including archaeological and community cultural values, and the significance of identified values.

- Identify Aboriginal cultural heritage values that may be impacted by the proposed work and implement measures to avoid significant impacts to these elements.
- Ensure appropriate Aboriginal community consultation in undertaken through the assessment process.
- Identify any recommended further investigations, mitigation and management measures required, should the proposed works proceed.
- A description of the scope of the proposed works and the extent of the study area.
- A description of the Aboriginal community involvement and Aboriginal consultation.
- A significance assessment of the study area including cultural and archaeological values.
- A description of the statutory requirements for the protection of Aboriginal heritage.
- An impact assessment for recorded Aboriginal sites and areas of archaeological potential.
- Provision of measures to avoid, minimise, and if necessary, offset the predicted impacts on Aboriginal heritage values

1.7 Limitations

This report has been prepared to assess Aboriginal heritage values only.

1.8 Authorships and Acknowledgements

The report was prepared by Latisha Ryall (Archaeologist) who also managed the project and supervised the archaeological survey and Hugh Shackcloth-Bertinetti (Environmental Planner). The survey was attended by Latisha Ryall (Archaeologist) and a representative from WVWAC. Danny Wilkinson from ACEnergy was also in attendance.

David Walker (Planner, Premise) directed the project and provided management input.

2. LEGISLATIVE CONTEXT

2.1 State Legislation

2.1.1 NATIONAL PARKS AND WILDLIFE ACT 1974

The *National Parks and Wildlife Act 1974* (NPW Act), provides statutory protection for all Aboriginal 'objects' and 'places' in NSW.

The NPW Act defines an Aboriginal 'object' as:

> *...any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains.*

The NPW Act defines an Aboriginal 'place' as:

> *any place declared to be an Aboriginal place under section 84.*

Part 6 of the NPW Act provides specific protection for Aboriginal objects and declared places where it is an offence to harm them without appropriate consent or defence. Harm is defined as destroying, defacing, damaging an Aboriginal object or place, or by moving an object from the land.

An Aboriginal place, as defined under Section 84, is declared by the Minister in recognition of its special significance with respect to Aboriginal culture. All Aboriginal objects are protected under the NPW irrespective of whether they are recorded or not and irrespective of their level of significance. However, areas are only gazetted as Aboriginal places if the Minister is satisfied that sufficient evidence exists to demonstrate that the location was and/or is of special significance to Aboriginal culture.

There are no gazetted Aboriginal places in the study area.

As indicated in **Section 2.1.2**, pursuant to Section 4.41 of the EP&A Act, the development is being assessed as SSD under Part 4 Division 4.7 of the EP&A Act and permits issued required under Section 90 NPW Act are therefore, not required.

2.1.2 NATIVE TITLE ACT 1994

The Native Title Act 1994 was introduced to work in conjunction with the Commonwealth *Native Title Act 1993*. Native Title claims, registers and Indigenous Land Use Agreements are administered under the Act.

The *Native Title Act 1993* (NTA) recognises native title for Aboriginal peoples and Torres Strait Islanders. It provides a mechanism for recognising Native Title claims in circumstances where native title has not been extinguished and claimants, in accordance with the requirements of the NTA, can prove their rights and interests in land under traditional laws and customs. The NTA administers Native Title claims, registers and Indigenous Land Use Agreements.

The objects of the NTA are:

> *(a) to provide for the recognition and protection of native title; and*
>
> *(b) to establish ways in which future dealings affecting native title may proceed and to set standards for those dealings; and*
>
> *(c) to establish a mechanism for determining claims to native title; and*
>
> *(d) to provide for, or permit, the validation of past acts, and intermediate period acts, invalidated because of the existence of native title.*

A search of Native title vision and review of the National Native Title Tribunal's Native Title Register was undertaken in March 2022 to identify any Native Title claims or applications, or Indigenous Land Use Agreements at or near the site.

There are no Native Title claims currently registered in the study area.

2.1.3 ABORIGINAL LAND RIGHTS ACT 1983

The *Aboriginal Land Rights Act 1983* (ALR Act) was established to reinstate ownership of traditional Aboriginal land to aboriginal peoples. It recognises the spiritual, social, cultural and economic importance of land for Aboriginal people and provides a compensatory regime that recognises Aboriginal Land rights. The ALR Act allows land in NSW to be returned to Aboriginal peoples through a process of lodging claims for Crown lands.

The ALR Act established the NSW Aboriginal Land Council (NSWALC) and a collection of Local Aboriginal Land Councils (LALCs) throughout the State. These bodies have a function to:

> *(a) take action to protect the culture and heritage of Aboriginal persons in the council's area, subject to any other law, and*
>
> *(b) promote awareness in the community of the culture and heritage of Aboriginal persons in the council's area.*

The study area is within the boundary of the Wellington LALC.

2.1.4 HERITAGE ACT 1977

The *NSW Heritage ACT 1977* (Heritage Act) provides recognition of native title for Aboriginal and Torres Strait Islanders and protects the state's natural and cultural heritage.

The Heritage Act provides protection for items of 'environmental heritage' including laces, buildings, works, relics, movable objects or precincts considered significant based on historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic values.

While Aboriginal heritage is primarily protected under the National Parks and Wildlife Act, it may be subject to provisions of the Heritage Act if it is listed on the State Heritage Register or subject to an Interim Heritage Order (IHO).

Items considered to be significant to the state are listed on the State Heritage Register (SHR). Items listed on the SHR or subject to an IHO cannot be destroyed, demolished, altered, moved or damaged without approval from Heritage NSW and until the significance of the item has been assessed.

2.1.4.1 State Heritage Register

Section 22 of the Heritage Act established the SHR which lists places and object of state significance.

While the development is assessed as SSD and is therefore not subject to approvals under the Heritage Act, consultation with Heritage NSW and DPE would be conducted as part of the consultation process to ensure appropriate management of potential heritage impacts.

A review of the SHR indicates that there are no Aboriginal places of significance listed under the NPW Act.

2.1.5 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

The NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) establishes a framework for assessing cultural heritage values in the land use planning and development consent process.

The proposed works will be assessed under part 4, Division 4.7 of the EP&A Act, which establishes an assessment and approval regime for SSD. Part 4, Division 4.7 applies to development that is declared to be SSD by a State Environmental Planning Policy (SEPP). Division 4.7, Section 4.41 of the EP&A Act specifies heritage approvals are not required for approved SSD.

Division 4.7 of the EP&A act provides a regime for determining SSD and under Part 4.36 stipulates that:

> *(2) A State environmental planning policy may declare any development, or any class or description of development, to be State significant development.*

Pursuant to Part 4.41 of the EP&A Act an Aboriginal Heritage Impact Permit (AHIP) under Section 90 of the *National Parks and Wildlife Act 1974*, are not required for SSD.

The EP&A Act also requires local governments to prepare planning instruments (such as Local Environmental Plans [LEPs] and Development Control Plans [DCPs]) in accordance with the EP&A Act to provide guidance on the level of environmental assessment required. The current study area falls within the boundaries of The Dubbo Regional LGA which is subject to the Dubbo Regional LEP 2022 and the Dubbo DCP 2013.

2.1.6 DUBBO REGIONAL LOCAL ENVIRONMENTAL PLAN 2022

The aim of the *Dubbo Regional Local Environmental Plan* (LEP) 2022 in relation to Aboriginal heritage is to conserve Aboriginal objects and Aboriginal places of heritage significance. Schedule 5 of the LEP lists identified items of heritage significance.

The LEP stipulates development controls in relation to development proposed on or near heritage listed properties, archaeological sites, or Aboriginal places of heritage significance.

There are no heritage items with Aboriginal heritage values listed on the Dubbo LEP within the study area.

The closest locally significant item or place listed on the LEP is the "Wellington Caves" Limestone/Phosphate Mines (ID I1) which is located 1.53 km north west of the Study Area.

2.1.7 STATE ENVIRONMENT PLANNING POLICY (PLANNING SYSTEMS) 2021

The State Environmental Planning Policy (Planning Systems) 2021 (Planning SEPP) identifies development which is declared to be state significant.

Schedule 1, Clause 20 of the Planning SEPP identifies development for the purpose of electricity generating works and heat or co -generation that has a that has a capital investment value of more than $30 million, or more than $10 million and is located in an environmentally sensitive area of State significance, as State Significant Development.

The proposed works have a capital investment value of more than $30 million and have been classified as SSD under SSD: 35160796.

Development control plans do not apply to state significant projects.

2.2 Commonwealth Legislation

2.2.1 ENVIRONMENT PROTECTION AND BIODIVERSITY ACT 1999

The *Environment and Heritage Legislation Amendment Act (No.1) 2003* amends the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) to include 'national heritage' as a matter of National Environmental Significance and protects listed places to the fullest extent under the Constitution.

The EPBC Act further establishes and lists protected heritage items under the National Heritage List and the Commonwealth Heritage List.

Chapter 3 of the *Environment Protection and Biodiversity Act 1999* (EPBC Act), assists the Minister *to:*

> *…decide whether an action that has, will have or is likely to have a significant impact on certain aspects of the environment should proceed.*

Any action, including a project, development, undertaking, activity, series of activities or alteration, that will or is likely to have a significant impact on a MNES may only occur with approval of the Minister for the Environment and Energy obtained under Part 9 of the EPBC Act.

The *Australian Heritage Council Act 2003* established a new heritage advisory body, the Australian Heritage Council, to advise the Minister and retain the Register of the National Estate (RNE). The RNE was closed in 2007 and no longer remains statutory, however retains an archive of heritage places throughout Australia.

The Acts outlined above provide protection for Australia's natural, Indigenous and non-Indigenous heritage to include:

- A new National Heritage List of places of national heritage significance.
- A new Commonwealth Heritage List of heritage places owned or managed by the Commonwealth.
- The creation of the Australian Heritage Council, an independent expert body to advise the Minster on the listing and protection of heritage places.

- Continued management of the non-statutory Register of the National Estate.

A review of the National Heritage List, Commonwealth Heritage List and RNE was undertaken on 16 March 2022 summarised in the following subsections.

2.2.2 NATIONAL HERITAGE LIST

The National Heritage list contains heritage places of outstanding heritage significance to the nation, protected under the EPBC Act. It prohibits any person from taking an action that has, will have, or is likely to have, a significant impact on the national heritage values of a national heritage place without the approval of the Minister for the Environment.

The Australian Heritage Council, with the support of the Department of Environment and Energy, seeks to ensure that all places recommended by it to the Minister for listing meet the stringent criteria set out in legislation.

There are no items listed on the National Heritage List located within the study area.

2.2.2.1 Commonwealth Heritage List

The Commonwealth Heritage List is a list of Indigenous, historic and natural heritage places owned or controlled by the Australian Government.

There are no items listed on the Commonwealth Heritage List located within the study area.

2.2.2.2 Register of the National Estate (RNE)

The Register of the National Estate (RNE) is a list of natural, Aboriginal and historic heritage places throughout Australia, originally established under the *Australian Heritage Commission Act 1975.* The RNE ceased to be a statutory register in February 2012, however, is now a publicly available archive (Australian Heritage Database) that is maintained on a non-statutory basis.

There are no Aboriginal significant items or places listed on the RNE located within the study area The closest Aboriginal significant item or place is the Wellington Caves (ID 9512) which is located 1.53 km north west of the Study Area.

2.2.3 ABORIGINAL AND TORRES STRAIT ISLANDER HERITAGE PROTECTION ACT 1984

The *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (ATSIHP Act) provides for the preservation and protection of Aboriginal cultural property in Australia and in Australian waters that are of particular significance to Aboriginal peoples such as places, objects and folklore in accordance with Aboriginal tradition.

Aboriginal tradition as defined under the ATSIHP Act, refers to:

> *…the body of traditions, observances, customs and beliefs of Aboriginals generally or of a particular community or group of Aboriginals, and includes any such traditions, observances, customs or beliefs relating to particular persons, areas, objects or relationships.*

Archaeological sites or objects registered under State legislation will typically be recorded as Aboriginal places subject to the provisions of the Commonwealth The ATSHIP Act, however, takes precedence over state legislation in circumstances where there is a conflict and may prevent an activity approved by a state with the declaration to protect an area or object.

The Commonwealth Act takes precedence over State cultural heritage legislation where there is conflict. Under Section 10 of the ATSIHP Act, The Minister may make a declaration that overrides state or territory decisions in situations where state or territory laws do not provide adequate protection of heritage.

No declarations relevant to the proposal site have been made under the ATSIHP Act.

3. ABORIGINAL COMMUNITY CONSULTATION

3.1 Aboriginal Community Involvement

Consultation with Aboriginal people is an integral part of the process of investigating and assessing Aboriginal cultural heritage.

Consultation with Aboriginal community members was undertaken in accordance with clause 80C of the *National Parks and Wildlife Amendment (Aboriginal Objects and Aboriginal Places) Regulation 2010* and the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010).

The consultation steps outlined in the 2010 Guide are listed below:

- Step 1 – Notification of project proposal and registration of interest.
- Step 2 – Presentation of information about the proposed project.
- Step 3 – Gathering information about cultural significance.
- Step 4 – Review of draft cultural heritage assessment report.

Opportunity for providing input into the cultural heritage values of the study area was provided in the ACHAR methodology, including invitation for feedback on the ACHAR methodology:

- During field survey undertaken in 2021 by Premise; and
- During consultation undertaken in 2021 and 2022 by Premise.

A consultation log has been maintained through the assessment process which details all correspondence with the Registered Aboriginal Parties (RAPs) for the proposed works (refer **Appendix B**).

3.2 Identification of Stakeholders and Registrations of Interest

In accordance with Stage 4.1.2 of the Consultation Requirements, correspondence in the form of notification letters were issued on 23 September 2021 to the following organisations requesting details of Aboriginal people who may hold cultural knowledge relevant to determining the Aboriginal significance of Aboriginal objects and/or places within the Wellington and Dubbo LGA.

- National Native Title Tribunal
- Native Title Services Corporation Limited (NTSCORP)
- Heritage NSW
- The Registrar, Aboriginal Land Rights Act 1983 (Office of the Registrar)
- Central West Local Land Services (SELLS)
- Wellington Local Aboriginal Land Council
- Dubbo Regional Council

In accordance with Stage 4.1.3 of the Consultation Requirements, Premise placed an advertisement in the Daily Liberal on 24 September 2021, online content was published in the Wellington Times on 29 September 2021. The advertisement invited all Aboriginal persons and organisations who hold cultural knowledge relevant to determining the significance of Aboriginal objects and places in the study area to register their interest.

Also, in accordance with Stage 4.1.3, registration of interest letters and/or emails were sent on 27 October 2021 to all Aboriginal persons and organisations identified through responses from the agencies contacted during Step 4.1.2 (refer **Appendix B**). The letters provided details on the location and nature of the proposed works, as well as an invitation to register as an Aboriginal stakeholder. Fourteen days were allowed for registrations.

The following groups or individuals registered their interest and for the Apsley BESS project. These groups or individuals constitute the Registered Aboriginal Parties (RAPs) for the Apsley BESS and are listed in **Table 2**.

Table 2 – Registered Aboriginal Parties (RAPs)

#	Individual/Group
1	Wellington Valley Wiradjuri Aboriginal Corporation
2	Binjang Wellington Wiradjuri heritage Survey

In accordance with Step 4.1.6 of the Consultation Requirements, a list of RAPs, a copy of the newspaper advertisement, and a copy of the invitation to register an interest, were forwarded to Heritage NSW and Wellington LALC on 22 November 2021 (refer **Appendix D**).

3.3 Review Assessment Methodology

A copy of the proposed ACHAR methodology was distributed to RAPs on 25 November 2022 with a mandatory 28-day period for review and comment. The document included details of the proposed works, and a summary of proposed ACHAR assessment and survey methodology (refer **Appendix F**).

- Comments were received from WVWAC indicating support for the survey methodology.
- Plans provided to RAPs during the consultation phase have been superseded and are not reproduced in **Appendix B**.

No comments were received from the RAPs on the significance of the site through review of the assessment methodology, via initial correspondence OR during site survey or participation in test excavations.

3.4 Site Survey

An intensive archaeological survey of the study area was completed on 1 December 2021, with a representative of WVWAC. The survey area boundary was slightly modified in the field based on access restrictions and low archaeological visibility; however, this did not impact on the cumulative survey results.

The Aboriginal Heritage Information Management System (AHIMS) site register was consulted prior to attendance on site, to determine if any previously recorded sites were located in, or near, the subject area. Previous archaeological studies were also reviewed to familiarise the consultant with local archaeology, and recent investigations in the area.

Discussions held during the field survey and pot survey between archaeologists and RAPs indicated that the area had been subject to intense agricultural disturbance over the past 150 years, consistent with the current land use, however areas of sensitivity were identified immediately to the north of the study area, and areas outside of the study area which are closer to creek lines along areas with higher exposure or on lower crests. A comprehensive discussion of the site survey is provided in **Section 8.**

A brief survey summary was also prepared for ACEnergy post field work and sent to WVWAC as requested.

3.5 Aboriginal Cultural Values

An invitation for RAPs to provide input or comments on Aboriginal Heritage cultural values for the Apsley BESS were provided through the assessment process and during site survey.

No specific information was provided on the significance of the study area.

Previous reports undertaken in the region indicate that the broader Wellington area does hold strong cultural ties with the local Aboriginal community, however the study area does not indicate a high cultural sensitivity area and has been extensively modified from the original landform.

During the site survey and discussions with a representative of WVWAC, the study area was determined as having nil to low cultural heritage significance. Sites located outside of the study area, such as [redacted] are representative of the cultural values historically expressed by local Aboriginal groups. Further to the north of the study area cultural values associated with the Wellington caves are also significant within the landscape.

It is noted that in respecting the Aboriginal community not all cultural heritage sites should be mapped or identified, therefore unknown cultural sensitivities may increase throughout the landscape.

3.6 Review of Draft ACHAR

A review of the DRAFT ACHAR was provided to RAPS for a 28 day review period on 20 April 2022, requesting comments and feedback to be provided by 18 May 2022.

At the end of the review period one (1) group had provided a written response shown in **Table 3** and one (1) group provided a verbal response indicating support of the ACHAR.

No further responses have been received.

This report incorporated feedback provided in RAP response and was finalised on 25 May 2022.

A record of all Aboriginal community consultation is provided in **Appendix B.**

Table 3 – Summary of RAP comments on Draft ACHAR

Organisation	Comments	Response
WVWAC	• Supports ACHAR and agrees with recommendations. The following comments were received: – WVWAC agree with the findings and recommendations as published in the Draft Aboriginal Cultural Heritage Assessment Report: Apsley Battery Energy Storage System (BESS) – WVWAC advises the 10m buffer distance is appropriate	Report finalised in response to support of ACHAR and evidence provided in **Appendix B**
Binjang Wellington Wiradjuri heritage Survey	• Provided verbal response indicating support of ACHAR	n/a

4. ENVIRONMENTAL CONTEXT

4.1 Landform, Geology and Soils

The study area is located within the south western slopes bioregion, which is an extensive area of foothills and isolated ranges which includes the lower inland slopes of the Great Dividing Range extending from north of Cowra, through southern NSW into western Victoria. The bioregion extends from Albury in the south to Dunedoo in the northeast and is bound by the Riverina and Cobar Peneplain bioregions to the west, Darling Riverine Plains and Brigalow Belt South bioregions to the north, Sydney Basin to the northeast and the South Eastern Highlands Bioregion running along much of the eastern boundary.

The bioregion includes parts of the Murray, Murrumbidgee, Lachlan and Macquarie River catchments.

The bioregion lies within the eastern part of the Lachlan Fold Belt which consists of a complex series of Cambrian to Early Carboniferous sedimentary and volcanic rocks, with granites common and limited tertiary basalts. The study area is located within the Molong Rise physiographic unit, with Ordovician andesites and associated shale, tuff and limestones forming the geological unit (Meakin and Morgan (1999). The Molong rise is typified by limestone outcrops in the Wellington area, which develop karst topography, such as the Wellington Caves.

The underlying substrate is basaltic and andesitic rocks of the Oakdale Formation. These have given rise to the gently undulating Bodangora Soil Landscape (Murphy and Lawrie, 1998) comprising mainly Ferrosols, also known as Euchrozems, which are non-texture contrast dark reddish brown clay loams that have a high free iron content in the B horizon (subsoil).

The study area predominantly sits within the Bodangora Soil Landscape with the western extent of the site, however transitions into the Nanima Soil Landscape partially in the north and south eastern portions of the study area (Murphy & Lawrie, 1998),

Soils in the Bodangora Soil Landscape have formed in-situ from andesite, shale and limestone parent rock and form alluvial-colluvial deposits. This Landscape occurs on low undulating hills between 300-500 m elevation, with gently inclined sloped and drainage channels occurring between 500-1000 m apart. High levels of erosion occur due to under cultivation and low cover areas., with moderate gully erosion occurring.

Three soil contexts occur in the Bodangora landscape and include Euchrozems, with Non-calcic Brown Soils and shallow soils on some hillocks and steep slopes, whilst pockets of Terra Rossa Soils are associated with limestone. Euchrozems are characterised by dark reddish brown clay loams to light clays over moderate structured reddish brown light to medium clays subsoils. Non-calcic Brown Soils are characterised by hardsetting reddish brown gravelly fine sandy loams transitioning to sandy clay loam topsoils over gravelly light medium clays. Terra Rossa Soils are characterised by friable dark reddish-brown fine sandy clay loams to clay loams over dark reddish brown, clay loams to medium clay subsoils, with some limestone gravel at depths.

Limitations of this soil profile include friable surface soils with moderate to high subsoil swells and aggregated clays which may leak during earthworks. Mostly associated with dryland cropping of wheat, canola, oats and legume crops, grazing of improved pasture and lucerne and some urban development.

The Nanima Soil Landscape soils have formed in-situ on colluvial materials derived from Andesite, hornfels, shale, tuff and limestone. This landscape is characterised by the Oakdale formation. This landscape also occurs between 300-550 m elevation with rolling low hills and drainage channels occurring between 500-1200 m apart. Soil profiles are consistent with the Bodangora soil landscape characterised by aggregated permeable clays of Euchrozems, Non-calcic Brown Soils with shallow loams on crests, with small pockets of Terra Rossa Soils on limestone.

The landscape of the study area is relatively flat, lying between 366 m and 370 m AHD (Australian Height Datum) from north to south and 368 to 371 m east to west. There is a farm dam to the east of the proposed BESS, and native trees and shrubs have been planted along the Mitchell Highway to the north. The proposed BESS is on the Wellington – Molong Karst Landscape which has an over-cleared status of 99% cleared.

4.2 Vegetation

Vegetation in the area is varied and consists of cleared modified pastures, low-lying drainage areas with native grasses and sedges, one native planting and patches of semi-cleared and remnant native woodland, and only scattered trees remain. The low gradient spurs and valley floors have been mostly cleared and now consist of introduced and native grasses.

Vegetation communities consist of open woodland dominated by white box, yellow box and white cypress pines. Whitebox, sometimes associated with grey box occur on upper slopes, whilst white cypress pine occurs on crests and ridge lines. Yellow box occurs on the mid and lower slopes and drainage lines sometimes associated with fuzzy box and grey box. Kurrajongs are also common in the Nanima soil landscape however are more scattered in the Bodangora soil landscapes. Much of the wider Apsley/Wellington area has been heavily disturbed through former agricultural use removing much of the original woodland landscape.

4.3 Hydrology

The study area does not contain any mapped watercourses or waterways. However several small drainage lines, tributaries of Bell River are located north of the study area and run south along the western boundary.

Watsons Creek is located 1.5km east of the study area and is a first order tributary of the Macquarie River which is located approximately 3.8 km north east of the study area. The Bell River is located approximately 2km west of the study area and forms part of the Macquarie catchment within the Murray–Darling basin.

The Bell River rises in the hills north-west of Orange and flows generally north, merging with the Macquarie River at Wellington. The course of the river is generally aligned with the Mitchell Highway

4.4 Historical Context and Land Use

The broader area of Wellington and the Central West was utilised by Europeans from the early 1800s for large pastoral properties. The Apsley BESS has been subject to previous ground disturbance associated with extensive European agricultural activities such as cropping and grazing. Such land use practices have resulted in soil loss, often involving significant loss of top soils and any archaeological deposits they may have contained.

Historical images from 1965 and 1980 show the extensive clearing and agricultural use of the land, indicating a disturbed context for at least the last 50 years (refer **Figure 3 and Figure 4**).

Figure 3 – 1965 Historic Aerial Photos: Source: NSW Government Historical Imagery

Figure 4 – 1980 Historic Aerial Photos: Source: NSW Government Historical Imagery

4.5 Current Site Conditions

In the Wellington region primary industry consists of agriculture and mining post contact with European settlers, with the surrounding environment consisting of fertile valleys on the banks of the Macquarie and Bell Rivers and their tributaries with river flats being extensively cropped and/or used for market gardens (AMBS 2008). This fertile environment provides resources such as the production of vegetables, irrigated fodder and crops (such as maize, peas and lucerne hay). Most of the land in the region is used for mixed farming (mainly winter cereals and sheep-cattle grazing). In areas unsuitable for mixed farming, grazing is the main land use.

The site is currently comprised of agricultural use predominantly used for crop pasture and the grazing of cattle with cleared, fenced paddocks and is almost devoid of upper stratum vegetation. Extensive clearing of native vegetation has occurred across most of the site modifying the landscape for construction of farm/rural dwellings and associated farming infrastructure.

There are scattered remnant trees in an otherwise cleared agricultural landscape in the land immediately surrounding the BESS site, and much larger remnant woodlands on hilltops and in nearby reserves including the Wellington Caves Reserve, Mount Arthur Reserve and Catombal Ranges to the west, and Lake Burrendong State Recreation Area to the east.

A recent biodiversity assessment (Premise 2021) indicates that the site is relatively flat, lying between 366 m and 370 m AHD (Australian Height Datum) from north to south and 368 to 371 m east to west. There is a farm dam in the east of the site, and native trees and shrubs have been planted along the Mitchell Highway to the north. The site is rectangular in shape, covering an area approximately 300 metres by 150 metres (5.8 ha). The study area during survey was sown to oats with grazing cattle.

The study area is located approximately 2 km east of the Bell River, 2 km south west of the Macquarie River and approximately 1.5km west of Watsons Creek (a second order tributary of the Macquarie). The study area is positioned approximately 1.5km south east from the Wellington Caves located on the Wellington – Molong Karst Mitchell Landscape (NSW Government, 2021). The area has known Aboriginal archaeological potential.

5. ABORIGINAL ARCHAEOLOGICAL CONTEXT

5.1 Ethnographic Aboriginal Context

For thousands of years Aboriginal groups occupied the lands and river valleys in the Wellington region dating to at least 40,000 years ago (Christo Aitken 2007: 65). This area formed part of the traditional lands of the Wiradjuri language group, spoken along the three rivers by which it is bound, the Macquarie, Lachlan, and Murrumbidgee River systems. Norman Tindale's extensive research into Aboriginal tribal boundaries in 1974, indicates that Wiradjuri country is the largest tribal boundary within Australia and extends from Dubbo and Bylong in the north to Tallangatta in the south and west from Lithgow to the Hay Plain and Ivanhoe. However the borders were most likely fluid and changed over time (NGH 2018:19).

It is thought that Aboriginal society focused on small family groups with immediate family members making shelter, camping, sourcing food and performed daily rituals. This is seen in the archaeological landscape in the form of small campsite areas characterised by small artefact scatters. However, the small family units formed part of a larger band which comprised a number of families. Places that were frequented more often would often develop into larger site complexes represented by higher artefact densities and a more diverse archaeological record (NGH 2018: 19).

The Wiradjuri people for thousands of years utilised the rivers and the land, exploiting a broad range of natural resources accordingly such as fish, timber and the native flora and fauna. The Macquarie River floodplain was a major Wiradjuri Aboriginal resource area, together with other rivers and creeks in the region, their frontages, marshes and billabongs providing a vital resource for food supply with recurrent and seasonably reliable water sources, however occupation was not restricted to the immediate river banks or associated alluvial terraces and often occupying open campsites on higher ground.

Aboriginal dreaming or creation stories often refer to specific landscape features like a river, lake or mountain, and these places form highly significant elements of connection to Country (DEC 2005: 22). In the Wellington area, Wiradjuri people have had long traditional and historical connections to Country, with ceremonial connections to the natural landscapes of Mount Nanima and Mount Arthur, where ceremonies such as corroborees took place. Oral histories are passed down through the generations and members of the Gallanggabang Traditional Owners (GTO; now part of the Wellington Valley Wiradjuri Aboriginal Corporation) indicate that Wellington tribes were more closely associated with groups from the Mudgee area than that of Dubbo. (OzArk EHM 2016 :10). Some of the oldest Aboriginal reserves in NSW such as Nanima are located in the area with many families tracing their ancestry back to people living within the fringe camps or missions from this time period (OzArk EHM 2016:10).

Little information is provided on the local Aboriginal people in the Wellington region until contact with European explorers such as Oxley and Cunningham. In 1817 John Oxley, the first European to explore the Wellington Valley who described it as beautifully picturesque and observed an abundance of fish, emus, swans and ducks' as well as very large mussels growing among the reeds in many stretches of the Bell and Macquarie Rivers. (Oxley 1820: 191–192). By the early 1820s European settlement increased as the area surrounding the rivers and surrounding region was suitable for pastoralists to undertake grazing practices characterised by open plains and rolling hills.

In 1823 a government stock station was established at the junction of the Bell and Macquarie Rivers (south of the modern day township) on land that had already been established with local Aboriginal camps and settlements and became the location of the first Wiradjuri organised mission (Kabaila 1998: 11; OzArk 2016:10).

By 1824 martial law was declared with the loss of access to the land and resources, Aboriginal groups formed a resistance which lasted for several years. Land between Bathurst and the Wellington Valley was officially opened up for settlement in 1827. (DEC 2005:40).

As European settlement in the Wellington area intensified, Wiradjuri were increasingly driven off their traditional lands, free movement was restricted and displacement and decline of the Aboriginal people occurred in the area as a result of violence and the spread of smallpox and influenza throughout the community.

Between 1832 and 1843 Aboriginal missions were established in the Wellington region by the Anglican Church Missionary Society with the aid of Reverend James Gunther, Reverend JCS Handt and Reverend William Watson, however closed due to small numbers of permanent occupants and lack of government finances. Pressure from white settlers who wanted the lands for farming, river frontage and for the establishment of Wellington township also occurred (DEC 2005:41).

In 1839 a plan for the township of Wellington was drawn up, much of the Macquarie River frontage was taken up by squatters, and the first European land grants were provided in the Wellington Valley during this time. However, objections from Reverend Watson concerning the impacts to the established Aboriginal mission, resulted in a change in location of the town further south to Neurea. However, this village did not eventuate, and the town was again relocated to the current Wellington site (Whitehead 2003: 328).

During the mid-nineteenth century, the Wiradjuri people saw a dramatic change to their land as a result of extensive agricultural practices such as clearing, grazing, fencing and cropping by the Europeans (DEC 2005:40). Like many other regions in NSW, efforts were made to congregate local Wiradjuri people within missions and/or reserves. The Wiradjuri moved to a series of missions and camps around Wellington including: The Wellington Valley Mission, Apsley Mission, Blake's Fall Mission (also known as Apsley Mission), Blacks Camp, Wellington Town Common Camp and Nanima Reserve which began in 1910. Apsley Mission was identified as an unofficial mission, established by Reverend William Watson in 1838, south west of Wellington on the banks of the Macquarie River with at least 60 Wiradjuri people living here (DEC 2005:41)

These sites demonstrate the strength of Aboriginal families in the face of dispossession and low socio-economic status and continue to be important to Aboriginal people today.

Figure 5 depicts a drawing by W M. Curtis in 1847, showing Wiradjuri people in a corroboree ceremony, observed by Europeans. These drawings provide insight into the traditional clothing and customs of the Wiradjuri as well as the interaction post contact with European settlers and government issued blankets (Mitchell Library NSW).

Figure 5 – [Corroboree] / Drawn by Wm. Curtis. April 1847. Wellington N.S. Wales. Source Mitchell Library, State Library of New South Wales[1]

[1] https://archival.sl.nsw.gov.au/Details/archive/110327600

5.2 Previous Archaeological Assessments

To establish a background context in forming a predictive model for the likelihood of locating Aboriginal objects, and the likely places of such objects which may be located within the activity area, previous archaeological investigations have been examined. Several archaeological investigations have been undertaken in or in the region of the Wellington and are summarised below.

NGH Environmental (NGH) 2018

Most recently in 2018 NGH Environmental (NGH) prepared an Aboriginal Cultural Heritage Assessment Report (ACHAR) for the proposed Wellington North Solar Plant, located approximately 7 km north east of the town of Wellington in NSW. The proposed development involved installation of a solar plant with an upper capacity of up to 300 MW (AC) on approximately 837 ha. During this assessment NGH found site location patterns evidently relate to the presence of Aboriginal resources within certain landscapes. The most archaeologically sensitive areas are noted to occur within close proximity of water. Given the occupation of Aboriginal people across the Wellington region has occurred for thousands of years, there is also potential for stone artefacts and scarred trees to occur in this region.

NGH Environmental (NGH) 2017

In 2017 NGH surveyed approximately 500 ha for the proposed Wellington Solar Farm for First Solar Pty Ltd. Located immediately south of the Wellington North Solar Plant. The results of the survey recorded 61 stone artefacts representing ten artefact scatters and 15 isolated finds. A single scarred tree was also recorded, and two areas of Potential Archaeological Deposits (PADs) were identified. The most commonly recorded raw material included quartz, and volcanic material with silcrete, sandstone, fine grained siliceous and quartzite artefacts recorded in smaller numbers. Stone artefacts were characterised by cores, hammer stones and flakes, indicating that stone tool manufacture likely occurred onsite, although the presence of an edge ground axe implies some completed tools were also brought to the site. The sites were identified on low slopes and flats within proximity of a creek line or water source in areas that had been subject to extensive ground disturbance associated with farming activities.

It is important to note that NGH identified that the results of the survey indicate that there are likely to be similar sites (hundreds) in the local area. NGH suggest the low number of sites recorded in AHIMS was merely an indication that few surveys had been undertaken in the area and therefore the sites are yet to be found.

Australian Museum Business Services (AMBS) 2008

In 2008 Australian Museum Business Services (AMBS) 2008 completed an assessment of potential impacts to Aboriginal and historic cultural heritage for a proposed installation of a gas-fired power station, associated transmission infrastructure, and 100km gas supply pipeline from Wellington to Alectown in NSW .

During archaeological survey of the proposed gas pipeline route and power station site a total of four Aboriginal heritage sites were identified, comprising three small artefact scatters and one culturally scarred tree. Based upon current scientific evidence, Aboriginal stone artefact scatters were assigned low archaeological significance, while the Aboriginal culturally scarred tree was assigned high archaeological significance. Aboriginal communities consulted throughout this project indicated that, while the Aboriginal culturally scarred trees are considered to highly culturally significant, all Aboriginal heritage sites recorded contain intrinsic cultural significance, however there were no further specific cultural significances attached to the identified sites.

OzArk Environmental and Heritage Management (OzArk EHM) 2007

In 2007 OzArk EHM undertook an Aboriginal heritage survey on behalf of TransGrid for construction of a proposed radio tower at the summit of Mt Wellesley south of Wellington in NSW. The impacted area was not more than 30m x 30m.

No Aboriginal heritage sites were recorded during the course of the assessment. Although this was a feasible location within the landscape for use as a lookout, this site type leaves little or no archaeological trace. The area was further deemed to have extremely low potential for the presence of undetected, subsurface archaeological sites. As a result of this no constraints to development of the tower on the grounds of cultural heritage were deemed necessary.

Department of Environment and Conservation (NSW) 2005

An Aboriginal and Heritage& Salinity report was prepared by Anthony English and Louise Gay focusing on a Wellington case study demonstrating the integration of salinity and heritage (both physical and cultural/abstracts). The study used information from salinity Data (DIPNR), Archaeological sensitivity mapping (soil type ruggedness terrain elevation, AHIMS database), Archaeological field work and local knowledge to understand the types of archaeological information that can be obtained through analysis of artefact scatters on typical salt scalds in the region; and provide a foundation for understanding the effects of salinity, erosion and existing land use on the archaeological sites.

Archaeological assessments were conducted at two salt scalds, with one situated at "Easterfield" in Mumbil, an area used as a salt demonstration site located approximately 10.3km southeast from the study area. The study outlines a history of the Aboriginal Protection Board (APB), the Nanima Aboriginal Reserve and Wellington Town Common. When reserves closed to open land for European settlers, Wiradjuri families moved to un-official camps on Crown Land and to other nearby reserves. Wellington Town Common is example of "non-regulated land tenure where both local and displaced Wiradjuri people lived". The report highlights a very strong correlation between salinity outbreaks and areas with a high potential for open sites and archaeological deposits based on predictive modelling as provided by Pearson(1981).

Kelton, J. 1999

In 1999 Kelton prepared and archaeological study on behalf of Department of Public Works and Services for the proposed upgrade of the Wellington Sewerage Treatment plant (STP),located approximately 4km southwest of Wellington. No Aboriginal sites were known to exist in the immediate 1km radius, and no new sites were recorded during the survey. However, it is noted that an Aboriginal burial is located approximately 1.6km to the east in the banks of the Macquarie River. The study area had undergone extensive ground disturbance as a result of historical cultivation and grazing, road and track construction and construction of the existing STP. The area was considered to hold low to moderate landform sensitivity, and therefore assessed as having low archaeological potential for subsurface deposits. However, a single scarred tree site was identified outside the study area on a creek flat and this, together with the burial, suggests that archaeological sensitivity increases with proximity to seasonal waterways.

Le Maistre, B. 1993

In 1993 a history of the Wiradjuri people in the Wellington area was prepared by Le Maistre for the National Parks and Wildlife Service. The report addresses the post contact period and the impacts on the Wiradjuri people after European settlement, whilst also looking at the history of the Wellington Mission. The report provides a regional ethnohistory for Wiradjuri in the lands of Wellington.

In 1985 Lance undertook an archaeological field survey for a proposed 132kV transmission line route from Wellington to Forbes, which extended over approximately 145km.

During the survey, Lance identified sixteen artefact scatters and two scarred trees and fourteen isolated finds. Lance determined that artefact scatters located closer to the wellington district were comprised mostly of quartz raw material, with river pebble also indicating a main source of raw stone tool material. Lance identified a correlation between the presence of archaeological sites such as artefact scatters and in proximity to water sources including major rivers and smaller creeks and channels. The scarred tree however was not unique to the area and was found to be in poor condition.

Pearson 1981

Pearson's 1981 analysis of the early ethnographic literature suggests that Wiradjuri people formed several groups in the region including one which occupied the Bell River valley in the Wellington district, one occupying the Orange region and one occupying the Cudgegong River valley at Mudgee, however group names have not been identified (NTSCORP 2012). Pearson estimates that the population of the three clan groups combined was 500-600 people. Smaller groups (20-40 people) were focused on creek valley areas where permanent water sources were available indicating a more permanent occupation area, however the lower lying river valleys may have been unsuitable for camping during the winter months.

Gresser 1941

In 1941 Gresser undertook extensive site recording and analysis of stone artefacts of the Aboriginal archaeological resources in the Dubbo region, being one the earliest accounts of recorded Aboriginal occupation. Similar records were prepared by Garnsey in 1946 and much later by Kamminga in 1991. Garnsey's accounts of 'contact' with Dubbo Wiradjuri people, their society and lifestyle, is invaluable as a reference source on the region's Wiradjuri people, particularly during the late contact period.

5.3 Archaeological Context Summary

The extensive archaeological investigations in the Wellington and surrounding area as summarised in **Section 5.2** indicate that:

- Stone artefact sites (isolated finds and artefact scatters) and scarred trees are the most recorded site types in the area, with PADs and burials are less common. Other site types, such as grinding grooves, stone arrangements and ceremonial sites such as bora grounds are rare. Sites unlikely to be present in the study area include burial mounds, bora grounds, grinding grooves, stone arrangements and quarries.
- The predominant raw materials used for stone artefact manufacture are quartz, silcrete and chert.
- Flakes, broken flakes, and flaked pieces are the dominant artefact types, with cores also present in the archaeological record. Implement types such as hammerstones and stone axes are rare.
- Sites tend to be associated with lower slopes located adjacent to watercourses or found on spurs, crests, and ridgelines. Isolated artefacts are likely to be located on landforms associated with past Aboriginal activities, which provided ease of movement through the area, and level areas with access to water, particularly creeks and rivers.
- Generally, sites are represented in low densities, however this could be an indication that few archaeological investigations have been undertaken in the area and therefore the sites are yet to be found, or that sites have not been recorded due to cultural sensitivity.
- The area has been subject to extensive agricultural practices associated with cropping and grazing.
- According to ABMS 2008, previously recorded Aboriginal sites within the Wellington area generally occur in the vicinity of watercourses, in elevated areas, and in areas with suitable geology or mature vegetation.

6. ABORIGINAL HERITAGE INFORMATION SYSTEM

Heritage NSW (formerly OEH) maintains the Aboriginal Heritage Information Management System (AHIMS) database, a register of Aboriginal archaeological sites that have been recorded in New South Wales. A preliminary basic search of the AHIMS database within a 2km radius was undertaken on 25 November 2020 (Client ID: 641722). This search indicated 2 recorded sites within the locality of the proposed BESS investigation area.

The AHIMS search provides an archaeological context for the area and identifies whether any previously recorded Aboriginal sites are located within or near the study area. The parameters of the search were as follows:

[redacted]

A total number of 2 Aboriginal archaeological sites were identified in the extensive AHIMS search area. The distribution of recorded sites within the AHIMS search area is shown in **Figure 6**. Heritage NSW-lists 20 standard site features that can be used to describe a site registered with AHIMS, and more than one feature can be used for each site.

The frequency of recorded site types is summarised in **Table 4**. For the 24 sites within the search area, one site feature was recorded.

Table 4 – Recorded Site Types for Apsley BESS AHIMS Search

[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

There were two (2) recorded sites identified in the nearby area, however, are outside of the proposed impact area. All recorded site types are recorded as restricted sites [redacted]. Recorded sites within the study area are shown in **Figure 16**. All registered sites in the AHIMS search consist of open site contexts.

The nature and location of registered sites reflects past Aboriginal occupation of the land; however, the sites are also influenced by historical land-use, and the nature and extent of previous archaeological investigations.

Although Aboriginal occupation covered the whole of the landscape, the availability of fresh water, and associated resources, was a significant factor in repeated and long-term occupation of specific areas within the landscape. Potential impacts of the proposed Apsley BESS may also include disturbance of unknown Aboriginal heritage sites.

Recorded sites located during site survey will be uploaded to the AHIMS database:

- Apsley IF-1 – AHIMS TBC
- Apsley IF-2 – AHIMS TBC

The locations and details of Aboriginal sites are considered culturally sensitive information. It is recommended that this information, including the AHIMS data, is removed from this report if it is to enter the public domain.

Figure 6 – AHIMS sites recorded

7. PREDICTIVE MODEL

Aboriginal site features occur across the entire landscape; however, some parts of the landscape have a greater capacity to contain certain site features or features of different types. The variation in site feature likelihood across the landscape is useful for planning assessments of potential site impacts.

Stone artefacts and scarred trees are the most likely representation of Aboriginal occupation of the area. Whilst Aboriginal sites may be expected throughout all landscapes, archaeologically sensitive areas mostly occur in proximity to water(NGH 2018:71).

Although limited models have been prepared for the Wellington region, earlier archaeological models have been prepared for areas surrounding Dubbo and on the upper reaches of the Macquarie River by Pearson in.1981 and Koettig in 1985.

In 1981 Pearson completed a major regional study of the Upper Macquarie River commencing from southeast of Dubbo at Wellington and continuing north of the study area. A site distribution model was developed based on excavation of three sites located further to the east. This assessment identified that there is a strong correlation between site location and proximity to water resources with a tendency for larger occupation sites to be located nearest permanent water resources. Characteristics for occupation include, elevated areas, with most sites located on undulating areas supporting woodland, however closest to Dubbo sites were found on river or creek banks. He concluded that in the plain's areas, Aboriginal movement toward the rivers may have been for the purposes of ensuring a continued food supply during drought, to gather seasonally available food items or to fulfil social obligations. Grinding groove or quarry sites were dependant on suitable stone outcrops, ceremonial and stone arrangements were located away from occupation sites associated with hills or knolls and burial sites likely occur where dry soil or sand deposits were present. Bora grounds were also located away from campsites; however, carved trees and scarred trees were located throughout a variety of landforms, with some carved trees were associated with burials

In 1985 Koettig undertook a series of surveys for a heritage assessment of the Dubbo City Local Government area and a predictive model of past Aboriginal occupation was developed. Koettig surveyed a 9km stretch of the Macquarie River between the Mitchell Highway and its confluence with Cum boogie Creek. In this sample unit the predominant sites were occupation sites and scarred trees. During this study Koettig indicated that water, underlying geology and food resources were the key factors for Aboriginal occupation. Large campsites were found and located near permanent water courses such as rivers, springs and natural wetlands, however smaller camps were also found in all landscape contexts. The study found that that intensive evidence of Aboriginal occupation in the Dubbo region is most likely to occur along the major river courses as a result of the dryer landscape. Predictive modelling suggests that shell middens/lens site types would only be associated along the Macquarie River, whilst grinding grooves were mostly associated with sandstone outcrops. Smaller campsites may be located anywhere with scarred trees likely to be found where older stands of timber remain, and the evidence of stone arrangements are likely to occur on knolls.

Previous archaeological surveys undertaken in the Wellington region indicate that sites and isolated finds are present and occur across the landscape.

7.1 Previously Recorded Sites

Previously recorded sites were identified through the AHIMS search outlined in **Section 6.** [redacted]

Isolated finds and artefact scatters were also commonly recorded on spur crests and associated slopes leading towards a watercourse. Grinding grooves and stone arrangements are extremely rare site types.

Regional studies indicate that quartz, silcrete and chert (AMBS 2008) are the dominant raw materials used for artefact manufacture with evidence of river pebbles also being used (OzArk 2005). Flakes, retouched flakes and flaked pieces were the dominant artefact types recorded with smaller numbers of quartz and volcanic cores also present in the archaeological record. Implement types such as stone axes and hammerstones were rare.

The survey results have confirmed this predictive model with stone artefacts recorded as isolated finds and artefact scatters across the proposal site, even in areas highly disturbed by farming activities. The sites were identified across a range of landforms including slopes, flats, spurs, low hill crests and along creeks/drainage lines and their associated flats.

7.2 Landform Modelling

The survey area consists of low gradient flats transitioning to low undulating hills with little landform differentiation. Previous archaeological investigations of this type of topography suggests that scarred trees, isolated finds and low density artefact scatters would be the primary site types recorded. Further, these sites are likely to be associated with transient use of the landscape towards larger waterways of Watsons Creek and the Bell and Macquarie Rivers.

Based on our understanding of settlement strategies in the area, landforms, such as those represented in the study area, were not favoured for long-term camping. The area would have been more favoured for transient route crossings from larger creek or river systems indicating short term or sporadic movement.

The results of previous archaeological surveys in the Wellington region show that there are sites and artefacts present throughout the landscape. There is a dominance of artefacts either as isolated finds or artefact scatters. Scarred trees are also widespread in the region where old growth native trees remain.

Based on the previous archaeological investigations in the region, predictive modelling of the landform suggests that archaeological sensitive areas mainly occur along rivers and water courses, along crests or knolls where there are suitable stone resources, and the area has a high presence of Aboriginal scarred trees.

7.3 Predictive Modelling for the Study Area

Aboriginal people have occupied what we now know as the Australian continent for at least 40,000 years and perhaps 60,000 years and beyond (Mulvaney and Kamminga 1999, Hiscock 2007). Within the Wiradjuri region, the presence of Aborigines in the Darling Basin has been dated to 40,000 years ago (Hope 1981;Haglund 1985).

Limited site modelling for the Wellington region to date suggests that although Aboriginal sites may be recorded in all landscapes, the archaeological sensitive areas are most likely to occur in close proximity to water, with the availability of raw material resources. However, Aboriginal people in all regions moved throughout the landscape and utilised different resources.

Based on previous archaeological investigations and recorded sites in the region and using the basis of site modelling in the Upper Macquarie River region by Pearson (1981) and Koettig (1985) a predictive model for the study area has been developed below. The following conclusions can be drawn from this information on the likelihood of Aboriginal heritage sites being present or located in the landscape of the study area.

Isolated finds

Isolated finds are present across the entire landscape and may be indicative of loss or deliberate discard of a single artefact be the result of limited stone knapping activity. The presence of isolated artefacts may indicate the likelihood of more extensive, in situ buried archaeological deposits, or a larger deposit obscured by low ground visibility. Although no isolated artefacts have previously been recorded in or near the study area, they may occur anywhere within the landscape but are more likely to occur in topographies where open artefact scatters typically occur.

Although no isolated artefacts have previously been recorded in or near the study area, there is a high likelihood that such isolated artefacts are present in the study area.

- As isolated finds can occur anywhere, particularly within disturbed contexts, it is predicted that this site type could be recorded within the study area.

Open artefact scatters

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 subsurface distributions of flaked stone discarded during the manufacture of tools but may also include other artefactual rock types such as hearth and anvil stones.

There is potential for artefact scatters to be found in all environmental contexts and landforms, although larger and denser sites are predominantly located on the riverbanks and lower slopes facing watercourses, and on elevated ridgelines. This site type usually appears as surface scatters of stone artefacts in areas where vegetation is limited and ground surface visibility increases. Such scatters of artefacts are also often exposed by erosion, agricultural events such as ploughing, and the creation of informal, unsealed vehicle access tracks and walking paths.

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 routes across the landscape to available resources such as the open valley slopes and the valleys of creeks, will tend to contain more and larger sites, mostly camp sites evidenced by open artefact scatters.

- Artefact scatters are likely to be recorded in the study area within the low gradient level landscape. However, the impact of previous and current land use (**Section 4.4**), also indicates that if artefact scatters are recorded, they are likely to yield low artefact density and will likely be in a disturbed context.

Aboriginal scarred trees/carved trees

Aboriginal scarred trees/carved trees contain evidence of the removal of bark (and sometimes wood) in the past by Aboriginal people, which formed a scar. Bark was removed from trees for various resource use. It was used as a raw material for manufacture of tools, weapons and vessels and used for building materials for shelters or for transport such as canoes. Carved trees marked areas for ceremonial purposes and are known to have existed locally through ethnographic accounts associated within the Wellington area.

- Vegetation within the study area has been relatively cleared and there are few native trees, Therefore, this site type is not expected to be recorded in the study area. However it is noted that two previously recorded scarred trees are allocated immediately north west of the study area and this site type may have been recorded in the study area prior to disturbance.

Quarry sites

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. Previous studies have indicated that quarries may be present anywhere that suitable raw material and geology are accessible (Pearson 1981). Therefore there is moderate to low likelihood that such sites will be present within the study area.

- This site type could be recorded within the study area should suitable rock outcroppings be available.

Burial mounds

Burials are generally found in soft sediments such as aeolian sand, alluvial silts close to rivers and creeks with known sites occurring in the Macquarie River district with nearby carved trees representing ceremonial markers. Burials can also occur in rock shelter deposits in close proximity to campsite locations. 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 subsurface sediments or where some erosional process has exposed them.

- No landscape features exist within the study area. Although, there are recorded sites in the general area, and the occurrence of waterways and suitable camping grounds are located at a distance away from the study area, the likelihood of burial mounds to occur is low and are unlikely to occur.

Bora Ground/Ceremonial sites

Bora Grounds and/or ceremonial sites are places which have ceremonial or spiritual connections. Ceremonial sites may comprise of natural landscapes or have archaeological material. Bora sites are ceremonial sites which consist of a cleared area and earthen rings. Bora grounds were often located, some distance from frequented campsites in a discreet location. Several bora grounds are known to have existed in the region through ethnographic accounts, although many sites have been destroyed or lost. One such site was on the Macquarie River bank at Wellington, marked by several bora rings as well as earth figures and carved trees. r. This site type does not necessarily follow landform predictability and are, overall, a rare site type with a low likelihood of being present and remaining extant due to the historical land use of the study area.

Grinding Grooves

Grinding grooves are the physical evidence of Aboriginal tool making or food processing activities. Grinding grooves are represented as an imprint in the flat surface of soft rocks such as sandstone as a result of the manual rubbing of stones against each other to create grooves. The suitable rock types are usually found in areas of creek beds and other water sources. Grinding grooves and carvings are most likely to occur in areas to the north of the Macquarie River in association with sandstone and/or granite formations.

- There is a low likelihood of this site type to be located within the study area.

Stone Arrangements and Cairns

Stone arrangements and cairns are thought to be ceremonial in nature and are known to occur regionally in association with bare, exposed hilltops or knolls; or bare areas of exposed, flat land. Their locations are usually isolated from known campsite areas and are often a considerable distance from water, especially in the case of the hill top variety (AMBS 2008).

- There is a low likelihood of stone arrangements or cairns to be located within the study area, due to the relatively flat landform and historical ground disturbance across the site.

In summary predictive modelling of the landform suggests that archaeological sensitive areas mainly occur in close proximity to water, however transient use of the landscape and utilisation of available resources such as raw materials and old growth threes are also prevalent in the area. There is some potential for archaeological evidence to occur across the proposal site. This would most likely be in the form of stone artefacts such as isolated finds and artefact scatters as well as the quarry sites if the resource is present.

The following site types have previously been recorded within the local region, however, have a moderate to low likelihood of being present within the current study area such as burial mounds, bora grounds, grinding grooves and stone or cairn arrangements.

8. ARCHAEOLOGICAL SURVEY

An archaeological survey was undertaken on 1 December 2021. The survey was undertaken by Premise Archaeologist Latisha Ryall who was accompanied by WVWAC RAP Murray Clines and ACEnergy Pty Ltd Project Development Manager Danny Wilkinson. The survey was undertaken through pedestrian transects, traversing the area of proposed impact. Predefined transects (10 in total) were followed during the survey. The survey included areas located across Lot 3 DP1012686, Lot 107 DP756920, an unconstructed Crown road reserve and within the Mitchell Highway road reserve.

The survey was undertaken by foot using a hand held GPS to record tracks, relevant to the proposed transects outlined in the Draft ACHAR Methodology, issued to RAPS on 25 November 2021. Slight modifications to the transects were made on site in discussions with RAPs on the coverage area and site accessibility. Some areas could not be accessed due to recent wet weather and heavy rainfall events, resulting in wet ground cover, and at times a waterlogged landscape, however all attempts to access as much coverage was undertaken. Surveyors were spaced at a maximum of 10 m apart across the transect survey areas.

The survey traversed transects in an east west direction covering the proposed development impact area on the northern boundary of the site and also covered an area approximately 300 m to the south. The survey also covered a north west aligned transect to the east for the proposed transmission line connection for a total distance of approximately 350m. The survey also traversed a portion along the Mitchell Highway on the western boundary of the site, to assess the proposed access point.

The site was actively used for oat crop and agricultural grazing of cattle. During the site inspection some areas were notably waterlogged from recent wet weather events, occurring close to drainage lines which constrained surface visibility. Survey transects were modified slightly to maximise visibility across the site. This included utilising drainage line exposures, erosion areas and other moderate visibility locations where they were encountered, as well as transects through pasture.

During the archaeological survey, two isolated stone artefacts were recorded. Site location and artefact attributes were recorded on a hand held Garmin Magellan GPS (refer **Section 8.3**).

No cultural knowledge was provided on site by the WVWAC representative and no concerns with the proposed development were raised during this period.

The main objective of the site survey was to:

- Assess the Aboriginal archaeological values of the study area in accordance with the Code of Practice.
- Identify Aboriginal archaeological and cultural heritage values that may be impacted by the proposed works.
- Identify any further investigations, and mitigation and management measures that may be required, should the project proceed.

As set out in the Code of Practice, the aim of any survey is to adequately assess all representative landforms within the study area so as to identify and understand archaeological characteristics. The survey therefore provides information on the likelihood of archaeological potential within the study area and for this information to be assessed and inform management strategies of Aboriginal heritage to be developed.

8.1 Survey Methodology

As defined in **Section 3.3** a survey methodology was prepared for the Apsley BESS project and issued to RAPS on 25 November 2021.

The survey methodology was prepared considering the following requirements:

- To survey an adequate sample area that will be impacted by the proposed Apsley BESS development including the solar investigation area and the buildable footprint (as defined as the 'study area' in this document).
- To provide an opportunity for the RAPs to visit the proposed development site and to provide cultural knowledge including intangible knowledge of the area.
- To consider site management and constraints for the proposed development area.
- To ensure that the RAPs are satisfied that the survey effort was adequate.

The field survey was conducted using pedestrian transects A focus on areas with higher archaeological potential such as exposures along drainage lines, tracks or where ground disturbance had occurred such as boundary fence lines were undertaken.

A photographic record was kept of the landform elements, disturbance of the site and ground conditions. All Aboriginal objects identified during the site survey were adequately recorded to the standards subscribed in the Code of Practice. All previously recorded sites were surveyed so that their current condition could be assessed.

8.2 Survey Results

The archaeological survey was undertaken in accordance with the above methodology, along predefined transects. **Figure 7** shows an aerial image with delineated survey tracks of one of the surveyors.

During the survey two isolated quartz flakes were recorded (Apsley IF-1 and Apsley IF-2). The artefacts were found within a distance of 20 m to one another and were found in a disturbed context on exposed areas associated with farm access tracks on a relatively flat landform. Both artefacts, however, are determined to be located out of the proposed development area. The artefacts consist of flaked quartz <15mm in size (refer **Section 8.3**).

[redacted]

Observation undertaken during the survey indicated that the proposed development area was relatively flat, currently used for cropping and grazing and located on a mild slope from east to west down towards the Mitchell Highway. The surrounding landscape consists of low undulating hills, with scattered remnant trees and remnant woodlands on surrounding hilltops. A farm dam is located in the north eastern portion of the site and native trees and shrubs have been planted along the Mitchell Highway to the west. To the south of the study area, the landform rose to a high point on the eastern side. Evidence of small rocky outcrops were visible throughout the survey towards the southern portion of the study area. One old growth tree was located in the study area and was assessed for cultural modification, however, did not reveal cultural scarring with natural deterioration noted. Most of the study area consisted of agricultural oat crops.

Most of the study area showed dense ground coverage, resulting in poor surface visibility and exposure of the ground surface. Areas where ground surface exposure showed higher visibility were located along vehicle tracks or slightly raised contour banks or disturbance from grazing cattle. Soils in the study area ranged from red/brown clays in the northern portion of the site, transitioning to red silty loams in the southern portion of the study area in seasonal drainage locations. This is consistent with the Bodangora soil landscape of the area, which is used primarily for dryland cropping of wheat, canola, oats and legume crops.

Overall the study area had been heavily modified through historical cropping ang grazing. Evidence of ephemeral drainage lines were observed on the western boundary in a north east – south west orientation, however no artefactual material was observed during this area. Towards the southern boundary of Lot 3 the soil profile transitioned from clay to silty sand; again no artefactual material was observed in this area and is located out of the development impact area.

The proposed access area was heavily modified by the construction of the Mitchell Highway and road reserve, with dense ground coverage and evidence of introduced fills. No artefactual material was observed in this area.

A preliminary summary from the survey indicates that the study area has been heavily modified through historical agricultural use and construction of the Mitchell Highway. The survey did not indicate a high potential for archaeological significance in the proposed development area.

The survey area is shown in **Section 8.5**.

Figure 7 shows a track route undertaken by one surveyor during the site survey with approximate locations of isolated artefact finds shown in **Figure 16**.

Figure 7 – Archaeological Survey Tracks

8.3 Apsley IF-1 and Apsley IF-2

During the archaeological survey two newly recorded isolated finds were recorded (AHIMS TBC, however for this report are identified as Apsley IF-1 and Apsley IF-2).

Both artefacts were manufactured of quartz [redacted] within [redacted] in an open site context, with the condition of the site characterised as poor. The artefacts were found within a distance of 20 m to one another and were found in a disturbed context in a relatively flat landform associated with Survey Unit 3 (refer **Section 8**).

Both artefacts, however, are determined to be located out of the proposed development and/or impact area.

Assessment of the cultural significance of AHIMS sites previously recorded indicates that the study area has not been identified as contributing to the cultural values of the study area, however it is acknowledged that Aboriginal people often believe that artefacts, even when displaced, contribute to the cultural landscape. It is acknowledged that they are markers of past occupation and a tangible connection to ancestors.

The location of Apsley IF-1 and Apsley IF-2 are shown in **Figure 16**

8.3.1 APSLEY IF-1

Apsley IF-1 is recorded as a quartz microlith flake, located towards the eastern boundary of the study area. The artefact was found in an open site context in a disturbed area, with the condition of the site characterised as poor. The landform is characterised by cleared vegetation with a distance to the nearest larger water source Watsons Creek located approximately 1.3km to the east.

The recorded location of Apsley IF-1 is Zone 55, 0683201mE, 6387024mN.

The complete artefact measured 4 x 5 x 2 mm in size with a tertiary stage of reduction.

The artefact has likely been moved from its original location through stock or vehicle movement representing a secondary context.

Figures 8-11 represent Apsley IF-1.

Figure 8 - Apsley IF-1 quartz microlith

Figure 9 - Apsley IF-1 location view north

Figure 10 - Apsley IF-1 location view south

Figure 11 - Apsley IF-1 overview context

8.3.2 APSLEY IF-2

Apsley IF-2 is recorded as a quartz microlith flake, located towards the eastern boundary of the study area. The artefact was found in an open site context in a disturbed area on an exposed access track, with the condition of the site characterised as poor. The landform is characterised by cleared vegetation with an approximate distance to Watsons Creek located approximately 1.3km to the east.

The recorded location of Apsley IF-2 is Zone 55, 0683197mE, 6387000 mN.

The complete artefact measured 13 x 13 x 3 mm in size with a tertiary stage of reduction representing a microlith.

The artefact has likely been moved from its original location through stock or vehicle movement representing a secondary context.

Figures 12-15 represent Apsley IF-2.

Figure 12 - Apsley IF-2 quartz microlith

Figure 13 - Extant Structure view west

Figure 14 - Apsley IF-2 location view east

Figure 15 - Apsley IF-2 location view north

Figure 16 – Location of Apsley IF-1 and IF-2.

8.4 Landforms Likely to Preserve Archaeological Deposits

Survey areas were assessed for their archaeological sensitivity based on previous archaeological research, topography, and prior land use. Due to the small size of the study area and areas subject to low archaeological sensitivity, the need for targeted intensive survey was not needed. However predetermined survey tracks were followed, and the impact area was assessed. Three survey units were identified during the survey.

8.5 Survey Units

The study area is located within a heavily disturbed landscape which has been subject to extensive agricultural grazing and clearing of natural vegetation Infrastructure disturbance has also occurred on the site with the placement of transmission lines on the eastern boundary Three survey units (SU) were identified during the site survey and consist of low undulating plains (lower slopes), drainage lines associated with ephemeral creeks and lower flats.

The survey unit area excludes the south eastern portion of the study area which was determined to be out of the impact area and associated with the homestead on the property. This decision was made on site in consultation with RAPs. The survey coverage area for this assessment is 18.57ha. Survey coverage for the study area is shown in **Figure 17.**

Overall there was low survey efficacy due to low visibility across the site and this may have contributed to the lack of recordings, indicating a low likelihood of artefacts. Landforms that are identified as more likely to contain Aboriginal sites include areas closer to permanent waterways such as the Watsons Creek and Bell and Macquarie Rivers that are located at a considerable distance from the study area.

Survey Units are shown in **Figure 18.**

Figure 17 – Survey Unit Area

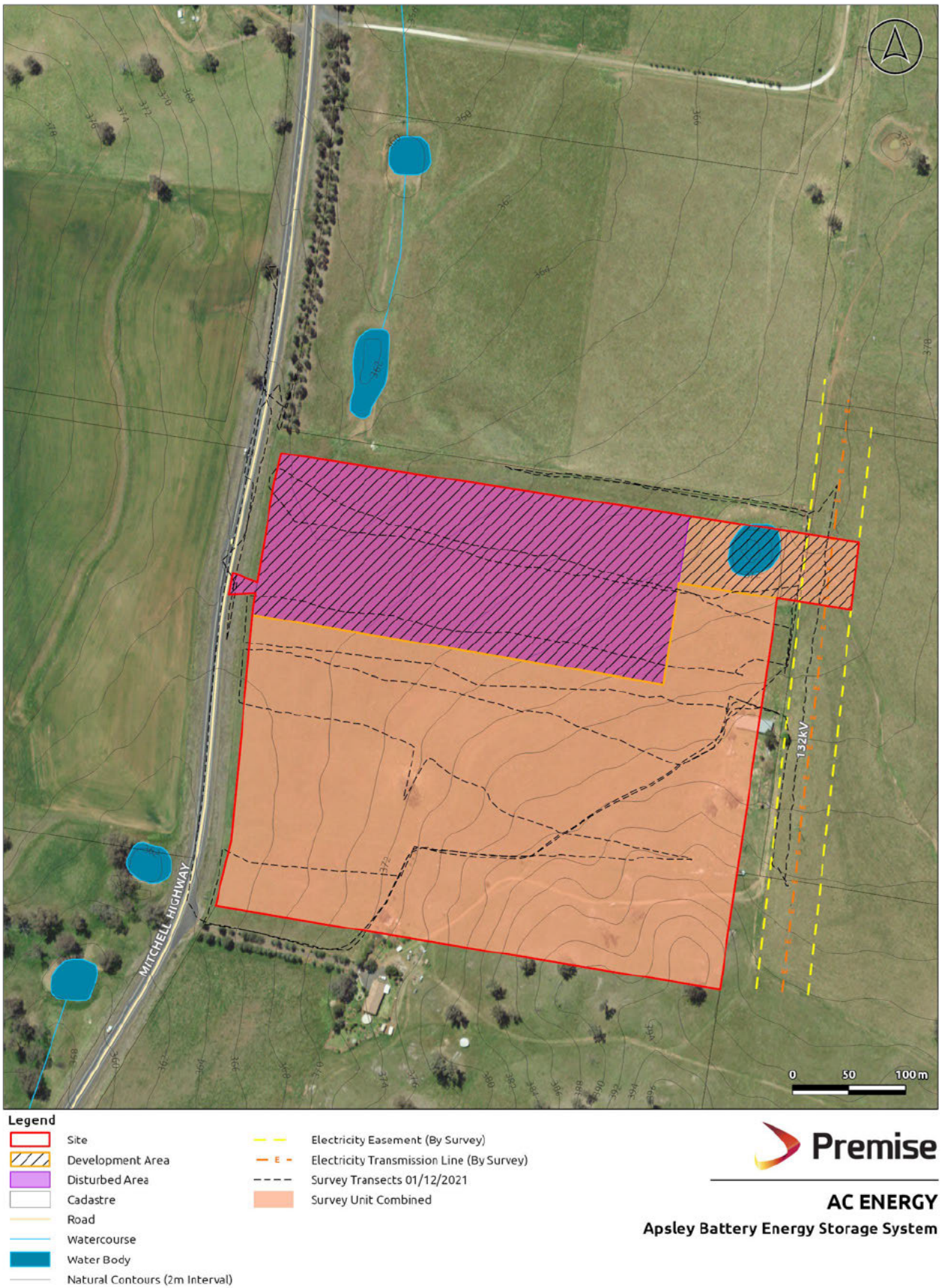


Figure 18 – Survey Units

8.5.1 SURVEY UNIT 1 – LOWER SLOPES

Survey Unit 1 (SU1) consists of a lower slope profile located in the south eastern portion of the study area. This landform consists of cleared pastoral land with low gradient slopes and rocky outcrops. Within SU1 ground coverage was moderate, with low exposure areas mostly found along vehicle and stock access tracks with an overall low visibility. Areas of exposure and higher visibility were also found along fence lines.

In total approximately 4.23 ha (42,300 m^2) of this landform type was surveyed with 0.08% effective survey coverage.

Figure 19 – SU1 lower sloped landform view west

Figure 20 – SU1 view north west showing rock outcrop

Figure 21 – SU1 lower slope view south

Figure 22 – SU1 lower slope view south east

8.5.2 SURVEY UNIT 2 – DRAINAGE LINES

Survey Unit 2 (SU2) consists of the smaller drainage lines located within the study area along the northern most boundary and along smaller portions of western boundary. These drainage lines are not permanent waterways and were subject to recent wet weather events. Drainage lines in this survey unit were characterised by waterlogged areas closer to the extant dam located in the north eastern corner of the site, with nil chance of archaeological potential or retaining intact sites due to the swampy conditions. Some slight alluvial channels were located in the south western portion of the site and out of the impact area, however had a moderate visibility. Overall visibility in SU2 was low, with nil-low ground exposure.

In total approximately 1.61ha (16,100m^2) of this landform type was surveyed with 0.01% effective survey coverage.

Figure 23 – SU2 drainage areas on northern boundary

Figure 24 – SU2 waterlogged area view south

Figure 25 – SU2 alluvial deposit in south west

Figure 26 – SU2 dam view north west across study area

Figure 27 – SU2 drainage areas on western boundary

Figure 28 – SU2 drainage areas on northern boundary

8.5.3 SURVEY UNIT 3 – FLATS

Survey Unit 2 (SU3) consists of a relatively flat landform transitioning from the lower slopes in the south east towards the western boundary and Mitchell Highway. This area was covered by extensive oat crop with very dense ground coverage and overall poor visibility. Areas with higher exposure were located on stock and vehicle access tracks associated with the dwelling located on the eastern boundary of the study area. The flats continued along the north eastern boundary in the location of the extant transmission line. Overall visibility in SU3 was low to moderate, with some ground exposure.

In total approximately 12.92ha (129,200m2) of this landform type was surveyed with 0.34% effective survey coverage.

Figure 29 – SU3 flats view south along access track

Figure 30 – SU3 areas of higher exposure view west

Figure 31 – SU3 view west across study area

Figure 32 – SU3 view east across study area

Figure 33 – SU3 exposure area view west

Figure 34 – SU3 view south along eastern boundary

8.6 Survey Coverage

The survey focused on areas subject to impact and areas determined to have a higher level of sensitivity, with consideration of land use history. Previous archaeological assessments in the area were used to inform archaeological potential.

In accordance with the Code of Practice a summary of survey coverage is outlined in **Table 5** and **Table 6**. Most of the study area was covered in dense grass coverage and cropped oat, with a small, waterlogged area located on the northern boundary associated with the extant dam and associated drainage lines located on the western boundary towards the southern end of the study area. The dense ground coverage resulted in low visibility across most of the study area. Areas of exposure were visible along vehicle tracks or stock routes, along the base of trees or small rock outcrops or along fence lines resulting in moderate visibility.

Overall there was a low survey efficacy due to low visibility across the study area. However, there were moderate exposures along access tracks where the archaeological potential was greater, The regional model of past Aboriginal settlement indicates that lower slopes, ridgelines and areas located closer to larger watercourses such as rivers and creeks were optimal occupation areas. In the study area, the topography is relatively flat with gentle slopes located towards the east of the study area and small drainage lines that would not be suitable for occupation activities.

Table 6 indicates that the low number of recordings made during the survey may be attributable to the low survey efficacy. However, while the low ground surface visibility certainly may have contributed to the lack of recordings, archaeological investigations in the region indicates that the rolling plain landforms have a much lower artefact density when compared to landforms closer to permanent water sources or areas with old growth trees that have not been subject to extensive clearing. Therefore, while low density artefact scatters or isolated finds may have been obscured, the available information suggests that large, significant sites are absent in the landforms that characterise most of the study area.

Table 5 – Survey Coverage

Survey Unit	Landform	Survey unit and area m^2	Visibility %	Exposure %	Effective Coverage m^2	Effective Coverage %
1	Lower slopes	42,300m^2	1.7%	5%	33.35m^2	0.08%
2	Drainage Lines	16,100m^2	1.67%	0.7%	2.59m^2	0.01%
3	Flats	129,200m^2	5%	6.88%	433.78m^2	0.34%

Table 6 – Landform Summary

Landform	Landform area m^2	Area effectively surveyed m^2	% of Landform effectively surveyed	Number of Sites	Number of artefacts or features
Lower slopes	42,300m^2	33.35m^2	0.08%	0	0
Drainage Lines	16,100m^2	2.59m^2	0.01%	0	0
Flats	129,200m^2	433.78m^2	0.34%	2	2

9. DISCUSSION

The observed distribution of artefacts recorded during the archaeological field survey indicates a low density surface scatter located towards the eastern boundary of the study area. This area is not subject to impact as a result of the proposed BESS development.

As recommended in **Section 13**, an appropriate 10m buffer exclusion zone would be implemented around these sites during construction to avoid any impact to known Aboriginal heritage sites.

It is noted that higher density artefact scatters are likely to occur in landforms other than that which are located in the study area, such as areas located closer to permanent waterways and areas which would provide adequate camping sites.

Overall, the isolated surface finds were recorded in low numbers two (2) in total, set within a relatively flat profile at the transition from lower slopes located to the south east, with moderate exposure visibility compared to the rest of the site.

The artefacts recorded in this location consisted of small microlith quartz flakes, discarded over time and likely to be in a secondary context. The observed distribution in this location is consistent with the suitability of the landscape, where higher artefact densities would appear to be located closer to larger waterways or low slopes such as those located on the eastern slopes rather than out on the exposed flats.

A survey summary was provided to the client on 2 December 2021 and is provided in **Appendix G**.

9.1 Ground Disturbance

Based on historical records and during site survey it has been identified that the majority of the study area has been subject to extensive levels of ground disturbance associated with former and current pastoral activities. Ground disturbance has also occurred with the installation of infrastructure associated with the Mitchell Highway which bounds the study area to the west. Dams have also been created in the north western portion of the study area, whilst an existing transmission line runs north south across the eastern boundary of the study area. Disturbance to the site has also occurred through vehicle movement along access tracks used throughout the property.

The study area has also been relatively cleared of native vegetation, located on the Wellington – Molong Karst Landscape which represents over clearing status of 99%. Drainage lines occurring in the area are seasonal and represent occurrence of historical modification, where water sources deviate from their original water course over time dependent on weather conditions.

Ground disturbance and impacts to Aboriginal archaeology in the study area is discussed in **Section 12**.

9.2 Analysis of Archaeological Potential

Archaeological potential of a site is determined by several factors including landform, location and the level of disturbance that has impacted the area. In areas where there is a high level of disturbance, the archaeological potential is lowered.

The archaeological potential of the study area is based on the landform elements and predictive modelling discussed in Section 5, and also assessed through site investigations.

The study area consists of a relatively flat landform with low gradient undulating hills located further to the east and small rises to the north with little landform differentiation, with isolated finds predominately recorded in areas associated vehicle movement or areas with higher exposure. The landforms within the study area were not favoured for long-term occupation., with more favoured occupation areas being located closer to more permanent waterways such the Bell and Macquarie Rivers and their tributaries.

In areas where there is a high level of disturbance such as the study area which has been subject to extensive agricultural activities, it is unlikely that surface finds in these areas are in their original context. In some instances, it is also unlikely that sub-surface archaeological deposits are intact.

10. ABORIGINAL CULTURAL HERITAGE ASSESSMENT

10.1 Methodology

The Aboriginal cultural heritage assessment in this report includes information collected through site survey, desktop assessment and consultation conducted throughout the ACHAR. This information was collected by Latisha Ryall (Archaeologist Premise),

10.2 Cultural Landscape

The relationship between Aboriginal Australians and the land is conceived in spiritual terms rather than primarily in material terms (Andrews et al 2006). Aboriginal cultural knowledge has been defined as:

> *Accumulated knowledge which encompasses spiritual relationships, relationships with the natural environment and the sustainable use of natural resources, and relationships between people, which are reflected in language, narratives, social organisation, values, beliefs and cultural laws and custom (Andrews et al 2006).*

Aboriginal cultural knowledge was traditionally passed on through oral traditions from generation to generation. Within all Aboriginal communities there was a time of dislocation and upheaval associated with the arrival of colonial settlers. This widespread disruption resulted in much of the detailed knowledge and understanding of many of the elements of the cultural landscape being lost from the Aboriginal community, nonetheless many Aboriginal people maintain a strong connection to the land of their ancestors and collectively possess a wealth of knowledge passed down through the generations.

11. IDENTIFIED ABORIGINAL CULTURAL HERITAGE VALUES

11.1 Identified Social Values

The Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW (OEH 2011: 8–9) notes that cultural significance is comprised of an assessment of social values, scientific values, aesthetic values, and historic values. Essentially, assessing the cultural significance of a place means defining the reasons why a place is culturally important. These values are described as:

> *Social or cultural value*
>
> *Social or cultural value refers to the spiritual, traditional, historical or contemporary associations and attachments the place or area has for Aboriginal people. Social or cultural value is how people express their connection with a place and the meaning that place has for them.*
>
> *Places of social or cultural value have associations with contemporary community identity. These places can have associations with tragic or warmly remembered experiences, periods or events.*
>
> *Communities can experience a sense of loss should a place of social or cultural value be damaged or destroyed.*

There is not always consensus about a place's social or cultural value. Because people experience places and events differently, expressions of social or cultural value do vary and in some instances will be in direct conflict (Johnston 1992). When identifying values, it is not necessary to agree with or acknowledge the validity of each other's values, but it is necessary to document the range of values identified.

Social or cultural value can only be identified through consultation with Aboriginal people. This could involve a range of methodologies, such as cultural mapping, oral histories, archival documentation and specific information provided by Aboriginal people specifically for the investigation.

Historic value

Historic value refers to the associations of a place with a historically important person, event, phase or activity in an Aboriginal community. Historic places do not always have physical evidence of their historical importance (such as structures, planted vegetation or landscape modifications). They may have 'shared' historic values with other (non-Aboriginal) communities. Places of post-contact Aboriginal history have generally been poorly recognised in investigations of Aboriginal heritage. Consequently, the Aboriginal involvement and contribution to important regional historical themes is often missing from accepted historical narratives. This means it is often necessary to collect oral histories along with archival or documentary research to gain a sufficient understanding of historic values.

Scientific (archaeological) value

This refers to the importance of a landscape, area, place or object because of its rarity, representativeness and the extent to which it may contribute to further understanding and information (Australian ICOMOS 1988).

Information about scientific values will be gathered through any archaeological investigation undertaken. Archaeological investigations must be carried out according to OEH's Code of practice for archaeological investigation of Aboriginal objects in NSW, available at www.environment.nsw.gov.au/licences/archinvestigations.htm.

Aesthetic value

This refers to the sensory, scenic, architectural and creative aspects of the place. It is often closely linked with the social values. It may consider form, scale, colour, texture and material of the fabric or landscape, and the smell and sounds associated with the place and its use (Australian ICOMOS 1988).

11.2 Social or Cultural Values associated with the Study Area

An invitation to provide social and/or cultural values for the Apsley BESS was provided to RAPs through the community consultation process via the Advertisements, Registration of Interest notification letters and via draft ACHAR and Survey Methodology. Opportunities to provide verbal social and/or cultural values for the Apsley BESS were also encouraged during the site survey. No specific information was provided on the significance of the study area.

It is important to note, however, that the cultural landscape is central to Aboriginal identity, with respect to both traditional and contemporary society. The relationship between Aboriginal community and the landscape is expressed through stories, art, ceremonies, and other cultural forms, both physical and non-

physical. These factors determine the significance of the area and cultural sites of the Wiradjuri within the Wellington /Dubbo LGA.

Aboriginal cultural values are also discussed in **Section 3.5**.

11.3 Identified Historic Values

Historic values specific to the Apsley BESS investigation area have yet to be identified. However, there has been no previous investigations which indicate that the study area has an association with a known individual or historical event

11.4 Identified Scientific Values

The scientific values of the Apsley BESS investigation area discussed in **Section 5** Assessment of scientific value is often based on the research potential of the area.

Identified scientific values of the site may contribute to our broader understanding of the Apsley BESS investigation area regarding the importance of landscape features and/or rarity of objects or places.

During the archaeological field survey no particular locations were identified as sensitive landforms likely to contain subsurface archaeological deposits where conservation values are present.

Survey areas were assessed for their archaeological sensitivity based on previous archaeological research, topography, and prior land use. Due to the small size of the study area, the entire western portion was surveyed.

In terms of previous Aboriginal settlement in the study area, it is considered that the smaller drainage lines closer to the study area would not have been suitable long term occupation areas due to their nature as low gradient, braided creek channels consisting of alluvial soils that tend to be swampy in wetter seasons. Whereas the creek valleys of Watsons Creek and the larger Bell River and Macquarie River systems located several kilometres away from the study area would have provided valuable resources to Aboriginal groups and presented long term occupation sites.

The archaeological potential of an area is rated high, moderate or low, based on all of the above considerations.

A definition of each ranking is provided below:

High - Intact archaeological material is likely to be found in this area.

Moderate – Intact archaeological material may be found in this area

Low - It is unlikely that intact archaeological material will be found in this area.

The results from the archaeological field survey indicate that the study area has been assessed as having an overall low archaeological potential, with two isolated finds located outside of the impact area.

11.5 Identified Aesthetic Values

The aesthetic values of the Apsley BESS investigation area as it relates to cultural significance is not yet known and has not been determined through community consultation efforts. At the time this report was prepared no specific information on the aesthetic values of the study area had been provided by the RAPs, however feedback on the review of this report is encouraged.

Identified aesthetic values observed during field work considered landscape use and form, noting that the aesthetic values may be closely linked with social values of the study area. Identified aesthetic values of the study area were not identified, however aesthetic values of the broader area are most likely associated with the Bell and Macquarie Rivers and their tributaries such as the Watsons Creek and the Wellington Caves system all of which are located outside of the study area.

Aesthetic values likely relate to the sloped landform and remnant woodland in the east of the study area, as well as the plains towards the Bell and Macquarie Rivers and the landscape located immediately north of the study area where recorded sites are present and increase in those areas.

Overall the landscape in general has intangible aesthetic values in regard to intangible factors such as sights, smells and feelings.

11.6 11.6 Social Values Investigation

No specific comment or feedback was provided through the consultation process on social values relevant to the Apsley BESS study area. Opportunity to provide feedback was undertaken both on site during field work and through review of the ACHAR documentation.

It is noted that social values are important for identifying tangible and intangible heritage associated with country.

11.7 Significance Assessment

11.7.1 ABORIGINAL MATERIAL CULTURE

Aboriginal material culture located within the study area has been discussed in **Section 5, Section 6 and Section 8**. The archaeological material located within the study area represents isolated finds. However it is important to note, there is evidence of archaeological material in the form of scarred trees located immediately north of the study area.

The artefacts recorded during archaeological field survey is comprised of two isolated finds, representing flakes in the form of quartz microliths.

The presence of microliths in the landscape places it within the Australian small tool tradition and the Bondaian phase of the Eastern Regional sequence.

11.7.2 SIGNIFICANCE ASSESSMENT

An assessment of the cultural heritage significance of an item or place is required, so as to inform its management. The ACHAR Guide (2011) provides guidelines for heritage assessment with reference to the Burra Charter (Australia ICOMOS 2013) and the Heritage Office guidelines (2001). The assessment is made in relation to four values or criteria as outlined above.

As defined by the Burra Charter:

> *Cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations.*
>
> *Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects.*

It is also important to note that

> *Changes which reduce cultural significance should be reversible and be reversed when circumstances permit.*

A statement of heritage significance is provided below:

> *The objects recorded, and potentially occurring, in the study area have low scientific heritage significance, forming a small part of the wider archaeology of the Apsley/Wellington area. The artefacts are broadly typical of the assemblage recorded in the local area occurring on the surface recorded as isolated finds . The information contained in these objects will be readily available in the broader local landscape.*

The study area is considered to demonstrate low significance value.

Table 7 shows significance of the site relevant to heritage assessment criteria.

Table 7 – Cultural Heritage Assessment – Significance

Criteria	Significance
Research Potential	All archaeological sites have the potential to contribute to our understanding of Aboriginal occupation. However the study area shows an overall very low density of surface artefact scatters, which would not provide a significant contribution to research of the Apsley area individually but would add to the collective assemblage of other recorded sites nearby. The ability of the archaeological resources in the study area to significantly contribute to local or regional studies is low, yielding a small number of artefacts.
	Integrity: The study area has undergone modification through extensive land clearing for agricultural use. The archaeological deposit has likely been impacted by stock movement and bioturbation, which would likely result in the downward movement of artefacts. The archaeology of the subject site has been assigned as having low integrity.
	Complexity: The regional archaeological context indicates that larger and more complex sites would have been located in landforms closer to permanent water sources with a greater abundance of resources such as the Bell and Macquarie Rivers or those sites affording shelter such as the woodland to the east or the nearby limestone karsts. The results of the current investigation indicates that groups of Aboriginal people were not using the study area for long or short term occupation areas. as evidenced by the fact that the study area displays a low artefact density.
Archaeological Potential	There is low to moderate potential for further stone artefacts to be recorded in the study area, consistent with use of the landform by Aboriginal groups and transient movements, however, these would be in low density numbers, often at a density characterised as a background scatter or isolated finds.
Connectedness	The cultural material of the study area is connected to the cultural material of the broader Apsley/Wellington area. The artefact material recorded during the archaeological field survey is consistent with raw production of materials in the area - quartz.

Criteria	Significance
Representativeness	The archaeological material in the study area is representative of the archaeological material recovered in other areas of the Apsley/Wellington region. It comprises quartz raw stone material., Both artefacts recorded were considered microliths due to their small size. The evidence of both microlith isolated finds indicates that the stone tool productions is classified within the Australian small tool tradition and the Bondaian phase of the Eastern Regional sequence.
Rarity	The study area is not identified as rare. Archaeological material recovered during survey indicate similar artefact types as those recorded across the broader central west region and are representative of general campsite activities.
Education Potential	The archaeological remains of the study area have moderate educational potential as the material reflects Aboriginal occupation of the Wellington area and can contribute to the wider Aboriginal cultural collective in association with nearby sites. The material will also remain in situ, providing educational potential for future generations
Archaeological landscapes	The study area reflects a very low density of archaeological material in the form of two isolated finds in respect to the broader area, with more significant cultural landscapes identified outside of the study area such as scarred trees located to the immediate north. This archaeological landscape will not be significantly altered if the study area is developed as planned.
Aesthetic Value	The Aboriginal sites recorded during this study have low to moderate aesthetic value within the meaning attributed in a heritage assessment.
Historic Value	The study area in question is not directly associated with an important individual or identifiable historic event. Objects in the study area will not have 'historic value' within the meaning attributed by a heritage assessment.
Social or Cultural Value	Local Aboriginal people value evidence of their ancestors' occupation of the land extremely highly. Any evidence of occupation activity is afforded high cultural value. More complex or rare artefacts tend to be highly regarded.

11.8 Significance Assessment of Recorded Sites

11.8.1.1 Apsley IF-1

Criteria	Significance
Social or Cultural Value	Local Aboriginal people value evidence of their ancestors' occupation of the land extremely highly. Any evidence of occupation activity is afforded high cultural value.
Scientific Value	As an isolated artefact most likely in a secondary context, Apsley IF-1 has low research potential and low scientific significance.
Aesthetic Value	Apsley IF-1 has low aesthetic values as it is an unremarkable object that is not distinct in the landscape.
Historic Value	Apsley IF-1is not directly associated with an important individual or identifiable historic event and has no historic values.

11.8.1.2 Apsley IF-2

Criteria	Significance
Social or Cultural Value	Local Aboriginal people value evidence of their ancestors' occupation of the land extremely highly. Any evidence of occupation activity is afforded high cultural value.
Scientific Value	As an isolated artefact most likely in a secondary context, Apsley IF-2 has low research potential and low scientific significance. The site has low scientific values and further investigation is unwarranted.
Aesthetic Value	Apsley IF-2 has low aesthetic values as it is an unremarkable object that is not distinct in the landscape.
Historic Value	Apsley IF-2 is not directly associated with an important individual or identifiable historic event and has no historic values.

12. IMPACT ASSESSMENT AND HERITAGE MANAGEMENT

12.1 Aboriginal Heritage Impact

ACEnergy is proposing to develop an approximately 152 megawatt (MW) BESS with a potential capacity of up to 100 MW on the subject site. The proposed works will have no impacts to Aboriginal heritage.

12.1.1 IMPACT TO ABORIGINAL OBJECTS

The definition of harm to Aboriginal objects under the NPW Act is limited to impacts which

> *'...destroys, defaces, damages an object or place or in relation to an object – moves the object from land on which is has been situated.'*

This assessment has identified that there will be no impacts or loss of harm to Aboriginal sites or places during the proposed works. Both sites recorded during the archaeological survey Apsley IF-1 and Apsley IF-2 are located outside of the impact area and exclusion zones will be implement around both sites to avoid impacts.

The study area is liable to be harmed through earthworks, vibration, or increased runoff.

The proposed works as identified at the time this report was prepared, would result nil impacts to all identified Aboriginal objects. The study area has been assessed as having low to moderate scientific significance and low cultural significance.

Impact assessment for each location and recorded AHIMS site is provide below in **Table 8**.

Table 8 – Impact Assessment

Site Number	Type of Harm	Degree of Harm	Consequence of Harm
AHIMS ID # Apsley IF-1	None	None	No loss of value
AHIMS ID #Apsley IF-2	None	None	No loss of value

12.1.2 IMPACTS TO CULTURAL HERITAGE VALUES OF THE AREA

There will be no impact to the cultural heritage values of the broader area. The study area has been assessed as having nil-low archaeological sensitivity. All sites recorded in the study area will not be subject to impacts and will remain insitu (Apsley IF-1 and Apsley IF-2).

13. MANAGEMENT AND MITIGATION MEASURES

The overall guiding principle for cultural heritage management is that where possible Aboriginal sites should be conserved. There will be no impacts to known Aboriginal sites and areas of archaeological potential within the study area and subsequently management and mitigation measures related to this aspect of cultural heritage is outlined below.

The study area is not located within a culturally significant precinct with regards to both precontact and post contact use of the region. However, there is evidence of Aboriginal occupation across the site and in the broader region. The study area has been defined as having low archaeological significance determined by the landform assessment in Section 5.9.

13.1 Modifications to detailed design

No proposed modifications to the detailed design will occur. A buffer area of 10m is recommended for each isolated find Apsley IF-1 and Apsley IF-2 sites. It is noted that both sites are out of the impact area, however construction access may impact on these sites and a buffer area would be implemented for avoidance of any impacts to Aboriginal heritage.

13.2 Changes to the Proposed Works

This ACHAR has been prepared based on the most recent information made available to Premise at the time this report was submitted. Any changes made to the proposed works should be assessed by an archaeologist in consultation with the registered Aboriginal stakeholder groups. Any changes that may impact areas not assessed during the current study may warrant further investigation and result in changes to the recommended management and mitigation measures.

13.3 No further investigation required

Apsley IF-1 and Apsley IF-2 were recorded during the archaeological survey. Each site recorded an isolated find representing very low artefact density. Artefact densities at this level are typical of the background scatter of artefacts in most landforms near the study area.

As such, further archaeological investigations are not warranted at these sites.

No impacts will occur to the sites identified and the area will be identified as an exclusion zone with an appropriate buffer implemented.

Following project approval, works can proceed without harm or further investigations.

13.4 Unexpected Finds

An unexpected finds procedure would be implemented as part of the management considerations for Aboriginal Cultural Heritage.

An unexpected finds policy should be included as part of the proposed works Construction Environment Management Plan. If unanticipated Aboriginal objects are uncovered during works, all work in the vicinity should cease immediately. A qualified archaeologist should be contacted to assess the find and Heritage NSW and Wellington LALC must be notified.

If any unexpected find is suspected to be human remains work at the location must cease and the following authorities must be contacted immediately:

a. NSW Police – Wellington Police Station (Phone: (02) 6840 2099
b. NSW Heritage (02) 9873 8500 OR heritagemailbox@environment.nsw.gov.au

The location is to be made secure to prevent unauthorised access.

Work on the Apsley BESS development project may continue at a suitable distance from the potential human remains – not closer than 100m.

13.5 Ecologically sustainable development principles

In accordance with the ACHAR Guide, Ecologically Sustainable Development (ESD) principles have been considered in preparation of this ACHAR. Considerations for ESD include options to avoid impacts to Aboriginal cultural heritage, assessment of unavoidable impacts, identification of mitigation and management measures, and taking account of Aboriginal community views. The principles of ESD are detailed in the *NSW Protection of the Environment Administration Act* 1991. ESD principles relevant to assessment of the proposed works as it relates to Aboriginal cultural heritage are considered below.

13.5.1 THE INTEGRATION PRINCIPLE

Decision-making processes should effectively integrate both long term and short term economic, environmental, social, and equitable considerations (the 'integration principle').

The proposed works would comply with the integration principle in regard to Aboriginal heritage. There are no identified areas of high archaeological significance within the study area that will be impacted. Recommendations to limit the impact to Aboriginal cultural values have been included within this report.

13.5.2 THE PRECAUTIONARY PRINCIPLE

If there are threats of serious or irreversible environmental damage, lack of full scientific confidence should not be used as a reason for postponing measures to prevent environmental degradation (the 'precautionary principle').

Current assessments of the study area have identified most of the study area as moderately disturbed and subsequently demonstrating low archaeological potential.

Areas of recorded sites identified during the site survey will not be impacted on as outlined in **Section 12**. It is recommended that the southern extent of the western extent of the proposed BESS impact area be excluded. Therefore, additional scientific investigation of this area would not be required.

Potential impacts to social and cultural values of the study area have been investigated as part of the current ACHAR investigation for the proposed works. Impacts to cultural heritage have been assessed as negligible.

13.5.3 THE PRINCIPLE OF INTERGENERATIONAL EQUITY

The present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations (the 'principle of intergenerational equity).

Several recorded Aboriginal sites will be impacted as part of the proposed works as outlined in **Section 12.1.1**, above. However these sites have been assessed as having low archaeological significance and will be collected prior to works commencing.

There are several sites located to the immediate south of the study area which remain intact and subsequently the archaeological resource within the region will continue to be available for investigation by future generations. Where impacts to social, cultural or aesthetic values of the Wellington area have been identified, measures to reduce and mitigate the impact of the proposed development have been provided in **Section 12 and 13**.

14. RECOMMENDATIONS

The study area was occupied by Aboriginal people within the last 40,000 years indicative from background research. Two isolated artefacts were also recorded during the archaeological survey.

The following recommendations are based on consideration of:

- Statutory requirements under the *National Parks and Wildlife Act 1974*.
- The requirements of the relevant guidelines: The ACHAR Guide (OEH 2011), Code of Practice (DECCW 2010a) and the Consultation Requirements (DECCW 2010b).
- SEARs SSD 35160796.
- The results of the background research, archaeological survey and assessment.
- The likely impacts of the proposed development.

14.1 Recommendations

1. The development proposal should proceed, conditional upon the recommendations outlined in this report and an exclusion zone implemented around the recorded sites within the study area as identified in **Section 13.1**.
2. No further Aboriginal archaeological investigations are proposed.
3. Two newly recorded sites identified during the archaeological survey will be uploaded to the AHIMS database:
    - Apsley IF-1.
    - Apsley IF-2.
4. The development must avoid the two isolated finds located within the study area (Apsley IF-1 and Apsley IF-2) as per the proposed development footprint in this report. A minimum 10m buffer around each isolated find is appropriate.
5. No impacts are to occur to previously recorded sites located immediately north of the study area [redacted]
6. Aboriginal cultural heritage within the study area will be managed by an Aboriginal Cultural Heritage Management Plan (ACHMP) that will be developed following project approval in consultation with the RAPs and Heritage NSW. The ACHMP will contain the recommendations of this report, as well as an unanticipated finds protocol, procedures to manage unexpected discoveries of human remains,
7. No recorded sites will be impacted. Given that these sites are low-density artefact scatters and isolated finds, their scientific significance is low, and the recording and collection of visible artefacts is considered to be sufficient mitigation with regard to the proposed impact.
8. An unexpected finds procedure would be implemented as part of the management considerations for Aboriginal Cultural Heritage. unexpected finds policy should be included as part of the proposed ACHMP. If unanticipated Aboriginal objects are uncovered during works, all work in the vicinity should cease immediately. A qualified archaeologist should be contacted to assess the find and Heritage NSW and Wellington LALC must be notified.
9. All impacts must remain within the assessed study area or further archaeological investigation may be required.

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APPENDIX A

SEARS

Planning Secretary's Environmental Assessment Requirements

Section 4.12(8) of the *Environmental Planning and Assessment Act 1979*
Part 8, Division 2 of the Environmental Planning and Assessment Regulation 2021

Application Number	SSD-35160796
Project Name	Apsley Battery Energy Storage System which includes: • the construction and operation of a battery energy storage system (BESS) with an estimated capacity of approximately 200 MW / 400 MWh; and • associated infrastructure, including connection to existing transmission infrastructure.
Location	Mitchell Highway, Apsley, approximately 10 km south of Wellington within the Dubbo Regional Local Government Area
Applicant	ACEnergy Pty Ltd
Date of Issue	03/03/2022
General Requirements	The Environmental Impact Statement (EIS) must meet the minimum form and content requirements as prescribed by Part 8, Division 5 of the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation) and must have regard to the *State Significant Development Guidelines*. In particular, the EIS must include: • stand-alone executive summary; • a full description of the development, including: – details of construction, operation and decommissioning; – a high quality site plan at an adequate scale showing all infrastructure and facilities (including any infrastructure that would be required for the development, but the subject of a separate approvals process); – a high quality detailed constraints map identifying the key environmental and other land use constraints that have informed the final design of the development; • a strategic justification of the development focusing on site selection and the suitability of the proposed site with respect to potential land use conflicts with existing and future surrounding land uses (including existing land use, residential development, Crown lands adjacent to the site and neighbouring industrial and infrastructure developments); • an assessment of the likely impacts of the development on the environment, focusing on the specific issues identified below, including: – a description of the existing environment likely to be affected by the development using sufficient baseline data; – an assessment of the likely impacts of all stages of the development, (which is commensurate with the level of impact), including any cumulative impacts of the site and existing or proposed developments in the region in accordance with the *Cumulative Impact Assessment Guideline* (DPIE, Nov 2021);

	– a description of the measures that would be implemented to avoid, mitigate and/or offset the impacts of the development (including draft management plans for specific issues as identified below); and – a description of the measures that would be implemented to monitor and report on the environmental performance of the development; • a consolidated summary of all the proposed environmental management and monitoring measures, identifying all the commitments in the EIS; • a detailed evaluation of the merits of project as a whole having regard to: – the requirements in Section 4.15 of the *Environmental Planning and Assessment Act 1979*, and how the principles of ecologically sustainable development have been incorporated in the design, construction and ongoing operations of the development; – the suitability of the site with respect to potential land use conflicts with existing and future surrounding land uses; and – feasible alternatives to the development (and its key components), including the consequences of not carrying out the development; • a detailed consideration of the capability of the project to contribute to the security and reliability of the electricity system in the National Electricity Market, having regard to local system conditions and the Department's guidance on the matter; and • a signed statement from the author of the EIS, certifying that the information contained within the document is neither false nor misleading. The EIS must also be accompanied by: • a report from a suitably qualified person providing a detailed calculation of the capital investment value (CIV) (as defined in the Dictionary of the EP&A Regulation) of the proposal, including details of all assumptions and components from which the CIV calculation is derived; • an estimate of the jobs that will be created during the construction and operational phases of the proposed infrastructure; and • certification that the information provided is accurate at the date of preparation. The development application must be accompanied by the consent of the owner/s of the land (as required in clause 23(1) of the EP&A Regulation).
Key issues	The EIS must address the following specific matters: • **Biodiversity** – including: – an assessment of the biodiversity values and the likely biodiversity impacts of the project in accordance with Section 7.9 of the *Biodiversity Conservation Act 2016* (NSW), the Biodiversity Assessment Method (BAM) and documented in a Biodiversity Development Assessment Report (BDAR), unless BCS and DPIE determine the proposed development is not likely to have any significant impacts on biodiversity values; – the BDAR must document the application of the avoid, minimise and offset framework including assessing all direct, indirect and prescribed impacts in accordance with the BAM; and – if an offset is required, details of the measures proposed to address the offset obligations. • **Heritage** – including:

- an assessment of the impact to Aboriginal cultural heritage items (cultural and archaeological) in accordance with the *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (OEH, 2011) and the Code of Practice for the *Archaeological Investigation of Aboriginal Objects in NSW* (DECCW, 2010), including results of archaeological test excavations (if required);
- provide evidence of consultation with Aboriginal communities in determining and assessing impacts, developing options and selecting options and mitigation measures (including the final proposed measures), having regard to the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW, 2010); and
- assess the impact to historic heritage having regard to the *NSW Heritage Manual*.

- **Land** – including:
  - a detailed justification of the suitability of the site and that the site can accommodate the proposed development having regard to its potential environmental impacts, permissibility, strategic context and existing site constraints;
  - an assessment of the potential impacts of the development on existing land uses on the site and adjacent land, including:
    - flood prone land, acid sulphate soils, Crown lands, mining, quarries, mineral or petroleum rights;
    - a soil survey to determine the soil characteristics and consider the potential for erosion to occur; and
    - a cumulative impact assessment of nearby developments;
  - an assessment of the compatibility of the development with existing land uses, during construction, operation and after decommissioning, including:
    - consideration of the zoning provisions applying to the land, including subdivision (if required);
    - completion of a Land Use Conflict Risk Assessment in accordance with the Department of Industry's *Land Use Conflict Risk Assessment Guide;* and
  - a detailed assessment of the impact on agricultural resources and agricultural productivity, including:
    - an agricultural impact statement, including results of soil surveys;
    - consideration of potential mitigation measures which may reduce project impacts on agricultural land;
    - detailed economic assessment of impacts on agricultural land, agricultural production and agricultural supply chains; and
    - justification for the project considering other alternatives and site design which may have lesser impacts on agricultural land.
- **Visual** – including a detailed assessment of the likely visual impacts (including night lighting) of all components of the project (including transmission lines and any other ancillary infrastructure) on surrounding residences, scenic or significant vistas and road corridors in the public domain.
- **Noise** – including an assessment of the construction noise impacts of the development in accordance with the *Interim Construction Noise Guideline* (ICNG), operational noise impacts in accordance with the *NSW Noise Policy for Industry* (2017), cumulative noise impacts (considering other developments in the area), and a draft noise management plan if the assessment shows construction noise is likely

	to exceed applicable criteria; • **Transport** – including: – an assessment of the peak and average traffic generation, including over-dimensional vehicles, construction worker transportation and transport of materials by rail; – an assessment of the likely transport impacts to the site access route, site access point(s), any Crown land, particularly in relation to the capacity and condition of the roads, road safety and intersection performance; – a cumulative impact assessment of traffic from nearby developments; and – provide details of measures to mitigate and / or manage potential impacts including a schedule of all required road upgrades (including resulting from heavy vehicle and over mass / over dimensional traffic haulage routes), road maintenance contributions, and any other traffic control measures, developed in consultation with the relevant road authority; • **Water** – including: – an assessment of the likely impacts of the development (including flooding) on surface water and groundwater resources and measures proposed to monitor, reduce and mitigate these impacts; – details of water requirements and supply arrangements for construction and operation; and – a description of the erosion and sediment control measures that would be implemented to mitigate any impacts in accordance with *Managing Urban Stormwater: Soils & Construction* (Landcom 2004); • **Hazards** – including: – a preliminary risk screening completed in accordance with *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development and Applying SEPP 33* (DoP, 2011); – a Preliminary Hazard Analysis (PHA) must be prepared in accordance with the *Hazardous Industry Planning Advisory Paper No. 6, 'Hazard Analysis'* and Multi-Level Risk Assessment (DoP, 2011). The PHA must consider all recent standards and codes and verify separation distances to on-site and off-site receptors to prevent fire propagation and compliance with *Hazardous Industry Advisory Paper No. 4, 'Risk Criteria for Land Use Safety Planning* (DoP, 2011); and – an assessment of potential hazards and risks including but not limited to bushfires, land contamination, spontaneous ignition, electromagnetic fields or the proposed grid connection infrastructure against the International Commission on Non-Ionizing Radiation Protection (ICNIRP) *Guidelines for limiting exposure to Time-varying Electric, Magnetic and Electromagnetic Fields*; • **Social Impact** – including an assessment of the social impacts in accordance with *Social Impact Assessment Guideline* (DPIE, Nov 2021); • **Economic** – including an assessment of the economic impacts or benefits of the project for the region and the State as a whole; and • **Waste** – identify, quantify and classify the likely waste stream to be generated during construction and operation, and describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste.
Plans and	The EIS must include all relevant plans, diagrams and relevant documentation

Documents	required under Part 3 of the EP&A Regulation. Provide these as part of the EIS rather than as separate documents. In addition, the EIS must include high quality files of maps and figures of the subject site and proposal.
Legislation, Policies & Guidelines	The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans as identified. A list of some of the legislation, policies and guidelines that may be relevant to the assessment of the project can be found at: • https://www.planning.nsw.gov.au/Policy-and-Legislation/Planning-reforms/Rapid-Assessment-Framework/Improving-assessment-guidance • https://www.planningportal.nsw.gov.au/major-projects/assessment/policies-and-guidelines; and • http://www.environment.gov.au/epbc/publications#assessments
Consultation	During the preparation of the EIS, you should consult with relevant local, State or Commonwealth Government authorities, infrastructure and service providers, community groups, affected landowners and any exploration licence and/or mineral title holders. In particular, you must undertake detailed consultation with affected landowners surrounding the development, Dubbo Regional Council, and NSW Aboriginal Land Council. The EIS must: • detail how engagement undertaken was consistent with the *Undertaking Engagement Guide: Guidance for State Significant Projects* (DPIE, Nov 2021); and • describe the consultation process and the issues raised and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, an explanation should be provided.
Expiry Date	If you do not lodge a Development Application and EIS for the development within 2 years of the issue date of these SEARs, your SEARs will expire. If an extension to these SEARs will be required, please consult with the Planning Secretary 3 months prior to the expiry date.

APPENDIX B

CONSULTATION LOG

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APPENDIX C

AGENCY CONSULTATION

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APPENDIX D

NEWSPAPER ADVERTISEMENT

Daily Liberal Publication 24/09/2021

Public Notices

NSW GOVERNMENT

Wild Dog/Fox 1080 Baiting

The NSW National Parks and Wildlife Service (NPWS) will be conducting an aerial baiting program using fresh meat baits containing 1080 (sodium fluoroacetate) poison for the control of wild dogs. The program will be conducted between **25 September** and **9 October** in Goonoo National Park and State Conservation Area, Breelong National Park, Cobbora State Conservation Area and Coolbaggie Nature Reserve.

Entries to all baiting locations will be identifiable by signs.

Please be reminded that domestic pets are not permitted on NPWS Estate. Pets and working dogs may be affected (1080 is lethal to cats and dogs). Pets and working dogs must be restrained or muzzled in the vicinity and must not enter the baiting location. In the event of accidental poisoning seek immediate veterinary assistance.

For further information please check NPWS web page alerts or call Dubbo Office on (02) 6841 7100.

Public Notices

Premise

Aboriginal Cultural Heritage Assessment Registration of Interest
Battery Energy Storage System, Apsley NSW

On behalf of ACEnergy (the Proponent), Premise Australia Pty Ltd is undertaking an Aboriginal Cultural Heritage Assessment for a proposed Battery Energy Storage System (BESS) development on land in Apsley NSW. The land is located approximately 8km south of Wellington in the Dubbo Regional Local Government Area. The proponent's contact details are:

Danny Wilkinson
Project Development Manager
ACEnergy Pty Ltd
Suite 305-306
685 Burke Road
CAMBERWELL VIC 3124
Email: danny.w@acenergy.com.au
Phone: 0497 514 353

The project will be assessed under the NSW *Environmental Planning and Assessment Act 1979* as State Significant Development and will not require an Aboriginal Heritage Impact Permit under the NSW *National Parks and Wildlife Act 1974*. It may be possible that archaeological investigations under the provisions of the NSW *National Parks and Wildlife Act 1974* may be required during the preparation of the Environmental Impact Statement.

ACEnergy is inviting Aboriginal groups and individuals who hold cultural knowledge relevant to determining the significance of Aboriginal objects, places and/or values in the locality, to register an interest for the proposed development in a process of community consultation with the proponent.

The purpose of community consultation is to inform the proponent in the preparation of the Aboriginal Cultural Heritage Assessment Report (ACHAR).

Please register your interest in the project by **8 October 2021** by contacting:

Latisha Ryall
Premise Australia Pty Ltd
PO Box 1963
ORANGE NSW 2800
Email: latisha.ryall@premise.com.au
Phone: 02 6393 5000

Registrations should include a nominated contact, address, and phone number. Please note that the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (NSW DECCW 2010) guidelines require the proponent to provide details of registered Aboriginal parties to Heritage NSW and Wellington Local Aboriginal Land Council. In your response could you please advise if you would not like your details to be provided.

Wellington Times Publication 29/09/2021

Legal Claims & Notices | Services

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Premise

Aboriginal Cultural Heritage Assessment
Registration of Interest
Battery Energy Storage System, Apsley NSW

On behalf of ACEnergy (the Proponent), Premise Australia Pty Ltd is undertaking an Aboriginal Cultural Heritage Assessment for a proposed Battery Energy Storage System (BESS) development on land in Apsley NSW. The land is located approximately 8km south of Wellington in the Dubbo Regional Local Government Area. The proponent's contact details are:

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Phone: 02 6393 5000

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Wellington times | Classifieds

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Danny Wilkinson
Project Development Manager
ACEnergy Pty Ltd
Suite 305-306
685 Burke Road
CAMBERWELL VIC 3124
Email: **danny.w@acenergy.com.au**
Phone: 0497 514 353

The project will be assessed under the NSW *Environmental Planning and Assessment Act 1979* as State Significant Development and will not require an Aboriginal Heritage Impact Permit under the NSW *National Parks and Wildlife Act 1974*. It may be possible that archaeological investigations under the provisions of the NSW *National Parks and Wildlife Act 1974* may be required during the preparation of the Environmental Impact Statement.

ACEnergy is inviting Aboriginal groups and individuals who hold cultural knowledge relevant to determining the significance of Aboriginal objects, places and/or values in the locality, to register an interest for the proposed development in a process of community consultation with the proponent.

The purpose of community consultation is to inform the proponent in the preparation of the Aboriginal Cultural Heritage Assessment Report (ACHAR).

Please register your interest in the project by **8 October 2021** by contacting:

Latisha Ryall
Premise Australia Pty Ltd
PO Box 1963
ORANGE NSW 2800
Email: **latisha.ryall@premise.com.au**
Phone: 02 6393 5000

Registrations should include a nominated contact, address, and phone number. Please note that the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (NSW DECCW 2010) guidelines require the proponent to provide details of registered Aboriginal parties to Heritage NSW and Wellington Local Aboriginal Land Council. In your response could you please advise if you would not like your details to be provided.

29/09/2021 - Public Notices

APPENDIX E

AGENCY RAP NOTIFICATION – WELLINGTON LALC AND HERITAGE NSW

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APPENDIX F

ACHAR AND SURVEY METHODOLOGY

Premise Australia Pty Ltd
82 620 885 832
154 Peisley Street, ORANGE NSW 2800
PO Box 1963, ORANGENSW 2800
02 6393 5000
premise.com.au

Our Ref: 221284_Draft Methodology .docx

25 November 2021

BATTERY ENERGY STORAGE SYSTEM APSLEY, NSW –PROPOSED DEVELOPMENT – DRAFT ACHAR METHODOLOGY

Thank you for registering as a stakeholder for the proposed Battery Energy Storage System (BESS) to be located at 9010 Mitchell Highway, Apsley, NSW. The project details are outlined below including the proposed Aboriginal Cultural Heritage Assessment report (ACHAR) Draft methodology for your review.

If you would like to provide any information or comment on the Aboriginal cultural heritage of the study area or the proposed draft methodology, please provide your response by **23 December 2021** by contacting:

Latisha Ryall
Premise Australia
PO Box 1963
Orange NSW 2800
Ph: 0429 777 741

Or via email: latisha.ryall@premise.com.au

In your response, please consider the following:

- Do you know of any objects or places of value to Aboriginal people in the study area or locality?
- Are there any protocols that you would like incorporated into the assessment methodology?
- Are there any access requirements or restrictions that should be applied to the information that you are providing?

Please also note that consultation will not necessarily involve paid engagement, as this is not a requirement of the consultation guidelines issued by Heritage NSW (formerly OEH).

Proposed Development

Premise have been engaged to assist ACEnergy preparing a development application for an SSD that involves preparation of a Scoping report and EIS to assess the impacts associated with a proposed Battery Energy Storage System (BESS) to be located at 9010 Mitchell Highway, Apsley, NSW on Lot 3 DP1012686 (**Figure 1**). The proposed BESS and transmission line traverse cleared agricultural land. As part of the EIS an Aboriginal Cultural Heritage Assessment is required to assess the heritage values of the site and identify any potential impacts.

The project will include the BESS and temporary laydown areas within Lot 3 DP1012686, a connection to the existing overhead transmission line to the east which crosses over a road reserve into Lot 107 DP756920, and an access treatment to the site that falls within the Mitchell Highway road reserve. Lot 3 DP1012686 and Lot 107 DP756920 are zoned for Primary Production (RU1) as per the Wellington Local Environmental Plan 2012. The Mitchell Highway is zoned SP2 – Infrastructure (Classified Road).

The proposed works are shown in **Figure 1**.

Background

The project is being assessed as a State Significant Development under the *Environmental Planning and Assessment Act 1979*. The Secretary's Environmental Assessment Requirements (SEARs) for the project will require preparation of an Environmental Impact Statement (EIS). As part of the EIS an Aboriginal Cultural Heritage Assessment Report (ACHAR) is required to identify and describe the Aboriginal cultural heritage values that will be impacted by the proposed development.

Proposed Assessment Methodology

The ACHAR will be completed in accordance with the relevant guidelines and will aim to:

- identify cultural heritage values in accordance with the Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (OEH 2010), and be guided by the Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (DECCW, 2011) and consultation with Heritage NSW.
- consult with Aboriginal people and documented in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponent*s (DECCW 2010)
- assess the impacts of the development on Aboriginal cultural heritage values and demonstrate conservation attempts to avoid impacts and where impacts are unavoidable provide mitigation measures.
- include surface survey to inform the ACHAR recommendations.
- outline procedures for management of the discovery of Aboriginal objects and/or Aboriginal burials or skeletal material found at any stage of the life of the development.

The initial stages of this project have been completed, and a list of Registered Aboriginal Parties (RAPs) has been recorded and include:

- Wellington Valley Wiradjuri Aboriginal Corporation
- Binjang Wellington Wiradjuri heritage Survey – Jamie Gray

This letter provides details of the project information and the proposed methodology for RAP review.

Study Area Context

The subject land is bounded by the Mitchell Highway to the west and cleared agricultural land to the north, east and south. The electricity transmission line is located to the east of the site and is located within a 45 metre wide cleared easement running in a north-south direction.

A desktop review of the landscape indicates the landform is slightly undulating, with several historic drainage lines present. The study area consists of generally cleared, fenced paddocks, currently used for cropping and grazing, with some isolated stands of trees however is almost devoid of upper stratum vegetation.

A recent biodiversity assessment (Premise 2021) indicates that the site is relatively flat, lying between 366 m and 370 m AHD (Australian Height Datum) from north to south and 368 to 371 m east to west. There is a farm dam in the east of the site, and native trees and shrubs have been planted along the Mitchell Highway to the north. The site is rectangular in shape, with infrastructure proposed in bays covering an area approximately 300 metres by 150 metres (5.8 ha). At the time of the biodiversity survey the paddock was sown to oats and cattle were grazing.

There are scattered remnant trees in an otherwise cleared agricultural landscape in the land immediately surrounding the BESS site, and much larger remnant woodlands on hilltops and in nearby reserves including the Wellington Caves Reserve, Mount Arthur Reserve and Catombal Ranges to the west, and Lake Burrendong State Recreation Area to the east.

The study area is located approximately 2 km east of the Bell River, 2 km south west of the Macquarie River and approximately 1.5km west of Watsons Creek (a second order tributary of the Macquarie). The study area is positioned approximately 1.5km south east from the Wellington Caves located on the Wellington – Molong Karst Mitchell Landscape (NSW Government, 2021). The area has known Aboriginal archaeological potential.

Archaeological Survey

An archaeological survey is proposed for the study area, the objectives of which are to:

- Survey an adequate sample area that will be impacted by the proposed BESS development
- Consult with the local Aboriginal community on cultural values associated with the development and the likelihood of archaeological significance and potential.
- Assess the Aboriginal archaeological values of the study area in accordance with the Code of Practice.
- Identify Aboriginal archaeological and cultural heritage values that may be impacted by the proposed works.
- Identify any further investigations and identify any constraints and management for the proposed development area, should the project proceed.

As set out in the Code of Practice, the aim of any survey is not to locate every artefact or other archaeological feature in a landscape. Rather, the aim is to adequately assess all representative landforms within a study area so that the archaeological characteristics of those landforms can be understood. In this way the survey will provide sufficient information for the archaeological potential of all landforms within the study area to be assessed allowing appropriate management strategies to be devised.

- A site survey has been proposed for 1st December 2021.

The survey will be undertaken in one day and will cover all accessible areas of the study area including the proposed transmission line route and easement. Survey will be undertaken by a qualified Archaeologist accompanied by RAP and client representatives walking predefined transects. The survey will be undertaken via foot using a hand held GPS to record all information.

It is proposed that the transects for the BESS development area will be undertaken in an east -west orientation, whilst transects associated with the transmission line will be undertaken in a north- south orientation, however these will be confirmed on site.

Transects will be spaced 50m apart and the entirety of the zone will be surveyed by surveyors being spaced at a maximum of 20m apart. As always occurs on field surveys, the experience of the archaeologists and the RAPs to identify landforms with potential to reveal Aboriginal objects, such as exposures near fences/gates, will be a focus of the survey, although other areas, even those with little ground surface visibility, will also be surveyed.

The survey will include landform observations and also target surveys in areas of known Aboriginal sites located in close proximity to the study area. Preliminary have indicated that there are two record sites located in close proximity to the north western boundary of the study area (AHIMS # 36-4-0083 AHIMS# 36-4-0082) shown in **Figure 1**. The survey will include assessment of those sites in relation to the proposed works program and to provide context of the landform and likelihood of the presence of site types associated with the area.

The survey will record all Aboriginal objects to the standards subscribed in the Code of Practice. All previously recorded sites will be located so that their current condition can be assessed.

It will be the responsibility of the archaeologists to ensure that all Aboriginal objects are adequately recorded. RAPs will assist the process through their experience in identifying the location of sites, as well as providing any additional information that may assist in understanding the cultural values of any sites recorded.

Reporting relating to the archaeological survey will be incorporated into the ACHAR and include:

- A description of the project and extent of the study area.
- An archaeological significance assessment of the study area.
- A description of the statutory requirements for the protection of Aboriginal heritage.
- An impact assessment for recorded Aboriginal sites and areas of archaeological potential.
- Provision of measures to avoid, minimise, and if necessary, offset the predicted impacts on Aboriginal heritage values.

An ACHAR would also assess Aboriginal significance of the study area, based on comments received from the RAPs and the results of the archaeological survey. The potential impact of the proposed development on this significance would be assessed and management recommendations would be developed accordingly.

A draft copy of the ACHAR will be issued to you for review and comment prior to finalisation of the document.

Please review the above information and let me know if you have any comments that would be valuable to the preparation of the ACHAR. In accordance with the relative legislative requirements, there is a 28 day review period for the draft ACHAR methodology. Please provide any feedback or comment by **23 December 2021**.

I look forward to working with you on this project and thank you for your involvement. If you require any additional information please do not hesitate to contact me on 0429 777 741.

Kind regards,

LATISHA RYALL
Archaeologist

Figure 1 – Study Area and Proposed Development

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APPENDIX G

SURVEY SUMMARY

Premise Australia Pty Ltd
82 620 885 832
154 Peisley Street, ORANGE NSW 2800
PO Box 1963, ORANGENSW 2800
02 6393 5000
premise.com.au

Our Ref: 221284_Site Survey Summary .docx

2 December 2021

Danny Wilkinson
ACEnergy Pty Ltd
502, 689 Burke Road
Camberwell, 3124, VIC

Via Email: danny.w@acenergy.com.au

BATTERY ENERGY STORAGE SYSTEM (BESS) APSLEY, NSW –ACHAR SURVEY SUMMARY

On Wednesday 1st December 2021 an Aboriginal Heritage survey was completed at 9010 Mitchell Highway, Apsley, NSW for the proposed Battery Energy Storage System (BESS) site. The study area included areas located in Lot 3 DP1012686, Lot 107 DP756920, an unconstructed Crown road reserve and within the Mitchell Highway road reserve . The survey was undertaken by Premise Archaeologist Latisha Ryall who was accompanied by WVWAC RAP Murray Clines and ACEnergy Pty Ltd Project Development Manager Danny Wilkinson

The survey was undertaken by foot using a hand held GPS to record tracks, relevant to the proposed transects outlined in the Draft ACHAR Methodology, issued to RAPS on 25 November 2021. Slight modifications to the transects were made on site in discussions with RAPs on the coverage area and site accessibility. Some areas could not be accessed due to recent wet weather and heavy rainfall events, resulting in wet ground cover, and at times a muddy landscape, however all attempts to access as much coverage was undertaken. Surveyors were spaced at a maximum of 15 m apart across the transect survey areas.

The survey traversed transects in an east west direction covering the proposed development impact area on the northern boundary of the site and also covered an area approximately 300 m to the south. The survey also covered a north west aligned transect to the east for the proposed transmission line connection for a total distance of approximately 350m. The survey also traversed a portion along the Mitchell Highway on the western boundary of the site, to assess the proposed access point.

Two (2) previously recorded AHIMS sites were also assessed to inform landform context of the study area. Both sites were photographed and are located outside of the study area at an approximate distance of 65 m and 160m north west of the proposed development.

Two isolated finds were located during the survey, within a 20m proximity distance however are located out of the proposed development area. The artefacts consisted of flaked quartz <15mm in size.

Observation undertaken during the survey indicated that the proposed development area was relatively flat, currently used for cropping and grazing and located on a mild slope from east to west down towards the Mitchell Highway. The surrounding landscape consists of low undulating hills, with scattered remnant trees and remnant woodlands on surrounding hilltops. A farm dam is located in the north eastern portion of the site and native trees and shrubs have been planted along the Mitchell Highway to the west. To the south of the study area, the landform rose to a high point on the eastern side. Evidence of small rocky outcrops were visible throughout the survey towards the southern portion of the study area. One old growth tree was located in the study area and was assessed for cultural modification, however, did not reveal cultural scarring with natural deterioration noted. Most of the study area consisted of agricultural oat crops.

Most of the study area showed dense ground coverage, resulting in poor surface visibility and exposure of the ground surface. Areas where ground surface exposure showed higher visibility were located along vehicle tracks or slightly raised contour banks or disturbance from grazing cattle. Soils in the study area ranged from red/brown clays in the northern portion of the site, transitioning to red silty loams in the southern portion of the study area in seasonal drainage locations. This is consistent with the Bodangora soil landscape of the area, which is used primarily for dryland cropping of wheat, canola, oats and legume crops.

Overall the study area had been heavily modified through historical cropping ang grazing. Evidence of ephemeral drainage lines were observed on the western boundary in a north east – south west orientation, however no artefactual material was observed during this area. Towards the southern boundary of Lot 3 the soil profile transitioned from clay to silty sand; again no artefactual material was observed in this area and is located out of the development impact area.

The proposed access area was heavily modified by the construction of the Mitchell Highway and road reserve, with dense ground coverage and evidence of introduced fills. No artefactual material was observed in this area.

The below image provides a track route undertaken by one surveyor during the site survey with approximate locations of isolated artefact finds shown as red dots.

IMAGE REMOVED FOR PUBLIC DISPLAY

A preliminary summary from the survey indicates that the study area has been heavily modified through historical agricultural use and construction of the Mitchell Highway. The survey did not indicate a high potential for archaeological significance in the proposed development area.

Reporting relating to the archaeological survey will be incorporated into the ACHAR. Please note this is a preliminary overview only of the survey results, with additional consultation to be undertaken with RAPS.

No cultural knowledge was provided on site by the WVWAC representative. Recommendations from RAPs will be provided on review of the archaeological survey section of the ACAHR.

Kind regards,

LATISHA RYALL
Archaeologist

Premise