VIRTUS HERITAGE



JINDERA BATTERY ENERGY STORAGE SYSTEM PROJECT

Jindera, NSW

Aboriginal Cultural Heritage Assessment

Final | April 2025

Prepared for GDA on behalf of BESS Atlantic Pty Ltd

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2	15 April 2025	Anya Graubard	Julian Travaglia	Final

Acknowledgement of Country

Virtus Heritage acknowledges the Traditional Custodians of the land on which this project was undertaken (Wiradjuri Country) and pays respect to Elders past, present and emerging.

Content Warning

Aboriginal and Torres Strait Islander people are warned that this publication may contain names and images of deceased people, descriptions of traumatic historic events and parts of Country that have been impacted by development.

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All queries related to the content, or to any use of this report must be addressed to Dr Mary-Jean Sutton.

Executive Summary

Virtus Heritage Pty Limited (hereafter 'Virtus Heritage') was engaged by BESS Atlantic Pty Ltd (BESS Atlantic) c/o Gransolar Development Australia (GDA), to prepare an Aboriginal Cultural Heritage Assessment (ACHA), including an Archaeological Assessment (AA) for the construction of a Battery Energy Storage System (BESS) facility at Lot 204 DP 753342, 204 Ortlipp Road, Glenellen NSW. The project also includes an overhead grid connection to the existing Transgrid transmission substation at 140 Ortlipp Road, a watermain extension and easement works along Ortlipp Road, and watermain works along Lindner Road, Jindera, NSW (referred to hereafter as 'the project area', **Figure 1**). This development is being conducted as a State Significant Development (SSD), and under the requirement of the Planning Secretary's Environmental Assessment Requirements (SEARs), which triggered the requirement of ACHA reporting. The project area is within the Greater Hume Shire Council Local Government Area (LGA).

The objectives of the ACHA are to investigate and assess the impact of Jindera Battery Energy Storage System Project on known and potential Aboriginal objects, Aboriginal places, and cultural heritage values within the project area as well as to provide appropriate management and mitigation strategies. This report has been compiled to meet the requirements of the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (Office of Environment and Heritage, OEH 2011).

CONSULTATION

Consultation is important with registered Aboriginal parties in this process in order to:

- determine the cultural significance of a project area;
- identify Aboriginal objects of cultural value within a project area; and
- identify places of Aboriginal cultural value (whether or not they are Aboriginal places declared under Section 84 of the *NPW Act*).

Five Aboriginal Parties/individuals registered interest (RAPs) for this project during the notification process (responded to the advertisements in the local newspapers or to an invitation to register in the project after their contact details were provided by notified organisations). The groups/individuals registered for consultation include:

- Mark Saddler (Bundyi Aboriginal Cultural Knowledge);
- Will Carter and Mark Williams (Southern West Yiradyuri Clans, Land, Water and Sky Country Aboriginal Corporation
- Thomas Dahlstrom;
- Sonione Rogers; and
- Albury and District Local Aboriginal Land Council.

IMPACTS

The project involves the construction of a Battery Energy Storage System (BESS) facility at Lot 204 DP 753342, 204 Ortlipp Road, Glenellen NSW. The project also includes an overhead grid connection to the existing Transgrid transmission substation at 140 Ortlipp Road, a watermain extension and easement works along Ortlipp Road, and watermain works along Lindner Road,

SIGNIFICANCE ASSESSMENT

Two previously unknown Aboriginal sites were identified and recorded during the surveys, including Jindera IF1 and PAD, and Jindera ST1. The project areas have been shown to have social and cultural significance to the Aboriginal community, based on consultation to date and aesthetic values. The project area has spiritual

value associated with its views/connection to Table Top Mountain and the waterways. All flora, fauna, and Aboriginal objects, including those recorded within the project area, have social value to Aboriginal people.

MANAGEMENT RECOMMENDATIONS

Recommendation #	Recommendation
1.	The proposal impacts are likely to impact AHIMS site Jindera ST1, and to the Potential Archaeological Deposit (PAD) associated with Aboriginal Heritage Information Management System (AHIMS) site Jindera IF1. Therefore, prior to commencement of proposed works (or any activities that may cause harm), under the provisions of OEH's *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (2010), appropriate archaeological mitigation is required in the area of impacts. Under the *Planning Secretary's Environmental Assessment Requirements,* an Aboriginal Heritage Impact Permit (AHIP) is not required for this project. A design methodology should be drafted in consultation with registered Aboriginal parties and considers: a) The Jindera IF1 (AHIMS ID 55-6-0294) and PAD site to have fencing erected along the project boundary to demarcate the location of the artefact in close proximity to the project area; b) The PAD associated with Jindera IF1 (AHIMS ID 55-6-0294) to undergo archaeological investigation (i.e. archaeological testing) only within the parts of the landform designated for project impacts. c) Management of Jindera ST1 (AHIMS ID 55-6-0295) through discussions with RAPs, professional arborist, and proponent to reduce the likelihood of the site being impacted and the dead tree breaking and splitting; d) Cultural monitoring during initial ground disturbance works within Area 1, and initial underboring works in Area 3 and Area 4; e) Development of a more detailed care and control strategy in consultation with RAPs to manage any artefacts in a manner acceptable to RAPs and enable the cultural value of the artefacts to be documented and partially conserved. Reburial may be an option as close as possible to the original location of salvaged objects back on Country.
2.	All site workers and personnel involved in site impact works associated with the proposed work should be inducted and briefed on the identification of Aboriginal sites and objects during works and their responsibilities according to the provisions of the NPW Act 1974, in case any additional unknown objects or items are uncovered during proposed works. a) Site workers should be made aware of the location of any Aboriginal sites that may at any stage occur within the proposal site and their significance, and their legal obligations in relation to the protection and management of these Aboriginal sites under the NPW Act 1974, and the National Parks and Wildlife Regulation 2019. b) As part of this induction, workers should be made aware that in the event that unexpected human remains are uncovered on site, the area of the suspected remains must be secured and cordoned off and the NSW Police

Recommendation #	Recommendation
	notified. No further works can be undertaken until the NSW Police provide written advice. • If these remains are deemed to require archaeological investigation by the NSW Police or NSW Coroner, then Heritage NSW and the relevant Aboriginal parties must be notified. A plan of management for the preservation of Aboriginal human remains or for their salvage must be put in place or conducted under an AHIP methodology and variation developed in consultation with all relevant Aboriginal parties and the Heritage NSW. c) As part of an induction, in the unlikely event that any historical relics are uncovered during proposed works, all workers and subcontractors should be made aware of their responsibilities under the provisions of the NSW Heritage Act 1977 (for example, 19th century bottle dumps, sandstone footings, structural features in situ over fifty years old etc.). In this event all works must cease and the area where objects uncovered is protected until a qualified archaeologist is contacted and can inspect and assess the area to determine its significance in consultation with Heritage NSW. Gransolar may wish to consider the input and engagement of interested Aboriginal stakeholder groups in the development of inductions and toolbox talks for this project.
3.	If Aboriginal objects (excluding human remains or sites such as grinding groove complexes/engravings, rock art) are detected during ground disturbance, NPWS unexpected finds procedures (NSW National Parks and Wildlife Service 2020: 17) should be observed, namely: a) establish an appropriate buffer around the Aboriginal object to exclude further works in the area and allow assessment and management; b) engage with the relevant Aboriginal parties to assess the object's heritage values and undertake appropriate methods to avoid or move the object; c) complete an AHIMS site card to register the site and document the movement or avoidance strategies taken; d) complete a report detailing the unexpected find and the Aboriginal community's recommendations for management; e) send the report to the relevant project manager and Aboriginal parties and Heritage NSW and Department of Planning and Environment AHIMS area; f) continue works only once appropriate measures have been taken to avoid or move the site, as Heritage NSW.

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Definitions

Abbreviations	Description
AA	Archaeological Assessment
ACHA	Aboriginal Cultural Heritage Assessment
ACHCR	Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW 2010)
AHD	Australian Heritage Database
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit
AIATSIS	Australian Institute of Aboriginal and Torres Strait Islander Studies
ALRA	Aboriginal Land Rights Act 1976
AR	Archaeological Report, Archaeological Assessment
CABAH	Australian Research Council Centre of Excellence for Australian Biodiversity and Heritage
CHMP	Cultural Heritage Management Plan
Code of Practice, COP	Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW 2010)
DA	Development Application
DD	Due Diligence
DD Code, Due Diligence Code	Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (DECCW 2010)
DPC	NSW Department of Premier and Cabinet
DPIE	NSW Department of Primary Industry and Environment
EP&A Act	Environmental Planning and Assessment Act 1979
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
GIA	Guide to investigating, assessing and reporting on Aboriginal Cultural heritage in NSW (OEH 2011)
HNSW	Heritage NSW
ILUA	Indigenous Land Use Agreement
LALC	Local Aboriginal Land Council
LEP	Local Environmental Plan

Abbreviations	Description
LGA	Local Government Area
NNTT	National Native Title Tribunal
NPW ACT	National Parks and Wildlife Act 1974
NPW Reg	National Parks and Wildlife Regulation 2019
NPWS	NSW National Parks and Wildlife Service
NTA	Native Title Act 1983
OEH	NSW Office of Environment and Heritage (now Heritage NSW)
PAD	Potential Archaeological Deposit
PBC	Prescribed Bodies Corporate
RAP	Registered Aboriginal Party
RAPs	Registered Aboriginal Parties
RD&M	Research Design and Methodology
REF	Review of Environmental Factors
RNTBC	Registered Native Title Body Corporate
S.139	Section 139
S.140	Section 140.
S.170	Section 170
SHI	State Heritage Inventory
SHR	State Heritage Register
SoHI	Statement of Heritage Impact
SSD	State Significant Development
SSI	State Significant Infrastructure
The Burra Charter	The Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance, 2013 (Australia ICOMOS 2013)
UNESCO	United Nations Educational, Scientific and Cultural Organization

Glossary

Aboriginal object - A term used in the NPW Act legislation, meaning: '... any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises NSW, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains' (s.5 NPW Act).

Registered Aboriginal party – An individual or party who registers for Aboriginal consultation as part of the consultation and notification process following Aboriginal cultural heritage consultation requirements for proponents 2010 (NSW DECCW 2010b).

AHIP – An Aboriginal Heritage Impact Permit which is a document provided by Heritage NSW which provides a defence to the applicant to certain activities which constitute 'harm' to Aboriginal objects or Aboriginal places under Part 6 of the NPW Act. A proponent must prepare an application for an AHIP and other relevant documentation (including an ACHA) to obtain an AHIP from Heritage NSW in the Department of Premier and Cabinet.

Declared Aboriginal place - A term used in the NPW Act legislation, meaning any place declared to be an Aboriginal place (under s.84 of the NPW Act) by the Minister administering the NPW Act, by order published in the NSW Government Gazette, because the Minister is of the opinion that the place is or was of special significance with respect to Aboriginal culture. It may or may not contain Aboriginal objects.

Due Diligence assessment – Due diligence is taking reasonable and practical steps to determine whether a person's actions will harm an Aboriginal object and, if so, what measures can be taken to avoid that harm. A due diligence assessment will assess the potential for harm and provide recommendations to mitigate harm, generally in the form of an Aboriginal Cultural Heritage Assessment (ACHA), if Aboriginal objects or places are likely to be harmed by proposed works.

Harm - A term used in the NPW Act Amendments meaning '... any act or omission that destroys, defaces, damages an object or place or, in relation to an object – moves the object from the land on which it had been situated' (s.5 NPW Act).

Project area - Area proposed to be impacted as part of a specified activity or development proposal. These activities include indirect impact.

Place - An area of cultural value to Aboriginal people in the area (whether or not it is an Aboriginal place declared under s.84 of the Act).

Proponent - A person proposing an activity that may harm Aboriginal objects or declared Aboriginal places and who may apply for an AHIP under the NPW Act.

1. Introduction

Virtus Heritage Pty Limited (hereafter 'Virtus Heritage') was engaged by BESS Atlantic Pty Ltd (BESS Atlantic) c/o Gransolar Development Australia (GDA), to prepare an Aboriginal Cultural Heritage Assessment (ACHA), including an Archaeological Assessment (AA) for the construction of a Battery Energy Storage System (BESS) facility at Lot 204 DP 753342, 204 Ortlipp Road, Glenellen NSW. The project also includes an overhead grid connection to the existing Transgrid transmission substation at 140 Ortlipp Road, a watermain extension and easement works along Ortlipp Road, and watermain works along Lindner Road, Jindera, NSW (referred to hereafter as 'the project area, **Figure 1**). This development is being conducted as a State Significant Development (SSD), and under the requirement of the Planning Secretary's Environmental Assessment Requirements (SEARs), which triggered the requirement of ACHA reporting. The project area is within the Greater Hume Shire Council Local Government Area (LGA).

The objectives of the ACHA are to investigate and assess the impact of Jindera Battery Energy Storage System Project on known and potential Aboriginal objects, Aboriginal places, and cultural heritage values within the project area as well as to provide appropriate management and mitigation strategies. This report has been compiled to meet the requirements of the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011).

An Archaeological Assessment was also compiled to consider the scientific values of the project area, which is an Appendix (Appendix A), to this ACHA. The purpose of the Archaeological Assessment is to provide GDA and BESS Atlantic Pty Ltd with archaeological advice on the potential impact of their proposal on Aboriginal archaeological sites and to meet the requirements of the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010a) for Archaeological Reports – Requirements 1 to 11).

1.1 PROJECT TEAM AND QUALIFICATIONS

This report was compiled by Julian Travaglia (Principal Archaeologist, Virtus Heritage; B.Arts Hons. Archaeology University of Queensland), and Garth Thompson (Archaeologist, Virtus Heritage; B. Arts University of Sydney, Archaeology), with assistance from Lilith Malcolm (Archaeologist, Virtus Heritage; B.Arts, University of Sydney, Archaeology). Quality review was undertaken by Dr Mary-Jean Sutton (Principal Archaeologist and Director, Virtus Heritage; PhD, Archaeology, University of Queensland and B.A. (Hons) Archaeology, University of Sydney, CEnvP – Heritage, MICOMOS, MEIANZ, MAACAI). Fieldwork was completed by Garth Thompson (29 October 2024), and Julian Travaglia (12 February 2025). Consultation for this assessment was conducted by Anya Graubard (Anthropologist and Heritage Consultant, Virtus Heritage, BA Hons. Anthropology, University of Nebraska-Lincoln) and GIS mapping was undertaken by Shaun Sewell (Senior GIS Analyst, Virtus Heritage; Bachelor of IT, Computer Science and Intelligent Systems Queensland University of Technology).

Project information and description of works detailed in Section 2.0 was provided by Clare Brennock (SLR) and Mandy Allonby (GDA).

1.2 ACKNOWLEDGEMENTS

We would like to acknowledge the assistance of the following individuals for the completion of this report:

- Mark Saddler (Bundyi Aboriginal Cultural Knowledge);
- Will Carter and Mark Williams (Southern West Yiradyuri Clans, Land, Water and Sky Country Aboriginal Corporation);
- Thomas Dahlstrom;
- Sonione Rogers;
- Albury and District Local Aboriginal Land Council;
- Mandy Allonby (Gransolar); and
- Clare Brennock (SLR).



Figure 1. The Project Area and Locality

2. Description of the Area

The purpose of this section is to describe the geographic location of the project area, its environmental context, any known Aboriginal objects and places within the project area and surrounding locality and provide a summary of Aboriginal history within the locality. Much of this information is provided in detail in the attached AA (Appendix A) and only briefly summarised here.

2.1 LOCATION

GDA is proposing to install a Battery Energy Storage System (BESS) on Lot 204 DP 753342 at 204 Ortlipp Road, Glenellen, NSW. The proposed facility will provide power to the local electrical grid through connection to the Jindera Transmission Substation operated by Transgrid at Lot 1 DP 588720, 140 Ortlipp Road, Jindera.

Jindera is located approximately 16 km north of the township of Albury and the NSW-Victoria border.

2.2 ENVIRONMENTAL CONTEXT

A detailed description of the environmental context is provided in Section 3 of the AA (**Appendix A**). A summary of the environmental context is provided in **Table 1**.

Table 1: Summary of Environmental Context

Environmental Features	Description
Topography and Watercourses	The project area is mapped within the Kindra Great Soil Group soil landscape (Office of Environment and Heritage 2018). The geology of the Kindra Great Soil Group is described as quintenary slope wash derived from Ordovician metasediments. The northern extent of the project area (i.e. 204 Ortlipp Rd) is situated on a broad hillcrest which is generally flat (and typical of low hills and rises, McDonald et. al. 1998: 31), to very gently inclined (1-3°) at the southern end near the property boundary of 140 Ortlipp Road. To the south adjacent the Transgrid Substation, the landform is a very gently inclined slope, (1-3°). Kilnacroft Creek starts as a first order stream starting in a mountain range approximately 6.5km west of the project area and is a second order ephemeral stream as it passes through the project area.
Geology and Soils	The soils of the project area are quintenary slope wash derived from Ordovician metasediments. The depths of the soils are unknown, but are likely to contain clays, silt, sands and gravels. The project area is unlikely to contain outcrops or large geological formations, but may contain quartz, feldspar, biotite, slate, phyllite, greywacke, siltstone, mudstone and shale.
Vegetation	The project area has been cleared of native vegetation during its use for agricultural activity with some patches of native vegetation remaining. . If native vegetation is surviving in the project area, it may be either Blakely's Red Gum (Eucalyptus blakelyi), River Red Gum (Eucalyptus camaldulensis) or Yellow Box (Eucalyptus melliodora).

Environmental Features	Description
Previous land use	The project area has been used for farming practices since at least 1892. A Transgrid transmission substation was constructed on the southern portion of the project area, 140 Ortlipp Road by 1987. The construction for the Transgrid substation cleared vegetation, installed access tracks and overhead infrastructure.

2.3 ABORIGINAL HERITAGE CONTEXT

This section is designed to provide a description of the Aboriginal heritage context as relevant to the proposed project. The Aboriginal heritage context includes a summary of Aboriginal history within the locality and material evidence of Aboriginal land use, which is a summary of information presented in much greater detail in the AA (refer to Appendix A, Sections 4, 5 and 6).

2.3.1. Ethnohistory

Historic information of Aboriginal people living on the land includes relevant archival, historic and ethnohistoric sources. This research will provide the historical narrative of the peoples who have and continue to live in the region.

Local histories often pay little attention to the Aboriginal history of the locality and can present Aboriginal people as invisible, unrelated to important local historical events, or passive victims of colonisation. So, while local historical information will provide important and valuable starting points, when investigating historic values involving Aboriginal people and obtaining oral history is important.

Prior to European contact the Wiradjuri occupied the Jindera region for thousands of years. "Wirajduri" is a collective language group attributed to the many smaller familial groups that existed in what is known as "Wiradjuri country" (Jacobs 2021). They engaged in various sustainable practices, such as controlled fires to manage the landscapes which promoted the growth of certain Native species of plants and improved hunting conditions. This practice shaped the physical landscape but also maintained the biodiversity of the area. The Wiradjuri people had rich oral traditions, with stories and songs that connected them to the land, its features and their ancestors.

Generally Wiradjuri family groups, or *"dharwaay"*, consisted of 10-50 people and correspond to tributary creeks, moving around for resources and religious purposes (Andrews 1920, McDonald 2011). Each *dharwaay*'s territory was broadly understood across Wiradjuri land, with identifiable messengers being allowed to cross differing *dharwaay* territory only if they were appropriately painted, and etiquette followed (McDonald 2011). *Dharwaay* groups would groups would gather at the junction of the creeks and main rivers, with senior family members leading the meetings.

Various Wiradjuri groups would come together in much larger corroborees seasonally throughout Wiradjuri Country, with one specific location recorded as "not far from Albury" (Andrews 1920). These meetings would serve as gathering events for the Wiradjuri before they left for summer expeditions to high plains in search of bogong moths (Andrews 1920:22, Jacobs 2021). Ethnographic accounts detail the preparation and sharing of bogong moth dishes as a commonality between Wiradjuri groups at the end of these expeditions (Andrews 1920:40).

Common faunal resources exploited prior to European invasion include ducks, crayfish, turtles, water rats and eels (Jacobs 2021). Common floral resources include fruits, nuts, yam daisies, wattle seeds and orchid tubers, all of which were found in close relation to water sources. During drier seasons a dietary reliance on

kangaroo, emu, and possums supplemented the resources lost to drying lake and river systems (Jacobs 2021, Ozark 2019).

Material culture recorded in ethnographic accounts includes small, semi-circular shelters made from boughs and sapling branches tied with leaves, bark and grass (Kabaila 1999). Possom and kangaroo skin coats were manufgactured using mussel shell scrapers, with kangaroo sinew also used to create head ornaments (Bennet 1834). Spear throwers, parrying shields, broad shields, clubs, shovels, axes, throwing sticks, digging sticks and trapping nets were made from plant materials (NGH Environmental 2019).

POST-EUROPEAN INVASION

The first European expedition to the Albury region was led by Hamilton Hume and William Hovell in October 1824, drawn to the area searching for new grazing land and to map the inland rivers of NSW (Jacobs 2021). During their expedition of the Albury area, Hovel marked a tree with the words "Hovell NovR17/24". The area around the tree became known as the "Crossing Place" owing to a natural ford in the Murray. A township was constructed around the "Crossing Place", which eventually became the modern township of Albury.

As European settlers would move into the Albury region between 1839 and 1841, conflict between European and Wiradjuri people were common with the period known as the "Wiradjuri wars" in the Albury area (Jacobs 2021). This conflict resulted in the dispossession of the Wiradjuri people, and diseases such as smallpox being introduced into their communities (NGH Environmental 2019). Local Wiradjuri were taken to places such as Warangesda, a mission established near Darlington Point in 1880, the Brungal Reserve between Gundagai and Tumut, and the Moonahcullah mission approximately 50km west of Deniliquin. In these locations the Wiradjuri people maintained connection to Country, and culture, which is alive and practiced by Wiradjuri people today.

2.3.2. Archaeological Context

The detailed archaeological context including AHIMS and other heritage database searches, previous archaeological research, regional character, and predictive model, as well as mapping of previously recorded sites and landscape features, place, and natural resources of interest to Aboriginal people, are provided in Sections 4, 5 and 6 of the AA (**Appendix A**). A summary of this context is provided here, and **Table 2** summarises the AHIMS sites located within the project area.

The AHIMS search identified a total of 63 Aboriginal sites and Aboriginal objects listed within the search area. Site types were dominated by artefact sites (84%), followed by modified trees (14%) and one PAD.

Archaeological research within the Jindera region indicates that while there have been extensive disturbances from agricultural activity and other European impacts, archaeological material may still be identified. Areas in close proximity to water sources contain the highest potential for archaeological materials to be identified, with quartz artefact sites and culturally modified trees being the most common site types. Archaeological sites have also been identified as occurring in landforms such as ridges, ridge crests, and spurs.

Nine AHIMS registered sites are within 150m of the project area, with one site within 50m of the project area (see **Figure 2**).

Table 2: Summary of AHIMS Features within the Search Area

Site Type	Frequency	Percentage
Artefact	53	84.12%
Modified Tree	9	14.29%

Site Type	Frequency	Percentage
Potential Archaeological Deposit (PAD)	1	1.59%
Total	**63**	**100%**



Figure 2. The Project Area, AHIMS Site Locations, and Newly Identified Sites

3. Consultation Process

3.1 OVERVIEW OF THE CONSULTATION PROCESS

We acknowledge that Aboriginal people are the primary determinants of the cultural significance of their heritage. Aboriginal consultation for the ACHA was undertaken in compliance with the Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW 2010b) (hereafter referred to as the "ACHRs"). These consultation requirements are legal requirements that proponents must comply with during the ACHA process which are set out in Clause 60 of the National Parks and Wildlife Regulation (2019). Aboriginal consultation is crucial in the compilation of the ACHA in order to adequately assess and investigate Aboriginal cultural heritage.

Consultation is important with registered Aboriginal parties in this process in order to:

- determine the cultural significance of a project area;
- identify Aboriginal objects of cultural value within a project area; and
- identify places of Aboriginal cultural value (whether or not they are Aboriginal places declared under Section 84 of the *NPW Act*).

Five Aboriginal Parties/individuals registered interest for this project during the notification process (responded to the advertisements in the local newspapers or to an invitation to register in the project after their contact details were provided by notified organisations). The groups/individuals registered for consultation are listed in **Table 3**.

Table 3: Aboriginal Parties/Individuals Registered Interest for this Project

Name of Contact	Registered Aboriginal Party
Sonione Rogers	Sonione Rogers (Individual)
Will Carter	Southern West Yiradyuri Clans, Land, Water and Sky Country Aboriginal Corporation
Thomas Dahlstrom	Thomas Dahlstrom (Individual)
Mark Saddler	Bundyi Aboriginal Cultural Knowledge
CEO	Albury and District Local Aboriginal Land Council

All consultation with Registered Aboriginal Parties undertaken by GDA and Virtus Heritage is documented in greater detail in **Appendix B** and **Appendix C**. GDA carried out the commercial engagement and selection of interested registered Aboriginal parties for fieldwork for this project. Commercial engagement is stipulated in the ACHRs as separate to consultation and discussions between registered Aboriginal parties and GDA which are commercial in confidence will not be reiterated in the Aboriginal consultation log.

Table 4 provides a summary of compliance by this project with the ACHRs. It should be noted that consultation was undertaken through multiple forms of contact with registered Aboriginal parties for all correspondence including registered post via delivery confirmation, email (wherever possible), phone calls, SMS, and fax (where all other forms of contact were exhausted).

Table 4: Compliance with the ACHRs

Step #	Description of Step in the ACHRs	How this step of the ACHRS was complied with
1: Notification of project proposal and registration of interest		
1a	Proponents must compile a list of Aboriginal people who have an interest in the proposed project area and hold knowledge relevant to determining the cultural significance of Aboriginal objects and/or places from reasonable sources of information which include writing to: • The relevant Heritage NSW regional office; • The relevant Local Aboriginal Land Council; • The National Native Title Tribunal; • Native Title Services Corporation; • Relevant local council (s); and • Relevant Local Land Services.	Letters were sent by Virtus Heritage to all of these relevant organisations (via registered post with delivery confirmation) requesting their input on the names and contact details of Aboriginal people who have an interest in the proposed project area and hold knowledge relevant to determining the cultural significance of Aboriginal objects and/or places within the locality of the project area on 2nd August 2024. A closing date of 16th August 2024 was provided to all agencies for a response to this letter.
1b	Proponent prepares a notification via newspaper which must include: • The name and contact details of the proponent; • A brief overview of the proposed project that may be the subject of an application for an AHIP, including the location of the proposed project; • A statement that the purpose of community consultation with Aboriginal people is to assist the proposed applicant in preparing an application for an AHIP and to assist Heritage NSW in their consideration and determination of the application; • An invitation for Aboriginal people who hold knowledge relevant to determining the cultural significance of Aboriginal object(s) and/or place(s) in the area of the proposed project to register an interest in a process of community consultation with the proposed applicant regarding the proposed activity; and • A closing date for the registration of interests.	A notification was placed in the Victoria Rural Press Border Mail Public Notices section on 2nd August 2024 which complied with these requirements and is provided in Appendix B. A closing date of 16th August 2024 was provided for registrations of interest.
1c	Proponent writes to the Aboriginal people whose names were provided by organisations in Step 1a to notify them of the proposed project and opportunity to be involved in	Letters were sent to all Aboriginal people provided by organisations (unless they had registered interest already) via registered post with delivery confirmation and emailed

Step #	Description of Step in the ACHRs	How this step of the ACHRS was complied with
	consultation and places notification in the local newspaper.	(wherever possible) on 18th August 2024 to comply with this step to invite them to be involved in consultation. Closing date for registrations was 2nd September 2024. Phone calls were made to those who had not responded on 3rd September 2024 to remind people of closing date for registration, with email and SMS reminders (where required) being issued on 3rd September 2024.
1d	Proponent records names of Aboriginal people who have registered an interest in being involved in consultation – the 'Registered Aboriginal Parties'	**Table 3** provides a list of the registered Aboriginal parties, who provided written registration of interest for this project.
1e	Proponent provides a copy of the notification and record of the Registered Aboriginal Parties to Heritage NSW and relevant LALC within 28 days of the closing date for registering an interest.	An email was sent to Heritage NSW and Albury and District LALC to comply with this requirement on 3rd September 2024.
2 Presentation of the information about the proposed project		
2a	Proponent presents and/or provides project information to registered Aboriginal parties.	Project information package was presented via letter registered post with delivery confirmation and sent via email to all registered Aboriginal parties on 19th August 2024. This information included information from Virtus Heritage on the project proposal and the draft project methodology, requiring written responses/comments from registered Aboriginal parties by 2nd September 2024. Virtus Heritage also included a separate letter requiring written response from registered Aboriginal parties for commercial engagement to be provided directly to the Proponent.
2b	Proponent may create an opportunity for registered Aboriginal parties to visit the proposed project site.	Registered Aboriginal parties were invited by Proponent to be involved in proposed fieldwork and to maintain an open dialogue on cultural knowledge and values. This invitation was sent out by Virtus Heritage by formal letter via email on 10th October 2024, with a date of 29th October 2024 scheduled for fieldwork. Registered Aboriginal parties were notified via email on 10th October 2024 that fieldwork was scheduled for 29th October 2024. An invitation for survey of additional areas was sent out by Virtus Heritage by formal letter via email on 24th January 2025,

Step #	Description of Step in the ACHRs	How this step of the ACHRS was complied with
		with a date of 12th February 2025 scheduled for fieldwork.
2c	Proponent records or documents that information on the proposed project has been presented. The record or documentation should include any agreed outcomes and/or contentious issues that may require further discussion (where applicable). Proponent should provide a copy of this record or documentation to registered Aboriginal parties.	Documentation of the information package is attached in the Aboriginal consultation log to this assessment. Copies of this correspondence were provided to Heritage NSW and RAPs with the draft ACHA.
3 Gathering information about cultural significance		
3a	Proponent presents and/or provides the proposed methodology (s) for the cultural heritage assessment to the registered Aboriginal parties for comment. registered Aboriginal parties have a minimum of 28 days after the proponent provides the methodology (s) to provide written or oral comment.	Project information package was presented via letter registered post with delivery confirmation and sent via email to all Registered Aboriginal Parties on 11th September 2024. Project information relating to additional project areas was sent via email to all Registered Aboriginal Parties on 24th January 2025.
3b	Proponent considers input provided by registered Aboriginal parties and finalises methodology for implementation. Proponent documents how the input has been considered.	Project methodology was finalised and any comments from registered Aboriginal parties were taken into consideration. Information on recent nearby archaeological reporting was provided and taken into consideration for project reporting.
3c	Proponent seeks information from registered Aboriginal parties to identify: Whether there are any Aboriginal objects of cultural value; and Whether there are places of cultural value (whether or not they are Aboriginal places declared under Section 84 of the *NPW Act*).	The presentation of project information and the draft proposed project methodology were provided to all registered Aboriginal parties via email and registered post requesting information from registered Aboriginal parties in relation to this requirement. An invitation to discuss the proposed methodology and cultural information on potential Aboriginal objects and places of cultural value with Virtus Heritage and the proponent was reiterated through phone calls and emails to the registered Aboriginal parties. During fieldwork, registered Aboriginal parties who participated in the surveys were asked throughout the day to provide input on cultural information and cultural values within the project area. This request is reiterated again in the covering letter sent with the draft ACHA

Step #	Description of Step in the ACHRs	How this step of the ACHRS was complied with
		report for registered Aboriginal parties' comment and review.
3d	Proponent seeks input from registered Aboriginal parties on potential management options	During fieldwork, registered Aboriginal parties engaged for the surveys were asked throughout the day to provide input on potential management options within the project area. This request is reiterated again in the covering letter sent with this draft report for registered Aboriginal parties' comment and review.
4 Review of draft cultural heritage assessment report		
4a	Proponent prepares draft cultural heritage assessment report and provides it to the registered Aboriginal parties for review and comment.	Draft reports were sent to RAPs via email and, where requested, registered post on 17th March 2025 with a closing date of comments being Monday 14th April.
4b	Registered Aboriginal parties have a minimum of 28 days after the proponent provides the draft report to review and provide written or oral comment.	RAPS were provided with 28 days to review the reports. RAPS were contacted via phone call on the 24th March and 9th April, and both email and SMS reminders were sent on 14th April 2024 Invitations of assistance were provided to obtain comment verbally/ in writing to discuss the project.
4c	Proponent finalises cultural heritage assessment report. The final report is submitted to Heritage NSW for consideration with the proponent's AHIP application.	This task will be undertaken once the final report is submitted to the Department.
4d	Proponent provides/makes available the final cultural heritage assessment report and AHIP application to the registered Aboriginal parties and relevant LALCs within 14 days of an AHIP application being made to Heritage NSW.	This task will be undertaken once the final report is submitted to the Department.

3.2 SUBMISSIONS/COMMENTS ON METHODOLOGY

The purpose of this section of the report is to provide information on the submissions/comments raised about the proposed project methodology by registered Aboriginal parties and how these issues were addressed by the Proponent in order to comply with the ACHA guide (OEH 2011) and ACHRs (DECCW 2010b).

All registered Aboriginal parties were provided with the opportunity to provide comment on the methodology for this assessment, and to be involved in fieldwork. All submissions provided by the registered Aboriginal parties are provided in full in **Appendix B** and summarised in **Table 6** below. The finalised methodology is supplied in **Appendix D**.

3.3 COMMENTS MADE DURING FIELDWORK

Comments made by representatives from registered parties during fieldwork are summarised in **Table 5**.

Table 5: Comments Made During Fieldwork

Registered Party	Comments
Sonione Rogers (Individual)	Sonione commented on the importance of waterways to Wiradjuri subsistence and habitation of the region
Southern West Yiradyuri Clans, Land, Water and Sky Country Aboriginal Corporation	The representatives of South West Yiradyuri Clans AC on the importance of waterways to Wiradjuri subsistence and habitation of the region, and on the prevalence of quartz artefacts in the region.
Thomas Dahlstrom (Individual)	Thomas commented on the importance of the local fauna, particularly the yabbies identified in the intermittent drainage line, to Aboriginal habitation in the region.
Bundyi Aboriginal Cultural Knowledge	During the site survey, Mark Saddler commented on the importance of watercourses to Aboriginal habitation in the region. Mark noted the intermittent drainage line east of the project area as a creek line and noted the importance of the fauna identified during the site inspection to Aboriginal culture and habitation of the area. Other comments included: • All impact areas should be monitored by RAP/s during works; • Artefacts made from the same material of Jindera IF1 site had been identified in areas west of the project area, but outside of the project AHIMS search area; • Any cultural inductions need to be site specific and area specific; • Mark prefers to be called Traditional Carers/Custodians rather than Traditional Owners as no one owns the land; • Scarred trees, we use the bark, if the bark is not right we don't use that tree;

Registered Party	Comments
	• The Golden Orb spider (ganga spider), we use the web to stop bleeding; • The high grade quartz is from Tumburumba, Tarcutta and Humula; • Basalt is from Bomen (Wagga Wagga area) and Rankin Springs; • Silcrete and cherts are from west past the Lockhart; and • There should be a local RAP to monitor underboring along Ortlipp Road and Lindner Road for a few days. Mark also provided his site survey reports to the assessment team, included in **Appendix C** of this report.

3.4 SUBMISSIONS/COMMENTS ON DRAFT ACHA AND AA REPORTS, AHIP APPLICATION AND RD&M, AND COMMENTS ON CARE AND CONTROL

A summary of submissions and comments on the draft project methodology, ACHA, AR and Research Design and Methodology are provided in **Table 6** once received.

Table 6: Summary of Comments on Project Methodology, Draft ACHA and AA reports and Proposed RD&M

Registered Aboriginal Stakeholder Group	Project Methodology	Draft ACHA and AA	Proposed RD&M	Care and Control	Additional Comments
Sonione Rogers	Requested to be involved in the field survey. No further comment on project methodology.	Agreed with draft reports and recommendations.	No further comment.	No further comment.	
Southern West Yiradyuri Clans, Land, Water and Sky Country Aboriginal Corporation	Requested to be involved in the field survey. No further comment on project methodology	No comment provided.	No comment provided.	No comment provided.	
Thomas Dahlstrom	Requested to be involved in the field survey. No further comment on project methodology	No further comment.	No further comment.	If any comment it would be that a chance finds protocol was put in place if it isn't already. Also if there is any long term small contracts like grounds maintenance would it possible to train one of the local RAPs up for it so they more to do in between ACHA's.	A Chance Finds Protocol has been included as part of Recommendation 3 in the AA (**Appendix A**).
Bundyi Aboriginal Cultural Knowledge	Commented that with the methodology, I would state to you, do not go off past survey reports and AHIMS sites as there are many more items on the ground that have not been recorded. Also,	No problems with the overall project; • Some trees proposed to be removed are	No further comment.	Care and Control: Would like any artefacts which are required to temporarily leave country for analysis	Mark identified he is a Wiradjuri man who has extensive experience working on projects in the area. He knows the location of the works

Registered Aboriginal Stakeholder Group	Project Methodology	Draft ACHA and AA	Proposed RD&M	Care and Control	Additional Comments
	survey work needed to be more thorough. You will have PADs on your site and these need to be correctly identified by local RAPs and recorded. Prior to survey, Mark identified to Virtus Heritage that additional Aboriginal sites had just been identified and registered onto AHIMS. Virtus in response undertook a second AHIMS search to ensure they were considered in this project.	Squirrel Glider trees and used as a pathway. Consider putting in poles for them and replanting ironbark trees which are also a food source; • The BESS is next to significant waterways (i.e. mainly the lower swampy area where other artefacts locate); • Thought toward a holding dam as part of BESS safety measures (last line of defence) so the waterways remain unaffected by the BESS; • The artefacts and scarred		to be smoked first, and RAPs advised how the artefacts are being transported, and where and how they will be stored; Prefers repatriation of artefacts (reburial) but reburial not in plastic bags.	and indicated that the creek to the east and the wetland area contain travel routes used by his people. He indicated that he has worked on project that have uncovered subsurface clay heat balls, one recently was dated to 4000 BP. He noted that to the east is Table Top Mountain which is a sacred site and to the north is Billabong Creek, the longest creek in the world. Mark can provide not only pedestrian surveys but does drone work for his surveys. He also provides reports whenever he does surveys. He has worked with GDA previously as well as GPG and a few other proponents.

Registered Aboriginal Stakeholder Group	Project Methodology	Draft ACHA and AA	Proposed RD&M	Care and Control	Additional Comments
		trees in the lower BESS area relate to the hillcrest landform and is a significant area;			
Albury and District Local Aboriginal Land Council	No comment provided	No comment provided	No comment provided	No comment provided	

4. Summary and Background Information

During the consultation process, Registered Aboriginal Parties commented on the importance of waterways to flora, fauna, and ultimately, Wiradjuri habitation in the region. The importance of waterways to Wiradjuri habitation of the area was further emphasised by the ethnohistory of the region, with dreaming inherently tied to the waterways and landscapes of the now Greater Hume region.

The locality of the project area is habituated by several floral species that were important to the material culture of the local Wiradjuri. This includes several species of Eucalypts, which have notably been used to manufacture resources such as canoes, carrying vessels or clubs, food, and medicine. The fauna of the region were staples in Wiradjuri diet, ceremony and material culture including eastern grey kangaroos, wombats, echidnas and possums. The project area abuts Kilnacroft Creek on its southern boundary, which has been associated with numerous archaeological assemblages. The presence of these key resources in the locality confirms ethnohistorical accounts for floral and faunal resource use in the region and indicates a potential for Aboriginal habitation of the locality.

The project area has been used for farming practices from at least 1892. This activity cleared much of the natural vegetation in the project area and established a homestead on the 204 Ortlipp Road, property. Notably, the pathing and track of Ortlipp Road had been established by the 1892 surveying. By 1987, the Transgrid transmission substation was constructed on the 140 Ortlipp Road property, within the southern half of the project area.

Registered sites within the region surrounding the project area are dominated by quartz artefact scatters and scarred trees. Archaeological research in the region indicates that areas adjacent to permanent or semi-permanent water courses, and/or elevated landforms such as crests, ridges, and spurs contain a higher potential for artefacts to occur. Further, whilst extensive disturbances have occurred from the history of agricultural activity in the region, potential for subsurface archaeological materials has been identified as potentially still present (if any) in areas of disturbance.

5. Cultural Heritage Values and Statements of Significance

5.1 ASSESSMENT OF SIGNIFICANCE

The Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance, 2013 (Australia ICOMOS 2013, hereafter referred to as the 'Burra Charter') provides guidance for the conservation and management of places of cultural significance (cultural heritage places) and is based on the knowledge and experience of Australia ICOMOS members. Conservation is an integral part of the management of places of cultural significance and is an ongoing responsibility. The Burra Charter sets a standard of practice for those who provide advice, make decisions about, or undertake works to places of cultural significance, including owners, managers, and custodians. The Burra Charter defines cultural significance as the "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" (Australia ICOMOS 2013:2).

Aboriginal cultural heritage sites are therefore assessed following the categories of significance developed under the Burra Charter (**Table 7**). See Section 8 of the AA (**Appendix A**) for detailed description of the categories of significance. Two previously unknown Aboriginal sites were identified and recorded during the surveys, including Jindera IF1 and PAD, and Jindera ST1:

Table 7: Assessment of the Burra Charter Values within the Project Area

Categories of Significance	Statement of Values
Aesthetic	The project area has aesthetic value associated with its connection to Table Top Mountain, and its surrounding Mountain ranges. Community consultation identified that Table Top Mountain is a sacred site (Mark Saddler: Table 2) The biodiversity of the project area and its surroundings, further its aesthetic significance. Water has cultural significance, the health of which has been cultural responsibility for Aboriginal people to protect and conserve.
Historic	No specific historic values have been identified within the project area.
Scientific /archaeological	**Rarity and Representativeness:** Two previously unknown Aboriginal sites were identified and recorded during the surveys, including Jindera IF1 and PAD, and Jindera ST1: • Jindera IF1 (AHIMS # 55-6-0294) and PAD ○ **Outside project area**: the artefact is located just outside of the north east boundary of the project area; ○ **Inside project area**: The PAD associated with Jindera IF1 is within Area 1 of the project area (i.e. hillcrest landform). The area is considered as PAD based on the presence of an adjacent Aboriginal object, being a sensitive landform for potential Aboriginal occupation (i.e. hillcrest – elevated and flat to very gently inclined), and the lack of observable significant disturbances/modifications to the landform. Bundyi

Categories of Significance	Statement of Values
	Aboriginal Cultural Knowledge – Mark Saddler also identified the hillcrest landform (i.e. Area 1) as a PAD (refer ACHA Appendix C); and • Jindera ST1 (AHIMS #55-6-0295) ○ **Inside project area**: Jindera ST1 (AHIMS #55-6-0295) is a scarred tree with a single scar located toward the south west end of the project area along Ortlipp Road. The AHIMS search undertaken (with a 5km buffer) identified that artefact sites and scarred trees are the most frequent site types recorded in the area (84% and 14% respectively, of all registered sites). Although not considered rare site types in the general locale, the site types do represent frequent activities being undertaken by Aboriginal people in the region. **Integrity:** The Jindera IF1 and PAD (AHIMS ID 55-6-0294) was identified just outside the project area, but with an associated PAD area (hillcrest landform). The land use history of the project area indicates that there have been disturbances caused by farming practices. However, previous archaeological research in the region surrounding Jindera indicates that archaeological material may still remain, in areas that have been used for agricultural purposes, and more likely in areas in proximity to a fresh water source. These landforms are known to be sensitive for higher levels of Aboriginal occupation but have experienced some ground surface disturbances and decreased the archaeological integrity for stratified archaeological deposits. Previous archaeological research also indicated elevated landforms (such as crests, ridges, and spurs) are known landforms for Aboriginal occupation, especially in proximity to freshwater sources. The landform (PAD) associated with Jindera IF1 is assessed as having moderate archaeological potential. However, this potential can only be realised through further archaeological investigation (i.e. archaeological testing). **Connectedness:** Jindera ST1 (AHIMS #55-6-0295) is located approximately 150m west of a cluster of artefact and scarred tree sites. This cluster surrounds an area described as a wetland and rich cultural area by RAP representatives. The Jindera ST1 site may be considered as connected to this cultural landscape by type and location; however, the lands between the newly identified scarred tree and the cluster of sites have been truncated and highly disturbed by road easement works, underground utilities, a graded ground surface to direct water in time of high rainfall, fencing, and the development of a developing solar farm. **Complexity:** The level of disturbance has resulted in low terrain integrity (except for Area 1, hillcrest landform) as human action associated with the establishment of the Transgrid Substation, subsurface utilities, European farming, establishment of roads,

Categories of Significance	Statement of Values
	bioturbation, and erosional processes may have redistributed artefacts from their deposited locations (if any), resulting in site disturbance or destruction. **Potential for Archaeological Deposit:** The scientific significance of the PADs relies on the potential for subsurface deposits in the area to maintain stratigraphic and spatial integrity. The assessment examined the past land use history of the project area and broader locality, past archaeological research, and environmental consideration, which indicates that artefacts (if any) are likely to have been redistributed from their deposited locations, resulting in site disturbance or destruction. The landform (PAD) associated with Jindera IF1 is assessed as having moderate archaeological potential. Previous archaeological research in the region surrounding Jindera indicates that archaeological material may still remain in areas that have been used for agricultural purposes, and more likely in areas in proximity to a fresh water source. These landforms are known to be sensitive for higher levels of Aboriginal occupation but have experienced some ground surface disturbances and decreased the archaeological integrity for stratified archaeological deposits. Previous archaeological research also indicated elevated landforms (such as crests, ridges, and spurs) are known landforms for Aboriginal occupation, especially in proximity to freshwater sources. However, this potential can only be realised through further archaeological investigation (i.e. archaeological testing). Jindera ST1 (AHIMS #55-6-0295) is in a location where the soil profile surrounding the tree is highly disturbed by subsurface works associated with Telstra optic fibre cabling, contour drains, and works associated with Ortlipp Road.
Social value	All Aboriginal objects, including those recorded within the project area, have social value to Aboriginal people. These values are both tangible and intangible, associated with the Aboriginal objects as well as the cultural sites, and their connections across the broader cultural landscape. The flora and fauna in the locality also has social value to the local Wiradjuri. This includes several species of Eucalypts, which have notably been used to manufacture resources such as canoes, carrying vessels or clubs, food, and medicine. The fauna of the region were staples in Wiradjuri diet, ceremony and material culture including eastern grey kangaroos, wombats, echidnas and possums.
Spiritual	All Aboriginal objects, including those recorded within the project area, have spiritual value to Aboriginal people. These values are both tangible and intangible, associated with the Aboriginal objects as well as the cultural sites, and their connections across the broader cultural landscape. The project area has spiritual value associated with its connection to Table Top Mountain, and its surrounding Mountain ranges. Community consultation identified that Table Top Mountain is a sacred site (Mark Saddler: Table 2). The waterways have spiritual value with dreaming inherently tied to the waterways and landscapes of the now Greater Hume region.

5.2 SUMMARY AND STATEMENT OF SIGNIFICANCE

The project areas have been shown to have social and cultural significance to the Aboriginal community, based on consultation to date and aesthetic values. The project area has spiritual value associated with its views/connection to Table Top Mountain and the waterways. All flora, fauna, and Aboriginal objects, including those recorded within the project area, have social value to Aboriginal people.

6. The Proposed Activity

This section provides a description of the proposal. **Table 8** provides a summary of the history of previous impacts to the project area, the proposed impacts to the project area from the proposal, and a statement regarding potential harm of the proposal on Aboriginal objects within the project area. A full description category is provided in the relevant sections of the AA (**Appendix A**), as indicated in Table 8.

Table 8: Summary of Project Proposal.

Project Description	Summary
Previous Impacts to the Project Area (AA – Section 3)	The project area has been disturbed by land clearing and generational agricultural and pastoral use since at least 1892. The Transgrid transmission substation has been on the site from at least 1987, the construction and use of which has also impacted the project area. Grading and establishment of Ortlipp Road and Lindner Road and associated utilities has also affected the project area.
Proposed Impacts to the Project Area (AA – Section 2)	The project activity would include: • Transport of construction personnel associated heavy and light vehicles and materials to and from the Subject Site during construction (dependent on construction schedule). • Site establishment works including vegetation clearing within the BESS boundary and Transmission Line (TL) footprint, bulk earthworks and a temporary construction compound. • Road works to formalise internal site access road to accommodate heavy vehicles and a new driveway crossing. • Construction of hardstand, crushed-rock internal roads, control room and switch gear, auxiliary transformer, battery enclosures, and inverter and transformer stations. • Construction of overhead 330 kV TL to facilitate connection to the existing Jindera 330/132 kV Transmission Substation and associated high voltage steel poles. • Acoustic attenuation (to be determined as part of a detailed assessment). • Construction of ancillary works including parking area, water tank, storage structures, stormwater management infrastructure and security lighting and fencing. • Vegetative screening. • The installation of 200 lithium batteries within individual, modular containers, on hardstand footings. • The installation of 100 inverters on hardstand footings. • Installation of subsurface wiring infrastructure throughout the project area. • Installation of an expanded concrete footing on the Transgrid substation. • Watermain extension: Underboring and installation of piping along Ortlipp Road to extend the local water-main to site. • Easement works along Ortlipp Road. • Replacement and implementation of watermain piping and associated works along Lindner Road (underboring). • Decommissioning of the BESS at the end of life (EOL).

Project Description	Summary
Potential Harm of Proposed Activity (AA – Sections 9 and 10)	The proposed activity will cause direct partial harm to the Jindera IF1 (AHIMS 55-6-0294) and PAD. The artefact within the site is located outside the project area, but the associated PAD (hillcrest landform) is located within the project area and within proposed impact locations. The proposed activity cause direct harm to the Jindera ST1 (AHIMS 55-6-0295) as the site is located within the project area where underboring for a watermain is proposed.

7. Avoiding or Mitigating Harm

The Jindera BESS project will add greater stability and resilience to the local electrical grid, easing the transition from fossil fuel energy sources to renewable based energy sources. GDA have undertaken ACHA reporting early in the design process to ensure heritage conservation measures can be incorporated into the project design where possible.

A proposed methodology to mitigate harm includes the following elements:

- The Jindera IF1 (AHIMS ID 55-6-0294) and PAD site should have fencing erected along the project boundary to demarcate the location of the artefact in close proximity to the project area, and the associated PAD (Area 1, hillcrest landform) should undergo archaeological investigation (i.e. archaeological testing) only within the parts of the landform designated for project impacts;
- Management of Jindera ST1 (AHIMS ID 55-6-0295) as part on an Aboriginal Cultural Heritage Management Plan (ACHMP) in consultation with RAPs, the expert advice of a professional arborist with experience in culturally modified trees, and the proponent to reduce the likelihood of the dead tree breaking and splitting;
- Fencing of Jindera ST1 (AHIMS ID 55-6-0295) to demarcate the location of the site during project works in consultation with RAPS and as advised by an appropriately qualified and experienced aborist;
- Cultural monitoring has been requested by RAPs during the consultation process. Cultural monitoring is recommended during initial ground disturbance works within Area 1, and initial underboring works in Area 3 and Area 4;
- Cultural inductions for all site workers with consideration provided for RAP input and delivery of these inductions; and
- Development of a more detailed care and control strategy in consultation with RAPs to manage any artefacts in a manner acceptable to RAPs and enable the cultural value of the artefacts to be documented and partially conserved. Reburial may be an option as close as possible to the original location of salvaged objects back on Country.

8. Recommendations

Based on the description of project impacts provided by GDA, the results of the survey, Aboriginal consultation to date, the limitations of this assessment and previous archaeological research, the following recommendations are made below in **Table 9**.

Management recommendations of this assessment consider all values as set out in The Burra Charter and the requirements of Heritage NSW. This assessment includes the recommendations for the Archaeological Survey Report (Archaeological Assessment). The ACHA includes management recommendations which consider the social (cultural), spiritual, aesthetic and historic values of The Burra Charter.

Table 9: Recommendations, inclusive of recommendations made in the Archaeological Assessment

Recommendation #	Recommendation
1.	The proposal impacts are likely to impact AHIMS site Jindera ST1, and to the PAD associated with AHIMS site Jindera IF1. Therefore, prior to commencement of proposed works (or any activities that may cause harm), under the provisions of OEH's *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (2010), appropriate archaeological mitigation is required in the area of impacts. Under the *Planning Secretary's Environmental Assessment Requirements,* an Aboriginal Heritage Impact Permit is not required for this project. A design methodology should be drafted in consultation with registered Aboriginal parties and considers: a) The Jindera IF1 (AHIMS ID 55-6-0294) and PAD site to have fencing erected along the project boundary to demarcate the location of the artefact in close proximity to the project area; b) The PAD associated with Jindera IF1 (AHIMS ID 55-6-0294) to undergo archaeological investigation (i.e. archaeological testing) only within the parts of the landform designated for project impacts. c) Management of Jindera ST1 (AHIMS ID 55-6-0295) through discussions with RAPs, professional arborist, and proponent to reduce the likelihood of the site being impacted and the dead tree breaking and splitting; d) Cultural monitoring during initial ground disturbance works within Area 1, and initial underboring works in Area 3 and Area 4; e) Development of a more detailed care and control strategy in consultation with RAPs to manage any artefacts in a manner acceptable to RAPs, and enable the cultural value of the artefacts to be documented and partially conserved. Reburial may be an option as close as possible to the original location of salvaged objects back on country.
2.	a) All site workers and personnel involved in site impact works associated with the proposed work should be inducted and briefed on the identification of Aboriginal sites and objects during works and their responsibilities according to the provisions of the NPW Act 1974, in case any additional unknown objects or items are uncovered during proposed works.

Recommendation #	Recommendation
	b) Site workers should be made aware of the location of any Aboriginal sites that may at any stage occur within the proposal site and their significance, and their legal obligations in relation to the protection and management of these Aboriginal sites under the NPW Act 1974, and the National Parks and Wildlife Regulation 2019. c) As part of this induction, workers should be made aware that in the event that unexpected human remains are uncovered on site, the area of the suspected remains must be secured and cordoned off and the NSW Police notified. No further works can be undertaken until the NSW Police provide written advice. d) If these remains are deemed to require archaeological investigation by the NSW Police or NSW Coroner, then Heritage NSW and the relevant Aboriginal parties must be notified. A plan of management for the preservation of Aboriginal human remains or for their salvage must be put in place or conducted under an AHIP methodology and variation developed in consultation with all relevant Aboriginal parties and the Heritage NSW. e) As part of an induction, in the unlikely event that any historical relics are uncovered during proposed works, all workers and subcontractors should be made aware of their responsibilities under the provisions of the NSW Heritage Act 1977 (for example, 19th century bottle dumps, sandstone footings, structural features in situ over fifty years old etc.). In this event all works must cease and the area where objects uncovered is protected until a qualified archaeologist is contacted and can inspect and assess the area to determine its significance in consultation with Heritage NSW. f) Gransolar may wish to consider the input and engagement of interested Aboriginal stakeholder groups in the development of inductions and toolbox talks for this project.
3.	If Aboriginal objects (excluding human remains or sites such as grinding groove complexes/engravings, rock art) are detected during ground disturbance, NPWS unexpected finds procedures (NSW National Parks and Wildlife Service 2020: 17) should be observed, namely: a) establish an appropriate buffer around the Aboriginal object to exclude further works in the area and allow assessment and management; b) engage with the relevant Aboriginal parties to assess the object's heritage values and undertake appropriate methods to avoid or move the object; c) complete an AHIMS site card to register the site and document the movement or avoidance strategies taken; d) complete a report detailing the unexpected find and the Aboriginal community's recommendations for management; e) send the report to the relevant project manager and Aboriginal parties and Heritage NSW and DPIE's AHIMS area; f) continue works only once appropriate measures have been taken to avoid or move the site, as Heritage NSW.

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Appendix A Archaeological Assessment Report

VIRTUS HERITAGE



JINDERA BATTERY ENERGY STORAGE SYSTEM PROJECT

Jindera, NSW

Archaeological Assessment

Final | April 2025

Prepared for Gransolar Development Australia and BESS Atlantic Pty Ltd

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Acknowledgement of Country

Virtus Heritage acknowledges the Traditional Custodians of the land on which this project was undertaken (Wiradjuri Country) and pays respect to Elders past, present and emerging.

Content Warning

Aboriginal and Torres Strait Islander people are warned that this publication may contain names and images of deceased people, descriptions of traumatic historic events and parts of Country that have been impacted by development.

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All queries related to the content, or to any use of this report must be addressed to Dr Mary-Jean Sutton.

Executive Summary

Virtus Heritage Pty Limited (hereafter 'Virtus Heritage') was engaged by BESS Atlantic Pty Ltd (BESS Atlantic) c/o Gransolar Development Australia (GDA), to prepare an Aboriginal Cultural Heritage Assessment (ACHA), including an Archaeological Assessment (AA) for the construction of a Battery Energy Storage System (BESS) facility at Lot 204 DP 753342, 204 Ortlipp Road, Glenellen, NSW. The project also includes an overhead grid connection to the existing Transgrid transmission substation at 140 Ortlipp Road, a water-main extension and easement works along Ortlipp Road, and watermain works along Lindner Road, Jindera, NSW (proposed impact areas for these works shown in **Figure 1** and referred to hereafter as 'the project area'). This development is being conducted as a State Significant Development (SSD), and under the requirement of the Planning Secretary's Environmental Assessment Requirements (SEARs), which triggered the requirement of ACHA reporting. The project area is within the Greater Hume Shire Council Local Government Area (LGA).

This report constitutes the Archaeological Assessment component required for the ACHA process. The ACHA was compiled to meet the project SEARs requirements as an SSD.

PROPOSAL

GDA is proposing to install a Battery Energy Storage System (BESS) on Lot 204 DP 753342 at 204 Ortlipp Road, Glenellen, NSW. The proposed facility will provide power to the transmission electrical grid through connection to the Jindera Transmission Substation operated by Transgrid at Lot 1 DP 588720, 140 Ortlipp Road, Jindera.

The proposed Jindera Battery Energy Storge System (Jindera BESS) will involve the development, construction, operation, and eventual decommissioning of a BESS with a capacity of 250 Megawatts (MW)/ 500 Megawatt Hours (MWh). The BESS will consist of BESS containers (or enclosures), with each container having dimensions of 6m with an approximate weight of 35,000 kilograms (kg). The BESS will be supported by inverters from the BESS and connect to the existing Transgrid substation via approximately 500 metres (m) of 330 kV overhead lines.

ENVIRONMENTAL CONTEXT

Prior to European invasion, the rich structural and floristic diversity of the vegetation and wide range of geological, topographic and climatic influences in the region provided a complex mosaic of habitat types, of which the terrestrial prey resources, and a large variety of freshwater fish species would have been plentiful within and adjacent to the project area, including Kilnacroft Creek. The Aboriginal people of the area utilised the large variety of plant resources for food, medicines, and secular items. The temperate climate of the project area would have made it suitable for habitation all year round. The mudstone, quartz and greywacke identified in the geological landscape of the broader project landscape are also important resources for the manufacture of stone tools.

The project area is located on landforms which have been disturbed and impacted by land clearing and generational agricultural and pastoral use since at least 1892. Additionally, the Transgrid transmission substation has been on the site from at least 1987, the construction and use of which has also impacted the project area. Grading and establishment of Ortlipp Road and Lindner Road and associated utilities has also affected the project area.

ARCHAEOLOGICAL CONTEXT

Archaeological research within the Jindera region indicates that while there have been extensive disturbances from agricultural activity and other European impacts, archaeological material may still be identified. Areas in close proximity to water sources contain the highest potential for archaeological materials to be identified, with quartz artefact sites and culturally modified trees being the most common

site types. Archaeological sites have also been identified as occurring in landforms such as ridges, ridge crests, and spurs.

SURVEY RESULTS

Site surveys were undertaken on 29 October 2024 and 12 February 2025 for this ACHA process. The pedestrian site surveys were undertaken to identify and assess any potential Aboriginal Archaeological sites and heritage constraints within the project area.

Two previously unknown Aboriginal sites were identified and recorded during the surveys including Jindera IF1 and PAD, and Jindera ST1 (**Table 9** and **Figure 9**):

- Jindera IF1 (AHIMS # 55-6-0294) and PAD
    - **Outside project area**: the artefact from this site is located just outside of the north east boundary of the project area;
    - **Inside project area**: The PAD associated with Jindera IF1 is within Area 1 of the project area (i.e. hillcrest landform). The area is considered as PAD based on the presence of an adjacent Aboriginal object, being a sensitive landform for potential Aboriginal occupation (i.e. hillcrest - elevated and flat to very gently inclined), and the lack of observable significant disturbances/modifications to the landform. Bundyi Aboriginal Cultural Knowledge – Mark Saddler also identified the hillcrest landform (i.e. Area 1) as a PAD (refer ACHA Appendix C); and
- Jindera ST1 (AHIMS #55-6-0295)
    - **Inside project area**: Jindera ST1 (AHIMS #55-6-0295) is a scarred tree with a single scar located toward the south west end of the project area along Ortlipp Road.

The overall visibility of the project area was low due to grass coverage. Visibility was lowest within Area 1 (1% visibility) where dense pasture grasses obscured the ground surface. Survey along Ortlipp Road and Lindner Road also had low visibility (generally <5%) but more exposures.. Vegetation included native and introduced grasses and weeds, and scattered regrowth and mature eucalypts, River Red Gum, and regrowth Currajong trees. All mature trees were inspected for evidence of cultural modification.

Disturbances and exposures within the project area included bioturbation (mainly rabbits, and ant nests), erosion scours, culverts, fallen trees (i.e. root ball exposing the subsurface), grading works associated with Lindner Road, substation and transmission lines, graded tracks, drainage works, and impacts from European farming (e.g. fences, dams, ploughing, grazing).

SIGNIFICANCE AND IMPACT ASSESSMENT

Site/Place/PAD	Type of Harm (direct/indirect/ none)	Level of Harm (total/partial/none)	Consequence of Harm (total loss of value/partial loss of value/no loss of value)
Jindera IF1 (AHIMS #55-6-0294) and PAD	Direct	Partial	Partial loss of value
Jindera ST1 (AHIMS #55-6-0295)	Direct	Total	Total loss of value

Rarity and Representativeness:

Two previously unknown Aboriginal sites were identified and recorded during the surveys, including Jindera IF1 and PAD, and Jindera ST1 (**Table 9** and **Figure 9**):

- Jindera IF1 (AHIMS # 55-6-0294) and PAD
    - **Outside project area**: the artefact is located just outside of the north east boundary of the project area;
    - **Inside project area**: The PAD associated with Jindera IF1 is within Area 1 of the project area (i.e. hillcrest landform). The area is considered as PAD based on the presence of an adjacent Aboriginal object, being a sensitive landform for potential Aboriginal occupation (i.e. hillcrest - elevated and flat to very gently inclined), and the lack of observable significant disturbances/modifications to the landform. Bundyi Aboriginal Cultural Knowledge – MarkSaddler also identified the hillcrest landform (i.e. Area 1) as a PAD (refer ACHA Appendix C); and
- Jindera ST1 (AHIMS #55-6-0295)
    - **Inside project area**: Jindera ST1 (AHIMS #55-6-0295) is a scarred tree with a single scar located toward the south west end of the project area along Ortlipp Road.

The AHIMS search undertaken (with a 5km buffer) identified that artefact sites and scarred trees are the most frequent site types recorded in the area (84% and 14% respectively, of all registered sites). Although not considered rare site types in the general locale, the site types do represent frequent activities being undertaken by Aboriginal people in the region.

Integrity:

The Jindera IF1 site (AHIMS ID 55-6-0294) was identified just outside the project area, but with an associated PAD area (hillcrest landform). The land use history of the project area indicates that there have been disturbances caused by farming practices. However, previous archaeological research in the region surrounding Jindera indicates that archaeological material may still remain in areas that have been used for agricultural purposes, and more likely in areas in proximity to a fresh water source. These landforms are known to be sensitive for higher levels of Aboriginal occupation but have experienced some ground surface disturbances and decreased the archaeological integrity for stratified archaeological deposits. Previous archaeological research also indicated elevated landforms (such as crests, ridges, and spurs) are known landforms for Aboriginal occupation, especially in proximity to freshwater sources.

The landform (PAD) associated with Jindera IF1 is assessed as having moderate archaeological potential. However, this potential can only be realised through further archaeological investigation (i.e. archaeological testing).

Connectedness:

Jindera ST1 (AHIMS #55-6-0295) is located approximately 150m west of a cluster of artefact and scarred tree sites. This cluster surrounds an area described as a wetland and rich cultural area by RAP representatives. The Jindera ST1 site may be considered as connected to this cultural landscape by type and location; however, the lands between the newly identified scarred tree and the cluster of sites have been truncated and highly disturbed by road easement works, underground utilities, a graded ground surface to direct water in time of high rainfall, fencing, and the development of a developing solar farm.

Complexity:

The level of disturbance has resulted in low terrain integrity (except for Area 1, hillcrest landform) as human action associated with the establishment of the Transgrid Substation, subsurface utilities, European farming, establishment of roads, bioturbation, and erosional processes may have redistributed artefacts from their deposited locations (if any), resulting in site disturbance or destruction.

Potential for Archaeological Deposit:

The scientific significance of the PADs relies on the potential for subsurface deposits in the area to maintain stratigraphic and spatial integrity. The assessment examined the past land use history of the project area and broader locality, past archaeological research, and environmental consideration, which indicates that artefacts (if any) are likely to have been redistributed from their deposited locations, resulting in site disturbance or destruction.

The landform (PAD) associated with Jindera IF1 is assessed as having moderate archaeological potential. Previous archaeological research in the region surrounding Jindera indicates that archaeological material may still remain in areas that have been used for agricultural purposes, and more likely in areas in proximity to a fresh water source. These landforms are known to be sensitive for higher levels of Aboriginal occupation but have experienced some ground surface disturbances and decreased the archaeological integrity for stratified archaeological deposits. Previous archaeological research also indicated elevated landforms (such as crests, ridges, and spurs) are known landforms for Aboriginal occupation, especially in proximity to freshwater sources. However, this potential can only be realised through further archaeological investigation (i.e. archaeological testing).

Jindera ST1 (AHIMS #55-6-0295) is in a location where the soil profile surrounding the tree is highly disturbed by subsurface works associated with Telstra optic fibre cabling, contour drains, and works associated with Ortlipp Road.

Overall, considering these impacts to integrity, Areas 2, 3, and 4 are predicted to have low archaeological potential, and Area 1 has moderate sensitivity for Aboriginal objects in archaeological deposits with integrity within the project area.

Cultural values are assessed separately in the broader ACHA in comments by the RAPs

MANAGEMENT RECOMMENDATIONS

Recommendation #	Recommendation
1.	The proposal impacts are likely to impact AHIMS site Jindera ST1, and to the PAD associated with AHIMS site Jindera IF1. Therefore, prior to commencement of proposed works (or any activities that may cause harm), under the provisions of OEH's *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (2010), appropriate archaeological mitigation is required in the area of impacts. Under the *Planning Secretary's Environmental Assessment Requirements,* an Aboriginal Heritage Impact Permit is not required for this project. A design methodology should be drafted in consultation with registered Aboriginal parties and considers: a) The Jindera IF1 (AHIMS ID 55-6-0294) and PAD site to have fencing erected along the project boundary to demarcate the location of the artefact in close proximity to the project area; b) The PAD associated with Jindera IF1 (AHIMS ID 55-6-0294) to undergo archaeological investigation (i.e. archaeological testing) only within the parts of the landform designated for project impacts.

Recommendation #	Recommendation
	c) Management of Jindera ST1 (AHIMS ID 55-6-0295) through discussions with RAPs, professional arborist, and proponent to reduce the likelihood of the site being impacted and the dead tree breaking and splitting; d) Cultural monitoring during initial ground disturbance works within Area 1, and initial underboring works in Area 3 and Area 4; e) Development of a more detailed care and control strategy in consultation with RAPs to manage any artefacts in a manner acceptable to RAPs, and enable the cultural value of the artefacts to be documented and partially conserved. Reburial may be an option as close as possible to the original location of salvaged objects back on country.
2.	All site workers and personnel involved in site impact works associated with the proposed work should be inducted and briefed on the identification of Aboriginal sites and objects during works and their responsibilities according to the provisions of the NPW Act 1974, in case any additional unknown objects or items are uncovered during proposed works. a) Site workers should be made aware of the location of any Aboriginal sites that may at any stage occur within the proposal site and their significance, and their legal obligations in relation to the protection and management of these Aboriginal sites under the NPW Act 1974, and the National Parks and Wildlife Regulation 2019. b) As part of this induction, workers should be made aware that in the event that unexpected human remains are uncovered on site, the area of the suspected remains must be secured and cordoned off and the NSW Police notified. No further works can be undertaken until the NSW Police provide written advice. • If these remains are deemed to require archaeological investigation by the NSW Police or NSW Coroner, then Heritage NSW and the relevant Aboriginal parties must be notified. A plan of management for the preservation of Aboriginal human remains or for their salvage must be put in place or conducted under an AHIP methodology and variation developed in consultation with all relevant Aboriginal parties and the Heritage NSW. c) As part of an induction, in the unlikely event that any historical relics are uncovered during proposed works, all workers and subcontractors should be made aware of their responsibilities under the provisions of the NSW Heritage Act 1977 (for example, 19th century bottle dumps, sandstone footings, structural features in situ over fifty years old etc.). In this event all works must cease and the area where objects uncovered is protected until a qualified archaeologist is contacted and can inspect and assess the area to determine its significance in consultation with Heritage NSW. Gransolar may wish to consider the input and engagement of interested Aboriginal stakeholder groups in the development of inductions and toolbox talks for this project.
3.	If Aboriginal objects (excluding human remains or sites such as grinding groove complexes/engravings, rock art) are detected during ground disturbance, NPWS

Recommendation #	Recommendation
	unexpected finds procedures (NSW National Parks and Wildlife Service 2020: 17) should be observed, namely: a) establish an appropriate buffer around the Aboriginal object to exclude further works in the area and allow assessment and management; b) engage with the relevant Aboriginal parties to assess the object's heritage values and undertake appropriate methods to avoid or move the object; c) complete an AHIMS site card to register the site and document the movement or avoidance strategies taken; d) complete a report detailing the unexpected find and the Aboriginal community's recommendations for management; e) send the report to the relevant project manager and Aboriginal parties and Heritage NSW and DPIE's AHIMS area; f) continue works only once appropriate measures have been taken to avoid or move the site, as Heritage NSW.

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Definitions

Abbreviations	Description
AA	Archaeological Assessment
ACHA	Aboriginal Cultural Heritage Assessment
ACHCR	Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW 2010)
AHD	Australian Heritage Database
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit
AIATSIS	Australian Institute of Aboriginal and Torres Strait Islander Studies
ALRA	Aboriginal Land Rights Act 1976
AR	Archaeological Report, Archaeological Assessment
CABAH	Australian Research Council Centre of Excellence for Australian Biodiversity and Heritage
CHMP	Cultural Heritage Management Plan
Code of Practice, COP	Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW 2010)
DA	Development Application
DD	Due Diligence
DD Code, Due Diligence Code	Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (DECCW 2010)
DPC	NSW Department of Premier and Cabinet
DPIE	NSW Department of Primary Industry and Environment
EP&A Act	Environmental Planning and Assessment Act 1979
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
GIA	Guide to investigating, assessing and reporting on Aboriginal Cultural heritage in NSW (OEH 2011)
HNSW	Heritage NSW
ILUA	Indigenous Land Use Agreement
LALC	Local Aboriginal Land Council
LEP	Local Environmental Plan

Abbreviations	Description
LGA	Local Government Area
NNTT	National Native Title Tribunal
NPW ACT	National Parks and Wildlife Act 1974
NPW Reg	National Parks and Wildlife Regulation 2019
NPWS	NSW National Parks and Wildlife Service
NTA	Native Title Act 1983
OEH	NSW Office of Environment and Heritage (now Heritage NSW)
PAD	Potential Archaeological Deposit
PBC	Prescribed Bodies Corporate
RAP	Registered Aboriginal Party
RAPs	Registered Aboriginal Parties
RD&M	Research Design and Methodology
REF	Review of Environmental Factors
RNTBC	Registered Native Title Body Corporate
S.139	Section 139
S.140	Section 140.
S.170	Section 170
SHI	State Heritage Inventory
SHR	State Heritage Register
SoHI	Statement of Heritage Impact
SSD	State Significant Development
SSI	State Significant Infrastructure
The Burra Charter	The Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance, 2013 (Australia ICOMOS 2013)
UNESCO	United Nations Educational, Scientific and Cultural Organization

1. Introduction

Virtus Heritage Pty Limited (hereafter 'Virtus Heritage') was engaged by BESS Atlantic Pty Ltd (BESS Atlantic) c/o Gransolar Development Australia (GDA), to prepare an Aboriginal Cultural Heritage Assessment (ACHA), including an Archaeological Assessment (AA) for the construction of a Battery Energy Storage System (BESS) facility at Lot 204 DP 753342, 204 Ortlipp Road, Glenellen NSW. The project also includes an overhead grid connection to the existing Transgrid transmission substation at 140 Ortlipp Road, a watermain extension and easement works along Ortlipp Road, and watermain works along Lindner Road, Jindera, NSW (referred to hereafter as 'the project area'). This development is being conducted as a State Significant Development (SSD), and under the requirement of the Planning Secretary's Environmental Assessment Requirements (SEARs), which triggered the requirement of ACHA reporting. The project area is within the Greater Hume Shire Council Local Government Area (LGA).

This report constitutes the Archaeological Assessment component required for the ACHA process. The ACHA was compiled to meet the project SEARS requirements as an SSD. The objectives of the ACHA are:

- to investigate and assess the impacts of the proposed activity on Aboriginal objects, places and cultural heritage values within the project area; and
- to provide appropriate management and mitigation strategies.

This report has been compiled to meet Requirements 1 to 11 of the Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (hereafter referred to as CoP) (DECCW 2010) for Archaeological reports.

In general, the aims of this Archaeological Assessment are to:

- Present an analysis of background data to assist in forming a predictive model and context to allow for the assessment of archaeological potential and archaeological significance of the project area.
- Document the field investigations undertaken within the project area to best practice standards.
- Describe the archaeological heritage values of the project area including a description and significance assessment of Aboriginal objects recorded.
- Determine how the significance of the values of the project area would be affected by the proposal.
- Consider potential harm from the proposal to Aboriginal objects and identified cultural heritage values within the project area.
- Document measures to avoid, mitigate and/or manage harm to Aboriginal objects and identified cultural heritage values, where necessary.
- Detail any requirements for further archaeological investigation.



Figure 1. Locality Map and Project Area

1.1 REPORT STRUCTURE

Table 1 provides a summary of the reporting requirements outlined in the CoP and where these requirements are addressed in the structure of this report.

Table 1. CoP Report Requirement and this Report's Relevant Report Section

CoP Report Requirement	Where this Requirement is addressed in the Report
Requirement 1: Review previous archaeological research	Section 4.2
Requirement 2: Review the landscape context	Section 3.0
Requirement 3: Summarise and discuss the local and regional character of Aboriginal land use and its material traces	Section 4.2 and Section 4.3
Requirement 4: Predict the nature and distribution of evidence	Section 5.0
Requirement 5: Archaeological survey	Section 6.0
Requirement 6: Site definition	Section 5.0
Requirement 7: Site recording	Section 6.4
Requirement 8: Location information and geographic reporting	Section 3.0
Requirement 9: Record survey coverage data	Section 6.3
Requirement 10: Analyse survey coverage	Section 6.3
Requirement 11: Archaeological Report content and format	Entire report

1.2 PROJECT TEAM AND ACKNOWLEDGEMENTS

This report was compiled by Julian Travaglia (Principal Archaeologist, Virtus Heritage; B.Arts Hons. Archaeology University of Queensland), and Garth Thompson (Archaeologist, Virtus Heritage; B. Arts University of Sydney, Archaeology), with assistance from Lilith Malcolm (Archaeologist, Virtus Heritage; B.Arts, University of Sydney, Archaeology). Quality review was undertaken by Dr Mary-Jean Sutton (Principal Archaeologist and Director, Virtus Heritage; PhD, Archaeology, University of Queensland and B.A. (Hons) Archaeology, University of Sydney, CEnvP – Heritage, MICOMOS, MEIANZ, MAACAI). Fieldwork was completed by Garth Thompson (29 October 2024), and Julian Travaglia (12 February 2025). Consultation for this assessment was conducted by Anya Graubard (Anthropologist and Heritage Consultant, Virtus Heritage, BA Hons. Anthropology, University of Nebraska-Lincoln) and GIS mapping was undertaken by Shaun Sewell (Senior GIS Analyst, Virtus Heritage; Bachelor of IT, Computer Science and Intelligent Systems Queensland University of Technology).

Project information and description of works detailed in **Section 2.0** was provided by Clare Brennock (SLR) and Mandy Allonby (GDA).

The Registered Aboriginal Parties (RAPs) who were consulted for the project as per the requirements of the *Aboriginal heritage consultation requirements for proponents 2010 (DECCW 2010)* are presented in **Table 2**. Detail of RAP participation in field survey is presented in **Section 6**.

Table 2. Representatives of Registered Aboriginal Parties Involved in Fieldwork and Consultation

Name of Contact	Registered Aboriginal Party
Will Carter, Mark Williams	Southern West Yiradyuri Clans, Land, Water and Sky Country Aboriginal Corporation
Mark Saddler	Bundyi Aboriginal Cultural Knowledge
Sonione Rogers	Sonione Wakabout Rogers
Thomas Dahlstrom	Individual
CEO	Albury and District Local Aboriginal Land Council

1.3 PROJECT LIMITATIONS

This report is limited to the assessment of project impacts described in information provided by SLR and GDA and mapped in this report. Virtus Heritage takes no responsibility for errors within the Department's Aboriginal Heritage Information Management Systems (AHIMS) data, Australian Heritage Database (AHD), Land and Property Information (LPI) Heritage data (State Heritage Register [SHR], SHR curtilages and Heritage Conservation layers for relevant LGAs) and has assumed information provided by these agencies and government departments is accurate, however, we have made best efforts to ensure this information is verified and cross checked wherever possible

2. Description of the Project

The following section provides a description of proposed works based on information recorded during the survey and provided by Gransolar.

2.1 PROPOSED DEVELOPMENT

GDA is proposing to install a Battery Energy Storage System (BESS) on Lot 204 DP 753342 at 204 Ortlipp Road, Glenellen, NSW. The proposed facility will provide power to the transmission electrical grid through connection to the Jindera Transmission Substation operated by Transgrid at Lot 1 DP 588720, 140 Ortlipp Road, Jindera (**Figure 1**).

The proposed Jindera Battery Energy Storge System (Jindera BESS) will involve the development, construction, operation, and eventual decommissioning of a BESS with a capacity of 250 Megawatts (MW)/ 500 Megawatt Hours (MWh). The BESS will consist of BESS containers (or enclosures), with each container having dimensions of 6m with an approximate weight of 35,000 kilograms (kg). The BESS will be supported by inverters from the BESS and connect to the existing TransGrid substation via approximately 500 metres (m) of 330 kV overhead lines.

Specific elements of the proposed work include:

- Transport of construction personnel associated heavy and light vehicles and materials to and from the Subject Site during construction (dependent on construction schedule).
- Site establishment works including vegetation clearing within the BESS boundary and Transmission Line (TL) footprint, bulk earthworks and a temporary construction compound.
- Road works to formalise internal site access road to accommodate heavy vehicles and a new driveway crossing.
- Construction of hardstand, crushed-rock internal roads, control room and switch gear, auxiliary transformer, battery enclosures, and inverter and transformer stations.
- Construction of overhead 330 kV TL to facilitate connection to the existing JINDERA 330/132 kV Transmission Substation and associated high voltage steel poles.
- Acoustic attenuation (4m acoustic barrier).
- Construction of ancillary works including parking area, water tank, storage structures, stormwater management infrastructure and security lighting and fencing.
- Vegetative screening.
- The installation of 200 battery containers within individual, modular containers, on hardstand footings.
- The installation of 100 inverters on hardstand footings.
- Installation of subsurface wiring infrastructure throughout the project area.
- Installation of an expanded concrete footing on the TransGrid substation.
- Watermain extension: Underboring and installation of piping along Ortlipp Road to extend the local water-main to site.
- Easement works along Ortlipp Road.
- Replacement and implementation of watermain piping and associated works along Lindner Road (underboring).
- Decommissioning of the BESS at the end of life (EOL).

A map of the central project impacts as provided by Gransolar can be found in **Figure 2** (Note: this figure provided does not include the works along Lindner Road, refer to **Figure 1** for project area boundary around Lindner Road).

SUMMARY

The proposed activity includes impacts to the ground surface and subsurface and may have the potential to harm unknown Aboriginal objects. Further discussion of potential project impacts to Aboriginal archaeological heritage is presented in **Section 9** and **Section 10** of this report.

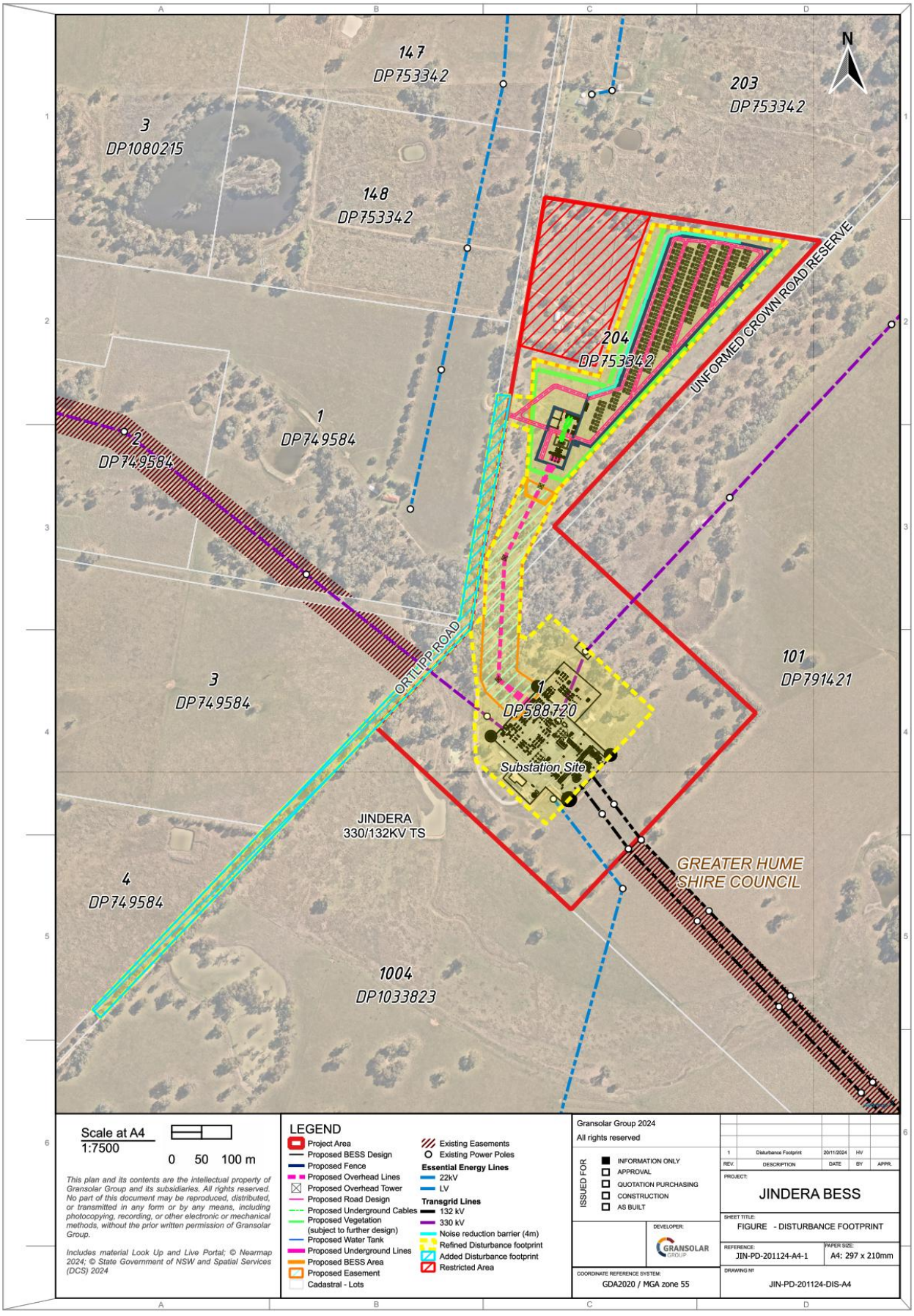


Figure 2. Project Design

3. Environmental and Landscape Context

This section provides a summary of the environmental and landscape context of the project area and the surrounding locality including soils, geology, landforms and hydrology, previous land use history and fauna and flora. Understanding the environmental and landscape context is important for understanding of the survival of any Aboriginal objects in the archaeological record and to predict landforms that were favourable for Aboriginal occupation.

3.1 GEOLOGY AND SOILS

The project area is mapped within the Kindra Great Soil Group soil landscape (Office of Environment and Heritage 2018). The soils are described as red-brown earths, consisting mostly of red-brown soils and containing a calcareous horizon of soft, finely divided carbonites with calcrete fragments or nodules. The geology of the Kindra Great Soil Group is described as quintenary slope wash derived from Ordovician metasediments. The project area may contain slate, phyllite, greywacke, siltstone, mudstone and shale (NGH Environmental 2019).

The NSW 1500k Surface Geology has mapped the project area within two types of surface geology:

1. The northern section of the project area is within the Cenozoic Shepparton Formation. This geological formation is likely to contain poorly consolidated clays, silt, sand and gravel.

2. The southern section, and the majority, of the project area is within the Silurian I-type granites formation. The geology of this formation was formed by the melting of igneous source rocks. The common materials of this formation are quartz, feldspar, and biotite.

The soils of the project area have not been mapped in great detail and therefore, cannot inform potential for Aboriginal objects/sites. The geology, however, shows a potential for mudstone and quartz to occur within the project area. These materials have been used by Aboriginal peoples for stone tools.

3.2 TOPOGRAPHY, LANDFORMS AND HYDROLOGY

The project area is within a generally low landscape at 220m AHD at its highest elevation (SixMaps-NSW Government). The northern extent of the project area (i.e. 204 Ortlipp Rd) is situated on a broad hillcrest which is generally flat (and typical of low hills and rises, McDonald et. al. 1998: 31), to very gently inclined (1-3°) at the southern end near the property boundary of 140 Ortlipp Road. To the south adjacent the Transgrid Substation, the landform is a very gently inclined slope, (1-3°). The location of the existing substation is considered a modified landscape due to extensive earthworks and ground modification associated with the establishment of the substation (including graded access roads).

The watermain extension area along Ortlipp Road passes through several landforms including a hillcrest landform in the north; very gently inclined slope landform near the Transgrid substation, and a low-lying flat south of Kilnacroft Creek.

The project area along Lindner Road passes mainly through slope (very gently inclined slope, 1-3°) and footslope landforms with some areas of low lying flat.

Kilnacroft Creek starts as a first order stream starting in a mountain range approximately 6.5km west of the project area. A small intermittent drainage line also extends along the eastern boundary of the project area and is considered a first order stream which drains into Kilnacroft Creek north of the project area. As Kilnacroft Creek passes through the project area (adjacent to the Transgrid substation) it is a second order ephemeral stream that drains into Bowna Creek approximately 3.6km east of the project area. Both

Kilnacroft Creek and Bowna Creek are tributaries of Lake Hume located 11km east of the project area. Dead Horse Creek is also 1.25km north of the project area, running east-west. The Murray River is also located approximately 16km south of the project area.

Small intermittent drainage lines are also scattered along the southern part of the project area (Ortlipp Road and Lindner Road).



Figure 3. Landforms in the Project Area

3.3 CLIMATE, FLORA AND FAUNA

Jindera is located within the NSW South Western Slopes bioregion (NPWS 2003). The climate is mainly sub-humid with hot summers and no dry season. Maximum temperature range between 11.2 - 29.3 degrees Celsius and minimum temperature ranges from 2.2 to 14.4. Rainfall varies from 1200mm in the east to 400mm in the west.

Much of the project area has been cleared of natural vegetation for agricultural activities and is currently used for grazing sheep. These activities have largely removed native vegetation in the project area (with various patches of native vegetation remaining). Native vegetation within the region is listed in **Table 3**.

The Atlas of Living Australia states there are 184 fauna species in Jindera, three of which are introduced species. Seventeen species of mammals, 116 bird species, 14 reptile species, 7 species of amphibians, and 29 species of arthropods. A total of 203 species of plants, both native and introduced have been recorded in the area (refer to **Table 4**).

The vegetation and the animal communities of the project area and surrounds would have provided a range of food and economic resources for the local Indigenous populations.

Table 3 Flora within the project area

Species and Common Names of native plants found within the project area	**Use by Aboriginal People as Economic/Resource plants (E/R) (for example shelter and clothing), medicinal use (M), ceremonial/spiritual use (C/S) and food (F)**
Yellow Box *Eucalyptus melliodora*	E/R containers and shelters
Blakely's Red Gum *Eucalyptus blakelyi*	E/R
Grey Box *Eucalyptus macrocarpa*	E/R Bark Container, shields and Shelters
River red gum *Eucalyptus camalulensis*	M-Leaf, gums, bark, Canoes. clubs, stems cones & food-seed, nectar, sap, fish poisons
White cypress pine *Callistris glaucophylla*	M leaves and resin E/R implements, spear, C/S fire torch
Common Rush *Juncus usitatus*	F, E/R containers, weaving
Lomandra *Lomandra filuformis*	F, E/R containers, weaving
Wattle species Cootamundra *Acacia baileyna*, Gold-dust Wattle *A. acinacea*, Wyalong Wattle *A. cardiophylla*, Golden Wattle *A. pycnantha*	F seeds ground to make flour for damper. Gum and sap. E/R Wood weapons, tools and fire, Gum used as glue, Fibre

Table 4 Native Fauna within the project area

Species and Common Names of native fauna found within the project area	**Use by Aboriginal People as Economic/Resource plants (E/R) (for example shelter and clothing), medicinal use (M), ceremonial/spiritual use/totemic (C/S/T) and food (F) (maybe multiple uses)**
Eastern grey kangaroo *Macropus giganteus*	E/R, F
Swamp wallabies *Wallabia bicolor*	F

Species and Common Names of native fauna found within the project area	Use by Aboriginal People as Economic/Resource plants (E/R) (for example shelter and clothing), medicinal use (M), ceremonial/spiritual use/totemic (C/S/T) and food (F) (maybe multiple uses)
Wombat *Vombatus ursinus*	F
Platypus *Ornithorhynchus anatinus*	F
Short-beaked echidna *Tachyglossus aculeatus*	F, C/S/T
Brush tailed possum *Tricosurus vulpecula*	E/R, F
Ring tailed possum Pseudechis prophyriacus	E/R, F
Carpet python *Morelia spilotes variegata*	F, C/S/T
Goanna Varanus varius	F, C/S/T
Emus *Dromaius novaehollandiae*	F
Wood Duck *Chenonetta jubata*	F
Pacific Black Duck *Anas superciliosa*	F

3.4 PREVIOUS LAND USE HISTORY

The project area is situated in Wiradjuri Country and contains material evidence of past Aboriginal land use through stone artefacts and archaeological deposits. Understanding previous land use history is critical to understanding if the sensitivity of a landform, soils, geology and hydrology for material evidence of Aboriginal occupation may be compromised or still extant over the passage of time. Wiradjuri land use is discussed further in **Section 4** and detailed in the ACHA.

In 1817, John Oxley travelled the north of the South Western Slopes Bioregion and Charles Sturt and George Macleay travelled the south of the bioregion in 1829. Pastoralism swiftly followed, and within fifteen years was present along much of the Murrumbidgee River frontage, in the south of the bioregion (NSW NPWS 2003).

Following the introduction of pastoral practices, invasive St Helena willows were planted along the rivers in the 1820s. By 1826, stock was grazing in the southeast of the bioregion, spreading west along the Murrumbidgee to Wagga Wagga. As pastoral activities and European occupation expanded along the Murrumbidgee frontage, European settlement began to spread following the river tributaries north and south from Murrumbidgee (NSW NPWS 2003). Large pastoral properties developed around current-day Mudgee and Ryland, both of which became towns in 1837 and 1842 respectively (NSW NPWS 2003). Additionally, 1831 saw the establishment of cattle runs in the region. This was followed by sheep stations, including the township of Albury, which started as sheep station in 1835.

Through the increase of European settlement and invasion of Wiradjuri land, the First Nations people faced serious epidemics of infectious diseases, including smallpox, dispossession from traditional lands, including, but not limited to, traditional resource gathering and hunting areas and sacred sites, and increased violent

encounters with European invaders over the 'land rights' of the region. This period of violence, particularly between 1839-1842, has been termed the 'Wiradjuri Wars' and was detrimental to the First Nations communities (NSW NPWS 2003: 121). Pastoralists temporarily departed during this time; however, most station owners returned by the end of the 1840s and the sheep and cattle numbers grew.

In the 1850s, the gold rushes began, and despite being in severe drought, meat prices increased, and the cattle and sheep farmers benefitted. As a result, sheep and cattle stock increased with led to further development as pastoralists continued to clear land and construct dams, sink wells and fencing (NSW NPWS 2003).

Like the surrounding landscape, the Jindera area has a land history of agricultural and pastoral use. Since European invasion of the region in the 19th century, much of the land has been utilised for agricultural grazing and crop production. The 1892 parish maps of the parishes of Huon and Jindera shows the northern half of the project area as belonging to a "Homd Grant" and Henry Ortlipp (see Figure **4**), whilst the southern half of the project area belonged to "Jno Dight" or John Dight (see Figure **5**). By this time the currently named Ortlipp Road had already been constructed, and the majority of surrounding lots had also been part of private land grants.

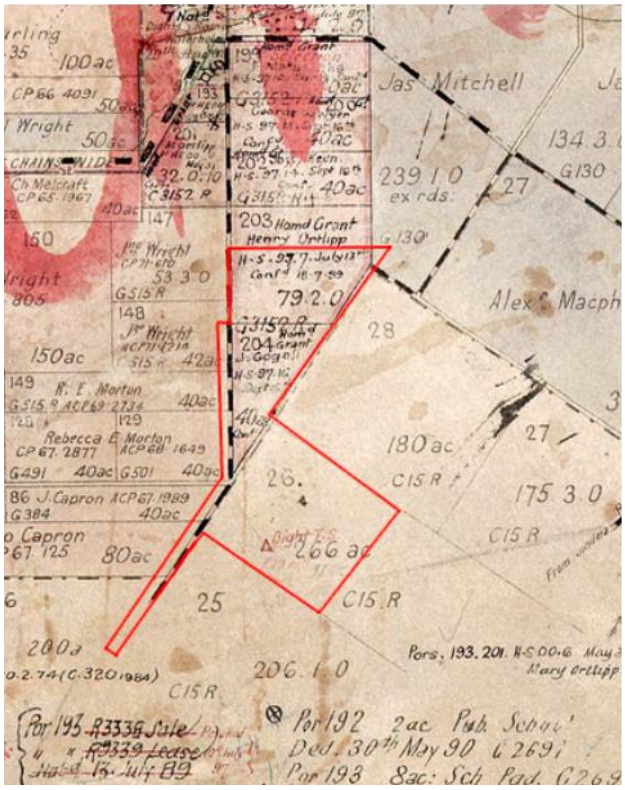


Figure 4. 1892 parish map of the Parish of Huon, include northern half of the project area

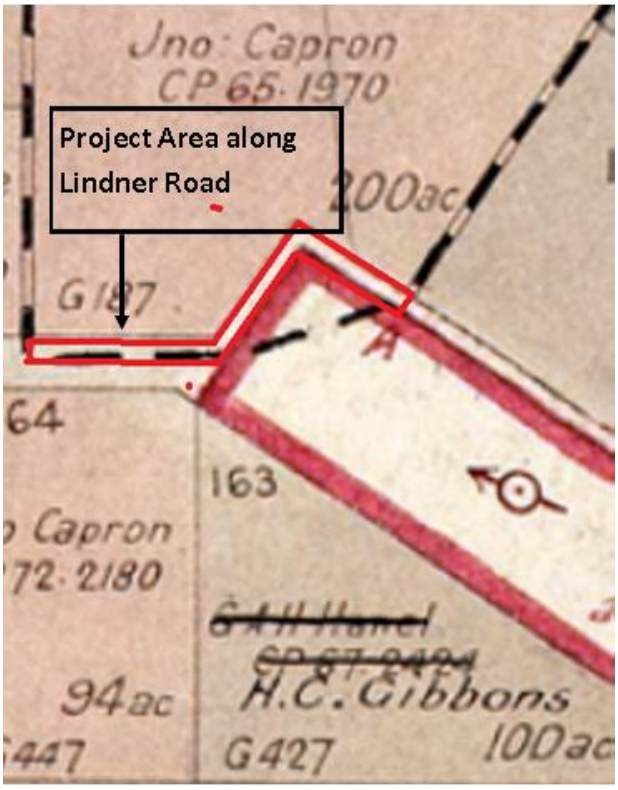


Figure 5. 1892 parish map of the Parish of Jindera, the southern portion of the project area along Lindner Road

In 1961 aerial photographs of the project area, the current homestead had been constructed (see **Figure 6**). Land disturbances within the immediate project area include those commonly associated with agricultural practices. There is a history of low and high intensity agricultural practices across the landscape. The high intensity includes heavy ploughing, dams, and ripping of fields, the construction of the homestead, and the initial creation of the paddocked area, which included the removal of mature vegetation from the property. The project area has been cleared of most of its vegetation, with some only scattered trees present, particularly in the southern project area at 140 Ortlip Road. Lower intensity agricultural practices include pastoral activities. The project area has been used for cattle grazing, as had the surrounding fields.

Significant land disturbances would have also occurred during the construction of the Transgrid transmission substation, which is present by 1987 at 140 Ortlipp Road (see **Figure 7**). These works included the construction of new access tracks, and further vegetation clearing at the southeastern extent of the project area.

The project area landscape has also been affected by the grading and establishment of Ortlipp Road and Lindner Road and associated modification to the landscape and required utilities to establish the roads.



Figure 6. 1961 aerial photograph of the project area (indicative project area boundary).



Figure 7. 1987 aerial photograph of the project area. (indicative project area boundary)

3.5 SUMMARY

Prior to European invasion, the rich structural and floristic diversity of the vegetation and wide range of geological, topographic and climatic influences in the region provided a complex mosaic of habitat types, of which the terrestrial prey resources, and a large variety of freshwater fish species would have been plentiful within and adjacent to the project area, including Kilnacroft Creek. The Aboriginal people of the area utilised the large variety of plant resources for food, medicines, and secular items. The temperate climate of the project area would have made it suitable for habitation all year round. The mudstone, quartz and greywacke identified in the geological landscape of the broader project landscape are also important resources for the manufacture of stone tools.

The project area is located on landforms which have been disturbed and impacted by land clearing and generational agricultural and pastoral use since at least 1892. Additionally, the Transgrid transmission substation has been on the site from at least 1987, the construction and use of which has also impacted the project area. Grading and establishment of Ortlipp Road and Lindner Road and associated utilities has also affected the project area. The past impacts of the project area's landform have disturbed, mixed and stripped in some areas the original soil, and potentially disturbed and removed some potential archaeological deposits, if once extant.

4. Archaeological Context

This section presents the archaeological context of the project area and broader region. It provides a summary of known archaeological sites identified by previous archaeological investigations, and the understanding of Aboriginal heritage developed by analysis of previous work.

4.1 STATUTORY HERITAGE REGISTER SEARCHES

This section of the report provides a summary of the results of relevant statutory heritage register searches.

4.1.1. Aboriginal Heritage Information System (AHIMS)

The Aboriginal Heritage Information Management System is a database of registered Aboriginal sites within NSW, administered by the Department of Premier and Cabinet (DPC). Searches were initially conducted of the AHIMS register on 14 July 2024 for Aboriginal heritage sites recorded within and in proximity to the project area. Consultation with Registered Aboriginal Parties informed the project team that several recently recorded sites (i.e. located after the initial AHIMS search) had been identified in close proximity to the project area. A second AHIMS search was conducted on 15 October 2024. The search covered the project area with a buffer of 5km, to the area datum: GDA, Zone: 55, Eastings: 486464.0 - 497310.0 Northings: 6019055.0 - 6030126.0. A total of 63 Aboriginal sites and Aboriginal objects were listed within the search area (refer to **Figure 8**, Appendix D of the ACHA and **Table 5**).

No sites are located directly within the project area.

Table 5. Summary of AHIMS Features within the Search Area

Site Type	Frequency	Percentage
Artefact	53	84.12%
Modified Tree	9	14.29%
Potential Archaeological Deposit (PAD)	1	1.59%
Total	**63**	**100%**

A cluster of 9 sites are located within 150m of the watermain extension along Ortlipp Road (see insert of **Figure 8**) and are all registered as artefact sites containing a variety of stone tool types, mostly manufactured from quartz. These sites are situated within a valley (and edge of slope) landform, with this landform extending to the west inclusive of the proposed water main area along Ortlipp Road (**Figure 8**). This landform also appears to be an intermittent drainage area as evidenced by the location of a dam within the central area of where these sites are located. The cluster of sites also appears to be in an area where water/moisture is retained in the landscape being one of the lower lying areas in the locale. One of this cluster of sites (site 55-6-0284) is within 50 m of the proposed water main extension and is a small artefact scatter.

Modified trees are also present in the vicinity of the project area and one Potential Archaeological Deposit (PAD). The registered location of the PAD is approximately 4km south east of the project area.



Figure 8. Project Area and AHIMS Site Locations

4.1.2. Other Searches of Heritage Database

Table 6 Other Statutory Searches of Heritage Databases for the Project Area

Heritage Database	About the Database	Search Area (LGA for example) and Search Date	Results of the Search
Australian Heritage Database	The Australian Heritage Database (AHD) is a Commonwealth administered heritage database that includes entries from the former Register of the National Estate and the current Commonwealth and National Heritage Lists.	This database was searched on 15 July 2024 for all Indigenous heritage items within the Greater Hume Shire Local Government Area.	Thirteen sites were identified within the Greater Hume Shire LGA, none of which are within the project area.
State Heritage Inventory and State Heritage Register	The State Heritage Inventory (SHI) is a heritage database administered by the Heritage NSW (Department of Premier & Cabinet). This database includes heritage listings from local and regional planning instruments and heritage studies and State significant heritage items. Information and items listed in the State Heritage Inventory come from a number of sources. This means that there may be several entries for the same heritage item in the database. Search results are divided into three sections.	This database was searched on the 15 July 2024 for all Aboriginal places within the Greater Hume Shire Local Government Area.	The results are as follows:
	Section 1 – Aboriginal Places – declared by the Minister for the Environment under the National Parks and Wildlife Act. This information is provided by Heritage NSW.		Section 1: One Aboriginal place was listed on the SHI within the Greater Hume Shire LGA. This item was not within, nor in close proximity to, the project area.
	Section 2 – State Heritage Register items – listed by the Heritage Council of NSW under the Heritage Act and includes items listed in Interim Heritage Orders. This information is provided by Heritage NSW.		Section 2: Four items are listed under the Heritage Act within the Greater Hume Shire LGA. None of these items are within, nor in close proximity to, the project area.

Heritage Database	About the Database	Search Area (LGA for example) and Search Date	Results of the Search
	Section 3 – Heritage items listed by local councils on Local Environmental Plans under the Environmental Planning and Assessment Act, and State government agencies under s.170 of the Heritage Act. This information is provided by local councils and State government agencies.		Section 3: 158 items are listed within the Greater Hume Shire LGA on the LEP as displayed on the NSW State Heritage Inventory. However, none of these items are within, nor in close proximity to, the project area.
Greater Hume Shire LEP 2012.	The Local Environmental Plans are planning instruments which contain provisions and listings of items of environmental heritage including heritage, conservation areas and archaeological sites within Schedule 5.	The LEP was searched on 15 July 2024.	The Greater Hume Shire LEP 2012 lists 174 heritage items, and three archaeological sites within the Greater Hume Shire LGA. One site, I67, Glenellen School (former), is approximately 1km north of the project area. The item is a historical building and does not relate to the project area.

4.1.3. Native Title Tribunal

A Native Title search was conducted of the National Native Title Tribunal (NNTT) webmap on 15 July 2024 of the project area to identify if any Native Title claims or Indigenous Land Use Agreements exist over the project area. The search identified that there are no native title claims or applications over the project area.

4.2 PREVIOUS ARCHAEOLOGICAL RESEARCH

A review of the AHIMS library and online searches was undertaken to obtain copies of previous Aboriginal heritage studies and archaeological investigations within the locality of the project area. Relevant archaeological assessments from the locality are summarised below.

NGH Environmental, 2019, Jindera Solar Farm, Aboriginal Cultural Heritage Assessment

In 2019 NGH Environmental (NGH) conducted an Aboriginal Cultural Heritage Assessment on an area of 404 hectares comprising Lot 2 DP213465; Lots 70, 90, 133-136, 138-141, 147, 148, and 153-155 DP753342; and Lots 1-3 DP1080215. NGH's assessment area comprises the western side of Ortlipp Road, opposite the project area.

NGH's predictive model identified stone artefacts to be the most common site type in their project area, with an increased potential on spur and ridge crests, and in association with water courses. Culturally modified trees are also present within the landscape, but predominantly in relation to major waterways and swamp areas.

During their site survey, NGH identified 15 isolated artefacts, five artefact scatters, three culturally modified trees and four Potential Archaeological Deposits (PADs). The majority of the artefacts identified during the site survey were quartz flakes, with one volcanic ground edge axe, one grindstone fragment, one quartzite flake, one river pebble volcanic manuport and one quartz core also identified. The PADs identified during the site survey are all within the boundary of NGH's project area, and thus outside the scope of this report. The PADs identified by NGH were investigated with a program of subsurface excavations in accordance with the requirements of a State Significant Development under the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales*. A total of 80 additional artefacts were recovered during the excavations consisting of 42 flakes, 16 broken flakes, 25 cores, 7 flaked pieces and a geometric microlith. All artefacts recovered during test excavations were manufactured from quartz. As a result of the test excavations, the four PADs were recorded as artefact scatters under AHIMS IDs 55-6-0125, 55-6-0162, 55-6-0160, and 55-6-0161. Surface artefacts were predominantly identified on elevated spurs, and within 50m of temporary and permanent water sources. The PADS were identified on a slope crest, and along spurs in close proximity to Dead Horse Creek and Kilnacroft Creek.

Associates Archaeology and Heritage 2015, Archaeological Report: Drumwood Road, Jindera NSW

Associates Archaeology and Heritage conducted archaeological reporting for the proposed subdivision of Lot 204 DP783345, 204 Drumwood Road, Jindera, located approximately 1.5km south of the project area. Associates A & H found the 'vast majority' of artefacts in the locality to have been made from quartz, with occasional chert and quartzite artefacts. Scarred trees were noted as occurring in the area where suitably mature trees were extant. Burials and faunal deposits were noted within the background information review as occurring almost exclusively within close proximity to larger rivers. Rock art sites were noted as occurring in the region, but only where suitable geology is present.

Associates Archaeology and Heritage conducted a site survey and test pitting within their assessment area. During the site survey, two quartz artefacts were identified, one quartz blade with feather termination was located on a creek bank, and one other quartz flake was located on a dam wall. Eight flake artefacts were identified during project test excavations, all of which were found within the top 20cm of sediment. Artefacts were identified specifically within the ridge, crest and easterly slope and flat topographic units, to a maximum distance of 500m from water. All artefact materials were specifically milky quartz and was assessed as being consistent with random loss and discard of working stone material, as opposed to more complex 'camp site' assemblages.

Smith L and Upcher C, 1994, Archaeological Survey of the Proposed Albury-Wodonga Bypass Routes, NSW and Victoria

Smith and Upcher conducted an archaeological survey for the Albury-Wodonga bypass project. Smith and Upcher surveyed two proposed paths for the Albury Wodonga Bypass, one of which orientated northeast-southwest approximately 4km south of the project area. The total area assessed for this assessment was approximately 72km, assessing ground surface exposures and mature trees. During their assessment, Smith and Upcher found isolated and artefact scatters composed of quartz to be the most common site types in the region, with scar trees also common. Smith and Upcher assessed artefact sites and scar trees to be most commonly found in close proximity to permanent or semi-permanent water sources. Smith and Upcher also found artefacts to be within close proximity to previous water sources that have dried up due to post-colonial activities.

Smith and Upcher recorded 11 total sites, all of which are quartz artefact sites, and all of which were identified in contexts immediately adjacent to permanent or temporary water sources. Smith and Upcher note that ground surface visibility was extremely poor (<5%) in contexts away from water sources, whilst areas bordering water sources had high ground surface visibility (>80%).

Smith and Upcher inferred that vegetation clearance, ploughing and pastoral/grazing activities have impacted the potential for sites to be present. Four areas of PAD were identified, none of which are within the project area. All PADs identified by Smith and Upcher are in close proximity to water sources where artefacts had been identified, and a greater degree of high surface visibility had been identified.

4.3 REGIONAL CHARACTER

*This section synthesises and discusses the previous archaeological research summarised in Section 4.2 and the environmental context of the region (presented in Section 3), in order to build a picture of the regional character of Aboriginal land use and potential archaeology, assist in predicting the types of sites that may be expected to be present in the project area (presented in **Section 5**), and help inform an analysis (presented in **Section 7**) of the survey results (**Section 6**).*

Archaeological and environmental research in the Jindera region and Greater Hume Shire LGA, has identified the following predictive statements regarding the region:

- Generally, Aboriginal cultural sites have typically been identified within close proximity to permanent, temporary, or past water sources. Elevated landforms such as crests, ridges and spurs have also been associated with an increased potential for Aboriginal cultural sites to occur. (NGH environmental 2019).
- The extensive agricultural activities, particularly ploughing, that have been undertaken throughout the region have generally impacted the potential for artefacts to occur as ground surface assemblages (Smith and Upcher 1994).
- Artefact sites are the most likely to occur, with milky quartz flakes being the most common artefact type in the region. These sites are most likely to be identified in close proximity to water sources (Smith and Upcher 1994, Associates Archaeology and Heritage 2015).
- Mature trees, typically over 150 years, have a potential to be culturally modified/scarred, and are most likely to be in close proximity to water sources (Smith and Upcher 1994).
- Aboriginal cultural heritage materials may have been disturbed by the agricultural activities that have been undertaken in the region; however, subsurface deposits may remain *in-situ* (NGH Environmental 2019, Smith and Upcher 1994).

4.4 SUMMARY

Archaeological research within the Jindera region indicates that while there have been extensive disturbances from agricultural activity and other European impacts, archaeological material may still be identified. Areas in close proximity to water sources contain the highest potential for archaeological materials to be identified, with quartz artefact sites and culturally modified trees being the most common site types. Archaeological sites have also been identified as occurring in elevated landforms such as crests, ridges, and spurs.

5. Predictive Model

Based on the known archaeological, environmental and landscape context of the locality, a predictive model for evidence of Aboriginal occupation for the project area is presented below. The types of sites that may be encountered is not exhaustive but indicative of the main types of sites that could reasonably be expected to be found in NSW (**Table 7**).

Table 7 Predictive Model for Aboriginal Occupation within the Project Area

Site Type/Material Culture	Description	Relevance to the Project Area and Understanding Potential of Aboriginal occupation
Isolated artefacts and open campsites (artefact scatters)	Isolated artefacts and open camp sites (artefact scatters) are the locations of discarded stone artefacts, often material that has been discarded as part of making stone tools or over frequent episodes of occupation/visitation of an area. These sites are most likely to be found within 200 metres of a water course in well drained alluvial flats, alluvial terraces, lower slopes, and confluences where the landscape has not been heavily modified and on spurs, ridge lines and crests. All of Australia has potential for discarded Aboriginal stone tools unless areas are heavily modified, and soils have been removed. Stone tools have been found of context in areas of imported fill, quarries, mining emplacement dumps, housing areas and caravan parkas and are often found in eroding A1 soils or any eroding alluvial or colluvial deposits. This site type is the most common site type in Australian and New South Wales, and the most highly recorded evidence of Aboriginal occupation.	Isolated artefacts and artefact scatters are the most likely site type to occur within the area, with milky quartz flakes being the most common artefacts identified in the region. Artefact sites may be identified in contexts disturbed by previous agricultural land use. Whilst the entire area has potential for artefact sites to occur, they are most likely to be identified within close proximity to water sources, such as Kilnacroft Creek or former or intermittent drainage lines. Sites are also predicted to occur in elevated landforms such as ridges, crests and spurs.
Culturally Modified Trees (Scarred/Carved Trees)	Scarred trees and carved trees contain evidence of scars and carved patterns which can be attributed as having Aboriginal cultural origin. Scarred trees include the removal of bark from the trunk of the tree (usually with a stone axe) to make shields, canoes, implements and other types of items which leave a wound on the tree trunk. Carved tree contains carved patterns on the tree trunk and are often found in association with ceremonial grounds, burials, or cultural sites. Carved trees are a very rare site type.	There are five culturally modified trees identified within the AHIMS search for this project. Archaeological reporting in the region indicates there to be a higher potential for culturally modified trees in close proximity to water sources, such as Kilnacroft Creek within the project area. However, the vegetation clearance that has previously taken place has lowered the potential for culturally modified trees to remain within the project area.

Site Type/Material Culture	Description	Relevance to the Project Area and Understanding Potential of Aboriginal occupation
Middens	Middens are perhaps not the best word to describe these sites, as it is a European word to describe rubbish pits. However, these sites are more than often just the accumulation of debris from fish, crustaceans, molluscs, and other shellfish (shells, fish bones) consumed as part of Aboriginal people's diet. Middens may also contain charcoal, stone artefacts, bone and other types of material used by Aboriginal people. Middens or shell mounds are also known to contain cremated human remains or human burials, particularly in coastal environments. These places are argued also have spiritual or ceremonial use or evidence of the early aspects of domiculture or as camp sites. Middens occur within close proximity to freshwater and saltwater sources which have potential to contain mussels, oysters, and other types of edible bivalves. Middens are identified within sand dunes, beaches, terraces above watercourses, and inland, near lagoons and water holes.	Middens may occur within the project area in proximity to water sources, such as within close proximity to Kilnacroft Creek. However, due to the land use history and a lack of recorded midden sites near the remainder of Kilnacroft Creek, it is unlikely for middens to be identified during the project site survey.
Petroglyphs (Rock Engravings)	Petroglyphs (also referred to as Rock Engravings) are art sites where marks have been made in stone by Aboriginal people (for example, spirit figures, animals, implements and footprints).	Rock shelter sites, art sites and Petroglyphs have not been recorded in the locality. Further, suitable geology for these sites has not been noted in the project area. As such it is unlikely for these sites to be identified in the project area.
Rock shelter sites with Art and Potential Archaeological Deposit or Archaeological Deposits	Rock shelter sites with art rock overhangs used for shelter by Aboriginal people and where smooth surfaces on the walls of the shelter (sandstone surfaces) are painted with ochres and pigments. Rock shelters with floor deposits are closed sites perfect for Aboriginal occupation and evidence of burials, stone tools and midden material maybe subsurface or extant.	
Aboriginal axe grinding grooves	Aboriginal axe grinding grooves are grooves most often found in sandstone where Aboriginal people have sharpened or manufactured stone axes and other implements and, in some cases, ground seed and grains in the sandstone forming 'bowls'. This site type can occur where suitable geology is present.	Volcanic material is commonly used for edge-ground axes; however, the project area is not known to contain suitable sandstone outcropping required for axe grinding grooves to be present.

Site Type/Material Culture	Description	Relevance to the Project Area and Understanding Potential of Aboriginal occupation
Stone quarries	Stone quarries for artefact manufacture, are most likely found in areas of exposed bedrock, particularly in silcrete and basalt deposits.	There are no known stone quarries in the locality. As the geology of the locality is not associated with suitable outcroppings of raw stone tool manufacturing material, there is a low potential for stone quarry sites to be identified within the project area.
Burial Sites	Burial sites or Aboriginal ancestral remains may be found in a variety of landscapes throughout NSW, although most frequently they are found in middens, sand dunes, lunettes, bordering dunes, river terraces and other sandy or soft sedimentary soils, as well as defined cemeteries or burial grounds, mounds, rockshelters and caves. They may be marked with stones, carved trees, or found in association with other sites such as middens. These sites are rare and have a very special importance to Aboriginal people. There are numerous examples in Australian and NSW of burials being found in highly modified contexts such as Narrabeen carpark and foreshore for Narrabeen man and underneath houses at Nambucca.	There are no known burial sites within the project area based on Aboriginal consultation to date and previous archaeological and historical research for this study. There is a low potential for burial sites to occur within the project area.
Ceremonial/bora grounds, earthworks and stone arrangements	Ceremonial or Bora grounds, earthworks and stone arrangements are rare site types and sometimes difficult to identify as they are generally low constructions, usually less than a metre high, and may range from being very simple to more elaborate. They are made by the movement and mounding of earth or the arrangement of stones in circular, linear or figurative patterns, cairns and as paths. Bora grounds and stone arrangements are generally found on flat or gently sloping landforms but are known to exist in other contexts (e.g. cairns on hilltops and crests, or stone structures within rockshelters).	There are no known ceremonial grounds, bora grounds, earthworks or stone arrangements within the project area based on Aboriginal consultation to date and previous archaeological and historical research for this study. Stone arrangements and bora grounds are unlikely to survive within the project area due to its history of agricultural activity impacting the ground surface.
Earth/oven mounds	Earth mounds or oven mounds are found in areas of poorly drained soils and occur mostly in the Murray River Valley but also along the Murrumbidgee River, Macquarie Marshes in southwest NSW, and in the wetlands of Van Dieman's Gulf (Mulvaney and Kamminga, 1999). In the Murray River Valley, earth mounds are also known to	Whilst earth mounds are common in areas surrounding the Murray River, there are no known earth/oven mounds in the proximity to the project area. As there has been a history of vegetation clearance, ploughing and agricultural activity in

Site Type/Material Culture	Description	Relevance to the Project Area and Understanding Potential of Aboriginal occupation
	contain burials. Mounds are usually identified as dry-ground camp sites in seasonally resource rich but well-watered areas and are often found on elevated areas such as lunettes, levees, and dunes	the project area there is a low potential for earth mounds to occur.

Potential Archaeological Deposits refer to soil profiles within landforms which are predicted to contain buried evidence of Aboriginal occupation. This buried evidence is most often stone artefact scatters which survive frequently in the archaeological record and may occur in both primary and secondary depositional environments. Nearly all soil landscapes and landform types in Australia are connected to Aboriginal occupation and have potential to contain evidence of such.

Artefacts are most commonly recorded in A unit soils (topsoils) and at great depth in B unit alluvial deposits. They occur also in other types of B unit subsoils and deposited between the cracks of C unit cracking clays, where artefacts have moved down the soil profile. Evidence of Aboriginal occupation occurs commonly in both natural secondary deposits as well as in many types of disturbed contexts. Due to the large number of environments and soils where artefacts can occur, deposits are considered to have archaeological potential unless the absence of artefacts is anticipated as a result of post-depositional factors.

How archaeological potential is defined and to be assessed in this report is provided in **Table 8.**

Table 8. Definitions of Archaeological Potential

Archaeological Potential	Definition
Low to Zero	Landforms that have been totally modified and have low to zero potential for any remaining original soil profile or intact archaeological deposits. This category includes existing roads, quarry areas or any area where the original soil profile (topsoil – A horizon) has been stripped and the landform completely modified. This landform may also include areas where there are no intact A horizon soils due to high levels of erosion.
Low	Landforms that may have been utilised by Aboriginal people in the past, but at a lower intensity relative to all surrounding landforms, resulting in a lower artefact density than all surrounding landforms. This category also includes landscape areas of low terrain integrity, where geomorphic processes or human action may have redistributed artefacts from their deposited locations, such as stripping of soil to create levees or excavation to create culverts, dams or bridges, resulting in site disturbance or destruction.
Moderate	Landforms that are predicted to have been utilised by Aboriginal people in the past, but not intensively or repeatedly. There is therefore potential for artefactual deposition, but at a lower frequency and density than in areas of high archaeological potential. This category may also refer to landforms known to be sensitive for higher levels of Aboriginal occupation but where prior ground surface disturbances has decreased the archaeological integrity and potential of finding evidence of Aboriginal occupation (for example, creek confluences, alluvial terraces where stratigraphic integrity may have decreased due to previous land use).
High	Landscape areas predicted to have been intensively or repeatedly utilised by Aboriginal people in the past, such as creek confluences, Pleistocene terraces, floodplains or elevated landforms above major watercourses or floodplains. In these areas, site and artefact density are expected to be higher than the surrounding landscape, and sites in these areas may possibly be more complex. Terrain integrity in

Archaeological Potential	Definition
	these areas may be variable although prior ground surface disturbance should be low or non-existent. An important characteristic of areas of high archaeological potential is the research potential or the capacity of sites to provide valuable information on past Aboriginal land use.

The potential for Aboriginal objects to occur across the project area in a primary depositional context is low due to the history of vegetation clearing European farming practices, and rural infrastructure (roads etc). However, previous archaeological research in the region surrounding Jindera indicates that archaeological material may still remain in areas that have been used for agricultural purposes, such as the hillcrest landscape in the 204 Ortlipp Road section of the project area, and more likely in areas in proximity to a fresh water source. These landforms are known to be sensitive for higher levels of Aboriginal occupation but have experienced ground surface disturbances and decreased the archaeological integrity for stratified archaeological deposits (e.g. ploughed fields, construction of dams, grading of unsealed roads). This indicates a low-moderate potential for subsurface artefacts to occur in these areas.

The Transgrid substation impact area at 140 Ortlipp Road has low potential for surface or subsurface artefacts to occur due to landscaping and maintenance activities caused by the construction and use of the substation which is considered a modified landscape.

Within the south western end of the watermain extension impact area along Ortlipp Road, there is predicted to be a moderate to high archaeological potential. This is due to the nine AHIMS registered sites within 150m (with one site within 50m), and within the same valley (and edge of slope) landforms as the watermain extension impact area. The section of Kilnacroft Creek that is bisected by the watermain extension area also contains moderate to high archaeological potential due to the potential for artefacts to occur in permeant and semi-permanent waterways in the Jindera region, as indicated by archaeological research in the region.

The watermain replacement along Lindner Road has low archaeological potential. This is based on the works area being on a slope landform, not within close proximity to a water source.

5.1 SUMMARY

Kilnacroft Creek runs through the southwestern corner of the project area along with a valley landform (intermittent drainage line) adjacent the watermain extension impact area along Ortlipp Road. Ethnographic reporting and archaeological research indicates a focus on the creeks and rivers by Aboriginal people prior to European contact, and thus a greater potential for artefacts to occur in those areas. This is also evidenced by the past archaeological research and AHIMS search results which show a cluster of artefact sites located within the valley landform south of Kilnacroft Creek and adjacent the proposed watermain extension location along Ortlipp Road. Past archaeological research also indicates elevated landforms such as ridges, crests, and spurs as having potential for Aboriginal heritage.

Artefact sites are the most common site type in the Jindera region, with quartz flakes the most common artefacts identified. Culturally modified or scarred trees have been identified on mature trees in close proximity to water sources in the region. The project area is not known to contain suitable geology or soils for petroglyphs, rock shelters, axe grinding groove sites or quarry sites to occur. Ceremonial/bora grounds are unlikely to occur due to the history of agricultural activity and vegetation clearance that has been undertaken within the project area.

6. Survey and Results

This section of the report provides a summary of the survey strategy for fieldwork, methods employed during fieldwork, the survey team and the results of the survey including sites and predictions for archaeological potential.

6.1 SITE STRATEGY

A site survey was undertaken on 29 October 2024 for this ACHA process. A pedestrian site survey was undertaken to identify and assess any potential Aboriginal Archaeological sites and heritage constraints within the project area. Representatives from Southern West Yiradjuri Clans, Land, Water and Sky Country Aboriginal Corporation, Bundyi Aboriginal Cultural Knowledge, Sonione Walkabout Rogers and Thomas Dahlstrom attended and advised on any potential cultural constraints. Mandy Allonby (Planning & Approvals Manager, Gransolar) and Garth Thompson (Archaeologist, Virtus Heritage) advised on the proposed survey areas and project impacts.

Following the 29 October 2024 site survey, Gransolar was informed by Greater Hume Shire Council that additional works relating to the proposed project were required, associated with water access to the project area. These additional works included a watermain extension along Ortlipp Road and easement works, and the upgrade/replacement of subsurface water pipes along the southern side of Lindner Road. To ensure compliance with Heritage NSW processes (i.e. compliance with *Aboriginal heritage consultation requirements for proponents 2010 (DECCW 2010))* consultation was undertaken with the RAPs to inform on the alteration to the project boundary and proposed project works. Information was provided to the Department of Planning, Housing and Infrastructure (DPHI) and Heritage NSW in November 2024, and a meeting with Heritage NSW and DPHI was undertaken on 16 January 2025. Direction from Heritage NSW and DPHI included the approval to continue the consultation process with the amended project boundary and works, and to provide Heritage NSW, DPHI, and RAPs updated information on the project parameters and survey strategy. In compliance with these directives, this information was provided on 24 January 2025.

A second pedestrian site survey was undertaken on 12 February 2025 to survey the additional areas along Ortlipp Road, and Lindner Road. A representative from Bundyi Aboriginal Cultural Knowledge attended and advised on any potential cultural constraints. Mandy Allonby (Planning & Approvals Manager, GDA) and Julian Travaglia (Principal Archaeologist, Virtus Heritage) advised on the proposed survey areas and project impacts.

Overall, the archaeological surveys aimed to:

- confirm the desktop environment context.
- identify landscape features within the project area and record landscape elements that may have potential for cultural heritage.
- confirm the past land use and disturbance history within the project area.
- test the archaeological predictive model.
- identify and record cultural heritage sites.

During the survey, the following survey strategy was implemented:

- Coverage of 100% (where accessible and safe) of the project area and all environmental contexts:
- The project area was walked in transects where vegetation allowed, with the project team walking approximately 2-3m apart (where available).
- Particular focus was paid to:

  - survey of ground surfaces with higher archaeological visibility;
  - survey of mature trees for evidence of cultural modification;
  - survey of sandstone bedrock (if any) for evidence of grinding grooves; and
  - survey of any places specifically requested by the Aboriginal parties within the proposal site.
- The recording of the different types of surface exposures (e.g. Vehicle track, erosion scour), previous land use history and disturbance, natural features (e.g. presence of sandstone), soils, erosion, ground surface visibility and geomorphic activity following the requirements of the archaeological Code of Practice (DECCW 2010) and information or comments provided by registered Aboriginal parties involved in the surveys;
- Completion of an Aboriginal heritage site recording form for each Aboriginal site or Potential Archaeological Deposit identified, which included all information required to fill in an AHIMS site card;
- Recording of any cultural information, information about Aboriginal resources or comments made by Aboriginal parties involved in the field survey on the management or cultural values of the project area; and
- Mapping and recording of all archaeological survey areas and identified Aboriginal sites and/or PADs

6.2 SITE SURVEY

The site surveys for this project were undertaken on 29 October 2024 and 12 February 2025 and were conducted as per the project methodology and survey strategy as outlined in **Section 6.1**. A summary of the transects undertaken to complete the survey is also summarised in **Table 9** and illustrated in **Figure 9**).

All survey areas and photographs were recorded using standardised recording forms based on the CoP requirements.

Before commencing each site survey, Garth Thompson (29 October 2024 survey), and Julian Travaglia (12 February 2025 survey) respectively spoke to the RAPs informing them that if there was any cultural information or comments during the survey that they could be recorded during fieldwork or at a later time. The importance of cultural information and comment by the Aboriginal representatives involved in fieldwork was stressed in these discussions.

6.3 SURVEY RESULTS

For reporting purposes, the project area has been separated into 4 areas (**Figure 9**) including:

- Area 1 - Northern Portion of the Project Area: 204 Ortlipp Road;
- Area 2 - Southern Portion of the Project Area: 140 Ortlipp Road;
- Area 3 - Ortlipp Road: Watermain and Easement Works; and
- Area 4 - Lindner Road Watermain Works.

6.3.1. Area 1 - Northern Portion of Project Area: 204 Ortlipp Road

Ground surface visibility throughout the project area was very low (1%) due to grass covering the area (**Plate 1**). The north 300m of the project area, in which the majority of the project impacts are being undertaken, was found to be covered in long (50-80cm) grasses, resulting in no ground surface visibility. The grass on the boundary of the project area had been recently cut short, with grass trimmings still present (**Plate 2**).

Ground surface exposures identified east and west of the proposed battery locations showed yellowish-brown to brown silty soils underlying the vegetation cover (**Plate 3** and **Plate 4**).

The eastern extent of the project area was identified as an intermittent drainage line that followed the property boundary and within the hillcrest landform within the project area. The area was identified as an intermittent drainage line due to the change in vegetation with mature trees extent in the area (**Plate 5**), the identification of multiple yabby remains in the drainage line (**Plate 6**), and presence of dams within the drainage line. Exposed soils were identified in this area (**Plate 7**), with yellow clays identified in the centre of the intermittent drainage line, east of the existing property fence (**Plate 8**).

Several pieces of raw quartz were identified along the drainage line, north of a dam which had high exposure and visibility (**Plate 9**). The area around the dam was particularly inspected, with no artefacts identified (**Plate 10**).

An isolated, blue-speckled quartzite hammerstone was identified on the eastern extent of the 204 Ortlipp Road property, just outside of the project area boundary (**Figure 9**). The area in which the artefact was identified was within an intermittent drainage line which is within the hillcrest landform within the project area. The site was disturbed with evidence of rubbish and a recent localised fire, but visibility surrounding the site was very low (1%). The hillcrest landform was considered as a Potential Archaeological Deposit (PAD) based on the presence of an Aboriginal object, being a sensitive landform for potential Aboriginal occupation (i.e. hillcrest - elevated and flat to very gently inclined and associated with a drainage line), and the lack of observable significant disturbances/modifications to the landform.

The artefact identified measured 6.4x6.4x2.2cm. The impact end of the artefact is rounded and contains pitting. The face opposite the impact end is generally flat and weathered with no signs of flaking, nor machine breaking. The dorsal face of the artefact contains a scratch leading from the flat edge, interpreted by the Aboriginal parties as caused by ploughing/vegetation clearance equipment (**Plates 11-14**). The artefact has been registered on AHIMS as "Jindera IF1" AHIMS ID 55-6-0294. Mark Saddler (Bundyi Aboriginal Cultural Knowledge) informed the survey team that artefacts made from the same material had been identified in areas west of the project area, but outside of the project AHIMS search area.

The remaining area of 204 Ortlipp Road, south of the long grasses contained short, recently trimmed grass vegetation with no further sites or artefacts identified. The disturbances evident in the 204 Ortlipp Road property included grass cutting through the northern half of the property, and evidence of fire and rubbish dumping around the Jindera IF1 location, evidence of grazing, ploughing, and other impacts associated with European farming practices (i.e. fencing, vegetation clearing, dams).

Survey Plates 1-14



Plate 1. Northern end of the project area, view over grassed paddocks.



Plate 2. View over location of the BESS batteries and cut grass at bottom of image.

Survey Plates 1-14



Plate 3. Exposures. Brown silty soils identified in eastern half of the project area.



Plate 4. Example of exposures, brown silty soils.



Plate 5. Mature Eucalypts present in identified intermittent drainage line Picture view facing southwest along creek line.



Plate 6. Yabby remains found in intermittent drainage line



Plate 7. Sandy soils present in boundary of intermittent drainage line



Plate 8. Clay soils identified in middle of intermittent drainage line

Survey Plates 1-14



Plate 9. Raw quartz deposit identified along creek line north of dam



Plate 10. Dam identified on eastern extent of project area, along creek line



Plate 11. Jindera IF1 identified just outside eastern boundary of the project area.



Plate 12. Impact end of Jindera IF1



Plate 13. Opposite end of impact for artefact.



Plate 14. Overview of site Jindera IF1, view to north.

6.3.2. Area 2 - Southern Portion of Project Area: 140 Ortlipp Road

The proposed transmission line pathing was inspected, with similar short, maintained grasses giving very low (1%) ground surface visibility. A raised, gravelled track bisects the proposed transmission line pathing east to west. The substation is on raised soil on its northwest side and dug in on its south-east side (**Plate 15**). A transmission line runs northeast overhead from the Transgrid substation to Lot 101, east of the project area. The proposed area for expanding the Transgrid substation to the northwest was found to be covered by long grass with juvenile trees in the centre (**Plate 16**). This area had no ground surface visibility due to the grass cover. The area was otherwise very gently inclined (1-3º), with raised platforms for the access track and Transgrid substation bordering the proposed impact area.

The path of Kilnacroft Creek had no ground surface visibility due to extensive grass cover. The pathing of Kilnacroft Creek was found to run alongside the raised Transgrid access track (**Plate 17**). A dam was also identified in the path of Kilnacroft Creek as it exits the 140 Ortlipp Road property to the south (**Plate 18**). The dam also contains piping and concrete foundations leading under the access track to the north, and towards the neighbouring property, further along the path of Kilnacroft creek to the south.

Survey Plates 15-18



Plate 15. View from southern fence of 204 Ortlipp Road towards the Transgrid substation, along proposed transmission line path



Plate 16. Proposed Transgrid substation expansion area (note: existing substation on modified landform i.e. built platform), view to east.



Plate 17. View over Kilnacroft Creek through the Transgrid Substation. No water within the creekline at the time of survey (excluding dams).



Plate 18. Dam with concrete footings and piping on path of Kilnacroft Creek in 140 Ortlipp Road.

6.3.3. Area 3 - Ortlipp Road:Watermain and Easement Area

The proposed footprint of the water main extension and easement works along Ortlipp Road (gravelled road) was inspected by the survey team on Wednesday 12 February 2025. A pedestrian survey started at the

northern most extend of the works and was surveyed in a south west direction. Although the ground surface visibility was low (<5% visibility) due to vegetation cover and leaf litter, all exposures were inspected. Exposures included bioturbation (mainly rabbits, and ant nests), erosion scours, culverts, and soil exposure from grading works associated with Ortlipp Road. The ground surface was generally undulating due to these disturbances (**Plate 19** and **Plate 20**). Toward the south west end of the survey area, Telstra markers identified subsurface cabling (Optic Fibre cables) extending along the road easement. An open Telstra inspection pit showed these subsurface cables to run parallel to Ortlipp Road located approximately 1.5m into the survey area from the fenceline which defined the southern boundary of the survey area (**Plate 21** and **Plate 22**). A trenching depression was evident along the location where the Optic Fibre cable was located.

A contour drain extended along the length of the survey area parallel to Ortlipp Road on the road verge. The associated works to create this contour drain deposited soils from the grading to create a windrow which extended up to 5m into the survey area from the road verge. A series of drainage gutters were also present along the survey area in locations where small intermittent drainage lines extended to culverts beneath Ortipp Road (**Plate 23** and **Plate 24**). In these locations additional contour drains were present to assist directing water away from the road and into these culvert drains.

Vegetation within the survey area was dominated by native and introduced grasses and weeds, and scattered regrowth and mature eucalypts, River Red Gum, and regrowth Currajong trees. These trees were generally linear and central within the survey area. All mature trees were inspected for evidence of cultural modification.

One scarred tree (labelled Jindera ST1) was identified by the RAP representative (Mark Saddler-Bundyi Aboriginal Cultural Knowledge) at the southern end of the survey area (**Plate 25** and **Plate 26**). This scarred tree was submitted to the AHIMS database and approved on 17 February 2025 (Jindera ST1 – AHIMS #55-6-0295). Mark Saddler (Bundyi Aboriginal Cultural Knowledge) commented during the survey that the scarred tree was an old tree, and the overhanging branches (up to 35m high) put the tree at risk of breaking and splitting, and a public safety hazard as the tree is dead and overhangs Ortlipp Road. He commented that the top branches should be lopped off under supervision/monitoring of RAP/s to reduce the risk of the branches splitting and breaking. Gransolar (Mandy) commented in the field that the tree may be avoided while doing the underboring along Ortlipp Road.

Mark also informed that the area of the scarred tree and direct surrounds are highly disturbed by subsurface utilities and road construction, and a large, graded area (used as a drainage break in times of high rains) adjacent but just outside the project area on Ortlipp Road. Mark informed that artefacts are more likely to be in the wetlands area to the east where the disturbances are less, and other artefacts have been located (outside the project area). Although the predictive model considered this location a potential area of moderate to high archaeological potential for intact subsurface cultural deposits, the disturbances within this area have reduced that potential by the high level of ground disturbances and impacts observed during the field survey.

Survey Plates 19-26



Plate 19. View along southern side of Ortlipp Road, some erosion scour exposure, view to south west.



Plate 20. Survey along Ortlipp Road, view to south west.



Plate 21. Telstra optic fibre marker, view to south west.



Plate 22. Subsurface inspection pit for optic fibre cable, view to south west.



Plate 23. Culvert and associated excavated drainage channel.



Plate 24. Road cur, southern side of Ortlipp Road, view to south west.

Survey Plates 19-26



Plate 25. Newly recorded Scarred Tree (i.e. Jindera ST1 – AHIMS #55-6-0295).



Plate 26. Close up of scar on newly recorded Scarred Tree (i.e. Jindera ST1 – AHIMS #55-6-0295).

6.3.4. Area 4 - Lindner Road Watermain Area

The proposed footprint of the water main extension/replacement along Lindner Road was inspected by the survey team on Wednesday 12 February 2025 (sealed road). A pedestrian survey started at the eastern extend of the works and was surveyed in a west direction (**Plate 27** and **Plate 28**), ending at the intersection of Lindner Road and Walla Walla Jindera Road. The vegetation and ground surface visibility was similar to Ortlipp Road with surface visibility low (<5% visibility) due to vegetation cover and leaf litter, all exposures were inspected. Exposures included bioturbation (mainly rabbits, and ant nests), erosion scours, culverts, fallen trees (i.e. root ball exposing the subsurface), and soil exposure from grading works associated with Lindner Road. A contour drain extended along the length of the survey area parallel to Lindner Road on the road verge (**Plate 29** and **Plate 30**). The windrow and associated works to create this contour drain deposited soils from the grading to create a windrow which extended up to 5m into the survey area from the road verge **Plate 31** and **Plate 32**). A series of drainage gutters were also present along the survey area in locations where small intermittent drainage lines extended to culverts beneath Lindner Road. In these locations additional contour drains were present to assist directing water away from the road and into these culvert drains.

Vegetation within the survey area was dominated by native and introduced grasses and weeds, and scattered regrowth and mature eucalypts, River Red Gum, and regrowth Currajong trees. All mature trees were inspected for evidence of cultural modification. No Aboriginal objects or culturally modified trees were identified during the survey of Lindner Road.

Survey Plates 27-32



Plate 27. View along southern side of Lindner Road, some erosion scour exposure, view to north west.



Plate 28. Survey along Lindner Road, view to north west.



Plate 29. Exposures, windrow, and contour drain along Lindner Road, view to west.



Plate 30. Rabbit burrow exposure.



Plate 31. Culvert and contour drain, view to north



Plate 32. Ground disturbances, exposures and windrow, view to north west.

6.4 REGISTERED ABORIGINAL PARTY COMMENT DURING SURVEY

During survey, all cultural comment relating to the project area was recorded and is presented below:

- General comments that the broader project area had limited visibility;
- Sonione Rogers: Commented on the importance of waterways to Wiradjuri subsistence and habitation of the region.
- Southern West Yiradyuri Clans, Land, Water and Sky Country Aboriginal Corporation representative: Commented on the importance of waterways to Wiradjuri subsistence and habitation of the region, and on the prevalence of quartz artefacts in the region.
- Thomas Dahlstrom: Commented on the importance of the local fauna, particularly the yabbies identified in the intermittent drainage line, to Aboriginal habitation in the region.
- Bundyi Aboriginal Cultural Knowledge – Mark Saddler field comments:
    - All impact areas should be monitored by RAP/s during works;
    - Artefacts made from the same material of Jindera IF1 site had been identified in areas west of the project area, but outside of the project AHIMS search area;
    - Any cultural inductions need to be site specific and area specific;
    - Mark prefers to be called Tradition Carers/Custodians rather than Traditional Owners as no one owns the land;
    - Scarred trees, we use the bark, if the bark is not right we don't use that tree;
    - The Golder Orb spider (ganga spider) we use the web to stop bleeding;
    - The high grade quartz is from Tumburumba, Tarcutta and Humula;
    - Basalt is from Bomen (Wagga Wagga area) and Rankins Springs;
    - Silcrete and cherts are from west past the Lockhart; and
    - There should be a local RAP to monitor underboring along Ortlipp Road and Lindner Road for a few days.
- Bundyi Aboriginal Cultural Knowledge – Mark Saddler, summary of reports on field survey (full reports in ACHA Appendix C):
    - Test pit excavations crucial to BESS development. To be undertaken along the eastern edge of project area, and PAD is within Area 1 (mainly along the drainage line in the eastern area of Area 1);
    - Consultation must continue with the Wiradjuri Elders and RAPs;
    - Complete the ACHA and there can be extensive water flow in creeks associated with the project area and be aware so chemicals don't leak into the waterway;
    - Engagement of RAPs during works to ensure compliance with cultural protocols;
    - Pathways for 'Yandhang' (Squirrel Glinders). Habitat planting, and monitoring and maintenance of thehabitat pathways with assistance from RAPs;

- Protection of creek systems;
- Water quality monitoring and sustainable practices;
- Artefacts located outside the project area still relate to the area;
- Scarred trees are indicative of traditional bark harvesting and water sources (creeks and wetlands) hold cultural significance.
- Buffer zones around sites to protect from construction activities;
- Engagement with RAPs ensuring cultural heritage is respected and preserved, and considered in the BESS development; and
- Cultural monitoring of works.

6.5 SITE SURVEY SUMMARY

Site surveys were undertaken on 29 October 2024 and 12 February 2025 for this ACHA process. The pedestrian site surveys were undertaken to identify and assess any potential Aboriginal Archaeological sites and heritage constraints within the project area.

Two previously unknown Aboriginal sites were identified and recorded during the surveys including Jindera IF1 and PAD, and Jindera ST1 (**Table 9** and **Figure 9**):

- Jindera IF1 (AHIMS # 55-6-0294) and PAD
  - **Outside project area**: the artefact from this site is located just outside of the north east boundary of the project area;
  - **Inside project area**: The PAD associated with Jindera IF1 is within Area 1 of the project area (i.e. hillcrest landform). The area is considered as PAD based on the presence of an adjacent Aboriginal object, being a sensitive landform for potential Aboriginal occupation (i.e. hillcrest - elevated and flat to very gently inclined), and the lack of observable significant disturbances/modifications to the landform. Bundyi Aboriginal Cultural Knowledge – Mark Saddler also identified the hillcrest landform (i.e. Area 1) as a PAD (refer ACHA Appendix C); and
- Jindera ST1 (AHIMS #55-6-0295)
  - **Inside project area**: Jindera ST1 (AHIMS #55-6-0295) is a scarred tree with a single scar located toward the south west end of the project area along Ortlipp Road.

The overall visibility of the project area was low due to grass coverage. Visibility was lowest within Area 1 (1% visibility) where dense pasture grasses obscured the ground surface. Survey along Ortlipp Road and Lindner Road also had low visibility (generally <5%) but more exposures. Vegetation included native and introduced grasses and weeds, and scattered regrowth and mature eucalypts, River Red Gum, and regrowth Currajong trees. All mature trees were inspected for evidence of cultural modification.

Disturbances and exposures within the project area included bioturbation (mainly rabbits, and ant nests), erosion scours, culverts, fallen trees (i.e. root ball exposing the subsurface), grading works associated with Lindner Road, substation and transmission lines, graded tracks, drainage works, and impacts from European farming (e.g. fences, dams, ploughing, grazing).

Table 9 Summary of Site Survey - Transects

Survey Area	Transect #	Transect Start (MGA)	Transect Finish (MGA)	Landform Unit	Land Use History, vegetation, ground surface visibility, exposures (if any)	Aboriginal Sites
Area 1 **Northern Portion of Project Area** **(204 Ortlipp Road)**	Transect 1	491694E 6024931N	491996E 6024939N	HIllcrest	Transect 1 walked in an east direction northern part of project area (Main BESS area). Ground surface visibility very low (1%) due to grass covering. Yellowish-brown to brown silty soils underlying the vegetation cover in exposures. Disturbances include vegetation clearing, fencing, ploughing, grazing, bioturbation, and erosional processes.	PAD associated with Jindera IF1
	Transect 2	491996E 6024939N	491735E 6024664N	Hillcrest Intermittent drainage line	Transect walked in a south west direction (Main BESS area). The eastern extent of the project area was identified as an intermittent drainage line that followed the property boundary. Yellow clays identified in the centre of the intermittent drainage line. Disturbances include vegetation clearing, fencing, ploughing, dams, grazing, bioturbation, and erosional processes.	Yes Jindera IF1 (AHIMS #55-6-0294) Note: Located just outside project area boundary. PAD associated with Jindera IF1 (adjacent to Jindera IF1 and within the project area)
	Transect 3	491839E 6024794	491694E 6024931N	Hillcrest	Transect walked in a north west direction (Main BESS area). Ground surface visibility very low (1%) due to	PAD associated with Jindera IF1

Survey Area	Transect #	Transect Start (MGA)	Transect Finish (MGA)	Landform Unit	Land Use History, vegetation, ground surface visibility, exposures (if any)	Aboriginal Sites
					grass covering. Yellowish-brown to brown silty soils underlying the vegetation cover in exposures. Disturbances include vegetation clearing, fencing, ploughing, grazing, bioturbation, and erosional processes.	
	Transect 4	491680E 6024881N	491807E 6024739	Hillcrest	Transect walked in a south east direction (Main BESS area). Ground surface visibility very low (1%) due to grass covering. Yellowish-brown to brown silty soils underlying the vegetation cover in exposures. Disturbances include vegetation clearing, fencing, ploughing, grazing, bioturbation, and erosional processes.	PAD associated with Jindera IF1
	Transect 5	491680E 6024881N	491674E 6024495N	Hillcrest and Slope (Very gently inclined, 1-3°)	Transect walked in a south direction (Main BESS area just inside the Ortlipp Road fenceline). Ground surface visibility very low (1%) due to grass covering. Yellowish-brown to brown silty soils underlying the vegetation cover in exposures. Disturbances include vegetation clearing, fencing, ploughing, grazing, bioturbation, and erosional processes.	PAD associated with Jindera IF1
	Transect 6	491659E 6024706N	491736E 6024651N	Slope (Very gently inclined, 1-3°)	Transect walked in a west direction (Main BESS area). Ground surface visibility very low (1%) due to grass covering. Yellowish-brown to brown silty soils underlying the vegetation cover in exposures.	PAD associated with Jindera IF1

Survey Area	Transect #	Transect Start (MGA)	Transect Finish (MGA)	Landform Unit	Land Use History, vegetation, ground surface visibility, exposures (if any)	Aboriginal Sites
					Disturbances include vegetation clearing, fencing, ploughing, grazing, bioturbation, and erosional processes.	
Area 2 **Southern Portion of Project Area** **(140 Ortlipp Road)**	Transect 7	491674E 6024495N	491659E 6024706N	Slope (Very gently inclined, 1-3°)	Transect walked in a north direction down slope toward the existing substation. Ground surface visibility very low (1%) due to grass covering. Disturbances include vegetation clearing, fencing, grazing, bioturbation, impacts associated with the existing substation (i.e. access roads), constructed dams and associated drainage, and erosional processes.	No sites identified.
	Transect 8	491744E 6024460N	491739E 6024449N	Modified	Transect walked in a east-west direction. Survey around the existing substation. The landscape here has been modified as part of the civil preparation and construction of the substation. Fences are also erected around substation, graded access road, and transmission lines.	No sites identified.
Area 3 **Ortlipp Road (watermain and easement works)**	Transect 9	491655E 6024819N	490990E 6023850N	Slope (Very gently inclined, 1-3°) and Low lying flat	Transect walked in a south and south west direction along Ortlipp Road. Visibility generally low. Vegetation included introduced and native grasses and weeds, regrowth Eucalypts, mature Eucalypts, and some juvenile Currajong trees. Disturbances include fencing, vegetation clearing, impacts from road construction (i.e. grading, cut, windrow, spoil piles, contour drains), subsurface utilities (telstra optic fibre cable), bioturbation, and erosional processes.	Yes Jindera ST1 (AHIMS #55-6-0295) Located within the project area within the road easement of Ortlipp Road.

Survey Area	Transect #	Transect Start (MGA)	Transect Finish (MGA)	Landform Unit	Land Use History, vegetation, ground surface visibility, exposures (if any)	Aboriginal Sites
Area 4 **Lindner Road (watermain works)**	Transect 10	490603E 6023411N	489884E 6023438N	Slope (Very gently inclined, 1-3°) and Low lying flat	Transect walked in a west direction along Lindner Road. Visibility generally low. Vegetation included introduced and native grasses and weeds, regrowth Eucalypts, mature Eucalypts, mature River Red Gum, and juvenile Currajong trees. Disturbances include fencing, vegetation clearing, impacts from road construction (i.e. grading, cut, windrow, spoil piles, contour drains), bioturbation, and erosional processes.	No sites identified.



Figure 9 Survey Results

6.6 LANDFORMS, VISIBILITY AND EFFECTIVE COVERAGE

This section presents and discusses the landforms within the project area and the visibility and effective coverage of the survey. This section is required to demonstrate that the survey data provides sufficient evidence for an evaluation of the distribution of objects across the landscape, taking into account archaeological potential. This information is essential to the assessment process and archaeological management recommendations.

During each transect/survey unit, the area surveyed was recorded (transect length by transect width). The general ground surface visibility and any exposures were also recorded to enable a calculation of survey coverage and effective visibility to be generated. **Table 10** below details the survey coverage and effective visibility for each of the survey units.

Visibility across the project area was generally very poor (<1%) owing to grasses covering the majority of the area. The majority of project impacts are within the hillcrest landform. The Jindera IF1 (AHIMS ID 55-6-0294) was identified within an intermittent drainage line within the hillcrest landform. The hillcrest landform is considered associated with site Jindera IF1 and is assessed as PAD.

The impact area for the Transgrid Substation concrete footpad expansion contained very poor visibility in and considered a modified landform. The slopes and shoulder landforms surrounding the Transgrid substation and access tracks contained moderate to good ground surface visibility (up to 30% in areas). These areas have been extensively modified in landscaping works associated with the construction of the Transgrid substation and its access tracks.

The low-lying flat landform within the watermain extension impact area along Ortlipp Road is within 150m of nine AHIMS registered sites and are all registered as artefact sites containing a variety of stone tool types, mostly manufactured from quartz. These sites are situated on similar landform but also considered a wetland area (pers. comm. Mark Saddler, RAP and Traditional Custodian). This landform also appears to be an intermittent drainage area as evidenced by the location of a dam within the central area of where these sites are located. One of this cluster of sites (site 55-6-0284) is within 50 m of the proposed water main extension and is a small artefact scatter but is located on the east side of a large, graded area used for drainage in times of high rainfall. During the survey, the Ortlipp Road watermain extension (and Lindner Road) impact area contained varied visibilities and exposures with up to 75% visibility associated with bioturbation, upturned tree root balls, ongoing erosional processes, and exposed soils due to fluvial action associated with contour drains and culverts.

Table 10. Survey Coverage and Effective Visibility

Landform	Survey Unit Area (m^2)	Visibility (%)	Visibility (m^2)	Exposure (%)	Effective Coverage Area (m^2) †	Effective Coverage (%) ††
Modified	45075 m^2	5%	2,253.75 m^2	2%	45.01	<1%
Low lying Flat	9269 m^2	1%	926.9 m^2	1%	9.27 m^2	1%
Peak	9136 m^2	1%	91.36m^2	1%	0.91 m^2	<1%
Hillcrest	207792 m^2	5%	10389.60m^2	7%	7272.72 m^2	3.5%
Shoulder	2389m^2	30%	716.70m^2	30%	214.8 m^2	9%
Spur	6379 m^2	1%	63.79 m^2	1%	0.63 m^2	<1%

Landform	Survey Unit Area (m^2)	Visibility (%)	Visibility (m^2)	Exposure (%)	Effective Coverage Area (m^2) †	Effective Coverage (%) ††
Slope	52780 m^2	10%	5278 m^2	8%	422.24 m^2	<1%
Hollow	5509 m^2	1%	55.09 m^2	1%	0.55 m^2	<1%
Footslope	31695 m^2	1%	316.95 m^2	1%	1.16 m^2	<1%
Valley	1050m^2	0%	0 m^2	0%	0	0%
Total	371073m^2		20092.14m^2		7967.29 m^2	2.14%

† (= survey unit area x visibility % x exposure %)
†† (= effective coverage area/survey unit area x 100)

6.7 SUMMARY

The project area has been the subject of past and ongoing disturbances through farming/agricultural practices, the use of the Transgrid Substation, and the maintenance and use of Ortlipp Road and Lindner Road and property access tracks. While areas within the project area had varied but generally low ground surface visibility, previous archaeological research and landform analysis indicated the hillcrest landform has potential to contain subsurface archaeological deposits (i.e. elvated landform associated with a drainage line, assessed as PAD). This landform has undergone past disturbances associated with European farming practices, dams and vegetation clearing but was not assessed as having observable significant disturbances/modifications to the landform (with the exceptions of the dam locations). The landform/PAD is assessed as associated with site Jindera IF1 which is located within the landform.

Impacts around the Transgrid substation, contained evidence of greater ground disturbance, with the landforms having been modified entirely for the creation of the substation and access tracks. These impacts would have reduced the potential for subsurface archaeological deposits to occur in the proximity of the Transgrid substation.

The landforms within the watermain extension area along the southern end of Ortlipp Road (slope and low lying flat) is in proximity to nine AHIMS registered sites (within 150m, with one AHIMS site within 50m). The predictive model and background research indicated this location would likely be a sensitive area for Aboriginal heritage. Although one scarred tree was located in this area (Jindera ST1) the subsurface surrounding this tree has been highly impacted by road construction (grading, cut, contour drains, windrow) and a subsurface Telstra optic fibre cable that parallels the fenceline within the road easement. The RAP present (Mark Saddler) commented that it was more likely that artefacts will be in the wetlands area to the east where the disturbances are less, and other artefacts have been located (i.e. outside the project area) but still requested that there is some representation by local RAP representatives in this location during underboring works.

The slope and footslope landforms along Lindner Road have been heavily impacted by the construction of Lindner Road (grading, cut, contour drains, windrow), past vegetation clearing, and bioturbation. This area was not considered as a sensitive area for Aboriginal heritage as it is further removed from a water source and resource areas compared to other landforms within the project area, and no known Aboriginal sites are identified in proximity to this location. The area surveyed also had higher levels of exposure than the surrounding survey areas with no artefacts or stone raw materials identified during the survey.



Figure 10. Landforms, AHIMS Sites and Project Impacts

7. Analysis and Discussion

A favourable climate and plentiful resources from the creek lines running through the project area suggest that the area would have been frequently occupied by the Aboriginal population of the region prior to European invasion. The project area would have had plentiful terrestrial and estuarine prey resources, including yabbies and varieties of bird species. This regional habitation has been confirmed by previous archaeological reporting, with artefact and scar tree sites confirming habitation throughout the Jindera region and surrounds.

Area 1 – Northern Portion of the Project Area: 204 Ortlipp Road

The Jindera IF1 site (AHIMS ID 55-6-0294) was identified just outside the project area, but within an intermittent drainage line located within a hillcrest landform. The land use history of the project area indicates that there have been disturbances caused by farming practices for at least 130 years. These impacts have been ongoing at the 204 Ortlipp Road section of the project area, evidenced by the grass cutting, vegetation clearance, dams, and fencing identified during the site survey, and the evidence of fire and rubbish dumping around the Jindera IF1 site (AHIMS ID 55-6-0294) location. However, previous archaeological research in the region surrounding Jindera indicates that archaeological material may still remain in areas that have been used for agricultural purposes, such as the hillcrest landscape in the 204 Ortlipp Road section of the project area, and more likely in areas in proximity to a fresh water source. These landforms are known to be sensitive for higher levels of Aboriginal occupation but have experienced some ground surface disturbances and reduced to some extent the archaeological integrity for stratified archaeological deposits. Previous archaeological research also indicated elevated landforms (such as crests, ridges, and spurs) are known landforms for Aboriginal occupation, especially in proximity to freshwater sources.

The landform (PAD) associated with Jindera IF1 is assessed as having moderate archaeological potential. However, this potential can only be realised through further archaeological investigation (i.e. archaeological testing).

Area 2 – Southern Portion of the Project Area: 140 Ortlipp Road

The southern project area at 140 Ortlipp Road (i.e. Transgrid Substation area and surrounds) has been impacted by extensive earth works evidenced by the creation of excavated cuts for site access tracks, and the sloping and flattening of the landscape for the Transgrid Substation. Further ground disturbing works have been undertaken for the construction of the transmission line tower approximately 90m north of the Transgrid Substation. The dams identified on the southern extent of the Area show that Kilnacroft Creek has been impacted by the previous land use history in the project area also.

Due to this extensive level of disturbance, there is a **low potential** for Aboriginal objects to occur within this Area. The Area has low terrain integrity as human action associated with the establishment of the Transgrid Substation and associated infrastructure may have redistributed artefacts (if any) from their deposited locations, resulting in site disturbance or destruction.

Area 3 - Ortlipp Road: Watermain and Easement Area

The designated path for the water-main extension to site runs within 150m of nine AHIMS registered artefact sites (i.e. outside project area). These AHIMS sites are within low lying flat (and drainage line) landforms that are bisected by the water-main extension impact area. Due to the density of artefacts in close proximity to the project area, the predictive model indicated a high sensitivity for Aboriginal cultural heritage in this area. However, the survey identified that the subsurface in this area (i.e. road easement) has been highly impacted by road construction (grading, cut, contour drains, windrow) and a subsurface Telstra optic fibre cable that parallels the fenceline within the road easement. The RAP representative present commented that it was more likely that artefacts will be in the 'wetlands' area to the east where the disturbances are less and other

artefacts have been located (i.e. outside the project area) but still requested that there is some representation by local RAP representatives in this location during underboring works.

One scarred tree was recorded in this Area (Jindera ST1, AHIMS #55-6-0295). The scarred tree is dead and has a south west facing scar. Although the scarred tree is present, the soil profile surrounding the tree is highly disturbed by subsurface works associated with Telstra optic fibre cabling, contour drains, and works associated with Ortlipp Road.

There is a **low potential** for subsurface Aboriginal objects to occur in the water-main extension. Due to this extensive level of disturbance, the area has low terrain integrity as human action associated with the establishment of the Ortlipp Road and associated ground disturbance works (i.e. contour drains, grading, cuts, windrow), and subsurface Telstra optic fibre cables may have redistributed artefacts from their deposited locations, resulting in site disturbance or destruction. It is also likely the area would have been utilised at a lower frequency than the surrounding area (i.e. the area east of Ortlipp Road more likely used at a higher intensity).

Area 4 - Lindner Road: Watermain Area

There is a **low potential** for subsurface Aboriginal objects to occur in the Lindner Road watermain extension Area. This area is mainly sloping landform and within a road easement impacted by vegetation clearing, grading, cuts, contour drains, bioturbation and erosional processes. Although this Area may have been utilised by Aboriginal people in the past, it was likely at a lower intensity relative to all surrounding landforms, resulting in a lower artefact density than all surrounding landforms (i.e. such as areas closer to water sources).

8. Scientific Values and Significance Assessment

This section of the Archaeological report assesses the scientific/archaeological values of Aboriginal archaeological sites and objects within the project area. The ACHA provides reference to the other values within the Burra Charter, including the cultural values provided by RAPs.

Other cultural values are assessed separately in the broader ACHA in comments by the RAPs.

The Burra Charter provides guidance for the conservation and management of places of cultural significance (cultural heritage places) and is based on the knowledge and experience of Australia ICOMOS members. Conservation is an integral part of the management of places of cultural significance and is an ongoing responsibility. The Charter sets a standard of practice for those who provide advice, make decisions about, or undertake works to places of cultural significance, including owners, managers and custodians. The Burra Charter defines cultural significance as the "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" (ICOMOS Burra Charter 2013:2).

Aboriginal cultural heritage sites are therefore assessed following these categories of significance developed under the Burra Charter:

- Aesthetic value - refers to "the sensory, scenic, architectural and creative aspects of the place" and is often linked with social values (OEH 2011:9). This value may refer to the visual nature of the landscape and "smells and sounds associated with the place and its use" (OEH 2011:9).
- Historic value - refers to "the associations of a place with a historically important person, event, phase or activity in an Aboriginal community", for example, post-contact places such as missions or reserves or massacre sites (OEH 2011:9).
    - Scientific/archaeological value - assessed mostly by archaeologists/heritage consultants according to six criteria in this assessment process, rarity, representativeness, integrity, connectedness, complexity, and potential archaeological deposit.
- Spiritual value (can only be assessed by Aboriginal people) - refers to the "the intangible values and meanings embodied in or evoked by a place which give it importance in the spiritual identity, or the traditional knowledge, art and practices of a cultural group. Spiritual value may also be reflected in the intensity of aesthetic and emotional responses or community associations and be expressed through cultural practices and related places" (ICOMOS 2013:4).
    - Social value (can only be assessed by Aboriginal people) - refers to the contemporary associations and attachments Aboriginal people have to an area or place. The guide to investigating, assessing, and reporting on Aboriginal cultural heritage in NSW notes that "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 a consensus about a place's social or cultural value" (OEH 2011:8).

<u>This section of the Archaeological report assesses the scientific/archaeological values of Aboriginal archaeological sites and objects within the project area. The ACHA provides reference to the other values within the Burra Charter, including the cultural values provided by RAPs.</u>

Scientific/archaeological values are assessed according to six criteria in this assessment process: rarity, representativeness, integrity, connectedness, complexity, and potential archaeological deposit. One AHIMS

site will be impacted by the proposed works A significance assessment is provided for this site below, taking the six scientific criteria into account.

Rarity and Representativeness:

Two previously unknown Aboriginal sites were identified and recorded during the surveys, including Jindera IF1 and PAD, and Jindera ST1 (**Table 9** and **Figure 9**):

- Jindera IF1 (AHIMS # 55-6-0294) and PAD
    - **Outside project area**: the artefact is located just outside of the north east boundary of the project area;
    - **Inside project area**: The PAD associated with Jindera IF1 is within Area 1 of the project area (i.e. hillcrest landform). The area is considered as PAD based on the presence of an adjacent Aboriginal object, being a sensitive landform for potential Aboriginal occupation (i.e. hillcrest - elevated and flat to very gently inclined), and the lack of observable significant disturbances/modifications to the landform. Bundyi Aboriginal Cultural Knowledge – Mark Saddler also identified the hillcrest landform (i.e. Area 1) as a PAD (refer ACHA Appendix C); and
- Jindera ST1 (AHIMS #55-6-0295)
    - **Inside project area**: Jindera ST1 (AHIMS #55-6-0295) is a scarred tree with a single scar located toward the south west end of the project area along Ortlipp Road.

The AHIMS search undertaken (with a 5km buffer) identified that artefact sites and scarred trees are the most frequent site types recorded in the area (84% and 14% respectively, of all registered sites). Although not considered rare site types in the general locale, the site types do represent frequent activities being undertaken by Aboriginal people in the region.

Integrity:

The Jindera IF1 site (AHIMS ID 55-6-0294) was identified just outside the project area, but with an associated PAD area (hillcrest landform). The land use history of the project area indicates that there have been disturbances caused by farming practices. However, previous archaeological research in the region surrounding Jindera indicates that archaeological material may still remain in areas that have been used for agricultural purposes, and more likely in areas in proximity to a fresh water source. These landforms are known to be sensitive for higher levels of Aboriginal occupation but have experienced some ground surface disturbances and decreased the archaeological integrity for stratified archaeological deposits. Previous archaeological research also indicated elevated landforms (such as crests, ridges, and spurs) are known landforms for Aboriginal occupation, especially in proximity to freshwater sources.

The landform (PAD) associated with Jindera IF1 is assessed as having moderate archaeological potential. However, this potential can only be realised through further archaeological investigation (i.e. archaeological testing).

Connectedness:

Jindera ST1 (AHIMS #55-6-0295) is located approximately 150m west of a cluster of artefact and scarred tree sites. This cluster surrounds an area described as a wetland and rich cultural area by RAP representatives. The Jindera ST1 site may be considered as connected to this cultural landscape by type and location; however, the lands between the newly identified scarred tree and the cluster of sites have been truncated and highly disturbed by road easement works, underground utilities, a graded ground surface to direct water in time of high rainfall, fencing, and the development of a developing solar farm.

Complexity:

The level of disturbance has resulted in low terrain integrity (except for Area 1, hillcrest landform) as human action associated with the establishment of the Transgrid Substation, subsurface utilities, European farming, establishment of roads, bioturbation, and erosional processes may have redistributed artefacts from their deposited locations (if any), resulting in site disturbance or destruction.

Potential for Archaeological Deposit:

The scientific significance of the PADs relies on the potential for subsurface deposits in the area to maintain stratigraphic and spatial integrity. The assessment examined the past land use history of the project area and broader locality, past archaeological research, and environmental consideration, which indicates that artefacts (if any) are likely to have been redistributed from their deposited locations, resulting in site disturbance or destruction.

The landform (PAD) associated with Jindera IF1 is assessed as having moderate archaeological potential. Previous archaeological research in the region surrounding Jindera indicates that archaeological material may still remain in areas that have been used for agricultural purposes, and more likely in areas in proximity to a fresh water source. These landforms are known to be sensitive for higher levels of Aboriginal occupation but have experienced some ground surface disturbances and decreased the archaeological integrity for stratified archaeological deposits. Previous archaeological research also indicated elevated landforms (such as crests, ridges, and spurs) are known landforms for Aboriginal occupation, especially in proximity to freshwater sources. However, this potential can only be realised through further archaeological investigation (i.e. archaeological testing).

Jindera ST1 (AHIMS #55-6-0295) is in a location where the soil profile surrounding the tree is highly disturbed by subsurface works associated with Telstra optic fibre cabling, contour drains, and works associated with Ortlipp Road.

Overall, considering these impacts to integrity, Areas 2, 3, and 4 are predicted to have low archaeological potential, and Area 1 has moderate sensitivity for Aboriginal objects in archaeological deposits with integrity within the project area.

Cultural values are assessed separately in the broader ACHA in comments by the RAPs

9. Impact Assessment

A summary of the proposed development with impacts that may cause harm to the identified heritage sites and places, was provided in Section 2. The following definitions of harm are reproduced from OEH (2011).

Direct harm/impact may occur as the result of any activity which disturbs the ground including, but not limited to, site preparation activities, stripping of soils, clearing of shrubs, grass and contaminants, installation of services and infrastructure, roadworks, excavating detention ponds and other drainage or flood mitigation measures, and changes in water flows affecting the value of a cultural site.

Indirect harm/impact may affect sites or features located immediately beyond, or within, the area of the proposed activity. Examples of indirect impacts include, but are not limited to, cumulative impact on art in a rockshelter site from increased visitation, vibration impacts to sites from construction equipment, destruction from increased erosion and changes in access to wild food resources (OEH 2011).

For the purposes of this assessment three levels of impact were considered.

Significant impact – including topsoil stripping, cut and fill of areas. This would likely damage or remove all Aboriginal objects that might be located in the area of impact.

Moderate impact – minor topsoil stripping, no cut and fill majority of vegetation maintained. This would likely damage or disturb some Aboriginal objects that might be located in the specific areas of impact. Management measures could be put in place to protect individual known sites.

Low impact – no topsoil stripping, existing vegetation maintained. Sites in these areas could be subject to indirect impacts and would be managed via a management plan.

9.1 JUSTIFICATION OF THE OBJECTIVES OF THE PROPOSED ACTIVITY

The BESS project in Jindera, NSW, is vital in supporting Australia's transition to a cleaner energy future by enhancing grid stability and facilitating the integration of renewable energy. This initiative aligns with both state and federal government objectives of reducing carbon emissions, ensuring energy security, and promoting sustainable economic growth.

The project will improve the overall stability and resilience of the electrical grid. This is required to ensure the swap from coal-generated energy to renewable based energy sources can occur efficiently, and without unnecessary system failures and blackouts. This will lower energy costs long-term, reduce carbon materials, enhance energy access, and strengthen the existing electrical grid.

9.2 AREAS WHERE OBJECTS WILL BE PROTECTED OR HARMED

The Jindera IF1 (AHIMS ID 55-6-0294) and PAD is on the eastern boundary of the project area with the associated PAD (hillcrest landform) within the project area (Area 1). As such, the artefact at Jindera IF1 is unlikely to be directly harmed by the project activities and precautions should be taken to ensure that the artefact is protected from any indirect project impacts (**Table 11**).

The associated PAD area will be harmed by the project impacts and the potential of this PAD can only be realised through further archaeological investigation (i.e. archaeological testing) only within the parts of the landform designated for project impacts.

The Jindera ST1 (AHIMS ID 55-6-0295) is located within the road easement of Ortlipp Road and within the proposed impact area associated with the watermain extension project requirement. As such, the site is

within an area which may directly harmed by the project activities. Mitigation actions should be taken to ensure that the site is not impacted by project impacts.

All Aboriginal objects are protected under the *National Parks and Wildlife Act 1974*. Conservation is the preferred option for all objects. Consideration should be given to avoidance of and conservation of sites where possible. below lists all sites, places and PADs identified within the project area and summarises the type, level, and consequence of harm to these places.

Table 11. Summary of Likely Harm

Site/Place/PAD	Type of Harm (direct/indirect/ none)	Level of Harm (total/partial/none)	Consequence of Harm (total loss of value/partial loss of value/no loss of value)
Jindera IF1 (AHIMS #55-6-0294) and PAD	Direct	Partial	Partial loss of value
Jindera ST1 (AHIMS #55-6-0295)	Direct	Total	Total loss of value

9.3 ECOLOGICALLY SUSTAINABLE DEVELOPMENT (ESD)

Australia's National Strategy for Ecologically Sustainable Development (1992) defines ecologically sustainable development (ESD) (defined in Section 6 (2) of the Protection of the Environment Administration Act 1991 NSW) as: 'using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased' (Department of Agriculture Water and the Environment Website Ecologically Sustainable Development Webpage). These environmental considerations include cultural heritage. In regard to Aboriginal cultural heritage, ESD can be achieved by applying the principle of intergenerational equity and the precautionary principle.

The principle of Intergenerational Equity states that 'the present generation should make every effort to ensure the health, diversity and productivity of the environment – which includes cultural heritage – for the benefit of future generations' (OEH 2011). That is, how will future generations be able to visit, see, experience and/or research Aboriginal objects? The Operational Policy: Protecting Aboriginal Cultural Heritage (DECCW 2009) states in terms of Aboriginal heritage, intergenerational equity can be considered in terms of the cumulative impacts to Aboriginal objects and places in a region.

A way of gauging what level of impact from development has occurred within a region, is to review how many Aboriginal Heritage Impact Permits (AHIPs) have been issued for that region. A review of the public register of AHIP) issued between 2010 and 2023, for Greater Hume Shire LGA indicates that 6 AHIPs were issued. The current AHIP Public Register for the Greater Hume Shire LGA shows that 1 AHIP has been issued, for the region. Overall, there has been a relatively low cumulative impact to the Jindera region that includes the project area based on recent AHIPs. The project area has been subject to impacts from 130 years of agricultural activity and natural processes discussed in Section 3.

The **Precautionary Principle** states that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

The precautionary principle can be adhered to by placing protective fencing along the project boundary at the location of site Jindera IF1 (AHIMS #55-6-0294) to avoid any inadvertent impacts and to identify the location as a cultural site that must be avoided.

The precautionary principle can be adhered to at the location of site Jindera ST1 (AHIMS #55-6-0295) by addressing mitigation works suggested by RAP representative of removing branches of the dead scarred tree to reduce the likelihood of the tree splitting and breaking (noting that any impact to the scarred tree would require the appropriate consents and consultation under an ACHMP in consultation with RAPs and Heritage NSW/Department prior to any such action.

The precautionary principle can also be adhered to through cultural induction at the site to ensure all site workers are aware of their responsibilities to Aboriginal cultural heritage and legislative requirements applied to Aboriginal heritage in NSW.

10. Management and Mitigation Measures

Potential management and mitigation measures for the project area are discussed in this section within the broader context of relevant legislation protecting Aboriginal heritage within NSW and the Commonwealth.

10.1 LEGISLATIVE CONTEXT AND STATUTORY REQUIREMENTS

The *National Parks and Wildlife Act 1974* (NPW Act), the *Environmental Planning and Assessment Act 1979* (EP&A Act) and the *Heritage Act, 1977* are the relevant statutory controls protecting Aboriginal heritage within New South Wales. These acts and other relevant State and Commonwealth legislation are discussed below.

10.1.1. National Parks and Wildlife Act 1974

Under the provisions of the NPW Act, all Aboriginal objects are protected regardless of their significance or land tenure. Aboriginal objects are defined as '*any deposit, object or material evidence (not being a handicraft made for sale) relating to Aboriginal habitation of the area that comprises NSW, being habitation before or concurrent with the occupation of that area by persons of non-Aboriginal extraction and includes Aboriginal remains'.*

Aboriginal objects are therefore limited to physical evidence and may also be referred to as 'Aboriginal sites', 'relics' or 'cultural material'. Aboriginal objects can include pre-contact features such as scarred trees, middens and artefact scatters, as well as physical evidence of post-contact use of the area such as Aboriginal built fencing or stockyards and missions.

The NPW Act also protects Aboriginal Places, which are defined as *'a place that is or was of special significance to Aboriginal culture. It may or may not contain Aboriginal objects'.* Aboriginal Places can only be declared by the Minister administering the NPW Act. The NPW Act protects Aboriginal objects and Aboriginal places in NSW. Under the *National Parks and Wildlife Act 1974* (NPW Act), including the 2010 amendments, it is an offence to harm an Aboriginal object:

- Which the person knows is an Aboriginal object (a 'knowing offence').
- Whether or not a person knows it is an Aboriginal object (a 'strict liability offence').

From 1 October 2010, the maximum penalty for a knowing offence is $550,000 for an individual or $1.1 million for a corporation and a 2-year gaol term. The maximum penalty for a strict liability offence is $110,000 for an individual or $220,000 for a corporation (DECCW 2010:5). A person or organisation who exercises due diligence in determining that their actions would not harm Aboriginal objects has a defence against prosecution for the strict liability offence if they later unknowingly harm an object without an AHIP (DECCW 2010:5). The due diligence defence is not available for activities which harm Aboriginal places. The Code of Practice sets out a procedure which, when followed, will satisfy the due diligence requirement. If a person or company can demonstrate that they exercised due diligence and determined that it was unlikely that Aboriginal objects would be harmed, then they have a defence to prosecution under the strict liability offence under Section 86(2) of the NPW Act (DECCW 2010:5).

Harm includes activities that destroy, deface or damage of Aboriginal object or Aboriginal Place, and in relation to an object, moving the object from the land on which it has been situated. Under 89A (formerly Section 91) of the Act, the Chief Executive of the Office of Environment and Heritage (***now regulated by Heritage NSW in the Department of Premier and Cabinet)*** must be informed upon the identification of all Aboriginal Objects. Failure to do this within a reasonable time is an offence under the Act. Under Section 90 of the Act, it is an offence for a person to destroy, deface, damage, or desecrate an Aboriginal Object or

Aboriginal Place without the prior issue of an Aboriginal Heritage Impact Permit (AHIP). Aboriginal Heritage Impact Permits may only be obtained from Heritage NSW in the Department of Premier and Cabinet. Part 6 of the NPW Act provides specific protection for Aboriginal objects and places by making it an offence to harm them. If harm to Aboriginal objects and places is anticipated an Aboriginal Heritage Impact Permit is required.

The Act also provides for stop-work orders under Part 6A Division 1 if an action is likely to significantly affect an Aboriginal Object or Aboriginal Place. The order may require that an action is to cease or that no action is carried out in the vicinity of the Aboriginal Object or Aboriginal Place for a period of up to 40 days.

One site, Jindera ST1 (AHIMS #55-6-0295) was identified within the project area. Therefore, under the requirements of the National Parks and Wildlife Act, 1974, and the project's SEARs, further mitigation, management and consultation must be established as part of an Aboriginal Cultural Heritage Management Plan prior to the proposed works proceeding.

One site, Jindera IF1 (AHIMS #55-6-0294) and PAD was identified adjacent and within the project area. Therefore, under the requirements of the National Parks and Wildlife Act, 1974, and the project's SEARs, further mitigation, management and consultation must be established as part of an Aboriginal Cultural Heritage Management Plan prior to the proposed works proceeding.

10.1.2 Environmental Planning and Assessment Act (NSW) 1979

The EP&A Act requires that consideration be given to environmental impacts as part of the land use planning process. In NSW, environmental impacts include cultural heritage impacts. Part 3 of the Act relates to planning instruments including those at local and regional levels, Part 3A of the Act relates to development assessment for Major Projects, Part 4 of the Act controls development assessment processes and Part 5 of the Act refers to approvals by determining authorities.

The proposed project is a State Significant Development project.

10.1.3 Heritage Act (NSW) 1977

The Heritage Act 1977 (as amended in 2009) protects and aims to conserve the environmental heritage of New South Wales. Environmental heritage is broadly defined under Section 4 of the Heritage Act as consisting of "those places, buildings, works, relics, moveable objects, and precincts, of State or local heritage significance" (Heritage Branch DoP 2009:1). Aboriginal places or objects that are recognised as having high cultural value (potentially of local and State significance) can be listed on the State Heritage Register and protected under the provisions of the Heritage Act (http://www.heritage.nsw.gov.au/06_subnav_01.htm).

Recent amendments to the Heritage Act made in 2009 have changed the definition of an archaeological 'relic' under the Act, so that it is no longer based on age. A relic is now an archaeological deposit, resource or feature that has heritage significance at a local or State level. This significance-based approach to identifying 'relics' is consistent with the way other heritage items such as buildings, works, precincts or landscapes are identified and managed in NSW (Heritage Branch, DoP 2009:1). Section 4(1) of the Heritage Act (as amended 2009) defines 'relic' as follows:

Relic means any deposit, artefact, object or material evidence that:

(a) relates to the settlement of the area that comprises New

South Wales, not being Aboriginal settlement, and

(b) is of State or local heritage significance (Heritage Branch, DoP, 2009:6).

10.1.4 Aboriginal Land Rights Act 1983

The NSW Aboriginal Land Rights Act 1983 (ALR Act), administered by the NSW Minister for the Public Service and Employee Relations, Aboriginal Affairs, and the Arts, establishes the NSW Aboriginal Land Council (NSWALC) and Local Aboriginal Land Councils (LALCs). The Act requires these bodies to:

- take action to protect the culture and heritage of Aboriginal persons in the council's area, subject to any other law
- promote awareness in the community of the culture and heritage of Aboriginal persons in the council's area.

These requirements recognise and acknowledge the statutory role and responsibilities of NSWALC and LALCs. The ALR Act also establishes the registrar whose functions include, but are not limited to, maintaining the Register of Aboriginal Land Claims and the Register of Aboriginal Owners.

Under the NSW Aboriginal Lands Right Act 1983, the registrar is to give priority to the entry in the register of the names of Aboriginal persons who have a cultural association with:

- lands listed in Schedule 14 to the NPW Act
- lands to which section 36A of the ALR Act applies.

10.1.5 Native Title Legislation

The Native Title Act 1993 (NTA) is a commonwealth act which provides the legislative framework to:

- recognise and protect native title
- establish ways in which future dealings affecting native title may proceed and to set standards for those dealings, including providing certain procedural rights for registered native title claimants and native title holders in relation to acts which affect native title
- establish a mechanism for determining claims to native title
- provide for, or permit, the validation of past acts invalidated because of the existence of native title.

The NSW Native Title Act 1994 was introduced to make sure the laws of NSW are consistent with the Commonwealth's NTA on future dealings. It validates past and intermediate acts that may have been invalidated because of the existence of native title.

The National Native Title Tribunal has a number of functions under the NTA, including maintaining the Register of Native Title Claims, the National Native Title Register and the Register of Indigenous Land Use Agreements and mediating native title claims.

10.1.6 Other Acts

The Australian Government Aboriginal and Torres Strait Islander Heritage Protection Act 1984 may be relevant if any item of Aboriginal heritage significance to an Aboriginal community is under threat of injury or desecration and state-based processes are unable to protect it. The Environment Protection and Biodiversity Conservation Act 1999 is relevant to projects where there are heritage values of national significance present.

10.2 MANAGEMENT OPTIONS

This section of the report provides a summary of available management and mitigation options for the proposal and the justification for the final recommendations provided in Section 11.

10.2.1 Conservation

Conservation is the best heritage outcome for preservation of threatened cultural sites and objects with cultural and scientific significance. Conservation through protection or further management should always be explored first before any other option for the management of threatened Aboriginal sites and objects.

Jindera IF1 (AHIMS #55-6-0294) and PAD was identified adjacent and within the project area. Whilst this artefact within this site is protected from direct project impacts, conservation methods, such as fencing along the project boundary at this location to delineate the artefact and protect it from inadvertent impacts during project works should be implemented. The associated PAD area will be harmed by the project impacts and the potential of this PAD can only be realised through further archaeological investigation (i.e. archaeological testing) only within the parts of the landform designated for project impacts.

Jindera ST1 (AHIMS ID 55-6-0295) site is located within the project area. Conservation methods, such as avoiding the tree by method of underboring at an appropriate distance around the tree should be considered by an appropriately qualified arboriculturist in consultation with RAPs and Heritage NSW as part of an ACHMP for this site. If it cannot be avoided, the tree may need to be salvaged, if possible and relocated, dependent on the wishes of the RAPs.

During community consultation, it was requested that the upper branches of Jindera ST1 be removed under supervision of local RAP representative/s to reduce the likelihood of the tree breaking and splitting. This request requires community consultation with RAPs, the input from a professional arborist, and in consultation with Heritage NSW and the Department prior to any such impact to the tree.

10.2.2 Further Investigation – Testing Under the Code of Practice

The Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (DECCW 2010) sets out a procedure for further archaeological investigations in areas assessed as having potential archaeological deposits. These investigations are regulated to be specific kinds of archaeological test excavation to a methodology specified in the CoP (DECCW 2010:24-28). The purpose of the CoP test excavations are to assess the cultural heritage significance of the area, interpret the Aboriginal history of the area being investigated and inform future planning decisions (DECCW 2010:27).

Archaeological testing is recommended for:

- The PAD area associated with Jindera IF1 which will be harmed by the project impacts only within the parts of the landform designated for project impacts due to the potential for subsurface artefacts to occur in these landforms.

Archaeological testing is not recommended for:

- Site Jindera ST1 is a scarred tree surrounded by a highly disturbed ground surface. Further, testing in this location is likely to impact the ground surface greater than the proposed underboring methodology in this location.
- Other landforms with the project area have been disturbed by past and ongoing land use, bioturbation, and erosional processes and has been assessed as having low archaeological potential.

10.2.3 Destruction Without Mitigation

Destruction without any form of mitigation could be a feasible management strategy in project areas where no Aboriginal sites or objects were identified, an area had low archaeological significance and cultural

significance, and such a strategy was agreed to by the registered Aboriginal parties/or approved native title claimants for a project area.

Destruction without mitigation is not appropriate for the project area due to the identification of site Jindera ST1 and the site Jindera IF1 and PAD. As such, steps to mitigate harm Aboriginal sites must be taken within the project design.

10.2.4 Destruction With Mitigation

Destruction with mitigation refers to some form of archaeological or cultural salvage or investigation to mitigate the destruction of an Aboriginal object/s or sites by a development proposal. This management strategy would be recommended in areas where Aboriginal object/s and sites were identified, and/or in areas with moderate to high archaeological values with research potential that can contribute to a greater understanding of the cultural history of the project area and where conservation is not a viable management option. This may also be appropriate, if a project area has high cultural value to registered Aboriginal parties/or approved native title claimants for a project area.

Jindera IF1 (AHIMS #55-6-0294) and PAD was identified adjacent and within the project area. Whilst this artefact within this site is protected from direct project impacts. However, the associated PAD area will be harmed by the project impacts and the potential of this PAD can only be realised through further archaeological investigation (i.e. archaeological testing) only within the parts of the landform designated for project impacts.

The area associated with site Jindera ST1 has been disturbed by past and ongoing land use and as such it is unlikely to retain any stratigraphic and/or spatial integrity, and any artefacts (if any) are likely to be in a secondary depositional context. However, past archaeological research and the presence of a scarred tree show this location as being occupied/used by Aboriginal people in the past. The following mitigation actions should be considered:

- Avoiding the tree by method of underboring at an appropriate distance around the tree;
- During community consultation, it was requested that the upper branches of Jindera ST1 be removed under supervision of local RAP representatives to reduce the likelihood of the tree breaking and splitting. This request requires community consultation with RAPs, the input from a professional arborist, and the required heritage permits prior to any such impact to the tree;
- Cultural monitoring has been requested by RAPs during the consultation process. Cultural monitoring is recommended during initial ground disturbance works within Area 1, and initial underboring works in Area 3 and Area 4.

10.2.5 Methods to Avoid or Mitigate Harm

A proposed methodology to mitigate harm includes the following elements:

- The Jindera IF1 (AHIMS ID 55-6-0294) and PAD site should have fencing erected along the project boundary to demarcate the location of the artefact in close proximity to the project area, and the associated PAD (Area 1, hillcrest landform) should undergo archaeological investigation (i.e. archaeological testing) only within the parts of the landform designated for project impacts;
- Management of Jindera ST1 (AHIMS ID 55-6-0295) as part on an ACHMP in consultation with RAPs, the expert advice of a professional arborist with experience in culturally modified trees, and the proponent to reduce the likelihood of the dead tree breaking and splitting;

- Fencing of Jindera ST1 (AHIMS ID 55-6-0295) to demarcate the location of the site during project works in consultation with RAPS and as advised by an appropriately qualified and experienced aborist;
- Cultural monitoring has been requested by RAPs during the consultation process. Cultural monitoring is recommended during initial ground disturbance works within Area 1, and initial underboring works in Area 3 and Area 4;
- Cultural inductions for all site workers with consideration provided for RAP input and delivery of these inductions; and
- Development of a more detailed acre and control strategy in consultation with RAPs to manage any artefacts in a manner acceptable to RAPs and enable the cultural value of the artefacts to be documented and partially conserved. Reburial may be an option as close as possible to the original location of salvaged objects back on country.

11. Recommendations

Based on the description of project impacts provided by Gransolar and SLR, the results of the survey, Aboriginal consultation to date, the limitations of this assessment and previous archaeological research, the following recommendations are made below in **Table 12.**

Management recommendations of this assessment consider the archaeological (scientific values) as set out in The Burra Charter and the requirements of Heritage NSW for the Archaeological Survey Report (Archaeological Assessment). The ACHA to which this report is appended includes management recommendations which consider the social (cultural), spiritual, aesthetic and historic values of The Burra Charter. The proponent must consider the ACHA recommendations in conjunction with the recommendations of this Archaeological Assessment.

Table 12. Archaeological Assessment Recommendation

Recommendation #	Recommendation
1.	The proposal impacts are likely to impact AHIMS site Jindera ST1, and to the PAD associated with AHIMS site Jindera IF1. Therefore, prior to commencement of proposed works (or any activities that may cause harm), under the provisions of OEH's *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (2010), appropriate archaeological mitigation is required in the area of impacts. Under the *Planning Secretary's Environmental Assessment Requirements,* an Aboriginal Heritage Impact Permit is not required for this project. A design methodology should be drafted in consultation with registered Aboriginal parties and considers: f) The Jindera IF1 (AHIMS ID 55-6-0294) and PAD site to have fencing erected along the project boundary to demarcate the location of the artefact in close proximity to the project area; g) The PAD associated with Jindera IF1 (AHIMS ID 55-6-0294) to undergo archaeological investigation (i.e. archaeological testing) only within the parts of the landform designated for project impacts. h) Management of Jindera ST1 (AHIMS ID 55-6-0295) through discussions with RAPs, professional arborist, and proponent to reduce the likelihood of the site being impacted and the dead tree breaking and splitting; i) Cultural monitoring during initial ground disturbance works within Area 1, and initial underboring works in Area 3 and Area 4; j) Development of a more detailed care and control strategy in consultation with RAPs to manage any artefacts in a manner acceptable to RAPs, and enable the cultural value of the artefacts to be documented and partially conserved. Reburial may be an option as close as possible to the original location of salvaged objects back on country.
2.	All site workers and personnel involved in site impact works associated with the proposed work should be inducted and briefed on the identification of Aboriginal sites and objects during works and their responsibilities according to the provisions of the NPW Act 1974, in case any additional unknown objects or items are uncovered during proposed works.

Recommendation #	Recommendation
	d) Site workers should be made aware of the location of any Aboriginal sites that may at any stage occur within the proposal site and their significance, and their legal obligations in relation to the protection and management of these Aboriginal sites under the NPW Act 1974, and the National Parks and Wildlife Regulation 2019. e) As part of this induction, workers should be made aware that in the event that unexpected human remains are uncovered on site, the area of the suspected remains must be secured and cordoned off and the NSW Police notified. No further works can be undertaken until the NSW Police provide written advice. • If these remains are deemed to require archaeological investigation by the NSW Police or NSW Coroner, then Heritage NSW and the relevant Aboriginal parties must be notified. A plan of management for the preservation of Aboriginal human remains or for their salvage must be put in place or conducted under an AHIP methodology and variation developed in consultation with all relevant Aboriginal parties and the Heritage NSW. f) As part of an induction, in the unlikely event that any historical relics are uncovered during proposed works, all workers and subcontractors should be made aware of their responsibilities under the provisions of the NSW Heritage Act 1977 (for example, 19th century bottle dumps, sandstone footings, structural features in situ over fifty years old etc.). In this event all works must cease and the area where objects uncovered is protected until a qualified archaeologist is contacted and can inspect and assess the area to determine its significance in consultation with Heritage NSW. Gransolar may wish to consider the input and engagement of interested Aboriginal stakeholder groups in the development of inductions and toolbox talks for this project.
3.	If Aboriginal objects (excluding human remains or sites such as grinding groove complexes/engravings, rock art) are detected during ground disturbance, NPWS unexpected finds procedures (NSW National Parks and Wildlife Service 2020: 17) should be observed, namely: g) establish an appropriate buffer around the Aboriginal object to exclude further works in the area and allow assessment and management; h) engage with the relevant Aboriginal parties to assess the object's heritage values and undertake appropriate methods to avoid or move the object; i) complete an AHIMS site card to register the site and document the movement or avoidance strategies taken; j) complete a report detailing the unexpected find and the Aboriginal community's recommendations for management; k) send the report to the relevant project manager and Aboriginal parties and Heritage NSW and DPIE's AHIMS area; l) continue works only once appropriate measures have been taken to avoid or move the site, as Heritage NSW.

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Appendix A AHIMS Search

AHIMS Web Services (AWS)
Search Result

Your Ref/PO Number : 536 Jindera ACHA

Client Service ID : 939947

Virtus Heritage Pty Ltd - Pottsville

Date: 15 October 2024

38 Border Crescent
Pottsville New South Wales 2489

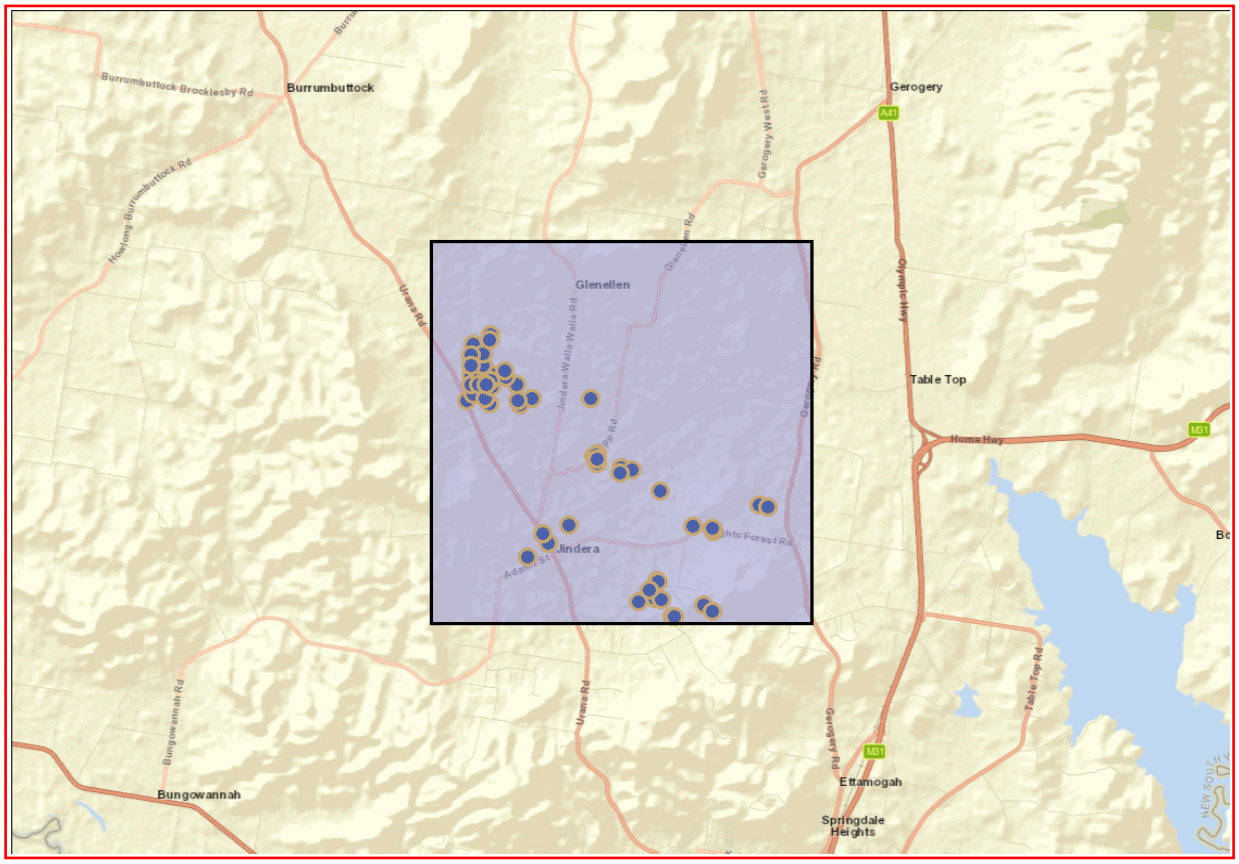
Attention: Garth Thompson

Email: g.thompson@virtusheritage.com.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Datum :GDA, Zone : 55, Eastings : 486464.0 - 497310.0, Northings : 6019055.0 - 6030126.0 with a Buffer of 0 meters, conducted by Garth Thompson on 15 October 2024.

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



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

63	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

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

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

Important information about your AHIMS search

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

Level 6, 10 Valentine Ave, Parramatta 2150
Locked Bag 5020 Parramatta NSW 2124
Tel: (02) 9585 6345

ABN 34 945 244 274
Email: ahims@environment.nsw.gov.au
Web: www.heritage.nsw.gov.au

Appendix B AHIMS Site Cards - Newly Recorded Sites

Aboriginal Site Recording Form

Manager, Information Systems
Locked Bag 5020, Parramatta 2124 NSW

AHIMS site ID: 55-6-0294 **Date recorded:** 25-11-2024

Site Location Information

Site name: Jindera IF1

Easting: 491789 **Northing:** 6024707 **Coordinates must be in GDA94 (MGA)**

Horizontal Accuracy (m): 10

Zone: 55 Phone GPS

Recorder Information

(The person responsible for the completion and submission of this form)

Title	Surname	First name
Mr.	Thompson	Garth

Organisation: Virtus Heritage

Address: 43 Bowerman Rd

Phone: 0466236990 **E-mail:** g.thompson@virtusheritage.com.au

Site Context Information

Land Form Pattern: Plain **Land Use:** Farming Low Intensity

Land Form Unit: Flat **Vegetation:** Grasslands

Distance to Water (m): 10 **Primary Report:**

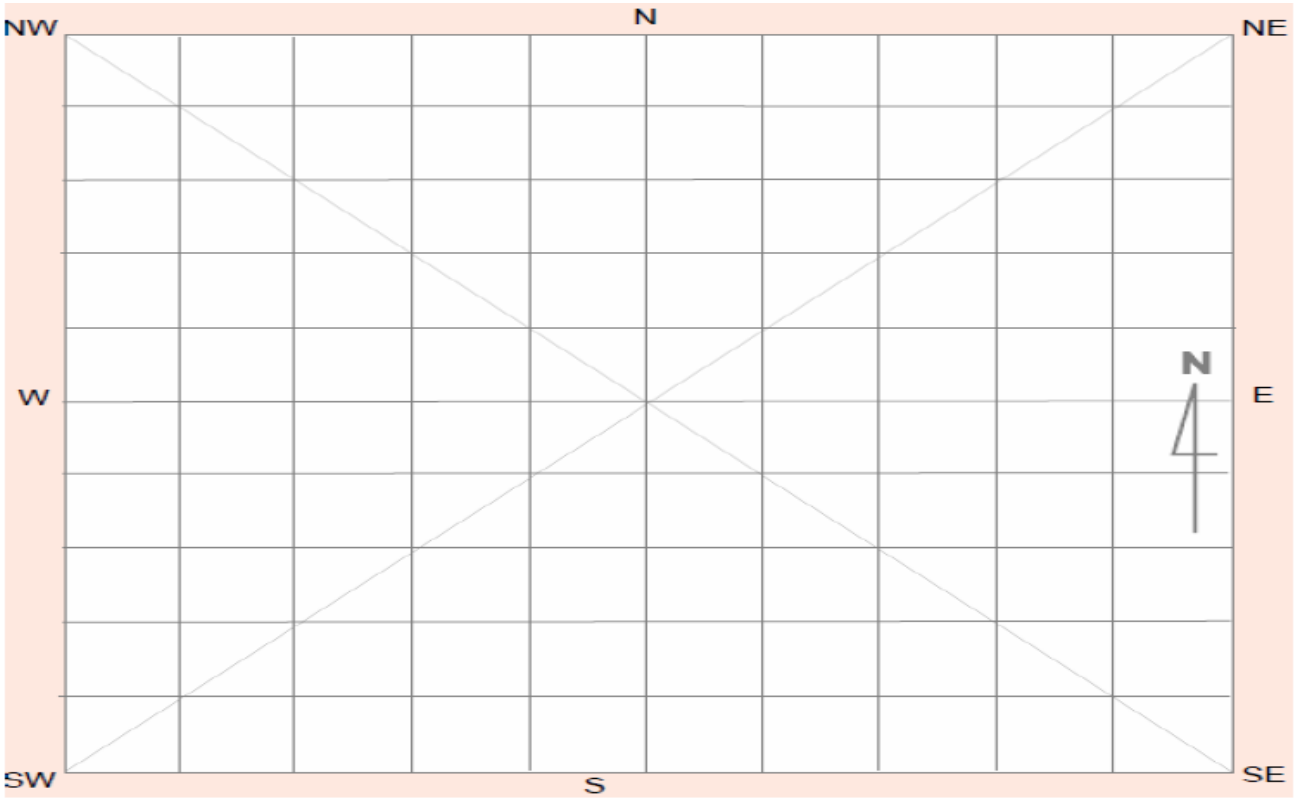
How to get to the site: From Ortlipp Road proceed onto property at 240 Ortlipp Road. Artefact can be found on eastern border close to the boundary fence, in an unnamed creek line with mature eucalypt trees.

Other site information: Site was identified in area that has undergone farming activity for 120 years. The artefact was surrounded by rubbish including, empty bottles and broken wooden boards. The artefact was also in close proximity to a recent local fire, and has likely been disturbed by this activity. Site is also within an intermittent drainage line, surrounded by a broad floodplain landscape.

Site location map



Site plan



Site contents information

open/closed site: Open **Site condition:** Disturbed

Features:

	Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees: Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
1. Artefact	1	1	1				

Feature condition: Disturbed

Description:

An isolated blue speckled grey quartzite hammerstone measuring 64x64x22mm. Artefact contains pitting on its striking edge, and a flat, but eroded edge opposite the striking edge.

Features:

	Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees: Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
2.							

Feature condition:

Description:

Features:

	Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees: Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
3.							

Feature condition:

Description:

Features:

	Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees: Scar Depth (cm)	Scarred Trees: Regrowth (cm)	Scarred Trees: Scar shape	Scarred Trees: Tree Species
4.							

Feature condition:

Description:

Features:

	Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees: Scar Depth (cm)	Scarred Trees: Regrowth (cm)	Scarred Trees: Scar shape	Scarred Trees: Tree Species
5.							

Feature condition:

Description:

Site photographs



Description: Artefact on ground surface



Description: Artefact striking surface with pitting



Description: Artefact flat surface



Description: Artefact context photo facing north

Site restrictions

Do you want to Restrict this site?:

Restriction type: Gender | General | Location — N/A

Why is this site restricted?:

Further information contact

Title	Surname	First name
Mr.	Thompson	Garth

Organisation: Virtus Heritage

Address: 17/13 Pearl St, Kingscliff NSW 2487

Phone: 0266764354 **E-mail:** g.thompson@virtusheritage.com.au

Site interpretation and community statement

Aboriginal Party Mark Saddler commented that artefacts of a similar material had been identified in sites west of the area.

Aboriginal Site Recording Form

Manager, Information Systems
Locked Bag 5020, Parramatta 2124 NSW

AHIMS site ID: | **Date recorded:** 26-02-2025

Site Location Information

Site name: Jindera ST1

Easting: 491075 **Northing:** 6023929 **Coordinates must be in GDA94 (MGA)**

Horizontal Accuracy (m): 4

Zone: 55 Differential GPS

Recorder Information

(The person responsible for the completion and submission of this form)

Title	Surname	First name
Mr.	Travaglia	Julian

Organisation: Virtus Heritage

Address: 17/13 Pearl St, Kingscliff NSW 2487

Phone: 0437339445 **E-mail:** j.travaglia@virtusheritage.com.au

Site Context Information

Land Form Pattern: Undulating Plain **Land Use:** Transport Corridor

Land Form Unit: Slope **Vegetation:** Isolated clumps of trees

Distance to Water (m): 400 **Primary Report:** Jindera BESS Project Archaeological Assessment

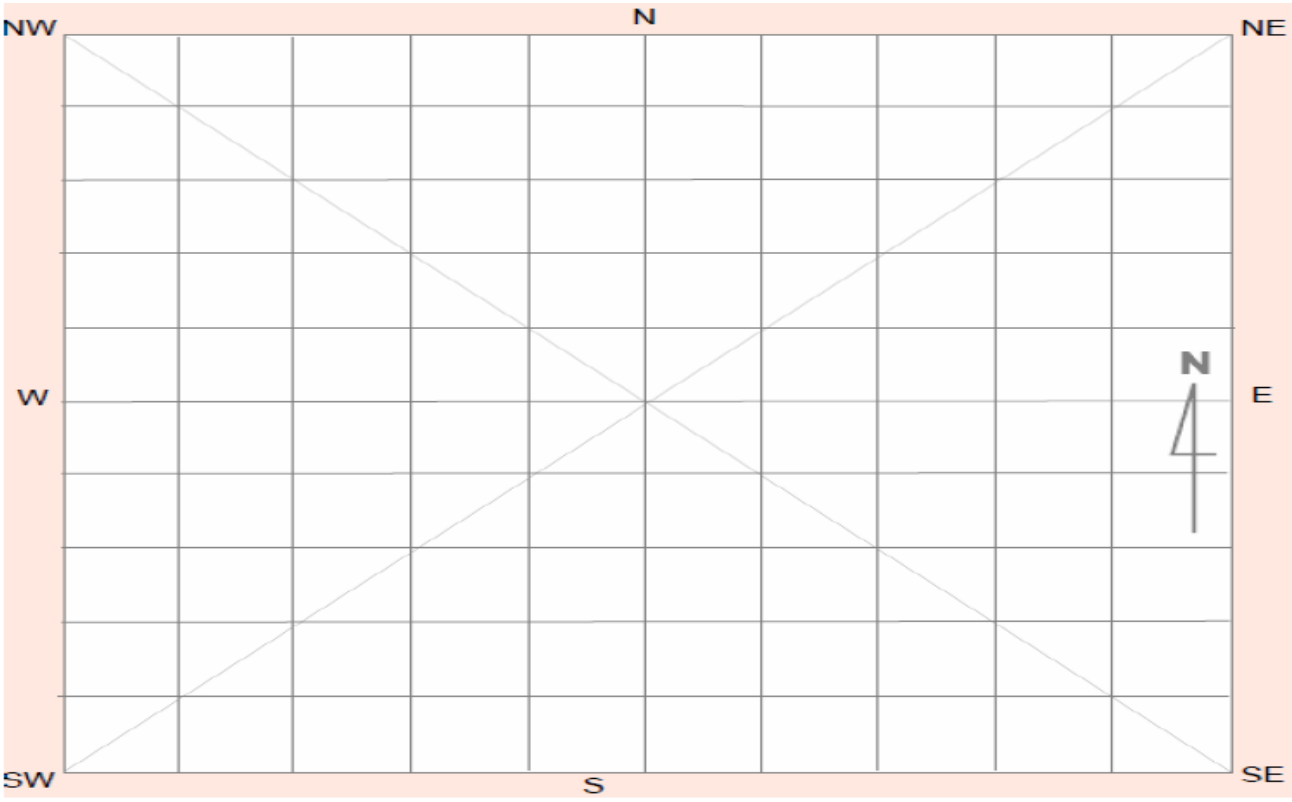
How to get to the site: Drive approx. 690m north east from the Lindner Road/Ortlipp Road Intersection, Jindera. The Scarred Tree is located on the south sid eof Ortlipp Rd.

Other site information: The scarred tree is located on the south side of Ortlipp Road within the road easement. The ground surface has previously been disturbed with an undulating surface and piles of windrow around the base of the tree.

Site location map



Site plan



Site contents information

open/closed site: Open **Site condition:** Poor

Features:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees: Scar Depth (cm)	Scarred Trees: Regrowth (cm)	Scarred Trees: Scar shape	Scarred Trees: Tree Species
1.	Modified Tree	1	76	43	11	9	Oval	Other

Feature condition: Poor

Description:

A single scar orientation to the west. Scar is ovoid. Tree species unable to be identified as the tree is dead but still standing with an approximate height of 35m.

Features:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees: Scar Depth (cm)	Scarred Trees: Regrowth (cm)	Scarred Trees: Scar shape	Scarred Trees: Tree Species
2.								

Feature condition:

Description:

Features:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees: Scar Depth (cm)	Scarred Trees: Regrowth (cm)	Scarred Trees: Scar shape	Scarred Trees: Tree Species
3.								

Feature condition:

Description:

Features:

	Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees: Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
4.							

Feature condition:

Description:

Features:

	Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees: Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
5.							

Feature condition:

Description:

Site photographs



Description: Overview of scarred tree, view to east north east.



Description: Scarred Tree, view to east



Description: Close up of scar

Description:

Site restrictions

Do you want to Restrict this site?:

Restriction type: Gender General Location

Why is this site restricted?:

Further information contact

Title	Surname	First name
Mr.	Saddler	Mark

Organisation: Cultural Awareness

Address:

Phone: 0412693030 **E-mail:** marksad@live.com.au

Site interpretation and community statement

The tree is at risk of falling/collapse due to being dead with large existing branches up to 35m in height still extant. The tree is also on a slight lean with the top branches extending out over Ortlipp Road. Recommendations from Mark Saddler (Traditional Custodian- Bundyi Aboriginal Cultural Knowledge) identified the tree at risk of falling and some lopping of branches required, monitored by Registered Aboriginal Party representative. For further information relating to this scarred tree, please contact Mark Saddler - Cultural Awareness 0412693030.

Appendix B Aboriginal Consultation Log

Appendix C Consultation: Registered Aboriginal Party Site Survey Reports

Mark Saddler (Bundyi Aboriginal Cultural Knowledge)'s Site Survey Reports.

Appendix D Research Design and Methodology

VIRTUS HERITAGE



JINDERA BATTERY ENERGY STORAGE SYSTEM PROJECT

Jindera, NSW

Archaeological Research Design and Methodology

Final | April 2025

Prepared for Gransolar Development Australia on behalf of BESS Atlantic Pty Ltd

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Proponent:	BESS Atlantic Pty Ltd
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Version History

Version	Date	Prepared by	Approved by	Comments
1a-c	03 March 2025	Julian Travaglia	Dr Mary-Jean Sutton	Draft
2	17 March 2025	Julian Travaglia	Julian Travaglia	Final

Acknowledgement of Country

Virtus Heritage acknowledges the Traditional Custodians of the land on which this project was undertaken (Wiradjuri Country) and pays respect to Elders past, present and emerging.

Content Warning

Aboriginal and Torres Strait Islander people are warned that this publication may contain names and images of deceased people, descriptions of traumatic historic events and parts of Country that have been impacted by development.

Disclaimer and cultural restrictions

This Report (including any enclosures and attachments) has been prepared by Virtus Heritage for the exclusive use and benefit of Gransolar and BESS Atlantic Pty Ltd for their use regarding the Project and solely for the purpose for which it is provided. Unless we provide express prior written consent, no part of this report should be reproduced, distributed or communicated to any third party. We do not accept any liability if this report is used for an alternative purpose from which it is intended, nor to any third party in respect of this report.

Information contained in the Report is current as at the date of the Report and may not reflect any event or circumstances which occur after the date of the Report.

All queries related to the content, or to any use of this report must be addressed to Dr Mary-Jean Sutton.

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Definitions

Abbreviations	Description
AA	Archaeological Assessment
ACHA	Aboriginal Cultural Heritage Assessment
ACHCR	Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW 2010)
AHD	Australian Heritage Database
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit
AIATSIS	Australian Institute of Aboriginal and Torres Strait Islander Studies
ALRA	Aboriginal Land Rights Act 1976
AR	Archaeological Report, Archaeological Assessment
CABAH	Australian Research Council Centre of Excellence for Australian Biodiversity and Heritage
CHMP	Cultural Heritage Management Plan
Code of Practice, COP	Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW 2010)
DA	Development Application
DD	Due Diligence
DD Code, Due Diligence Code	Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (DECCW 2010)
DPC	NSW Department of Premier and Cabinet
DPIE	NSW Department of Primary Industry and Environment
EP&A Act	Environmental Planning and Assessment Act 1979
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
GIA	Guide to investigating, assessing and reporting on Aboriginal Cultural heritage in NSW (OEH 2011)
HNSW	Heritage NSW
ILUA	Indigenous Land Use Agreement
LALC	Local Aboriginal Land Council
LEP	Local Environmental Plan

Abbreviations	Description
LGA	Local Government Area
NNTT	National Native Title Tribunal
NPW ACT	National Parks and Wildlife Act 1974
NPW Reg	National Parks and Wildlife Regulation 2019
NPWS	NSW National Parks and Wildlife Service
NTA	Native Title Act 1983
OEH	NSW Office of Environment and Heritage (now Heritage NSW)
PAD	Potential Archaeological Deposit
PBC	Prescribed Bodies Corporate
RAP	Registered Aboriginal Party
RAPs	Registered Aboriginal Parties
RD&M	Research Design and Methodology
REF	Review of Environmental Factors
RNTBC	Registered Native Title Body Corporate
S.139	Section 139
S.140	Section 140.
S.170	Section 170
SHI	State Heritage Inventory
SHR	State Heritage Register
SoHI	Statement of Heritage Impact
SSD	State Significant Development
SSI	State Significant Infrastructure
The Burra Charter	The Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance, 2013 (Australia ICOMOS 2013)
UNESCO	United Nations Educational, Scientific and Cultural Organization

Glossary

Aboriginal object - A term used in the NPW Act legislation, meaning: '... any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises NSW, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains' (s.5 NPW Act).

Registered Aboriginal party – An individual or party who registers for Aboriginal consultation as part of the consultation and notification process following Aboriginal cultural heritage consultation requirements for proponents 2010 (NSW DECCW 2010b).

AHIP – An Aboriginal Heritage Impact Permit which is a document provided by Heritage NSW which provides a defence to the applicant to certain activities which constitute 'harm' to Aboriginal objects or Aboriginal places under Part 6 of the NPW Act. A proponent must prepare an application for an AHIP and other relevant documentation (including an ACHA) to obtain an AHIP from Heritage NSW in the Department of Premier and Cabinet.

Declared Aboriginal place - A term used in the NPW Act legislation, meaning any place declared to be an Aboriginal place (under s.84 of the NPW Act) by the Minister administering the NPW Act, by order published in the NSW Government Gazette, because the Minister is of the opinion that the place is or was of special significance with respect to Aboriginal culture. It may or may not contain Aboriginal objects.

Due Diligence assessment – Due diligence is taking reasonable and practical steps to determine whether a person's actions will harm an Aboriginal object and, if so, what measures can be taken to avoid that harm. A due diligence assessment will assess the potential for harm and provide recommendations to mitigate harm, generally in the form of an Aboriginal Cultural Heritage Assessment (ACHA), if Aboriginal objects or places are likely to be harmed by proposed works.

Harm - A term used in the NPW Act Amendments meaning '... any act or omission that destroys, defaces, damages an object or place or, in relation to an object – moves the object from the land on which it had been situated' (s.5 NPW Act).

Project area - Area proposed to be impacted as part of a specified activity or development proposal. These activities include indirect impact.

Place - An area of cultural value to Aboriginal people in the area (whether or not it is an Aboriginal place declared under s.84 of the Act).

Proponent - A person proposing an activity that may harm Aboriginal objects or declared Aboriginal places and who may apply for an AHIP under the NPW Act.

1. Introduction

Virtus Heritage Pty Limited (hereafter 'Virtus Heritage') was engaged by BESS Atlantic Pty Ltd (BESS Atlantic) c/o Gransolar Development Australia (GDA), to prepare an Aboriginal Cultural Heritage Assessment (ACHA), including an Archaeological Assessment (AA) for the construction of a Battery Energy Storage System (BESS) facility at Lot 204 DP 753342, 204 Ortlipp Road, Glenellen NSW. The project also includes an overhead grid connection to the existing Transgrid transmission substation at 140 Ortlipp Road, a watermain extension and easement works along Ortlipp Road, and watermain works along Lindner Road, Jindera, NSW (referred to hereafter as 'the project area' **Figure 1**). This development is being conducted as a State Significant Development (SSD), and under the requirement of the Planning Secretary's Environmental Assessment Requirements (SEARs), which triggered the requirement of ACHA reporting. The project area is within the Greater Hume Shire Council Local Government Area (LGA).

This Archaeological Research and Design Methodology (ARDM) was compiled due to the recommendations of the ACHA and constitutes the ARDM for the project.

1.1 PROPOSED PROJECT IMPACTS

GDA is proposing to install a Battery Energy Storage System (BESS) on Lot 204 DP 753342 at 204 Ortlipp Road, Glenellen, NSW. The proposed facility will provide power to the transmission electrical grid through connection to the Jindera Transmission Substation operated by Transgrid at Lot 1 DP 588720, 140 Ortlipp Road, Jindera (**Figure 2**).

The proposed Jindera Battery Energy Storge System (Jindera BESS) will involve the development, construction, operation, and eventual decommissioning of a BESS with a capacity of 250 Megawatts (MW)/ 500 Megawatt Hours (MWh). The BESS will consist of BESS containers (or enclosures), with each container having dimensions of 6m with an approximate weight of 35,000 kilograms (kg). The BESS will be supported by inverters from the BESS and connect to the existing Transgrid substation via approximately 500 metres (m) of 330 kV overhead lines.

Specific elements of the proposed work include:

- Transport of construction personnel associated heavy and light vehicles and materials to and from the Subject Site during construction (dependent on construction schedule).
- Site establishment works including vegetation clearing within the BESS boundary and Transmission Line (TL) footprint, bulk earthworks and a temporary construction compound.
- Road works to formalise internal site access road to accommodate heavy vehicles and a new driveway crossing.
- Construction of hardstand, crushed-rock internal roads, control room and switch gear, auxiliary transformer, battery enclosures, and inverter and transformer stations.
- Construction of overhead 330 kV TL to facilitate connection to the existing JINDERA 330/132 kV Transmission Substation and associated high voltage steel poles.
- Acoustic attenuation (4m acoustic barrier).
- Construction of ancillary works including parking area, water tank, storage structures, stormwater management infrastructure and security lighting and fencing.
- Vegetative screening.
- The installation of 200 battery containers within individual, modular containers, on hardstand footings.
- The installation of 100 inverters on hardstand footings.
- Installation of subsurface wiring infrastructure throughout the project area.
- Installation of an expanded concrete footing on the Transgrid substation.

- Watermain extension: Underboring and installation of piping along Ortlipp Road to extend the local water-main to site.
- Easement works along Ortlipp Road.
- Replacement and implementation of watermain piping and associated works along Lindner Road (underboring).
- Decommissioning of the BESS at the end of life (EOL).

Figure 1 shows the project area boundary, which constitutes the application area for this application.

Table 1 outlines the proposed works and impacts to known sites and PAD and indicates the level and type of harm.

Table 1 Aboriginal Sites located within the Application Area

AHIMS # / PADs within Proposed Work Sites	Site Name	Site Type	Easting	Northing	Proposed mitigation activity
AHIMS # 55-6-0294 and PAD	Jindera IF1	Artefact and associated PAD	491789	6024707	Conservation: boundary fencing to demarcate artefact outside project area. Archaeological/Cultural Salvage: within impact areas of associated PAD (Hillcrest landform).
AHIMS # 55-6-0295	Jindera ST1	Modified Tree	491075	6023929	Professional arborist to assess tree in consultation with RAPs. Activities to reduce the likelihood of the site being impacted and the dead tree breaking and splitting guided by a professional arborist. These activities may require development of a management plan for the tree in consultation with the RAPs and Department.



Figure 1 Locality Map and Project Area

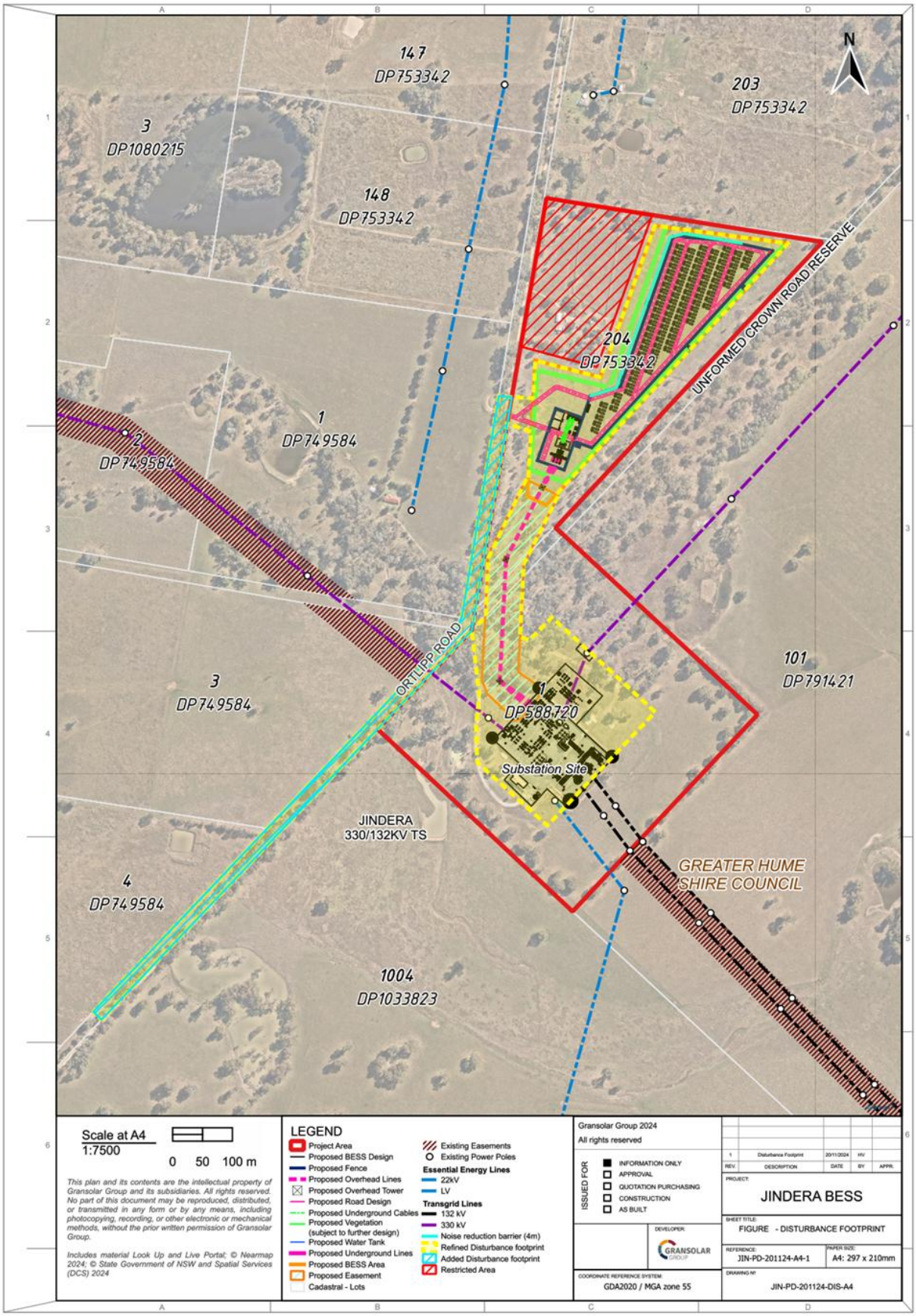


Figure 2. Project Design

1.2 ABORIGINAL CONSULTATION

As recognised by Heritage NSW, we acknowledge that Aboriginal people are the primary determinants of the cultural significance of their heritage. Aboriginal consultation for the ACHA was undertaken in compliance with the Aboriginal cultural heritage consultation requirements for proponents 2010 (NSW DECCW 2010b) (hereafter referred to as the "ACHRs"). These consultation requirements are legal requirements that proponents must comply with during the ACHA process which are set out in Clause 80c of the NPW Regulation. Aboriginal consultation is crucial in the compilation of the ACHA in order to adequately assess and investigate Aboriginal cultural heritage.

Five Aboriginal Parties/individuals registered interest for this project during the notification process (responded to the advertisements in the local newspapers or to an invitation to register in the project after their contact details were provided by notified organisations). The groups/individuals registered for consultation are listed in **Table 2**.

Table 2: Aboriginal Parties/Individuals Registered Interest for this Project

Name of Contact	Registered Aboriginal Party
Sonione Rogers	Sonione Rogers (Individual)
Will Carter	Southern West Yiradyuri Clans, Land, Water and Sky Country Aboriginal Corporation
Thomas Dahlstrom	Thomas Dahlstrom (Individual)
Mark Saddler	Bundyi Aboriginal Cultural Knowledge
CEO	Albury and District Local Aboriginal Land Council

All registered Aboriginal parties were provided with the opportunity to discuss and develop the ARDM presented in this document.

1.3 REPORT STRUCTURE

Section 2 of this research design and methodology summarises previous archaeological research which is relevant to the AHIP application for the site within the project area.

Section 3 details the research design that has been proposed for the project area.

Section 4 provides the methodology proposed for salvage for sites and areas within the project area.

Section 5 presents the attributes to be recorded during the analysis of artefacts recovered during investigations.

Section 6 discusses the Care of artefacts recovered during investigations.

Section 7 lists the references cited within this document.

2. Summary of previous archaeological research

A review of the Heritage NSW AHIMS library and online searches were undertaken to obtain copies of previous Aboriginal heritage studies and archaeological investigations within the locality of the project area, which relate to the AHIP application. Detailed summaries of all reports pertinent to the locality are provided in the Archaeological Assessment (Virtus Heritage: 2025, Appendix A of the ACHA).

2.1 SITE CONTEXT

Prior to European invasion, the rich structural and floristic diversity of the vegetation and wide range of geological, topographic and climatic influences in the region provided a complex mosaic of habitat types, of which the terrestrial prey resources, and a large variety of freshwater fish species would have been plentiful within and adjacent to the project area, including Kilnacroft Creek. The Aboriginal people of the area utilised the large variety of plant resources for food, medicines, and secular items. The temperate climate of the project area would have made it suitable for habitation all year round. The mudstone, quartz and greywacke identified in the geological landscape of the broader project landscape are also important resources for the manufacture of stone tools.

The project area is located on landforms which have been disturbed by land clearing and generational agricultural and pastoral use since at least 1892. Additionally, the Transgrid transmission substation has been on the site from at least 1987, the construction and use of which has also impacted the project area. Grading and establishment of Ortlipp Road and Lindner Road and associated utilities has also affected the project area.

Two previously unknown Aboriginal sites were identified and recorded during the surveys including Jindera IF1 and PAD, and Jindera ST1:

- Jindera IF1 (AHIMS # 55-6-0294) and PAD
    - **Outside project area**: the artefact from this site is located just outside of the north east boundary of the project area;
    - **Inside project area**: The PAD associated with Jindera IF1 is within Area 1 of the project area (i.e. hillcrest landform). The area is considered as PAD based on the presence of an adjacent Aboriginal object, being a sensitive landform for potential Aboriginal occupation (i.e. hillcrest - elevated and flat to very gently inclined), and the lack of observable significant disturbances/modifications to the landform. Bundyi Aboriginal Cultural Knowledge – Mark Saddler also identified the hillcrest landform (i.e. Area 1) as a PAD (refer ACHA Appendix C); and
- Jindera ST1 (AHIMS #55-6-0295)
    - **Inside project area**: Jindera ST1 (AHIMS #55-6-0295) is a scarred tree with a single scar located toward the south west end of the project area along Ortlipp Road.

2.2 LOCAL ABORIGINAL CONTEXT

The project area is within the traditional lands of the Wiradjuri people. Prior to European contact the Wiradjuri occupied the Jindera region for thousands of years. "Wiradjuri" is a collective language group attributed to the many smaller familial groups that existed in what is known as "Wiradjuri country" (Jacobs 2021). They engaged in various sustainable practices, such as controlled fires to manage the landscapes which promoted the growth of certain Native species of plants and improved hunting conditions. This practice shaped the physical landscape but also maintained the biodiversity of the area. The Wiradjuri

people had rich oral traditions, with stories and songs that connected them to the land, its features and their ancestors.

Generally Wiradjuri family groups, or *"dharwaay"*, consisted of 10-50 people and correspond to tributary creeks, moving around for resources and religious purposes (Andrews 1920, McDonald 2011). Each *dharwaay*'s territory was broadly understood across Wiradjuri land, with identifiable messengers being allowed to cross differing *dharwaay* territory only if they were appropriately painted, and etiquette followed (McDonald 2011). *Dharwaay* groups would groups would gather at the junction of the creeks and main rivers, with senior family members leading the meetings.

Various Wiradjuri groups would come together in much larger corrobborees seasonally throughout Wiradjuri Country, with one specific location recorded as "not far from Albury" (Andrews 1920). These meetings would serve as gathering events for the Wiradjuri before they left for summer expeditions to high plains in search of bogong moths (Andrews 1920:22, Jacobs 2021). Ethnographic accounts detail the preparation and sharing of bogong moth dishes as a commonality between Wiradjuri groups at the end of these expeditions (Andrews 1920:40).

Common faunal resources exploited prior to European invasion include ducks, crayfish, turtles, water rats and eels (Jacobs 2021). Common floral resources include fruits, nuts, yam daisies, wattle seeds and orchid tubers, all of which were found in close relation to water sources. During drier seasons a dietary reliance on kangaroo, emu, and possums supplemented the resources lost to drying lake and river systems (Jacobs 2021, Ozark 2019).

Material culture recorded in ethnographic accounts includes small, semi-circular shelters made from boughs and sapling branches tied with leaves, bark and grass (Kabaila 1999). Possum and kangaroo skin coats were manufactured using mussel shell scrapers, with kangaroo sinew also used to create head ornaments (Bennet 1834). Spear throwers, parrying shields, broad shields, clubs, shovels, axes, throwing sticks, digging sticks and trapping nets were made from plant materials (Ngh Environmental 2019).

2.3 REGIONAL ARCHAEOLOGICAL CHARACTER

Archaeological and environmental research in the Jindera region and Greater Hume Shire LGA, has identified the following predictive statements regarding the region:

- Generally, Aboriginal cultural sites have typically been identified within close proximity to permanent, temporary, or past water sources. Elevated landforms such as crests, ridges and spurs have also been associated with an increased potential for Aboriginal cultural sites to occur. (NGH Environmental 2019).
- The extensive agricultural activities, particularly ploughing, that have been undertaken throughout the region have generally impacted the potential for artefacts to occur as ground surface assemblages (Smith and Upcher 1994).
- Artefact sites are the most likely to occur, with milky quartz flakes being the most common artefact type in the region. These sites are most likely to be identified in close proximity to water sources (AHIMS Search 2024; Smith and Upcher 1994; Associates Archaeology and Heritage 2015).
- Mature trees, typically over 150 years, have a potential to be culturally modified/scarred, and are most likely to be in close proximity to water sources (Smith and Upcher 1994).
- Aboriginal cultural heritage materials may have been disturbed by the agricultural activities that have been undertaken in the region, however, subsurface deposits may remain *in-situ* (NGH Environmental 2019, Smith and Upcher 1994).

Archaeological research within the Jindera region indicates that while there have been disturbances from agricultural activity and other European impacts, archaeological material may still be identified. Areas in close proximity to water sources contain the highest potential for archaeological materials to be identified, with quartz artefact sites and culturally modified trees being the most common site types. Archaeological sites have also been identified as occurring in elevated landforms such as crests, ridges, and spurs.

3. Research Design

The past archaeological research within the vicinity of the project area and surrounds (refer to **Section 2** of this document and Section 4.2 of the AA (Survey Report), Appendix 1 of the ACHA) indicates that there is potential for evidence of Aboriginal occupation to have survived previous land use history. Previous archaeological assessments in Jindera, and AHIMS registered sites in proximity to the project area have established that the region was habituated by the local Wiradjuri People. Evidence of this occupation is seen through the record of stone artefacts and culturally modified trees identified in the region, in proximity to, and within the project area.

Two previously unknown Aboriginal sites were identified and recorded during the surveys including Jindera IF1 and PAD, and Jindera ST1:

- Jindera IF1 (AHIMS # 55-6-0294) and PAD
    - **Outside project area**: the artefact from this site is located just outside of the north east boundary of the project area;
    - **Inside project area**: The PAD associated with Jindera IF1 is within Area 1 of the project area (i.e. hillcrest landform). The area is considered as PAD based on the presence of an Aboriginal object, being a sensitive landform for potential Aboriginal occupation (i.e. hillcrest - elevated and flat to very gently inclined and associated with a drainage line), and the lack of observable significant disturbances/modifications to the landform. Bundyi Aboriginal Cultural Knowledge – Mark Saddler also identified the hillcrest landform as a PAD; and
- Jindera ST1 (AHIMS #55-6-0295)
    - **Inside project area**: Jindera ST1 (AHIMS #55-6-0295) is a scarred tree with a single scar located toward the south west end of the project area along Ortlipp Road.

The broad objective of this research design is to assist in further understanding how Aboriginal people utilised the project area in the past though understanding/salvage of the site (PAD component - hillcrest landform) associated with Jindera IF1 to determine the significance, extent, and integrity of the site and to analyse any artefacts recovered to document values. The research design will also address the modified tree (Jindera ST1) located within the project area along Ortlipp Road.

Other research questions that will be investigated will be (and not limited to):

- What does the artefact assemblages indicate about how Aboriginal people were utilising the local landscape?
- Are certain types of artefact types and artefact materials more prevalent within the project area than others as predicted in the ACHA in the predictive model? How do these results compare to previous archaeological research in the locality and the region of the Greater Hume?
- Is there a link between the proximity of a known water-source and specific landforms as predicted in the predictive model of the ACHA? How does this pattern of landscape use compare to previous archaeological research in the locality and the Greater Humer region?
- How have the descendants of the Traditional Aboriginal people and the broader Aboriginal community utilised this landscape through generations to the present day? Are there any dateable features (charcoal or hearths) that can provide information on the chronology of the occupation deposit, if identified? What is the age of such features (e.g. Holocene or Pleistocene)? What is their significance within the broader cultural landscape?

4. Methodology

This section of the document presents a combination of methodologies for the investigation of cultural materials associated with the Jindera IF1 (AHIMS 55-6-0294), and archaeologically sensitive low-lying flat, slope and valley landforms within the project area

This section of the document presents a combination of methodologies to salvage the contexts associated with AHIMS site 55-6-0294 and PAD, AHIMS site 55-6-0295, and works areas 1, 3, and 4 within the project area. Error! Reference source not found. and **Figure 3** below set out the proposed impacts and mitigation measures in each works area.

Table 3 Proposed Impacts and Recommended Mitigation

Works Area	Proposed Impacts	Recommended Mitigation
Area 1: 204 Ortlipp Road	Main BESS facility and associated infrastructure.	Jindera IF1 (AHIMS #55-6-0294) and PAD: • Cordoning off with temporary fencing to ensure the conservation of the artefact within the site. (located outside the project area). • Archaeological/Cultural salvage is recommended for this site (located within the project area i.e. PAD area on hillcrest landform). Opportunity for community collection/cultural salvage during initial ground disturbance works.
Area 3: Ortlipp Road	Watermain (underboring) and easement works.	Jindera ST1 (AHIMS #55-6-0295): • Cordoning off with fencing. • Professional arborist assessment with RAPs and proponent. • Mitigation actions (removal of branches and/or removal of scar panel). Opportunity for community collection/cultural salvage during initial ground disturbance works.
Area 4: Lindner Road	Watermain (underboring) and easement works.	Opportunity for community collection/cultural salvage during initial ground disturbance works.



Figure 3: Survey Results and Proposed Mitigation Areas

4.1 ARCHAEOLOGICAL/CULTURAL WORKS AT AREA 1

A staged approach for archaeological works at site Jindera IF1 (AHIMS #55-6-0294) and associated PAD is recommended including:

- Stage 1 – Exploratory Pits,
- Stage 2 – Manual Excavation (if required), and
- Stage 3 – Community Collection/Cultural Salvage.

4.1.1. Stage 1: Exploratory Pits at Site Jindera IF1 (AHIMS # 55-6-0294) and associated PAD

During exploratory pits:

- If intact deposits (10 or more artefacts in a single exploratory pit), or features such as midden deposits, intact heat treatment pits, intact hearths, evidence of knapping events, and/or formal tool types in intact deposits (i.e. backed artefacts, retouched artefacts, scrapers, axes, or other tool types considered rare in a local and/or regional context) are located in intact deposits, **Stage 2** manual salvage will be triggered.
- If out of context objects are located, and/or artefact densities are determined to be low density background scatters, **Stage 3** community collection/cultural salvage will be triggered.
- If no Aboriginal objects or occupation deposits are found during Stage 1, **no further works** are required.

4.1.1.1 EXPLORATORY PITS - METHODOLOGY:

- One row of 50cm by 50cm exploratory pits spaced 20 metres apart will extend south west-north east along the eastern side of the hillcrest landform of Jindera IF1 and associated PAD (within the proposed project impact footprint). The exact location of the exploratory pit row will be selected in the field (by an archaeologist and representatives from the Aboriginal stakeholder groups participating in the exploratory pits);

- A second row of 50cm by 50cm exploratory pits spaced 20 metres apart at the southern end of Area 1 and will extend in a north west-south east direction at a tangent to the first row of pits within the hillcrest landform of Jindera IF1 and PAD (within the proposed project impact footprint). The exact location of the exploratory pit row will be selected in the field (by an archaeologist and representatives from the Aboriginal stakeholder groups participating in the exploratory pits);

- The exploratory pits will be excavated by hand (inclusive of trowels, spades, and other hand tools) in 10cm spits until proposed project impact depth is reached, the clay layer/bedrock (B horizon) is reached, or the depth of culturally sterile deposits is reached; however, if a pit excavation is determined to be fill, the fill component of the pit may be excavated as a single unit rather than 10cm spits.

- If 10 or more artefacts are located within an exploratory pit, that will trigger Stage 2 works. If broken artefacts conjoin (i.e. a single artefact that has broken, but not part of a reduction sequence) then the conjoined pieces of the artefact will only be counted as a singular artefact;

- If features such as heat treatment pits, heaths, evidence of knapping events, and/or formal tool types (i.e. backed artefacts, retouched artefacts, scrapers, axes, or other tool types considered rare in a local and/or regional context) located in intact deposits in a single pit, Stage 2 works will be triggered;

- A minimum of 35 pits will be excavated;

- All excavated soil will be wet (or dry) sieved through five and two millimetre nested sieves;
- A soil sample will be collected, bagged, and labelled from each spit of each pit for Munsell and pH analysis;
- Photographic and scale drawn records of the stratigraphic/soil profile will be taken for each pit;
- Detailed artefact attribute analysis should be recorded for all lithic artefacts, as detailed in **Section 4.4** of this ARDM;
- Exploratory excavations will cease if suspected human remains are encountered. If suspected human remains are uncovered during excavations, the area of these suspected remains should be secured and the NSW Police notified. If these remains are deemed to required archaeological investigation by the NSW Police or NSW Coroner, then Heritage NSW, the relevant Aboriginal stakeholder groups must be notified.

4.1.2. Stage 2: Manual Salvage (if required)

Manual salvage excavations would be conducted with a minimum of three representatives of Registered Aboriginal Parties, where available, and three archaeologists. For areas where manual salvage has been triggered during Stage 1 works, manual salvage will involve:

- As conservation of areas of archaeological potential is the goal, manual salvage would be limited to areas of impact. Salvage excavation would be undertaken to no greater than 40 m^2 or the maximum impact footprint for ground disturbing works, if harm cannot be avoided, whichever is smaller
- Excavation pits would be placed in consultation with representatives of RAPs present on the day and target areas of relatively less disturbance soils as guided by the outcomes of Stage 1.
- Artefact type and/or density triggers for expansion of salvage pits to maximum of 20 m^2 total salvage excavation area within the project area and limited to areas where harm cannot be avoided.
- If only low density, and/or out of context objects are identified, Stage 3 community collection/cultural salvage will be triggered.

4.1.2.1 MANUAL SALVAGE EXCAVATION – METHODOLOGY:

- Fill (including concrete, road base and imported fill) may be removed in bulk (mechanically if required) in one unit. Fill can be inspected by RAPs, where safe to do so, and can be undertaken through raking of fill, windrows or through general inspection; and community collection undertaken.
- Excavation pits will be excavated by hand (inclusive of trowels, spades, and other hand tools) in 10cm spits and/or stratigraphic units to:
    - the maximum depth of excavation for proposed works, or
    - The B horizon is reached, or
    - To the depth of culturally sterile deposits or
    - Bedrock or
    - Water table
- Fill or sediment may be removed mechanically (if required) to allow for safe entry and exit of excavation pits (for example stepping or shoring in unstable sediments, if required).
- All excavated soil will be wet (or dry if appropriate) sieved through five and two millimetre nested sieves;
- A soil sample will be collected, bagged and labelled from each spit of each pit for Munsell and pH analysis;

- Detailed artefact attribute analysis should be recorded for all lithic artefacts, as detailed in **Section 4.4** of this ARDM;
- Photographic and scale drawn records of the stratigraphic/soil profile will be taken for each pit;
- Exploratory excavations will cease if suspected human remains are encountered. If suspected human remains are uncovered during excavations, the area of these suspected remains should be secured and the NSW Police notified. If these remains are deemed to required archaeological investigation by the NSW Police or NSW Coroner, then Heritage NSW, the relevant Aboriginal stakeholder groups must be notified.

4.1.2.2 TRIGGERS FOR EXPANSION OF MANUAL SALVAGE

- If 20 or more artefacts are located within a 1m square excavation pit.
- If features such as evidence of knapping events, and/or more than five formal tool types (i.e. backed artefacts, retouched artefacts, scrapers, axes, or other tool types considered rare in local and/or regional context), ochre are located in a single salvage pit, manual salvage of an adjoining 1m x 1m excavation square will be excavated to follow the area of highest artefact density.
- If a midden site is identified in a salvage pit, manual salvage of an adjoining 1m x 1m excavation square will be extracted to follow the area of the midden site.
- If heat treatment pits or hearths are identified, the excavation pit would be expanded to provide sufficient information about the extent of the hearth, its construction, including one or two spits below the base of the heath cut and to allow for plans and section and dating samples.
- Pleistocene aged deposits.
- Indications of multiple phases of occupation.

4.1.2.3 MECHANICAL EXCAVATION (IF REQUIRED)

If required, it may be necessary in some situations to excavate mechanically if, for instance soils are cemented or for safe work methods for excavating at depth or in unstable soil profiles (such as stepping out or shoring) depending on the stability of the sediment, depth of culturally sterile deposits or depth of proposed impact. In the case of mechanical excavation:

- Mechanical excavation would be conducted in a controlled manner and supervised by an archaeologist and representative of the RAPs
- Excavated in 10cm spits or stratigraphic unit.
- In the event that cultural material other than stone artefacts were identified, mechanical excavation would cease until the relevant feature had been investigated, recorded and salvaged.

4.1.3. Stage 3: Community Collection/Cultural Salvage

The opportunity for community collection/cultural salvage has been identified to enable cultural collection by RAPs. All initial ground disturbing works in Area 1 will be supervised by the general contractor and at least two representatives from the Registered Aboriginal Parties (RAP).

If any Aboriginal objects or sites are identified, it should be recorded by a qualified archaeologist, other suitably qualified person, or experienced cultural heritage sites officer. This should include the following steps:

- Artefacts should be flagged, photographed and spatial distribution of artefacts within the site recorded;
- The location of each surface artefact should be recorded using a handheld GPS or other GPS device to record the spatial distribution of artefacts within the site;

- Detailed artefact attribute analysis should be recorded for all lithic artefacts, as detailed in **Section 4.4** of this ARDM;
- Works will cease if suspected human remains are encountered. If suspected human remains are uncovered during salvage excavations, the area of these suspected remains must be secured, and the NSW Police notified. If these remains are deemed to require archaeological investigation by the NSW Police or NSW Coroner, then Heritage NSW, and RAPs must be notified.

4.2 COMMUNITY COLLECTION/CULTURAL SALVAGE-AREA 3 AND AREA 4

The opportunity for community collection/cultural salvage has been identified to enable cultural collection by RAPs. All initial ground disturbing works in Area 3 and Area 4 during underboring works will be supervised by the general contractor and at least two representatives from the Registered Aboriginal Parties (RAP).

If any Aboriginal objects or sites are identified, it should be recorded by a qualified archaeologist, other suitably qualified person, or experienced cultural heritage sites officer. This should include the following steps:

- Artefacts should be flagged, photographed and spatial distribution of artefacts within the site recorded;
- The location of each surface artefact should be recorded using a handheld GPS or other GPS device to record the spatial distribution of artefacts within the site;
- Detailed artefact attribute analysis should be recorded for all lithic artefacts, as detailed in **Section 4.4** of this ARDM;
- Works will cease if suspected human remains are encountered. If suspected human remains are uncovered during salvage excavations, the area of these suspected remains must be secured, and the NSW Police notified. If these remains are deemed to require archaeological investigation by the NSW Police or NSW Coroner, then Heritage NSW, and RAPs must be notified.

4.3 MANAGEMENT OF SCARRED TREE JINDERA ST1 (#55-6-0295)

Management of Jindera ST1 (AHIMS ID 55-6-0295) through discussions with RAPs, professional arborist, and proponent to reduce the likelihood of the site being impacted and the dead tree breaking and splitting. This includes:

- Scarred Tree to have temporary fencing erected during project works to ensure no inadvertent impact to the tree;
- Assessment of the scarred tree by a professional arborist and RAPs;
- Mitigation of the scarred tree based on the assessment and cultural input may include:
  - The removal of upper branches to reduce the likelihood of the tree splitting and breaking.
  - The removal of the scar panel based on cultural input from the RAPs.

This management could be achieved through the development of a concise management plan specific to this site's management.

4.4 ATTRIBUTES TO BE RECORDED ON STONE ARTEFACTS

Table 4 below lists the attributes to be recorded on each Aboriginal artefact recovered during mitigation works and has been separated into general attributes to be recorded on all artefacts, additional attributes to be recorded on flakes, and additional attributes to be recorded on cores.

Table 4: Attributes to be recorded

General Attributes (All Artefacts)	Additional Attributes (Flakes)	Additional Attributes (Cores)
Artefact Type	Platforms (width, thickness, surface, overhang removal)	Rotated
Raw Material	Termination	Platform Preparation
Artefact Weight (g)	Retouch (Location and Type)	Scar Type
Artefact Measurements (Length, Width, Thickness)	Breakage	Exhausted
Cortex (Amount and Type)		
Heat Affect		

The project archaeologist will store all cultural material in the project archaeologist's offices in a secure location, prior to their final repository. The cultural material will be analysed at the archaeologist's offices.

5. Short and Long-Term Care of Aboriginal Objects

During archaeological/cultural works, temporary storage of any collected artefacts may be stored in a secure location on-Country as agreed by GDA and RAPs.

Following the completion of archaeological/cultural works, temporary, short-term care agreement is requested for the Virtus Heritage offices in Kingscliff, Pottsville or in Sydney to undertake photography, cleaning, and analysis prior to a long-term care and control option being implemented. Materials will be stored in plastic boxes and within locked cabinets when they are not being analysed.

The following options are provided for RAPs consideration for long-term Care of cultural materials:

a) All artefacts recovered during the project mitigation works will be reburied by Gransolar, in consultation with RAPs.

b) A site card will be prepared/updated for any new sites or additional information identified in the archaeological salvage, or community collection, and will be provided to Heritage NSW after re-burial for registration onto the AHIMS database.

c) Repository at the Albury and District Local Aboriginal Land Council under a Care agreement.

d) Alternative options suggested by RAPs for final repository under a Care agreement.

6. References

DECCW. 2010a. *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* and Archaeological Investigation of Aboriginal Objects Code of Practice.

DECCW. 2010b. Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW.

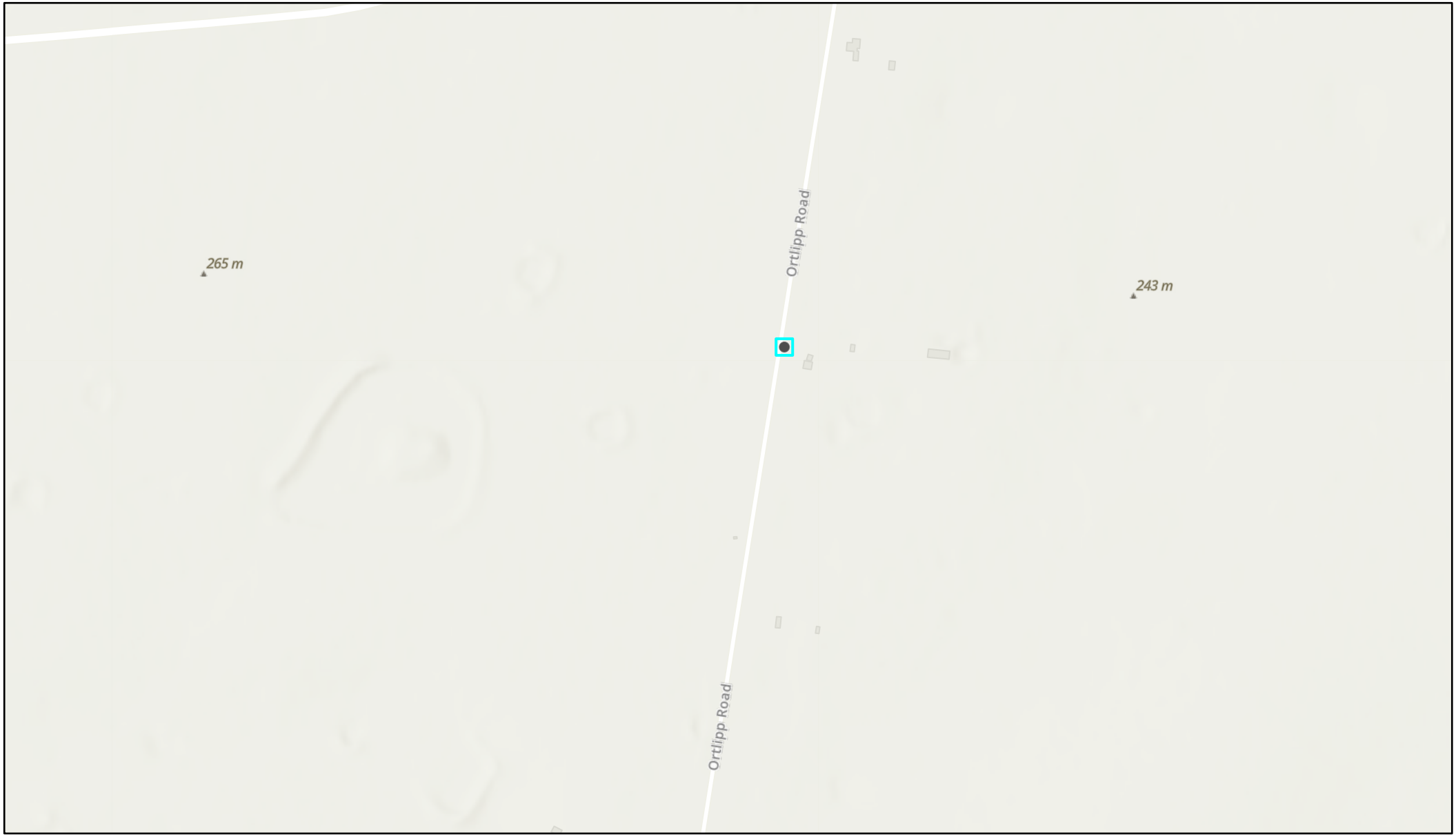
DECCW. 2010c. Aboriginal heritage consultation requirements for proponents 2010.

ICOMOS Burra Charter 2013.

Office of Environment and Heritage (OEH) 2011. Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW.

Appendix E AHIMS Site Search and other Search Results

Native TitleVision Web Map



15/07/2024, 11:22:36 am

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Esri Community Maps Contributors, Vicmap, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, Foursquare, METI/NASA, USGS, Esri, Geoscience Australia, NASA, NGA, USGS

Native TitleVision

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Search Results

13 results found.

Billabong Creek (in part) Rand Walbundrie Rd	Walbundrie, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Holbrook Conservation Area Albury St	Holbrook, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Hume Dam and Pondage	Hume Weir, VIC, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Murray Valley Flood Plain (part) Riverina Hwy	Howlong, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Pioneer Museum Urana Rd	Jindera, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Pioneer Museum Group Urana Rd	Jindera, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Railway Station Group Olympic Way	Gerogery, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
School of Arts and War Memorial Main Street	Brocklesby, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Tabletop Nature Reserve	Table Top, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Wagners Store Urana Rd	Jindera, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)

Walbundrie School (former)		Walbundrie, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Woomargama Dora Dora Forest	Woomargama Dora Dora Rd	Holbrook, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Yarra Yarra Homestead and Outbuildings	Yarra Yarra Rd	Holbrook, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)

Report Produced: Mon Jul 15 11:27:16 2024

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Heritage Search Result

Date: 15/07/2024

Item Name	Location	LGA	SHR Id	Item Type	Record Owner
Alma Park Lutheran Cemetery	Cnr Walla Park-Alma Park Rd & Alma Park Cemetery Rd ALMA PARK NSW 2659	Greater Hume		Landscape	LGOV
Alma Park School (Relocated)	Walla Park-Alma Park Rd ALMA PARK NSW 2659	Greater Hume		Archaeological-Terrestrial	LGOV
Anglican Church (former)	West Street GEROGERY NSW 2642	Greater Hume		Built	LGOV
Anglican Rectory (former)	78 Jingellic Road HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Annandayle Homestead	590 Jingellic Road HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Bethanga Bridge over the Murray River	Riverina Highway (SH 20) ALBURY NSW 2640	Greater Hume		Built	SGOV
Bethlehem Lutheran Cemetery	Pioneer Drive JINDERA NSW 2642	Greater Hume		Archaeological-Terrestrial	LGOV
Big Gum Swamp	Sparkes Road GLENELLEN NSW 2642	Greater Hume		Landscape	LGOV
Billabong Creek Public Swimming Pool	Olympic Highway CULCAIRN NSW 2660	Greater Hume		Archaeological-Terrestrial	LGOV
Boxwood Park Homestead and Shearing Shed	149 Boxwood Park Road BUNGOWANNAH NSW 2640	Greater Hume		Built	LGOV
Brick house	4 Keightley Street HENTY NSW 2658	Greater Hume		Built	LGOV
Brocklesby Park Homestead	1985 Kwong-Howlong Road BROCKLESBY NSW 2642	Greater Hume		Built	LGOV
Brocklesby School of Arts and War Memorial Hall	89 Main Street BROCKLESBY NSW 2642	Greater Hume		Built	LGOV
Bungowannah Community Hall	Chambers Road YERONG CREEK NSW 2642	Greater Hume		Built	LGOV

Bungowannah General Cemetery	Cemetery Road BUNGOWANNAH NSW 2640	Greater Hume		Landscape	LGOV
Bungowannah School (former)	119 Methodist Road BUNGOWANNAH NSW 2640	Greater Hume		Built	LGOV
Burnside (homestead and outbuildings, pine log barn and dairy)	1009 Howlong-Balldale Road SOUTH ALBURY NSW 2640	Greater Hume		Built	LGOV
Burrumbuttock General Cemetery at Holy Cross Lutheran Church	Howlong - Burrumbuttock Rd BURRUMBUTTOCK NSW 2642	Greater Hume		Landscape	LGOV
Burrumbuttock Homestead	3102 Urana Road BURRUMBUTTOCK NSW 2642	Greater Hume		Built	LGOV
Burrumbuttock Public Hall	502 Urana Road BURRUMBUTTOCK NSW 2642	Greater Hume		Built	LGOV
Catholic Convent (former)	7 Day Street HENTY NSW 2658	Greater Hume		Built	LGOV
CBC Bank	Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
CBC Bank (former)	68 Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Chalmers Church	153 Maher’s Lane, off Wagga Wagga Road COOKARDINIA NSW 2650	Greater Hume		Built	LGOV
Christian Brothers' Monastery (former)	10 Keirath Street HENTY NSW 2658	Greater Hume		Built	LGOV
Church (former)	46 Urana Road BURRUMBUTTOCK NSW 2642	Greater Hume		Built	LGOV
Church (ruin)	Ellis Street BROCKLESBY NSW 2642	Greater Hume		Archaeological-Terrestrial	LGOV
Church of the Good Shepherd, Catholic Church	Corner Billabong Street and Queen Street WALBUNDRIE NSW 2642	Greater Hume		Built	LGOV
Coffee Palace	Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Cookardinia General Cemetery	153 Mahers Road COOKARDINIA NSW 2650	Greater Hume		Landscape	LGOV

Cookardinia Hotel (ruin)	Morven - Cookardinia Road COOKARDINIA NSW 2650	Greater Hume		Archaeological-Terrestrial	LGOV
Cookardinia Memorial Hall	2164 Holbrook Wagga Road COOKARDINIA NSW 2650	Greater Hume		Built	LGOV
Coppabella Blacksmith Shop, Stables and Burial Plot	ROSEWOOD NSW 2652	Greater Hume	00620	Complex / Group	HNSW
Courthouse	Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Courthouse (former Post Office)	64 Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Criterion Hotel (former)	Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Culcairn Court House and Police Building	Balfour Street CULCAIRN NSW 2660	Greater Hume		Built	LGOV
Culcairn General Cemetery	Cemetery Road CULCAIRN NSW 2660	Greater Hume		Landscape	LGOV
Culcairn Hotel	37 Railway Parade CULCAIRN NSW 2660	Greater Hume		Built	LGOV
Culcairn Masonic Hall	32 Kirndeen Street CULCAIRN NSW 2660	Greater Hume		Built	LGOV
Culcairn Memorial Hall and School Of Arts	25 Balfour Street CULCAIRN NSW 2660	Greater Hume		Built	LGOV
Culcairn Police Station and Official Residence	33 Balfour Street CULCAIRN NSW 2660	Greater Hume		Built	SGOV
Culcairn Public School - Buildings B00A and B00B	43 Balfour Street CULCAIRN NSW 2660	Greater Hume		Built	SGOV
Culcairn Railway Precinct	Melville Street CULCAIRN NSW 2660	Greater Hume		Built	SGOV
Culcairn Railway Precinct	Melville Street CULCAIRN NSW 2660	Greater Hume		Built	SGOV
Culcairn Railway Station and yard group	Main Southern railway CULCAIRN NSW 2660	Greater Hume	01126	Complex / Group	HNSW
Culcairn Railway Station and Yard Group	Main Southern Railway CULCAIRN NSW 2660	Greater Hume		Complex / Group	LGOV

Culverly Rise Homestead	198 Mayfield Road BUNGOWANNAH NSW 2640	Greater Hume		Built	LGOV
Deere Park Homestead	1315 "Park Hill" Bungowannah Road BUNGOWANNAH NSW 2640	Greater Hume		Built	LGOV
Doodle Comer	HENTY NSW 2658	Greater Hume		Unknown	HNSW
Doodle Cooma Arms Hotel	Cnr Sladen and Ivor Sts HENTY NSW 2658	Greater Hume		Built	LGOV
Drumwood (homestead and outbuildings)	234 Drumwood Road JINDERA NSW 2642	Greater Hume		Built	LGOV
Federation Homestead (Wollindina)	1976 Wymah Road BOWNA NSW 2644	Greater Hume		Built	LGOV
First Lutheran School and Cottage	23 Commercial Street WALLA WALLA NSW 2659	Greater Hume		Built	LGOV
German Pioneer Wagon	Commercial Street WALLA WALLA NSW 2659	Greater Hume		Movable / Collection	LGOV
Germanton Courier	2 Hay Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Gerogery Commemoration Hall	Station Street GEROGERY NSW 2642	Greater Hume		Built	LGOV
Gerogery East Homestead and Shearing Shed	501 Coach Road GEROGERY NSW 2642	Greater Hume		Built	LGOV
Gerogery Gatekeeper's Residence	Main Street GEROGERY NSW 2642	Greater Hume		Built	SGOV
Gerogery Hotel	Main Street GEROGERY NSW 2642	Greater Hume		Built	LGOV
Gerogery Railway Station group	Main Southern railway GEROGERY NSW 2642	Greater Hume	01148	Complex / Group	HNSW
Gerogery West General Cemetery	Greenwood Road (corner McLeod Street) GEROGERY NSW 2642	Greater Hume		Landscape	LGOV
Gerogery West School	3 Greenwood Road GEROGERY NSW 2642	Greater Hume		Built	LGOV
Glenellen School (former)	Glenellen Road GLENELLEN NSW 2642	Greater Hume		Built	LGOV

Gold Assay Office	79 Albury St HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Gold Mines	207 Fullers Road YERONG CREEK NSW 2642	Greater Hume		Complex / Group	LGOV
Goodwood Shearing Shed and Pise Dwelling	Fullers Road YERONG CREEK NSW 2642	Greater Hume		Built	LGOV
Goombargana General Cemetery	Balldale-Walbundrie Road YERONG CREEK NSW 2642	Greater Hume		Landscape	LGOV
Government Dam	Howlong - Burrumbuttock Road BURRUMBUTTOCK NSW 2642	Greater Hume		Built	LGOV
Government Dam	Henty Pleasant Hills Road HENTY NSW 2658	Greater Hume		Built	LGOV
Hardwicke Remnant Woodland	3102 Burrumbuttock-Walbundrie Rd BURRUMBUTTOCK NSW 2642	Greater Hume		Landscape	LGOV
Hawthorn Cottage (ruin)	Hawthorn Road (corner Urana Road) JINDERA NSW 2642	Greater Hume		Archaeological-Terrestrial	LGOV
Headlie Taylor, header shed and blacksmith shop	Wattlegrove, 99 Kendalls Road HENTY NSW 2658	Greater Hume		Built	LGOV
Henty Central Hotel and Stables	20 Cnr Allen and Lyne Sts HENTY NSW 2658	Greater Hume		Built	LGOV
Henty General Cemetery	Grubben Road HENTY NSW 2658	Greater Hume		Landscape	LGOV
Henty Police Station and Official Residence	41 Sladen Street HENTY NSW 2658	Greater Hume		Built	SGOV
Henty Railway Precinct	Railway Parade HENTY NSW 2658	Greater Hume		Built	SGOV
Henty Railway Precinct	Railway Parade HENTY NSW 2658	Greater Hume		Built	SGOV
Henty Railway Station and yard group	Main Southern railway HENTY NSW 2658	Greater Hume	01169	Complex / Group	HNSW
Henty Railway Station and Yard group	Main Southern Railway HENTY NSW 2658	Greater Hume		Complex / Group	LGOV

Henty Showground Stables and Gate	Henty Pleasant Hills Road HENTY NSW 2658	Greater Hume		Built	LGOV
Hillgrove Homestead	Ferguson Road BUNGOWANNAH NSW 2640	Greater Hume		Built	LGOV
Holbrook Conservation Area (1)	HOLBROOK NSW 2644	Greater Hume		Conservation Area	LGOV
Holbrook Conservation Area (2)	HOLBROOK NSW 2644	Greater Hume		Conservation Area	LGOV
Holbrook Courthouse and Residence	Albury Street HOLBROOK NSW 2644	Greater Hume		Built	SGOV
Holbrook General Cemetery	Bath Street HOLBROOK NSW 2644	Greater Hume		Landscape	LGOV
Holbrook Hotel	144 Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Holbrook Hotel	Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Holbrook Police Station and Lockup Keeper's Residence	64 Albury Street HOLBROOK NSW 2644	Greater Hume		Built	SGOV
Holbrook Public School - Building B00B	146 Albury Street HOLBROOK NSW 2644	Greater Hume		Built	SGOV
Holbrook Shire Hall	40 Young Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Holbrook Stores	HOLBROOK NSW 2644	Greater Hume		Complex / Group	LGOV
Holbrook Stores	155 Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Holy Cross Lutheran Church and Hall	Howlong-Burrumbuttock Road BURRUMBUTTOCK NSW 2642	Greater Hume		Built	LGOV
Holyrood Homestead, Outbuildings	1726 Howlong - Burrumbuttock Rd BURRUMBUTTOCK NSW 2642	Greater Hume		Built	LGOV
Horse and Dog Trough	83 Albury Street (footpath in front of Woolpack Inn) HOLBROOK NSW 2644	Greater Hume		Movable / Collection	LGOV
Horse Trough	Henty Bi-Centennial Park Railway Parade HENTY NSW 2658	Greater Hume		Movable / Collection	LGOV

Huondale (formerly Gerogery)	1906 Gerogery Road GEROGERY NSW 2642	Greater Hume		Built	LGOV
Isolated Grave	"Warragai", 1949 Bowna-Wymah Road WYMAH NSW 2640	Greater Hume		Landscape	LGOV
Jindera General Cemetery	Corner Drumwood Road and Hannah Lane JINDERA NSW 2642	Greater Hume		Unknown	LGOV
Jindera School of Arts	109 Urana Street JINDERA NSW 2642	Greater Hume		Built	LGOV
John McLean's Grave	Near Old Round House, Holbrook Road CULCAIRN NSW 2660	Greater Hume		Archaeological-Terrestrial	LGOV
Kirbys Bridge over Majors Creek	Riverina Highway HOWLONG NSW 2643	Greater Hume		Built	SGOV
Knox Presbyterian Church	HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Knox Presbyterian Church and Hall	108 Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Log Cabin Scout Hall	63 Bowler Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
London Bank	39 Balfour Street CULCAIRN NSW 2660	Greater Hume		Built	LGOV
Mackie & Son Stores	Albury Street HOLBROOK NSW 2644	Greater Hume		Complex / Group	LGOV
Masonic Hall	45 Ivor Street HENTY NSW 2658	Greater Hume		Built	LGOV
Masonic Hall (former)	19-21 Nyhan Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Mayfield (Homestead)	3859 Riverina Highway YERONG CREEK NSW 2642	Greater Hume		Built	LGOV
Methodist Church (later Uniting Church)	Ivor Street HENTY NSW 2658	Greater Hume		Built	LGOV
Methodist Church (later Uniting Churh)	1432 Bungowannah Road BUNGOWANNAH NSW 2640	Greater Hume		Built	LGOV

Moorwatha General Cemetery	951 Howlong - Burrumbuttock Road MOORWATHA NSW 2640	Greater Hume		Landscape	LGOV
Morgan's Lookout	Walla Road WALLA WALLA NSW 2659	Greater Hume		Landscape	LGOV
Morven Hall (ruin)	Brownrigg Street MORVEN NSW 2660	Greater Hume		Archaeological-Terrestrial	LGOV
Mountain View	1737 Mountain Creek Road MOUNTAIN CREEK NSW 2644	Greater Hume		Built	LGOV
Mullengandra (homestead and outbuildings)	329 Mountain Creek Road MULLENGANDRA NSW 2644	Greater Hume		Built	LGOV
Mullengandra (Station and Outbuildings)	35 Sweetwater Road MULLENGANDRA NSW 2644	Greater Hume		Built	LGOV
Mullengandra General Cemetery	Hume Highway MULLENGANDRA NSW 2644	Greater Hume		Archaeological-Terrestrial	LGOV
Old Bowna Cemetery	211 Plunkett Rd BOWNA NSW 2644	Greater Hume		Archaeological-Terrestrial	LGOV
Orelda Homestead and Outbuildings	623 Burrumbuttock - Brocklesby Road BURRUMBUTTOCK NSW 2642	Greater Hume		Built	LGOV
Our Lady of Sorrows Catholic Church	145 Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Papworth's Bakery Shop	66 Balfour Street CULCAIRN NSW 2660	Greater Hume		Built	LGOV
Parramatta Archaeological Management Unit 3140	The Great Western Highway MAYS HILL NSW 2145	City of Parramatta		Archaeological-Terrestrial	LGOV
Peter Pan Building	123-129 Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Police Stables	Creek Street JINDERA NSW 2642	Greater Hume		Built	LGOV
Police Station	Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Police Station	62 Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV

Police Station	Allan Street HENTY NSW 2658	Greater Hume		Built	LGOV
Post Office	33 Balfour Street CULCAIRN NSW 2660	Greater Hume		Built	LGOV
Post Office and Store	97-99 Main St BROCKLESBY NSW 2642	Greater Hume		Built	LGOV
Presbyterian Church (former)	108 Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Presbyterian Church (former)	Hume Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Presbyterian Manse (former)	40 Allan Street HENTY NSW 2658	Greater Hume		Built	LGOV
Proctor's Old Pub (Bromley)	3134 Riverina Highway BUNGOWANNAH NSW 2640	Greater Hume		Built	LGOV
Riverina Hotel	Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Riverina Hotel	131-133 Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Ross Buildings	70-74 Albury Street HOLBROOK NSW 2644	Greater Hume		Complex / Group	LGOV
Ross Buildings	Albury Street HOLBROOK NSW 2644	Greater Hume		Complex / Group	LGOV
Round Hill Hotel and Stable (Cobb & Co Staging Post)	38-40 Brownrigg Street MORVEN NSW 2660	Greater Hume		Built	LGOV
Royal Oak Hotel (former)	19 Shea Road MULLENGANDRA NSW 2644	Greater Hume		Built	LGOV
Scholz's Corner	Railway Parade Corner Balfour Street CULCAIRN NSW 2660	Greater Hume		Built	LGOV
Shop	Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Shop (former)	5 Keighty Street HENTY NSW 2658	Greater Hume		Built	LGOV
St Barnabas Anglican Church	36 Ivor St HENTY NSW 2658	Greater Hume		Built	LGOV

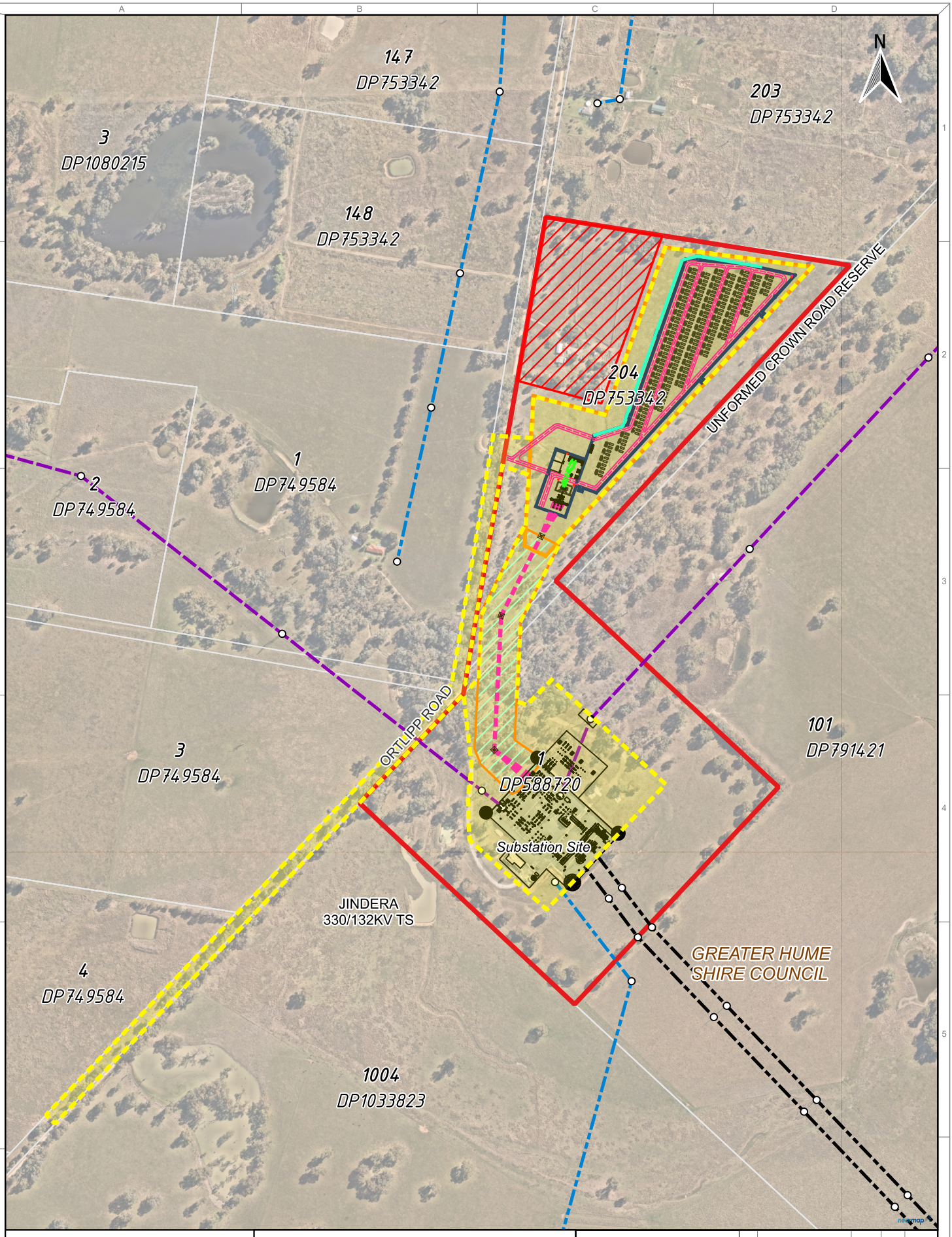
St Clare's Catholic Convent	145 Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
St John’s Lutheran Cemetery Bethlehem	52 Luther Rd JINDERA NSW 2642	Greater Hume		Landscape	LGOV
St John's Lutheran Church	148-150 Adams Street (corner Jindera Street) JINDERA NSW 2642	Greater Hume		Built	LGOV
St Luke's Anglican Church	Shea Road MULLENGANDRA NSW 2644	Greater Hume		Built	LGOV
St Mark's Anglican Church	1 Kensall Green Road YERONG CREEK NSW 2642	Greater Hume		Built	LGOV
St Mark's Anglican Church	2-4 Hay Street WOOMARGAMA NSW 2644	Greater Hume		Built	LGOV
St Mary's Catholic Church	10 Market Street WALLA WALLA NSW 2659	Greater Hume		Built	LGOV
St Mary's Church (ruin)	Howlong-Burrumbuttock Road MOORWATHA NSW 2640	Greater Hume		Archaeological-Terrestrial	LGOV
St Patrick’s Catholic Church and Belfry	Keirath Street HENTY NSW 2658	Greater Hume		Built	LGOV
St Patrick's Catholic School	145 Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
St Paul’s Anglican Church	38 Young Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
St Paul's Anglican Church	11 Balfour Street CULCAIRN NSW 2660	Greater Hume		Built	LGOV
St Paul's Anglican Church	102-112 Urana Street JINDERA NSW 2642	Greater Hume		Built	LGOV
St Paul's Lutheran School	30 Lyne Street HENTY NSW 2658	Greater Hume		Built	LGOV
St Peter’s Lutheran Church Cemetery	925 Glenellen Road GEROGERY NSW 2642	Greater Hume		Landscape	LGOV
St Peter's Lutheran Church	Glenellen Rd GEROGERY NSW 2642	Greater Hume		Built	LGOV
St. Clare's Convent	Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV

Street Trees	Poplars - Culcairn - Walbundrie Road and Culcairn Holbrook Road (MR331) and palms in centre of Balfour Street CULCAIRN NSW 2660	Greater Hume		Landscape	LGOV
Submarine, Scale Model	163 Albury Street HOLBROOK NSW 2644	Greater Hume		Movable / Collection	LGOV
Table Top Station (Homestead and Outbuildings)	115 Burma Road TABLE TOP NSW 2640	Greater Hume		Built	LGOV
Ten Mile Creek Bridge	Hume Highway HOLBROOK NSW 2644	Greater Hume		Built	SGOV
The Cedars	116 Chambers Road YERONG CREEK NSW 2642	Greater Hume		Built	LGOV
The Church of the Pioneers Catholic Church	Bowna Road BOWNA NSW 2644	Greater Hume		Built	LGOV
The Olives, House and Barn	Kenya Road / Brocklesby-Howlong Road BROCKLESBY NSW 2642	Greater Hume		Built	LGOV
Thomas Smyth Memorial	Henty Pleasant Hills Road HENTY NSW 2658	Greater Hume		Landscape	LGOV
Timber Cottage and Shop	Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Timber Shop and Cottage	113 Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Timber Slab Anglican Church	39 Mate Street MORVEN NSW 2660	Greater Hume		Built	LGOV
Town Well	Gordon Street CULCAIRN NSW 2660	Greater Hume		Built	LGOV
Union Bridge over Murray River	Hume Highway (SH 2) ALBURY NSW 2640	Greater Hume		Built	SGOV
Vokins Creek Bridge	Little Billabong Road KOORINGAL NSW 2650	Greater Hume		Built	SGOV
Walbundrie General Cemetery	Urana Road WALBUNDRIE NSW 2642	Greater Hume		Landscape	LGOV

Walbundrie Hotel	Billabong Street WALBUNDRIE NSW 2642	Greater Hume		Built	LGOV
Walbundrie School (former)	Cnr Queen and Billabong Sts WALBUNDRIE NSW 2642	Greater Hume		Built	LGOV
Walla Walla General Cemetery	Walla Cemetery Road WALLA WALLA NSW 2659	Greater Hume		Landscape	LGOV
Walla Walla Homestead	28 Walla Road (corner Culcairn-Walbundrie Road) WALLA WALLA NSW 2659	Greater Hume		Built	LGOV
Walla Walla Literary Institute and Memorial Hall	72 Commercial Street WALLA WALLA NSW 2659	Greater Hume		Built	LGOV
Weatherboard Cottage	55 Young Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Weatherboard Cottage	57 Young Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Weatherboard Cottage	59 Young Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Weebo Park Homestead, Garden, Outbuildings	89 Hovell Road BUNGOWANNAH NSW 2640	Greater Hume		Built	LGOV
William Bros Saddlery and two storey building at rear	Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Williams Bros Saddlery	155 Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Woolpack Inn Museum	Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Woolpack Inn Museum (former Criterion Hotel)	83 Albury Street HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Woomargama General Cemetery and Town Common	Hume Highway WOOMARGAMA NSW 2644	Greater Hume		Landscape	LGOV
Woomargama Hotel	Hume Highway WOOMARGAMA NSW 2644	Greater Hume		Built	LGOV
Woomargama Public School (former)	Melbourne Street WOOMARGAMA NSW 2644	Greater Hume		Built	LGOV
Wymah Cemetery	"Warragai", 1949 Bowna-Wymah Road WYMAH NSW 2640	Greater Hume		Archaeological-Terrestrial	LGOV

Wymah Ferry	Wymah Ferry Road WYMAH NSW 2640	Greater Hume		Built	LGOV
Wymah Ferry Crossing on the Murray River	Main Road 282 WYMAH NSW 2640	Greater Hume		Built	SGOV
Wymah Public School (former)	2444 Wymah Road WYMAH NSW 2640	Greater Hume		Built	LGOV
Yarra Yarra Cemetery	633 Yarra Yarra Road MIRRABOOKA NSW 2264	Greater Hume		Landscape	LGOV
Yarra Yarra Homestead	HOLBROOK NSW 2644	Greater Hume		Built	LGOV
Zion Lutheran Church and Manse	Commercial Street WALLA WALLA NSW 2659	Greater Hume		Complex / Group	LGOV

Appendix F Proposal Plans



Scale at A4
1:7500

0 50 100 m

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LEGEND

- Project Area
- Proposed BESS Design
- Proposed Fence
- Proposed Overhead Lines
- Proposed Overhead Tower
- Proposed Road Design
- Proposed Underground Cables
- Proposed Vegetation (subject to further design)
- Proposed Water Tank
- Proposed Underground Lines
- Proposed BESS Area
- Proposed Easement
- Cadastral - Lots
- Existing Easements
- Existing Power Poles

Essential Energy Lines
- 22kV
- LV

Transgrid Lines
- 132 kV
- 330 kV
- Noise reduction barrier (4m)
- Disturbance footprint

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ISSUED FOR
- INFORMATION ONLY
- APPROVAL
- QUOTATION PURCHASING
- CONSTRUCTION
- AS BUILT

REV.	DESCRIPTION	DATE	BY	APPR.
1	Disturbance Footprint	04/11/2024	HV	

DEVELOPER: GRANSOLAR GROUP

COORDINATE REFERENCE SYSTEM: GDA2020 / MGA zone 55

PROJECT: JINDERA BESS

SHEET TITLE: FIGURE - DISTURBANCE FOOTPRINT

REFERENCE: JIN-PD-041124-A4-1

PAPER SIZE: A4: 297 x 210mm

DRAWING №: JIN-PD-041124-DIS-A4

Appendix G AHIMS Site Cards

Aboriginal Site Recording Form

Manager, Information Systems
Locked Bag 5020, Parramatta 2124 NSW

AHIMS site ID: 55-6-0294 **Date recorded:** 25-11-2024

Site Location Information

Site name: Jindera IF1

Easting: 491789 **Northing:** 6024707 **Coordinates must be in GDA94 (MGA)**

Horizontal Accuracy (m): 10

Zone: 55 Phone GPS

Recorder Information

(The person responsible for the completion and submission of this form)

Title	Surname	First name
Mr.	Thompson	Garth

Organisation: Virtus Heritage

Address: 43 Bowerman Rd

Phone: 0466236990 **E-mail:** g.thompson@virtusheritage.com.au

Site Context Information

Land Form Pattern: Plain **Land Use:** Farming Low Intensity

Land Form Unit: Flat **Vegetation:** Grasslands

Distance to Water (m): 10 **Primary Report:**

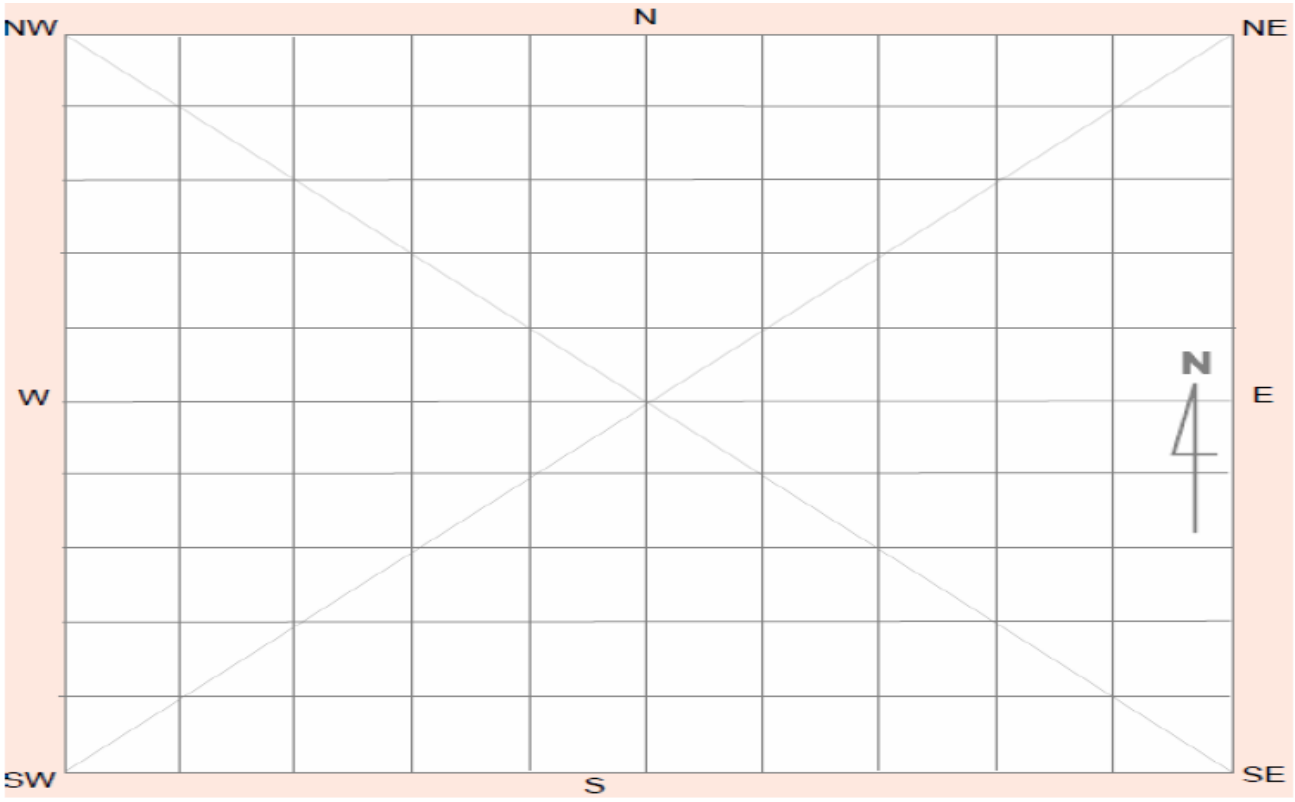
How to get to the site: From Ortlipp Road proceed onto property at 240 Ortlipp Road. Artefact can be found on eastern border close to the boundary fence, in an unnamed creek line with mature eucalypt trees.

Other site information: Site was identified in area that has undergone farming activity for 120 years. The artefact was surrounded by rubbish including, empty bottles and broken wooden boards. The artefact was also in close proximity to a recent local fire, and has likely been disturbed by this activity. Site is also within an intermittent drainage line, surrounded by a broad floodplain landscape.

Site location map



Site plan



Site contents information

open/closed site: Open **Site condition:** Disturbed

Features:

	Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees: Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
1. Artefact	1	1	1				

Feature condition: Disturbed

Description:

An isolated blue speckled grey quartzite hammerstone measuring 64x64x22mm. Artefact contains pitting on its striking edge, and a flat, but eroded edge opposite the striking edge.

Features:

	Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees: Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
2.							

Feature condition:

Description:

Features:

	Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees: Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
3.							

Feature condition:

Description:

Features:

	Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees: Scar Depth (cm)	Scarred Trees: Regrowth (cm)	Scarred Trees: Scar shape	Scarred Trees: Tree Species
4.							

Feature condition:

Description:

Features:

	Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees: Scar Depth (cm)	Scarred Trees: Regrowth (cm)	Scarred Trees: Scar shape	Scarred Trees: Tree Species
5.							

Feature condition:

Description:

Site photographs



Description: Artefact on ground surface



Description: Artefact striking surface with pitting



Description: Artefact flat surface



Description: Artefact context photo facing north

Site restrictions

Do you want to Restrict this site?:

Restriction type: Gender | General | Location — N/A

Why is this site restricted?:

Further information contact

Title	Surname	First name
Mr.	Thompson	Garth

Organisation: Virtus Heritage

Address: 17/13 Pearl St, Kingscliff NSW 2487

Phone: 0266764354 **E-mail:** g.thompson@virtusheritage.com.au

Site interpretation and community statement

Aboriginal Party Mark Saddler commented that artefacts of a similar material had been identified in sites west of the area.

Aboriginal Site Recording Form

Manager, Information Systems
Locked Bag 5020, Parramatta 2124 NSW

AHIMS site ID: | **Date recorded:** 26-02-2025

Site Location Information

Site name: Jindera ST1

Easting: 491075 **Northing:** 6023929 **Coordinates must be in GDA94 (MGA)**

Horizontal Accuracy (m): 4

Zone: 55 Differential GPS

Recorder Information

(The person responsible for the completion and submission of this form)

Title	Surname	First name
Mr.	Travaglia	Julian

Organisation: Virtus Heritage

Address: 17/13 Pearl St, Kingscliff NSW 2487

Phone: 0437339445 **E-mail:** j.travaglia@virtusheritage.com.au

Site Context Information

Land Form Pattern: Undulating Plain **Land Use:** Transport Corridor

Land Form Unit: Slope **Vegetation:** Isolated clumps of trees

Distance to Water (m): 400 **Primary Report:** Jindera BESS Project Archaeological Assessment

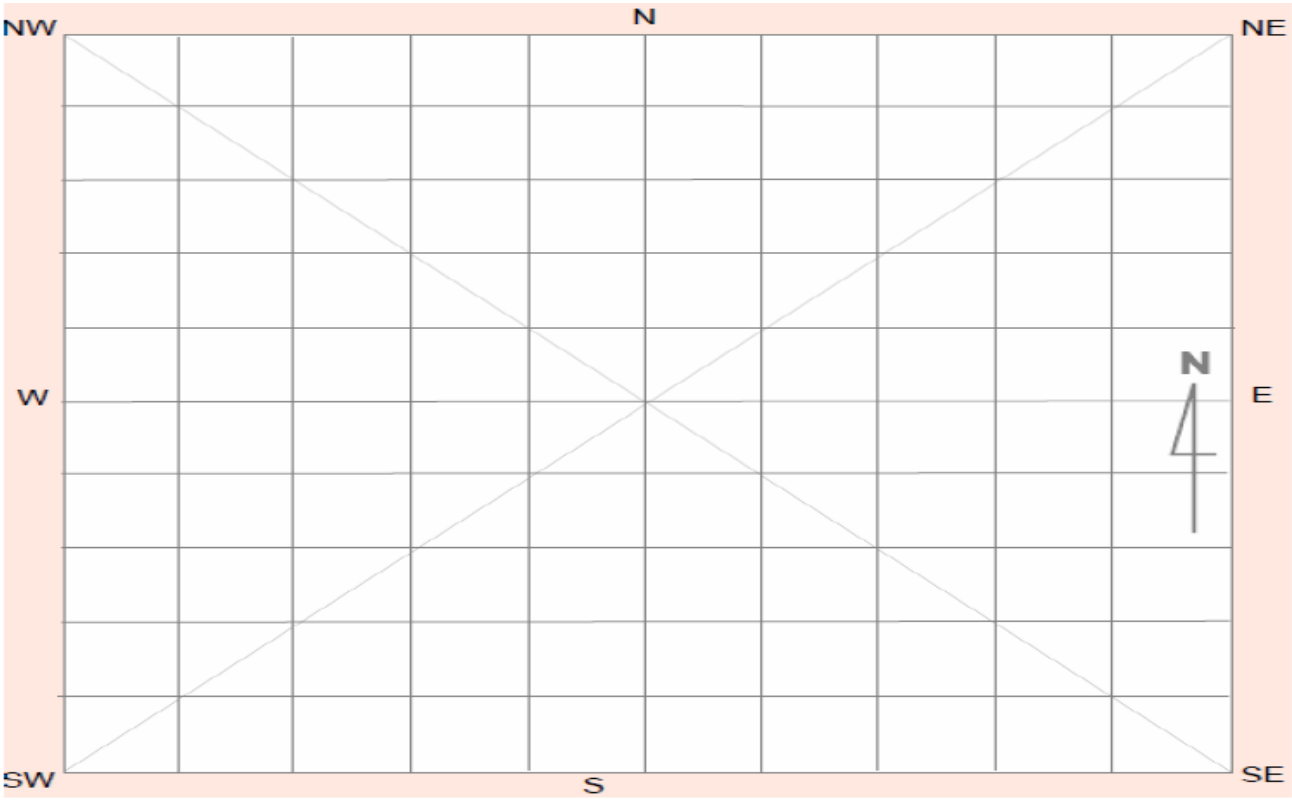
How to get to the site: Drive approx. 690m north east from the Lindner Road/Ortlipp Road Intersection, Jindera. The Scarred Tree is located on the south sid eof Ortlipp Rd.

Other site information: The scarred tree is located on the south side of Ortlipp Road within the road easement. The ground surface has previously been disturbed with an undulating surface and piles of windrow around the base of the tree.

Site location map



Site plan



Site contents information

open/closed site: Open **Site condition:** Poor

Features:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees: Scar Depth (cm)	Scarred Trees: Regrowth (cm)	Scarred Trees: Scar shape	Scarred Trees: Tree Species
1.	Modified Tree	1	76	43	11	9	Oval	Other

Feature condition: Poor

Description:

A single scar orientation to the west. Scar is ovoid. Tree species unable to be identified as the tree is dead but still standing with an approximate height of 35m.

Features:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees: Scar Depth (cm)	Scarred Trees: Regrowth (cm)	Scarred Trees: Scar shape	Scarred Trees: Tree Species
2.								

Feature condition:

Description:

Features:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees: Scar Depth (cm)	Scarred Trees: Regrowth (cm)	Scarred Trees: Scar shape	Scarred Trees: Tree Species
3.								

Feature condition:

Description:

Features:

	Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees: Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
4.							

Feature condition:

Description:

Features:

	Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees: Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
5.							

Feature condition:

Description:

Site photographs



Description: Overview of scarred tree, view to east north east.



Description: Scarred Tree, view to east



Description: Close up of scar

Description:

Site restrictions

Do you want to Restrict this site?:

Restriction type: Gender General Location

Why is this site restricted?:

Further information contact

Title	Surname	First name
Mr.	Saddler	Mark

Organisation: Cultural Awareness

Address:

Phone: 0412693030 **E-mail:** marksad@live.com.au

Site interpretation and community statement

The tree is at risk of falling/collapse due to being dead with large existing branches up to 35m in height still extant. The tree is also on a slight lean with the top branches extending out over Ortlipp Road. Recommendations from Mark Saddler (Traditional Custodian- Bundyi Aboriginal Cultural Knowledge) identified the tree at risk of falling and some lopping of branches required, monitored by Registered Aboriginal Party representative. For further information relating to this scarred tree, please contact Mark Saddler - Cultural Awareness 0412693030.