Appendix D

Aboriginal Cultural Heritage Assessment Report

Oriens Energy Pty Ltd
Tamworth Solar Farm
Cultural Heritage Assessment
Tamworth LGA NSW

December 2019

AREA
ENVIRONMENTAL CONSULTANTS & COMMUNICATION

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Advanced Regional Environmental Assessments (AREA)

- ✓ Environmental impact assessment, auditing and approvals
- ✓ High level preliminary environmental assessment (PEA)
- ✓ Review of environmental factors (REF)
- ✓ Peer review
- ✓ Community engagement
- ✓ Biobanking and biodiversity offsetting assessments
- ✓ Aboriginal heritage assessments and community walkovers
- ✓ Landscape architecture and design

AREA Environmental Consultants & Communication acknowledge Traditional Owners of the country on which we work

Executive Summary

Oriens Energy Pty Ltd is seeking approval under Division 4.1, Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) for a Development Application (DA) for the Tamworth Solar Farm (the proposal) on Lot 186 DP755340. This State Significant Development (SSD-9264) is comprised of three Development Areas cumulatively on 200.49 hectares of land (Figures 1-1 to 1-8):

- The Solar Farm, 200.04 hectares
- The deceleration lane at the intersection of Oxley Highway and Babbinboon Road, 0.41 hectares
- An area requiring one tree, a mature acacia, removed to improve sight distance at Babbinboon Road and Warminster Road intersection, 0.04 hectares.

The Solar Farm Development Area is located approximately seven kilometres south of Somerton in the Tamworth Local Government Area (LGA). Ancillary sight distance work at Warminster and Babbinboon Roads intersection and a proposal deceleration lane on Oxley Highway for Gunnedah bound traffic at the Babbinboon Road intersection, are both 4.5 kilometres from Somerton.

The proposal involves the construction of an 80MW Photovoltaic (PV) facility and a Battery Energy Storage System (BESS). Oriens Energy has an option to purchase the property. It is intended that the PV Facility will have minimal impact to the overall landscape when decommissioned.

An Environmental Impact Statement (EIS) is required as part of the approval process. The Standard Environmental Assessment Requirements (SEARS) for the EIS state that an Aboriginal and historic heritage assessment be carried out including adequate consultation with the local Aboriginal Community. This report presents the results of an assessment of Aboriginal heritage.

A field survey took place on Tuesday to Thursday 17 to 19 September 2019 as part of the assessment. It was attended by three representatives of the local Aboriginal community and two staff members from AREA. The results and recommendations of the assessment for Aboriginal heritage are as follows:

Aboriginal Heritage

Twenty-two Aboriginal sites were recorded in two Development Areas, the Solar Farm (22 sites) and the Deceleration Lane at the intersection of Oxley Highway and Babbinboon Road (one site). Eleven isolated finds (stone artefact, IF), nine open camp sites (more than one stone artefact within 50 metres of another, OS) and two culturally modified trees (CMT) were recorded. The Deceleration Lane Development Area has one open camp site and the rest of the Aboriginal sites were recorded on, or immediately next to the Solar Farm Development Area.

Ground surface visibility was generally very high in all three Development Areas.

The Solar Farm Development Area is on Category 1 Land as defined under the *Local Land Services Act 2013.* Property Vegetation Plan approval number 22PVP00121 (17 December 2014, Appendix D). allows routine agricultural management activities such as ploughing. Due to ploughing and the depth of surface soils, this assessment finds there is a low likelihood for significant sub-surface remains of Aboriginal cultural heritage.

Under the design for the proposal provided by Oriens Energy, ten Aboriginal sites (five isolated finds and five open camp sites) will be affected by the proposal and 11 are at risk of inadvertent impact (six isolated finds, four open camp sites and two culturally modified trees).

The Deceleration Lane Development Area is in an existing stockpile in a state highway road corridor area and is substantially disturbed. This assessment finds there is a low likelihood for significant sub-surface remains of Aboriginal cultural heritage.

The Sight Distance Development Area is in a local road corridor on the bank of Onus Creek, a Strahler Second Order drainage line. This area has been substantially disturbed though road work and causeway construction. This assessment finds there is a low likelihood for significant sub-surface remains of Aboriginal cultural heritage.

The proposal will affect Aboriginal objects, therefore, the following recommendations are made for Aboriginal cultural heritage to be included in a Cultural Heritage Management Plan (CHMP):

1. Should the consent for the removal of any Aboriginal object be given, the following mitigation measures are recommended:
    - The Registered Aboriginal Parties should be consulted over the process of impact, conservation or mitigation.
    - Any conditions accompanying the consent for impact, conservation or mitigation of Aboriginal objects must be followed.
    - An Aboriginal Site Impact Recording form will need to be submitted for each Aboriginal site damaged or destroyed.
2. In order to avoid accidental or inadvertent impact, the following measures are recommended:
    - The locations of Aboriginal objects should be provided to the relevant supervisors responsible for the construction and operation of the solar farm and associated ancillary infrastructure. They should be informed Aboriginal objects are protected sites under the NPW Act and no harm is to come to them. The presence of the Aboriginal objects should be made clear to the workforce as part of an induction.
    - The induction / orientation of location of the Aboriginal objects would be undertaken by Registered Aboriginal parties who completed the field assessment.
    - Should any of the Aboriginal objects deteriorate to the point that they are at risk during the operation of the solar farm, further management measures will need to be formulated with the assistance of the local Aboriginal community and a heritage professional.
3. Any CHMP developed for the management of cultural heritage will need to include an unexpected finds protocol that includes the obligations of a person who encounters an Aboriginal object. This protocol should form part of the induction for any workforce that is involved in the construction or operation of the solar farm.

Document Controls

Proponent	Oriens Energy Pty Ltd
Client	PROJECT.e-
Project No / Purchase Order No	TBA
AREA Job No.	QU-178
Document Description	Aboriginal cultural heritage assessment: Tamworth Solar Farm
Clients Representative Managing this Document	Daryl Brown
AREA Person(s) Managing this Document	Phil Cameron (PJC) Principal Consultant
Cover image	Representative image of how the Solar Farm will look

Document Status	Version	Date	Action
DRAFT (Internal document)	V1.0	21/10/19	PJC to GP
	V1.1	21/10/19	Reviewed
DRAFT (AREA / Client)	V2.0 V2.1 V2.2 V2.3	21/10/19 22/10/19 29/10/19 31/10/19	AREA to Client Comments addressed and reissued Issued to RAPs Revisions made, AREA to Client
FINAL	V3.0 V3.1	9/12/19 20/12/19	Stage 4 / CHMP on site meeting with all RAPs Revisions made, AREA to Client and all RAPs

Prepared For	Daryl Brown Senior Environmental Consultant **PROJECT.e-** M. 0408 555 084 http://www.projecte.com.au/
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Table of Contents

FIGURES

TABLES

Terms and acronyms used in this document

Acronym	Definition
BOM	Bureau of Meteorology
CEMP	Construction Environment Management Plan
DEC	Department of Environment and Conservation
DECC	Department of Environment and Climate Change
DECCW	Department of Environment, Climate Change and Water
DEWHA	Department of Environment, Water, Heritage and the Arts
DPIE	Department of Planning, Industry and the Environment
EIS	Environmental Impact Statement
EPBC	Environment Protection and Biodiversity Conservation Act 1999
GIS	Geographic information system
GPS	Global positioning system
LALC	Local Aboriginal Land Council
LEP	Local Environmental Plan
LGA	Local Government Area
MNES	Matters of National Environmental Significance
NP&W Act	National Parks and Wildlife Act 1974
NPWS	National Parks and Wildlife Services
NSW	New South Wales
OEH	Office of Environment and Heritage
proposal	Development of an 80MW Solar PV Facility and BESS (Approx. 200.04 hectares). The site is located on Lot 186 DP755340
RAP	Registered Aboriginal Party
SEARS	Secretary's Environmental Assessment Requirement
SEPP	State Environmental Planning Policy
SSD	State Significant Development
Development Area	Cumulatively all components disturbance areas affected by the proposal i.e. the Solar Farm Subject Site, the Access Road Subject Site, the Water Pipelines Subject Site etc.
Subject Site	An individual component disturbance area i.e. the Access Road Subject Site

1 Introduction

1.1 Background

AREA Environmental Consultants & Communication (AREA) was commissioned by PROJECT.e- on behalf of Oriens Energy Pty Ltd (the Proponent) to complete an Aboriginal cultural heritage assessment for a proposed solar farm near Tamworth, NSW (the proposal).

The Proponent is seeking approval for a Development Application (DA) under Division 4.1, Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) on Lot 186 DP755340. An Environmental Impact Statement (EIS) is required as part of the approval process. The Standard Environmental Assessment Requirements (SEARS) for the EIS state that an Aboriginal heritage assessment be carried out, including adequate consultation with the local Aboriginal Community.

This assessment addresses requirements of the following legislative frameworks:

International agreements

- The Burra Charter (Australia ICOMOS 2013)

Commonwealth legislation

- *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)

State legislation

- *Environmental Planning and Assessment Act 1979* (EP&A Act)
- *National Parks and Wildlife Act 1974* (NPW Act)

1.2 Locality

The proposal involves the construction of an 80MW Photovoltaic (PV) facility and associated Battery Energy Storage System. The Tamworth Solar Farm (the proposal) State Significant Development (SSD-9264) is comprised of three Development Areas cumulatively on 200.49 hectares of land (Figures 1-1 to 1-8):

- The Solar Farm, 200.04 hectares
- The deceleration lane at the intersection of Oxley Highway and Babbinboon Road, 0.41 hectares
- An area requiring a tree removed to improve sight distance at Babbinboon Road and Warminster Road intersection, 0.04 hectares.

The Solar Farm Development Area is located approximately seven kilometres south of Somerton in the Tamworth Local Government Area (LGA). Ancillary work at Warminster and Babbinboon Roads intersection and the deceleration lane for Gunnedah bound traffic at the Oxley Highway and Babbinboon Road intersection are both 4.5 kilometres from Somerton.

All three Development Areas are on land subject to previous significant ground surface disturbance activities.

The regional geographical context of the Development Areas is provided in Table1-1.

Figure 1–1: Location of the Development Areas

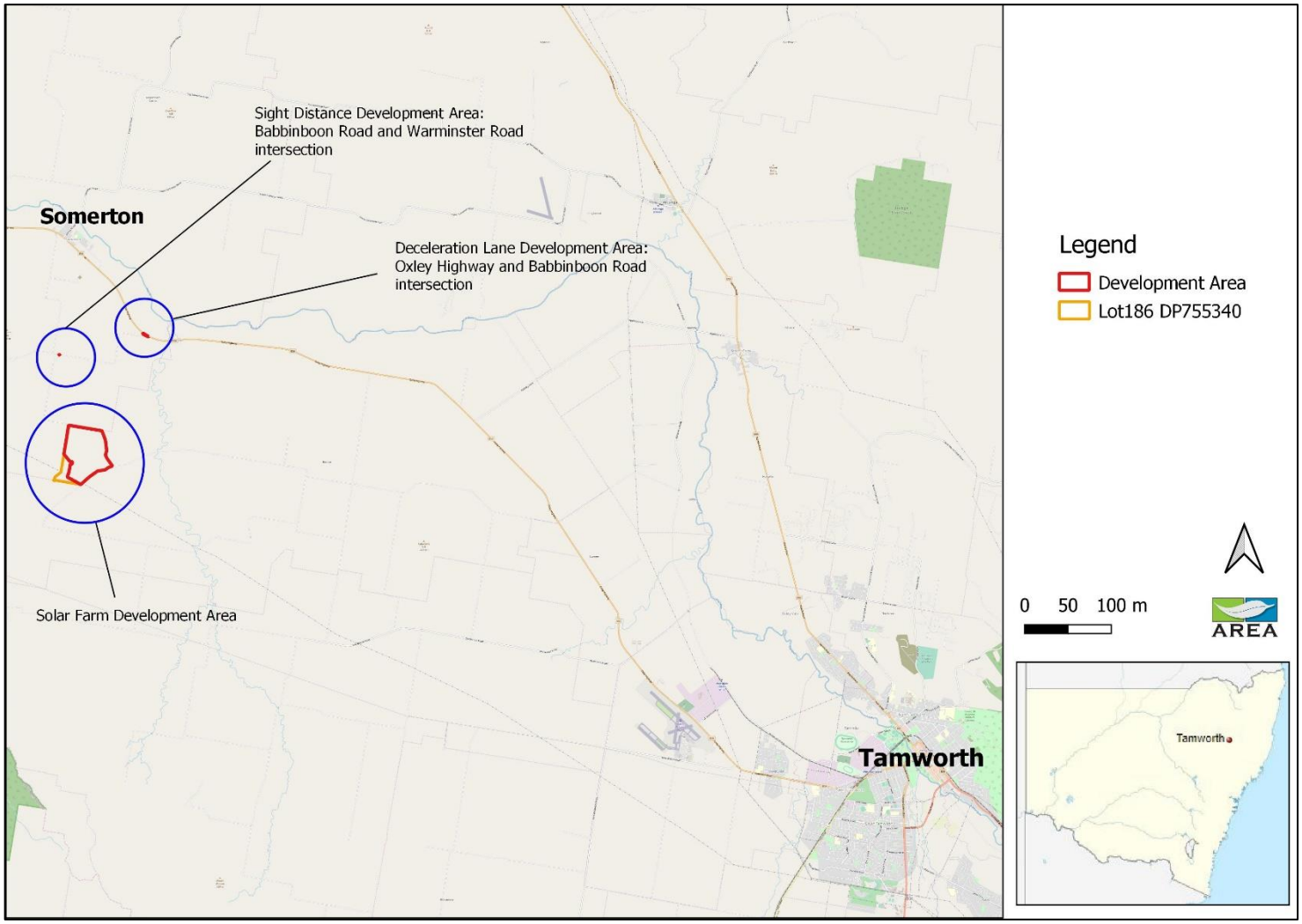


Figure 1–2: Aerial view of the Solar Farm Development Area

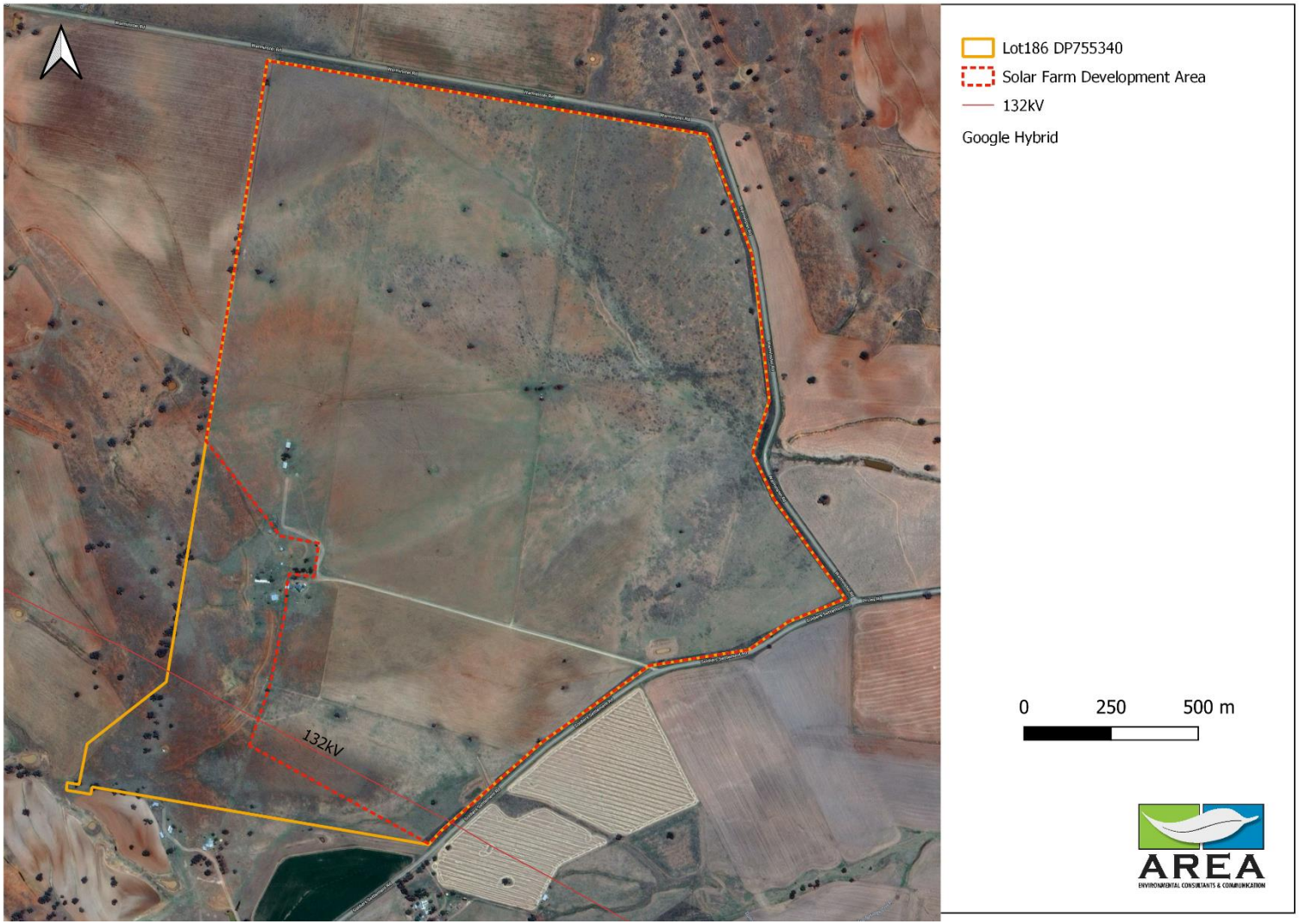


Figure 1–3: Topographical view of the Solar Farm Development Area

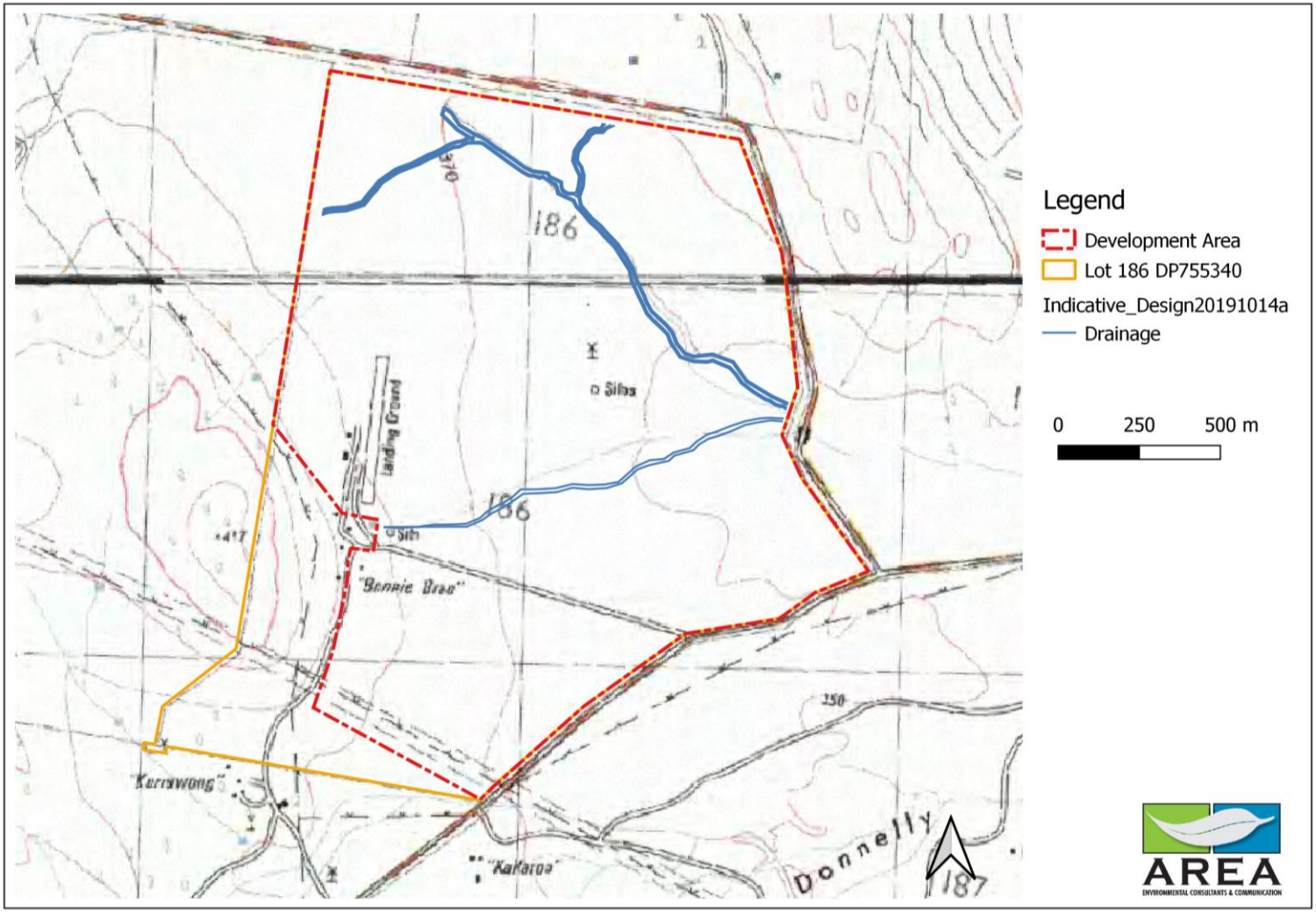


Figure 1–4: Aerial view of the deceleration lane at the intersection of Oxley Highway and Babbinboon Road Development Area

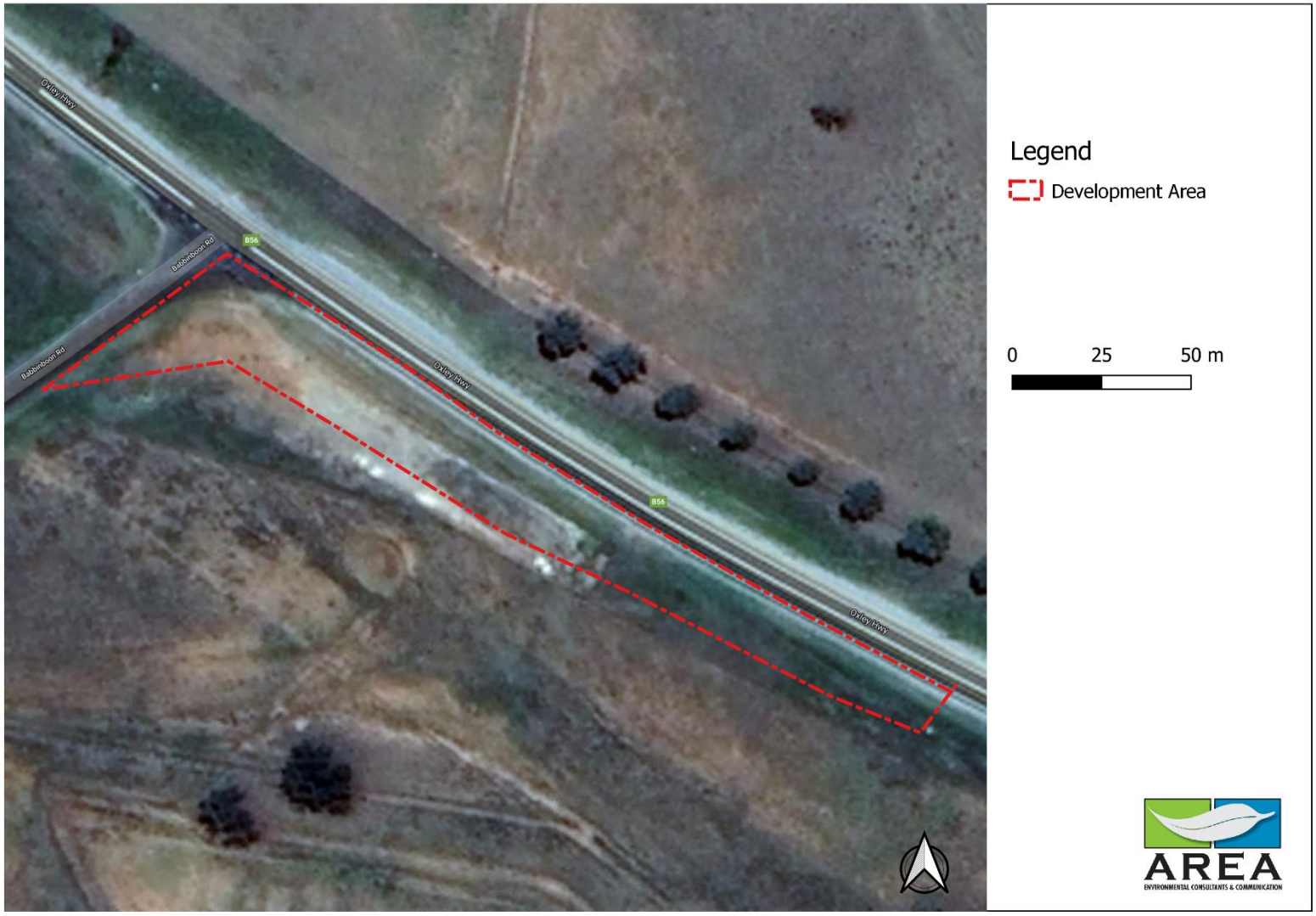


Figure 1–5: Topographical view of the deceleration lane at the intersection of Oxley Highway and Babbinboon Road Development Area

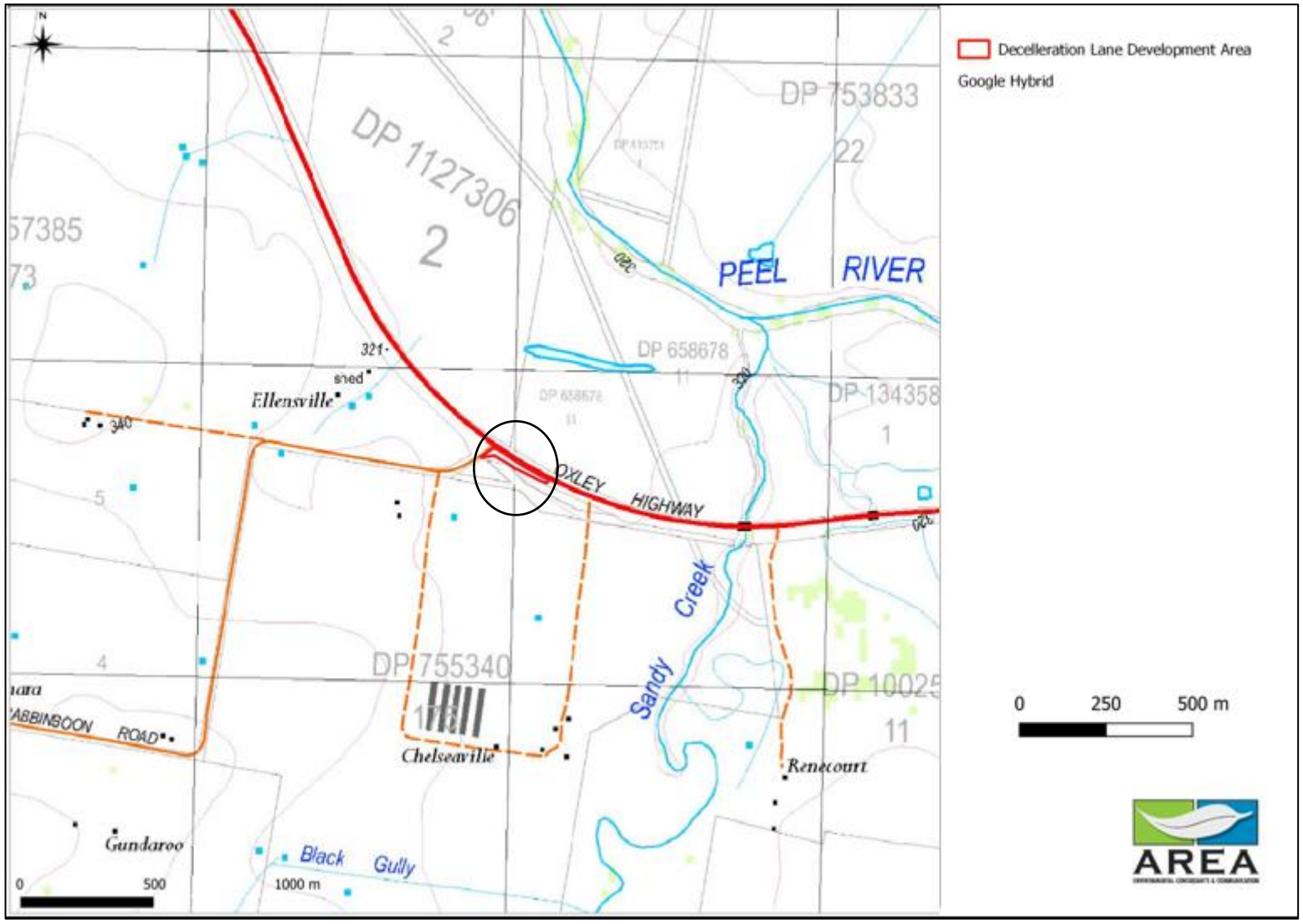


Figure 1–6: Aerial view of sight distance at Babbinboon Road and Warminster Road Development Area

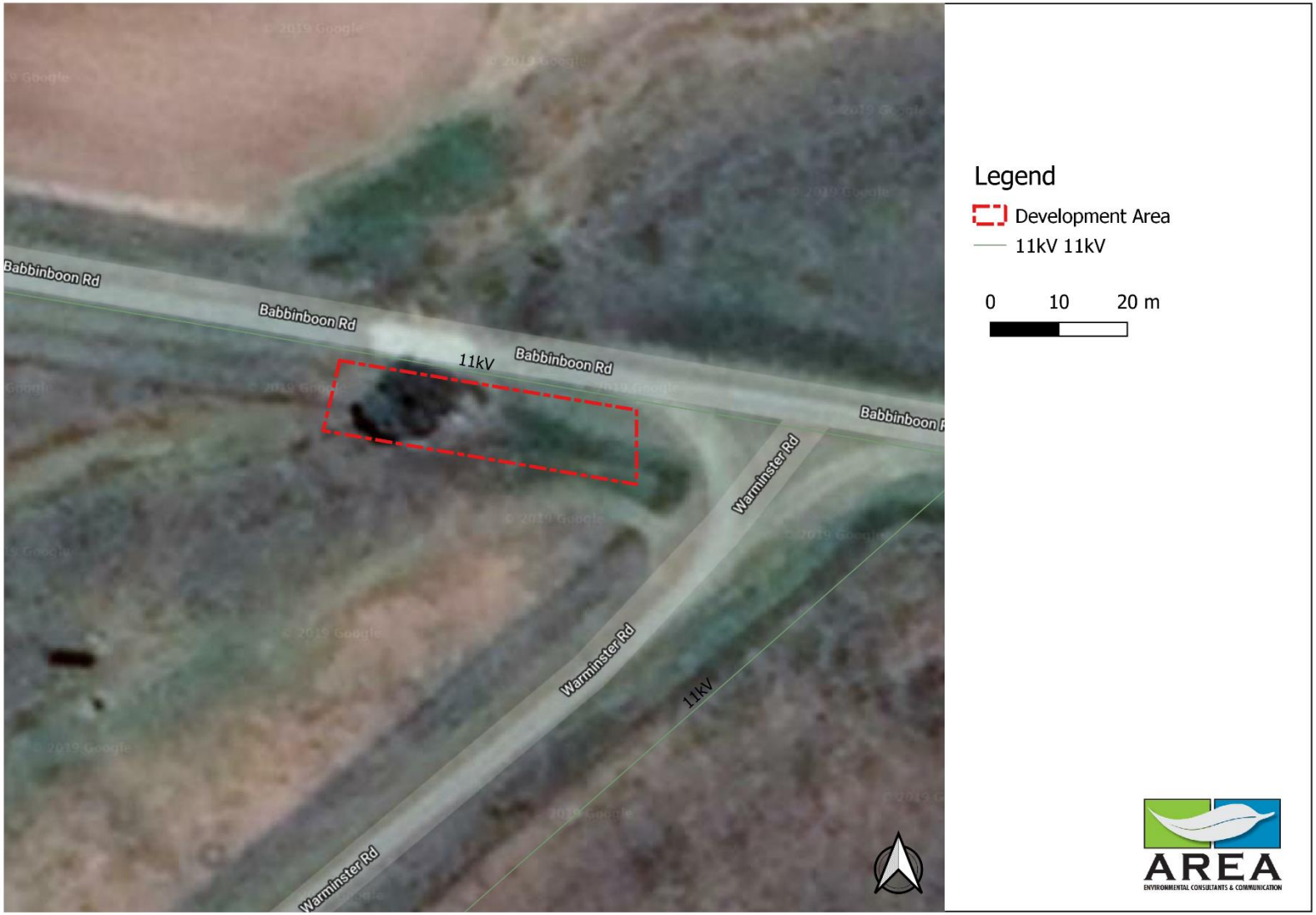


Figure 1–7: Topographical view of sight distance at Babbinboon Road and Warminster Road Development Area

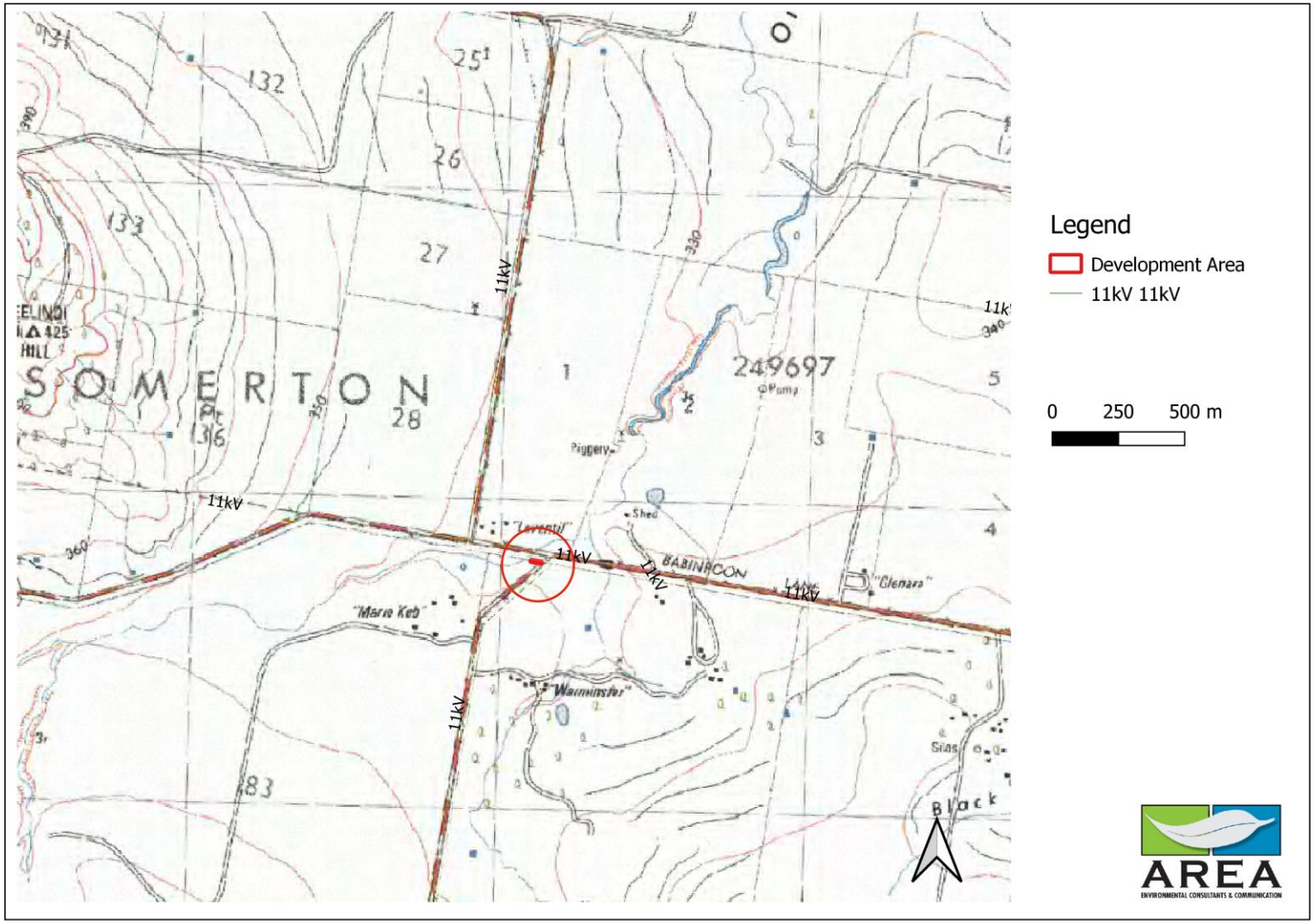


Table 1-1: Regional geographical context of the Development Area

Criteria	Solar Farm	Deceleration Lane	Sight Distance
Central coordinates (GDA94 z56)	275135.149,6567833.561	274211.205,6571004.721	276942.136,6571735.295
Interim Biogeographic Regionalisation for Australia (IBRA Region)	Nandewar Bioregion Peel subregion NSW		
State	New South Wales		
Topographical map sheet	Somerton 1:25K 9036- 3-S		
Local Government Area	Tamworth LGA		
Local Aboriginal Land Council area (LALC)	Tamworth LALC		
Schedule of Native Title Determination Applications relevant to the study area (Claims, ILUA Future Acts etc.)	No registered or conditional claims		
AHIMS study area search results	No previously recorded Aboriginal sites on the AHIMS database plot within the study area. Within a 10KM radius there are 16 Aboriginal sites.	No previously recorded Aboriginal sites on the AHIMS database plot within the study area.	No previously recorded Aboriginal sites on the AHIMS database plot within the study area.
Nearest town / locality	Somerton (locality) (7 km N)	Somerton (locality) (4.5 km E)	Somerton (locality) (4.5 km S)
Accessed from nearest town by	Oxley Hwy along Racecourse and Warminster Roads	Oxley Hwy to Babbinboon Road	Oxley Hwy along Babbinboon Road to Warminster Road
Land use / disturbance	Intensive agriculture (ploughed landscapes).	RMS stockpile area	Local road corridor
Nearest waterway (Name, Strahler Order)	The study area possesses three unnamed Strahler 1st Order and one unnamed second order drainage lines. These drainage lines are Unlikely Key Fish Habitat under the NSW FM Act. This drainage line drains into sandy Creek 2km to the East which in turn drains into the Peel river 5km to the North.	Peel river 850 m North. Peel River is Key Fish Habitat under the NSW FM Act.	On the banks of Onus Creek, a Strahler 2nd Order drainage line. These drainage lines are Unlikely Key Fish Habitat under the NSW FM Act. This drainage line drains into the Peel river 5km to the North.
Spot point Australian Height Datum (AHD)	Lowest point is 350 m the highest is, an unnamed hill is 410 m AHD.	320 m AHD.	330 m AHD.
Surrounding land use	Grazing, ploughed agriculture	Road corridor. Grazing, ploughed agriculture	Road corridor. Grazing, ploughed agriculture
Expected disturbance footprint land use	Grazing, ploughed agriculture	Road corridor.	Road corridor.

1.3 Project description

The proposal involves the construction of a 80MW Photovoltaic (PV) and Battery Energy Storage System (BESS) facility located on approximately 200.04 ha of farmland (Figure 1–28).

Oriens Energy has an option to purchase the land. The facility if, or when decommissioned will restore the land to its former use in agricultural pursuits. It is intended that the PV Facility will have minimal impact to the overall landscape when decommissioned.

The system is to be operated remotely with physical presence on the site limited to maintenance activities and inspections.

The PV facility will consist of the following components:

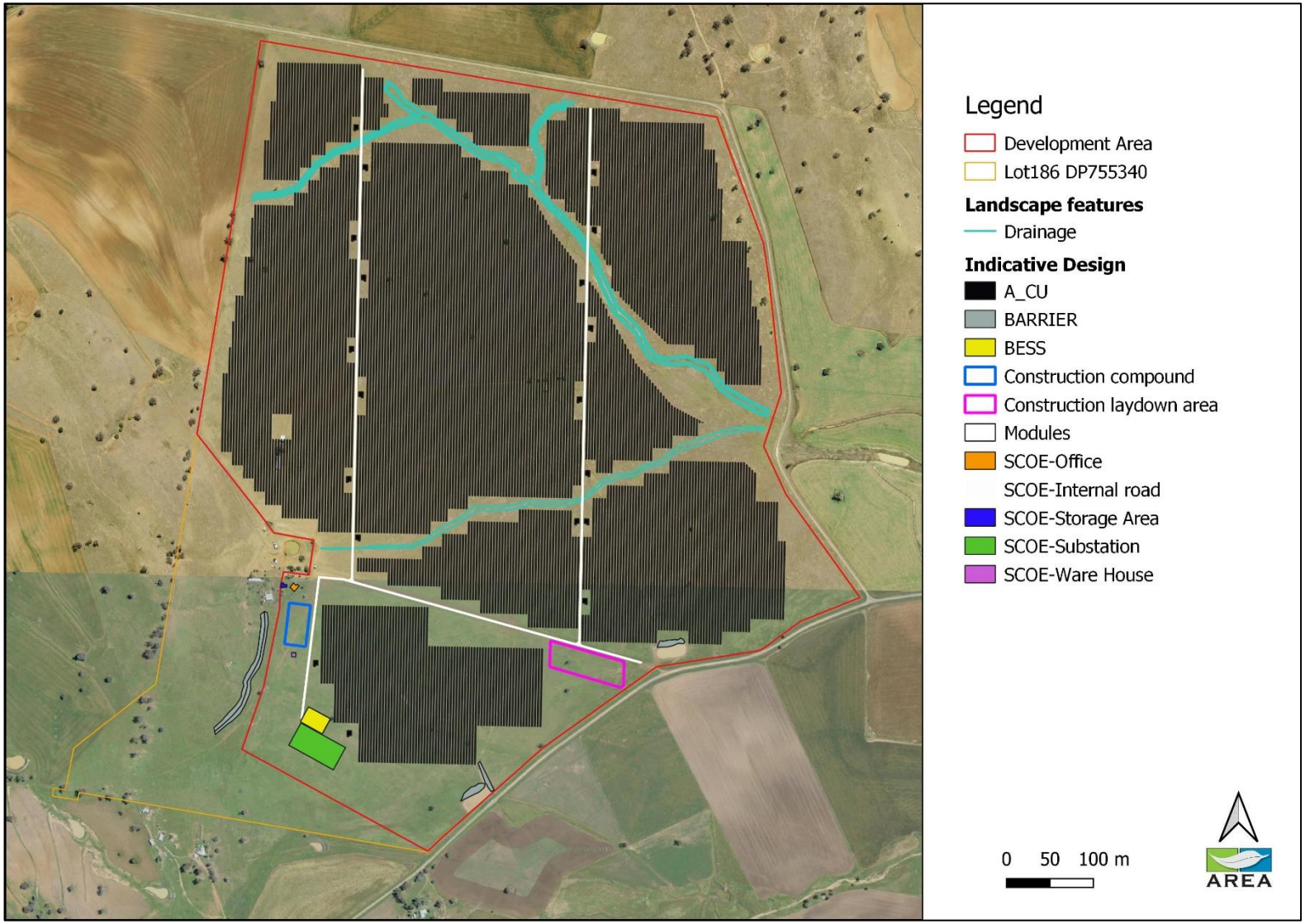
- Solar panels (also known as “modules”)
- A BESS facility
- Steel module mounts
- Electrical transformers and inverters
- Electrical wiring
- Telecommunications equipment (an approximately seven-metre-high pole if required)
- Electrical metering and switchgear housed inside a cabin
- Informal employee parking area
- Perimeter fencing and access gates.

The facility will include a battery/electrical storage system that would be housed in electrical enclosures approximately the size of a shipping container.

The extent of civil works to occur on the site will include the following:

- Site preparation, tree removal and minor earth work for buildings, temporary handstand and compound areas and for roads.
- Helical or screw piles for the foundations (1.5-metre-long x 1.5-metre-high, in strings of 100 metre, with a five metre **or** nine metre gap between centres)
- Trenching for the electrical wiring
- The internal access track leading from the main entrance will be graded and surfaced with crushed rock, there will be no formalised internal roads provided between panels.
- The existing soil will be retained and reseeded to provide grass coverage over the site. Grass will be maintained through periodic slashing or potential grazing opportunities.

Figure 1–8: Indicative design of the Solar Farm Development Area



1.4 Assessment objectives

The objectives of the cultural heritage assessment are as follows:

- Identify any recorded Aboriginal archaeological sites using database searches and assess the likelihood for such sites using background information
- Consult with the Aboriginal community regarding the proposal and seek out any relevant information about the Development Area they may have
- Undertake a physical inspection of the Development Area to identify any unrecorded sites of Aboriginal heritage and assess the possible need for further investigation
- Evaluate the significance of any sites of cultural heritage within the Development Area with the advice of the Aboriginal community, as well as the potential impact that the proposal will have on them
- Provide recommendations for the treatment of any cultural heritage remains within the Development Area.

1.5 Report structure

This report conforms with the reporting requirements set out in the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (NSW OEH 2011a) and the *Guide to Investigating, Assessing and Reporting on Aboriginal Heritage in NSW* (NSW OEH 2011b).

Table 1-2: Report structure

Section reference	Section heading	Description
1	Introduction	background to the project and purpose of the report
2	Legislative Context and SEARS	overview of relevant legislation in regard to heritage
3	Aboriginal Community Consultation	details of consultation with the Aboriginal community regarding the project
4	Landscape Features	environmental information that is relevant to the presence and survival of heritage items in the Development Area
5	Archaeological Context	local and regional archaeological information that is relevant to assessing the potential for archaeological remains and their significance
6	Field Methods	description of the methodology used for the physical assessment of the Development Area
7	Fieldwork Results	summary of the results of the fieldwork
8	Impacts and Management	impacts that the proposal will have on any identified heritage items and proposed management
9	Recommendations	suggested steps for the Proponent to take with regards to heritage
11	References	list of reports, books, websites and other resources used to produce this report

1.6 Project personnel

This assessment was carried out by appropriately experienced or qualified staff (Table 1-3). The Registered Aboriginal Parties headed the site assessment, planning and identification of Aboriginal objects while Phillip Cameron from AREA did the recording and assisted with surveys.

Table 1-3: Summary the project team's qualifications

Name	Position	CV Details	Suitability for the task
Steve Talbot	Sites Officer Gomeroi People Native Title Claimants. On this job he was responsible for field assessment planning and site identification.	• Registered Native Title Claimant. • Extensive Sites Officer experience - over 25 years.	• Steve is an appropriately skilled and experienced person in the field of Aboriginal cultural heritage management and has extensive local cultural heritage site identification and field work planning skills.
Don Fermor & Lynda Bartel	Sites Officers Tamworth Local Aboriginal Land Council. On this job they were responsible for field assessment planning and site identification.	• Local long term residents • Extensive Sites Officer experience - over 25 years.	• Lynda and Don are appropriately skilled and experienced persons in the field of Aboriginal cultural heritage management. • Lynda has specific women's business site knowledge and Don has broader but extensive local cultural heritage site identification and field work planning skills.
Phillip Cameron	Principal consultant. On this job he was responsible for recording all sites identified by the survey team and assisted with site survey as required.	• BSc. Macquarie University • Ass Dip App Sci. University of Queensland • Certified Environmental Practitioner (EIANZ) • Practicing member of the Environment Institute of Australia and New Zealand (EIANZ)	• Phillip Cameron is an appropriately skilled and experienced person (degree or relevant experience) in the field of Aboriginal cultural heritage management, the equivalent of two years full-time experience in Aboriginal archaeological investigation, including involvement in a project of similar scope, a demonstrated ability to conduct a project of the scope required through inclusion as an attributed author on a report of similar scope) under the *NSW OEH Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW*. • Phillip has been undertaking heritage assessments as an environmental consultant since 2004.
Gabbi Green	Environmental officer at AREA. On the job Gabbi facilitated the stakeholder engagement process in the ACHCRs and assisted with site survey and identification.	• BSc. New England University (in prep)	• Gabbi is of Gomeroi descent and is ideally placed for stakeholder engagement. • On this job Gabbi also learnt site survey and identification techniques from her cultural peers, Lynda, Steve and Don.
Addy Watson	Principal Environment and Community Consultant. On this	• Grad. Dip. Captive Vertebrate Management	• Addy has experience implementing environmental assessments and monitoring

Name	Position	CV Details	Suitability for the task
	job Addy reviewed the deliverable against AREAs ISO9001 QMS Process	• Grad. Cert. Social Impact • B. Env. Sc. • Diploma Project Management	operations pre and post approval for projects including state significant projects such as linear developments, mining operations, quarry expansions and conservation projects. Addy has a conservation (NSW government), regulation (NSW EPA) and mining, (Tomingley Gold Mine) working life background.

2 Legislative context and SEARs

2.1 SEARs

This assessment will be used to support the preparation of the EIS required under Division 4.1, Part 4 of the EP&A Act. SEARs relevant to this report are summarised in Table 2-1.

Table 2-1: Summary of SEARs relevant to heritage.

SEARs
Heritage – including an assessment of the likely Aboriginal and historic heritage (cultural and archaeological) impacts of the development, incorporating adequate consultation with the local Aboriginal community. **Consultation** – During the preparation of the EIS, you should consult in accordance with the Aboriginal Heritage Consultation Requirements for Proponents (ACHCRs).

As a request from the Department of Planning & Environment, formerly OEH (now DPIE) provided input into the SEARs (Appendix A). The letter included the following recommendations for the EIS relating to heritage:

Aboriginal cultural heritage

- The EIS must identify and describe the Aboriginal cultural heritage values that exist across the whole area that will be affected by the Tamworth Solar Farm and document these in the EIS.
- Where Aboriginal cultural heritage values are identified, consultation with Aboriginal people must be undertaken and documented in accordance with the Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW).
- Impacts on Aboriginal cultural heritage values are to be assessed and documented in the EIS. The EIS must demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the EIS must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and notified to OEH.

2.2 Relevant Legislation

2.2.1 The Burra Charter (Australia ICOMOS 2013)

Australia ICOMOS (International Council on Monuments and Sites) has developed a set of principles and practices for the management of cultural heritage in Australia. Local government authorities including the NSW OEH have used the Burra Charter to guide their own heritage management documents. The charter promotes the conservation of places of cultural significance (Australia ICOMOS, 2013: 3). It placed an emphasis on understanding significance as the basis for managing the heritage values for a place, as well as the importance of consulting with community groups to achieve this understanding (Australia ICOMOS, 2013: 4, 8).

2.2.2 Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

The EPBC Act is the primary framework of legislation for the protection of nationally significant ecological communities and heritage places. The act also has jurisdiction over environmental impacts other than those of national significance where they occur on commonwealth-owned land. The EPBC Act becomes the primary piece of legislation for the approval of a project when a proposal may significantly impact a matter of national environmental significance. In this case, the assessment is referred to the Department of Sustainability, Environment, Water, Population and Communities.

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

The EP&A Act establishes any development needing consent must adhere to the requirements of the relevant consent authority. Under Part 79C of the Act, the consent authority must take into consideration any relevant environmental planning instrument (e.g. the NPW Act).

Division 4.1 of the EP&A Act relates to State Significant development. Under Part 89, the minister may grant or deny consent for a development application. It also states that regulations may be made regarding the preparation of an environmental impact statement that accompanies a development application. Consent for a State Significant Development is conditional upon the adherence to these regulations.

2.2.4 National Parks and Wildlife Act 1974 (NPW Act)

Under the NPW Act, the Director-General of the NPW is responsible for the care and protection of Aboriginal objects and places in NSW. An *Aboriginal object* means any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains. An *Aboriginal place* means any place of special significance with respect to Aboriginal culture as declared by the Minister.

Under Section 86 of the Act, a person must not harm an Aboriginal object or place. However, the Chief Executive may issue an Aboriginal Heritage Impact Permit (AHIP) subject to conditions. Penalties are in place for anyone who breaches these conditions or knowingly defaces or destroys and Aboriginal object or place without a permit.

2.2.5 Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW

This Code of Practice establishes the requirements for undertaking test excavation as part of archaeological investigation without an Aboriginal Heritage Impact Permit (AHIP) and the requirements when carrying out archaeological investigation in SNW where an application for an AHIP is likely to be made.

This proposal is a State Significant Development, and as such the requirement for an AHIP does not apply. Impact to Aboriginal heritage items will be managed using a Cultural Heritage Management Plan.

2.2.6 Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW

This guidance document provides direction regarding the process for investigating and assessing Aboriginal cultural heritage in NSW and presents the NSW government's requirements for an Aboriginal cultural heritage assessment report. Under this document, and the NPW Act, value (social, historical, scientific and aesthetic) is assessed, type and extent of harm is determined, avoidance and minimisation and management principles are applied. Consultation with Aboriginal people is an integral part of the process of investigating and assessing Aboriginal cultural heritage.

2.3 Applicability of legislation to the proposal

The proposal is an SSD and as such is being assessed under Part 4.1 of the EP&A Act.

3 Aboriginal Community Consultation

3.1 Overview

Consultation has been carried out with the local Aboriginal community according to the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*. For details of the consultation process, see Appendix B.

3.2 Stage 1 of Consultation

A range of organisations were contacted on 10 July 2019 to obtain contact details of local Aboriginal people and groups who might want to be consulted on the project. The organisations included Tamworth Local Aboriginal Land Council (TLALC), the Office of Environment and Heritage Northwest branch (OEH), Native Title Service Corporation (NTS Corp), National Native Title Tribunal (NNTT), Office of the Registrar for the Aboriginal Land Rights Act (ALRA), Tamworth Shire Council (NSC) and Local Land Services – Northwest. This process resulted in 56 potential contacts to follow up on.

A letter was sent on 29 July 2019 to each of the contacts obtained through the initial stage of consultation providing background information on the project and offering an opportunity to be consulted.

An advertisement was also posted in the Tamworth local paper- The Northern Daily Leader on 12 July 2019 (Figure 3-1).

Figure 3–1: Expression of Interest in the Northern Daily Leader on 12 July 2019

Expression of Interest
Cultural Heritage Management

AREA Environmental Consultants & Communication (AREA) is seeking expressions of interest from Aboriginal groups or individuals who hold cultural knowledge of the Somerton area near Tamworth who wish to be consulted over a proposed 255-hectare solar farm. AREA has been commissioned by PROJECTe Pty Ltd to facilitate an Aboriginal cultural heritage assessment for the proposal.

The proposal is located about 7km south of the Somerton roadhouse on Oxley Hwy along Racecourse and Warminster Roads. An AHIMS data base search has not identified Aboriginal objects or place and there are no registered or conditional Native Title Determinations on the property.

Any stakeholders are asked to register their interest in consultation for the project by contacting AREA.

Email: gabbi@areaenvironmental.com.au

Post: 6 Belmore Street, Dubbo, 2830 or

Phone: 0439 340 940

All submissions should be received no later than Friday 5pm 26 July 2019.

After Stage 1 of consultation the following Registered Aboriginal Parties (RAPs) were recognised:

- AT Gomilaroi Cultural Consultancy (Aaron Talbott)
- Gomeroi People Registered Native Title Claimants (Steve Talbott)
- Tamworth Local Aboriginal Land Council.

3.3 Stages 2 and 3 of Consultation and Fieldwork

The RAPs were sent a request for cultural knowledge, more detailed project information and an overview of the methodology for a proposed survey by email on 13 August 2019. No specific comment was received in response to the proposed survey methodology.

An invitation was sent to Tamworth LALC to provide two representatives for the field survey. Tamworth LALC notified a male and female site officer would be provided following their terms of engagement. Aaron and Steve Talbott were invited to participate as representatives of the local Gomeroi community. Aaron called AREA on the first day of the assessment to apologise he would not be able to attend.

The field assessment occurred from 17 to 19 September 2019.

The following comments of note were made by the attending representatives of the Aboriginal community. It was generally agreed by all present that:

- A Cultural Heritage Management Plan is required
- The people involved in the sites cultural heritage survey should be present to inform the CHMP
- The Proponent could have dedicated Aboriginal positions in the construction team to assist in implementing the CHMP.

3.4 Stage 4 of Consultation

The RAPs were provided with a draft report on 29 October 2019. The RAPs preferred a face to face meeting rather than to review a report and write a response per Stage 4 of the ACHCRs. To facilitate this, request a meeting to discuss the assessment to date and development of a Cultural Heritage Management Plan (CHMP) was held on the development site on Monday 9 December 2019. The date of the meeting allowed enough time per Stage 4 of the ACHCRs for the RAPs to consider the draft report and the field assessment.

All RAPs attended as well as a representative of the proponent. The intention of this meeting was to discuss the assessment, how cultural matters were reported reported how Aboriginal objects recorded during the assessment would be managed. Once issued were addressed an agreement formed the basis of the CHMP.

A summary of these discussions is detailed in **Table 3-1**. A copy of this report was sent to each RAP on 20 December 2019.

Table 3-1: Meeting minutes to discuss a Cultural Heritage Management Plan (CHMP).

Attribute	Detail
Attendees: Absentees: NIL	1. RAPs: ○ Donny Fermor and Lynda Bartel (Tamworth Local Aboriginal Land Council – T-LALC), ○ Stephen Talbot (Registered Native Title Claimant), ○ Aaron Talbot (Traditional Owner) 2. Victor Bocioc (Oriens Energy) 3. Phillip Cameron and Gabrielle Green (AREA).
Introductions	4. All parties were formally introduced to each other and updated on the project. 5. Phil explained the heritage process and Victor explained pre, during and post construction and operation processes. 6. RAPs explained cultural heritage management process and local protocols.
Key Outcomes	7. Oriens Energy informed there will be three contracting teams working at the same time during construction of the solar farm: ○ Civil ○ Electrical ○ Mechanical 8. Construction will take approximately eight months to complete. 9. The RAPs will provide cultural awareness training during the induction, so all employees are aware of the cultural heritage responsibilities, the possibility of discovery of further artefacts and what to do if this occurs. 10. Oriens Energy will have a community liaison officer; they will not be Aboriginal but will be a dedicated position to liaise with the RAPs.
Vegetation Screens	11. Donny from T-LALC asked if there was going to be any trees planted, and if so, will they be native? 12. Oriens Energy advised native vegetation would be planted AREA stated they have a landscape design and architecture side of the business and can assist with this process.

Attribute	Detail
Aboriginal employement	13. The RAPs wanted to see Aboriginal employment for the project. 14. Oriens Energy confirmed Aboriginal employment was a benchmark for the project and while not a formal arrangement this aspect has been completed on several projects in the past. 15. Oriens Energy stated employment will be through the individual contractors but as part of the engagement process can include a requirement for Aboriginal employment. 16. RAPs advised Oriens Energy that the T-LALC and 'The Hub' an Aboriginal employment and opportunity scheme based in Tamworth have processes in place to manage employment opportunities. Local Aboriginal Land Councils are NSWs peak representative body in Aboriginal Affairs. T-LALC is an Administrative body, is guided by governance and has auditing checks and measures to ensure Aboriginal employment roles are filled with people possessing a confirmation of Aboriginality. 17. Lynda (T-LALC) provided a commitment to approach the T-LALC about helping the Project employing Aboriginal people through 'The Hub'. 18. The RAPs advised that there are possible government grants Oriens Energy could receive if they employed local Aboriginal people.
Culturally Modified Trees	19. AREA asked if culturally modified tree #1 can be removed from the heritage report (but AHIMS site card still submitted) as it is not on land owned by the Project. The RAPs agreed. 20. Culturally modifies trees #2 & #3 will be fenced with a 5m buffer around both trees, to protect the health of the trees and create areas where Aboriginal objects can be relocated to. 21. Each fence will be a timber post and rail structure with a gate, stock proof 1.3 to 1.5m high. 22. Each fenced area to have a sign saying, 'Environmentally sensitive area' and not specifically mention presence of Aboriginal sites. 23. The RAPs have approved for culturally modified trees #2 & #3, an excellent example of this Aboriginal site type, to be used for educational interpretation for both Aboriginal and non-Aboriginal school children both to learn about Aboriginal culture.
Stone Artefacts	24. All RAPs agreed that all stone artefacts were to be collected and moved to their closest modified tree and placed within the 10m buffer. 25. This provides their security and future protection from displacement of damage from machinery
Training and supervision	26. The RAPs advised that all Aboriginal employees sourced for the job would require a standard level of training for artefact detection. This training must be approved by the RAPs and can likely be provided by the T-LALC. 27. If possible, a mixture of genders and ages of Aboriginal employees is desirable.

Attribute	Detail
Aboriginal artefacts collection processes	28. All Aboriginal objects recorded during the field assessment will be collected by Aboriginal people endorsed by the RAPs before construction begins and relocate them to either Culturally Modified Trees #2 & #3. A modified spreadsheet template used the results section of the heritage report showing details and a photo of each object recorded will be used for record keeping. When relocated this artefact log will be updated. The RAPs will audit this as required. 29. If additional stone artefacts are found throughout the duration of construction or operation the artefacts GPS location is to be recorded, photo taken, and the object bagged and tagged. The site supervisor as well as the RAPs will be notified. The artefact is to be taken back to the site office and secured within a lockable box until it can be verified as a genuine Aboriginal stone artefact. The RAPs will provide a second opinion to conform if the object is Aboriginal in origin. 30. If the object is confirmed as an Aboriginal artefact, then it / they can then be moved by Aboriginal people endorsed by the RAPs to the closest culturally modified tree and placed in the 10m buffer fenced area along with the other artefacts. When relocated this artefact log will be updated. The RAPs will audit this as required.

Appendix Y provides a log of consultation of all communication throughout the process.

4 Landscape features

4.1 Overview

A review of the landscape of the Development Area and surrounds allows for comparison with other areas archaeologically investigated. It also assists in assessing existing and previous disturbances which may have affected the integrity of archaeological remains. Environmental features such as landforms, topography, water sources, geology, soils, and vegetation are also relevant for an archaeological assessment.

The proposal is in the lower middle portion of the Nandewar Bioregion, Peel subregion. The Nandewar Bioregion lies in northern NSW and across the Qld border. The bioregion is bounded by the North Coast, New England Tablelands and Brigalow Belt South bioregions in the south, east and west respectively. It spans an area of 2,700,313 hectares, with 2,069,604 hectares or 76.6 per cent of it falling in NSW and occupying 2.59 per cent of the state.

The bioregion encompasses Inverell and Tamworth and the smaller towns of Quirindi, Bingara, Barraba, Manilla and Bendemeer.

4.2 Current Disturbance

Figure 4-1 has been provided to help show where survey units are when levels of disturbance are discussed in Table 4-1. Survey Unit 1 is the Deceleration Lane Development Area and Survey Unit 2 is the Sight Distance Development Area. Survey units 3 to 8 are in the Solar Farm Development Area.

Figure 4–1: Development Area Survey Units

4.2.1 The Solar Farm Development Area, 200.04 hectares

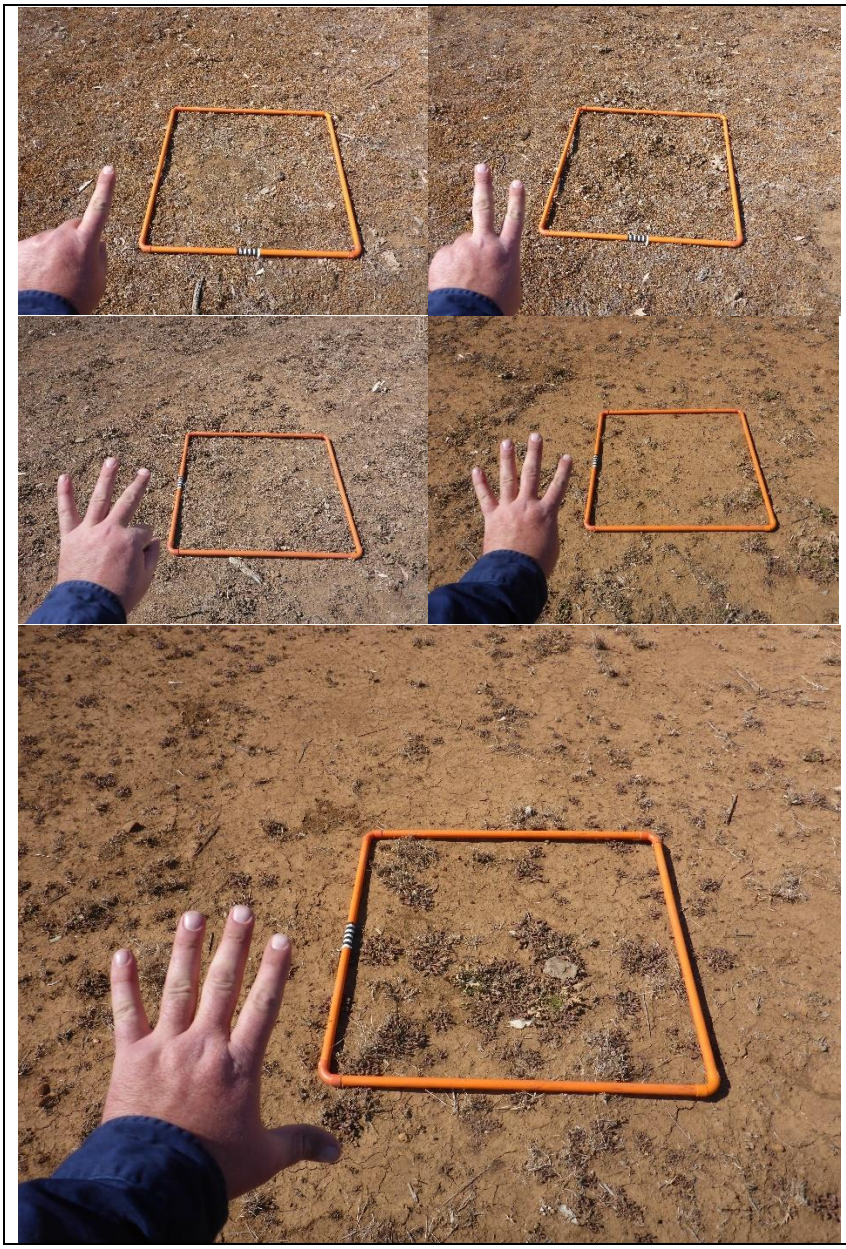
The entire Solar Farm Development Area has been subject to intensive agriculture (land clearing and cropping), Table 4-1. Figure 4–2 provides a copy of the property vegetation plan approved under the *Native Vegetation Act 2003* for continuing Routine Agricultural Management Activities (RAMAs) showing the entire Development Area is and has been subject to ploughing. Ploughs have had a direct impact on the uppermost 30 cm of soils. At the time of the assessment survey units 5 and 6 possessed a crop while survey units 3 and 8 were recently fallow (maybe not ploughed in the last three years). Survey unit 4 and 7 were likely not ploughed in the last five to, less likely, ten years. Notwithstanding, all survey units were, and are, subject to cropping in more favorable seasons.

Tree and, more importantly, native ground cover clearance plus cropping have also destabilised the soils to an unknown depth, which have combined with natural flood events and heavy rainfall to wash surface soils away. It is likely the surface soils present are the upper surface of the B horizon with the majority of the A horizon washed away. Twenty-four mature native trees remain in situ (Figure 4–3). The spacing of the trees is thought to be representative of the pre-European environs, i.e. before being cropped the area was an open grassy woodland / lightly timbered grassland with well-spaced trees. All of these trees are of an age to possess a cultural scar.

The effect of these disturbances on archaeological remains is uncertain, although some conclusions and approximations can be made. Culturally modified (scarred) trees may have been removed within the cropped areas. Other possible site types, such as stone artefact scatters or hearths, would have been heavily disturbed within the uppermost 30 cm of the soil or deeper. The existing soil profile is deflated, or at best thin, even on the erosion resistant basalt derived soils.

Table 4-1: Summary of existing levels of disturbance in the Solar farm Development Area per survey unit.

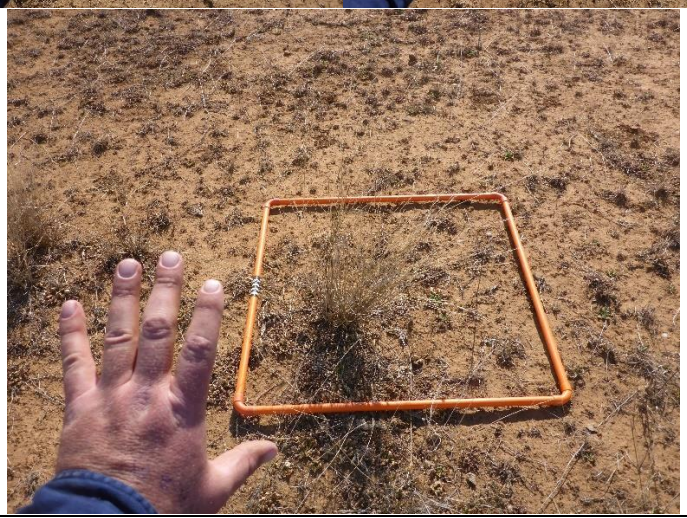
Image	Survey Unit and comment
	**Survey unit 3** Plot 2 (measuring tapes show 20x20 m in 20x50 m nested plot laid out). Basalt erosion resistant but thin soils with many quartzite cobbles on half of the survey unit in middle to southern sections. Grey / red brown cracking clays (thin veneer over basalt layer?) in northern section. Formerly a grassy woodland with well-spaced white box trees. Trees likely cleared for ploughing agriculture and construction of an airstrip. Subject to continuous grazing since European settlement.



The following photos variation of the ground surface in a 1 m2 area at 10 m intervals over the 50m Plot midline (1=5 m, 2=15 m, 3=25 m, 4=35 m, 5=45 m).

Ground surface visibility in this survey unit was excellent.

Likely only ploughed in more favourable seasons (once or twice) every five years and otherwise left fallow.



Survey unit 4

Sandy deflated area 60 m west of the unnamed larger drainage line.

Plot 4 (measuring tapes show 20x20 m in 20x50 m nested plot laid out).

Thin sandy scalded (salty) soils with minor clay component some quartzite cobbles. Soils range from grey / red brown cracking clays (thin veneer over basalt layer?) in northern western section on flat areas, dark brown soils in the south eastern section where water once pooled (likely an ephemeral swamp / floodplain grassland)

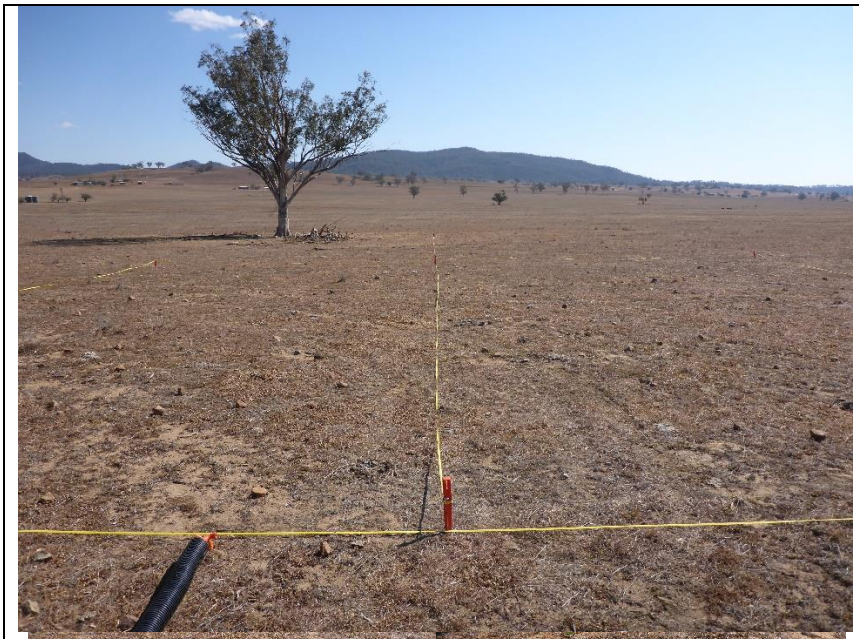
Formerly a grassy woodland with well-spaced white box and Blakely's Red Gum trees. Some trees likely cleared for ploughing agriculture. Subject to continuous grazing since European settlement.

The following photos variation of the ground surface in a 1 m2 area at 10 m intervals over the 50 m Plot midline (1=5 m, 2=15 m, 3=25 m, 4=35 m, 5=45 m).

Ground surface visibility in this survey unit was excellent (70 to 100%).

Likely only ploughed in more favourable seasons (once or twice) every five to ten years and otherwise left fallow.

A large farm dam occurs in the southeastern corner of the paddock in a low-lying area.



Survey unit 4

Elevated area on gently sloping hill area 360m east of the unnamed larger drainage line.

Plot 3 (measuring tapes show 20x20 m in 20x50 m nested plot laid out).

Basalt erosion resistant but thin surface soils with many quartzite cobbles on north east of the drainage line on more elevated landforms.

Formerly a grassy woodland with well-spaced white box trees. Some trees likely cleared for ploughing agriculture. Subject to continuous grazing since European settlement.

The following photos variation of the ground surface in a 1 m2 area at 10 m intervals over the 50 m Plot midline (1=5 m, 2=15 m, 3=25 m, 4=35 m, 5=45 m).

Ground surface visibility in this survey unit was good – about 30 to 50%.

Likely only ploughed in more favourable seasons (once or twice) every five to ten years and otherwise left fallow.

	**Survey unit 5** On gently sloping hill area possessing an unnamed minor drainage line. Basalt erosion resistant but with thin surface soils with many quartzite cobbles. Formerly a grassy woodland with well-spaced white box trees. All trees cleared for ploughing agriculture. Ground surface visibility in this survey unit was excellent – about 70-80%. Regularly ploughed, cropped during field assessment.
	**Survey unit 6** On gently sloping hill 300 m from two minor ephemeral drainage lines. Basalt erosion resistant but thin surface soils with many quartzite cobbles. Formerly a grassy woodland with well-spaced white box trees. All but five native trees cleared for ploughing agriculture. Ground surface visibility in this survey unit was excellent – about 60-70%. Regularly ploughed, cropped during field assessment.

Survey unit 7

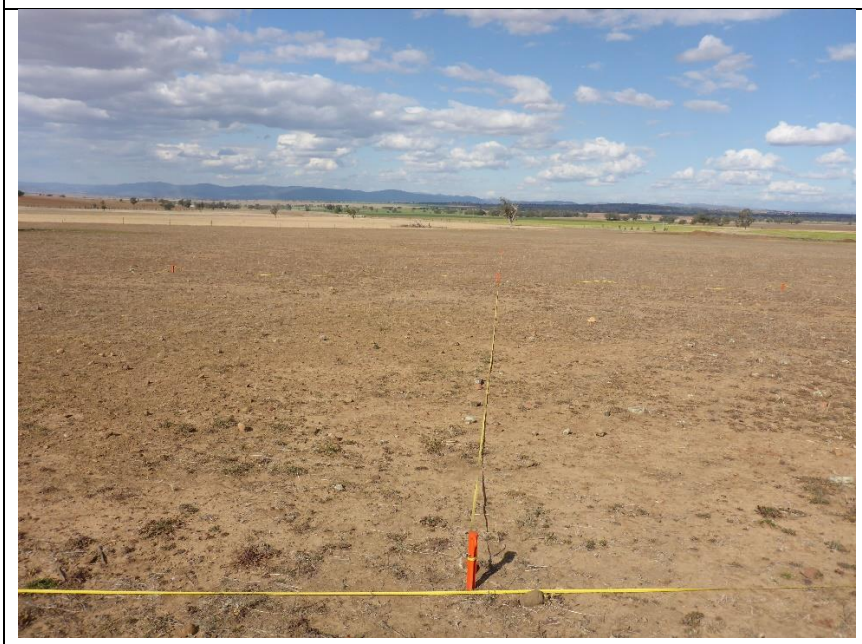
Elevated area on gently sloping hill area 200 m south of the unnamed smaller drainage line. Small dam build on the western boundary.

Basalt erosion resistant but thin surface soils with many quartzite cobbles.

Formerly a grassy woodland with well-spaced white box trees. All native trees likely cleared for ploughing agriculture.

Ground surface visibility in this survey unit was excellent – about 80 to 100%.

Likely only ploughed in more favourable seasons (once or twice) every five to ten years and otherwise left fallow.



Survey unit 8

Mostly an elevated area on gently sloping hill area with an unmapped larger drainage line and dam in the eastern part.

Plot 5 (measuring tapes show 20x20 m in 20x50 m nested plot laid out).

Basalt erosion resistant but thin soils with many quartzite cobbles on more elevated landforms. Dark brown soils in the eastern section where water once pooled (likely an ephemeral swamp / floodplain grassland).

Transected by a northeast - southwest oriented 132kV powerline.

Formerly a grassy woodland with well-

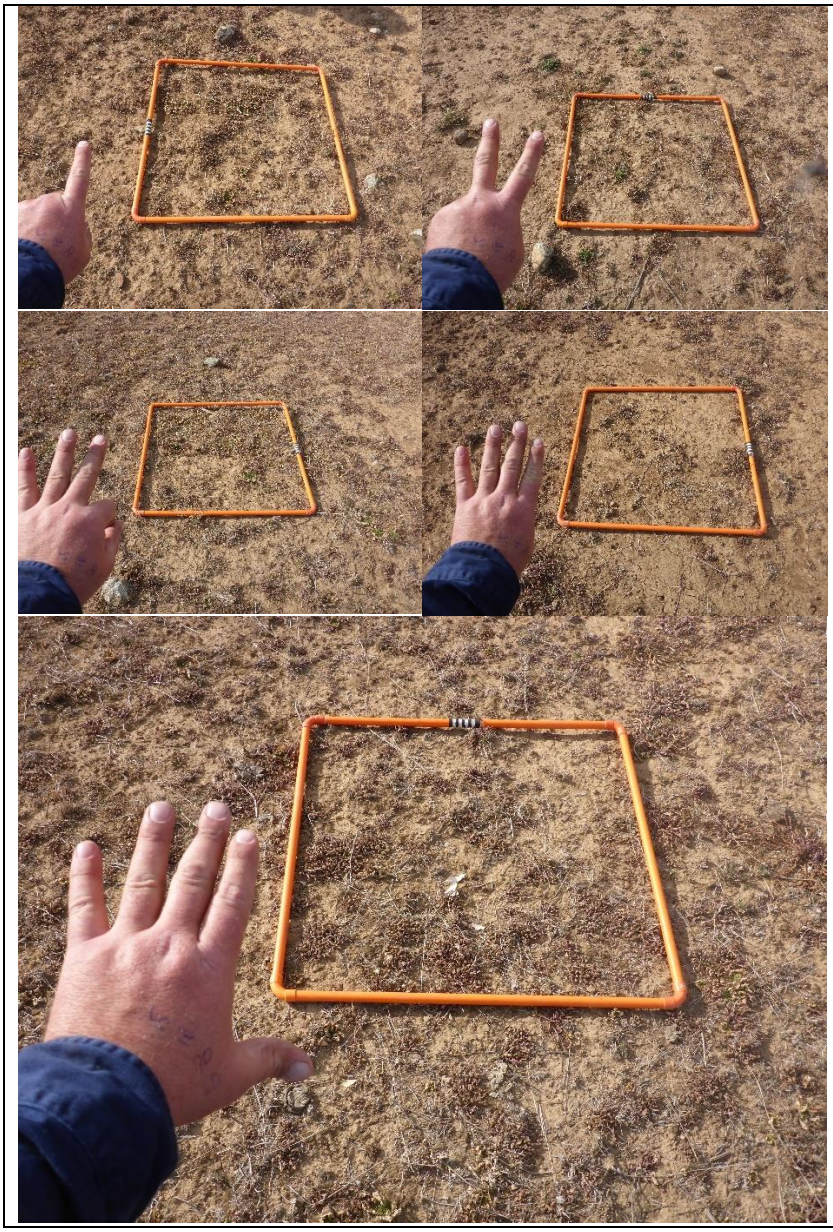
	spaced white box and Blakely's red gum trees. Some trees likely cleared for ploughing agriculture, three white box remain. The following photos variation of the ground surface in a 1m2 area at 10m intervals over the 50m Plot midline (1=5 m, 2=15 m, 3=25 m, 4=35 m, 5=45 m). Ground surface visibility in this survey unit was good – about 40 to 80%. Likely only ploughed in more favourable seasons (once or twice) every five years and otherwise left fallow

Figure 4–2: Solar Farm Development Area Property Vegetation Plan approval number 22PVP00121 (17 December 2014).

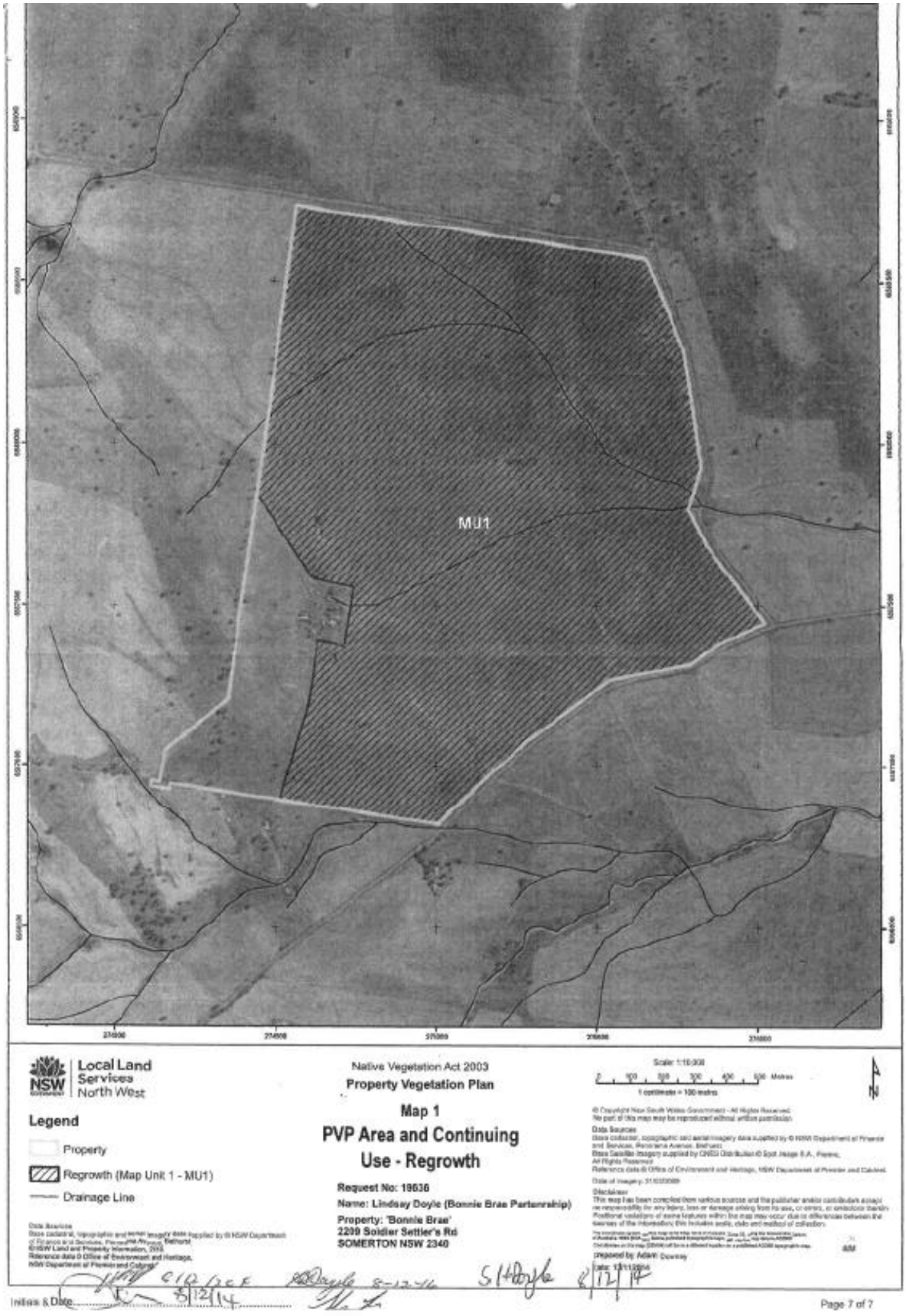
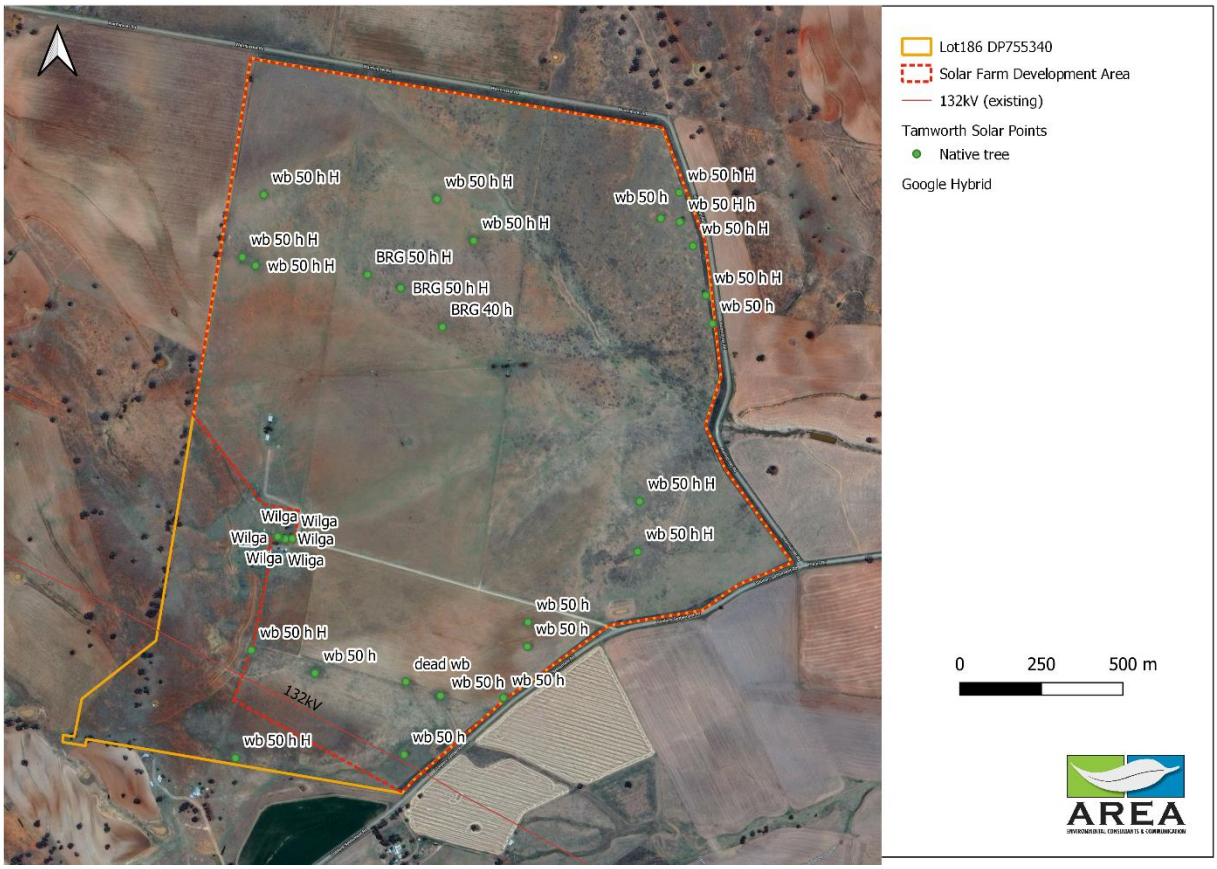


Figure 4–3: Solar Farm Development Area remnant native trees



Key
wb = white box (*Eucalyptus albens*)
BRG = Blakely's red gum (*Eucalyptus blakelyi*)
40 or 50 = centimetres measuring the trees diameter at breast height (dbh)
h = possesses a tree hollow less than 20 cm in diameter
H = possesses a tree hollow more than 20 cm in diameter

4.2.2 The deceleration lane at the intersection of Oxley Highway and Babbinboon Road Development Area, 0.41 hectares

The entire Deceleration Lane Development Area has been subject to intensive soil disturbance from road work and as a stockpile site for gravel for this state highway. Only small slithers of undisturbed areas remain. Road work has directly impacted the uppermost 30 cm of soil. Removal of native vegetation has also destabilised soils to an unknown depth and natural flood events (Survey Unit 1 is next to the Peel River floodplain) combined with heavy rainfall has washed soils away. It is likely the natural surface soils present are the upper surface of the B horizon (possessing a more erosion resistant higher clay content).

The effect of these disturbances on archaeological remains is uncertain, although some conclusions and approximations can be made. Any culturally modified (scarred) trees would have been destroyed and other possible site types such as stone artefact scatters or hearths would have been heavily disturbed.

Table 4-2: Summary of existing levels of disturbance in the Deceleration Lane Development Area

Image	Survey Unit and comment
 	**Survey unit 1** Elevated area next to the Peel River floodplain (Peel River is 840 m north). Basalt erosion resistant but thin soils (B horizon?). Formerly a grassy woodland with well-spaced white box and Blakely's red gum trees. All native vegetation has been removed in this survey unit, about 90% of the area has been extensively disturbed. The folder in the photos shows thin slithers of natural soil surface between the road table drain, access road and gravel stockpile. Ground surface visibility on natural soil surfaces in this survey unit was moderate – about 30 to 40%.

4.2.3 Sight distance at Babbinboon Road and Warminster Road intersection Development Area, 0.04 hectares.

The entire Sight Distance Development Area has been subject to intensive soil disturbance from road work and causeway construction and maintenance. No areas of undisturbed areas remain. Road work has had a direct impact on approximately the uppermost 30 cm of the soil. Removal of native vegetation and destabilised soils to an unknown depth. combined with natural flood events (Survey Unit 2 is on the banks of Onus Creek) and heavy rainfall has likely washed soils away.

The effect of these disturbances on archaeological remains is uncertain, although some conclusions and approximations can be made. Culturally modified (scarred) trees within the area may have been destroyed. Other possible site types such as stone artefact scatters or hearths would have been heavily disturbed.

Table 4-3: Summary of existing levels of disturbance in the Sight Distance Development Area

Image	Survey Unit and comment
 The red cross shows the *Acacia stenophylla* to be removed by chainsaw.	**Survey unit 2** Bank of Onus Creek along Babbinboon Road showing the tree *(Acacia stenophylla*) to be removed to improve sight distance into Warminster Road (where cars are parked). Formerly a grassy woodland with well-spaced white box and Blakely's red gum trees. All native vegetation except the remnant white box tree has been removed in this survey unit, about 90% of the area has been extensively disturbed. The Acacia for removal is about 10 to 15 years old.

4.3 Landforms and Topography

The Nandewar Peel Bioregion has low peaked hills with north-westerly alignment, basalt caps of dissected flows and moderate slopes and flat river valleys with alluvium.

All Development Areas are in the Tamworth - Keepit Slopes and Plains Mitchell Landscape. These are described by Mitchell (2002) as *extensive areas of undulating to rolling slopes and plains with low hills and low ranges forming the western fall of the New England plateau*. General elevation is 500 to 800 metres with a local relief of 250 metres, with some peaks reaching 1100 metres.

The Solar Farm Development Areas lowest point is 350 metres AHD in the southern eastern corner, the highest is, an unnamed hill on the western boundary, is 410 metres AHD. This area is best described as rolling slopes and plains with low hills.

The Deceleration Development Area is 320 metres AHD. This area is best described as the meeting point of rolling slopes and plains and flat river valleys with alluvium.

The Sight Distance Development Area is 330 metres AHD. This area is best described as plains with low hills.

All Development Areas provided flat(ish) easy to traverse landforms for pre-European settlement Aboriginal people.

4.4 Waterways

The MacIntyre, Gwydir and Namoi catchments are located in the bioregion, and the Peel, Macdonald, McIntyre, Namoi, Severn and Gwydir Rivers traverse the bioregion.

Strahler Third Order or above waterways in the locality are mapped in Figure 4–4.

The Solar Farm Development Area has three Strahler First Order drainage lines and a second Order drainage line (Figure 4–5). These drain east into Sandy Creek, which in turn drains north for eight kilometres into the Peel River. The Solar Farm Development Area before European settlement would have provided ephemeral / seasonal water sources for Aboriginal people, especially after inundating rain.

The Deceleration Lane Development Area does not possess a drainage line but is 840 metres south of the Peel River (Figure 4–6). The Peel River is a significant waterway in the region, being a reliable water source. The Peel River is a significant source of resources for Aboriginal people.

The Sight Distance Development Area is on the bank of Onus Creek, a Strahler third Order drainage line (Figure 4–6). This drains north for four kilometres into the Peel River. This Development Area before European settlement would have provided ephemeral / seasonal water sources for Aboriginal people especially after inundating rain.

Figure 4–4: Aerial view showing Third Order or above waterways

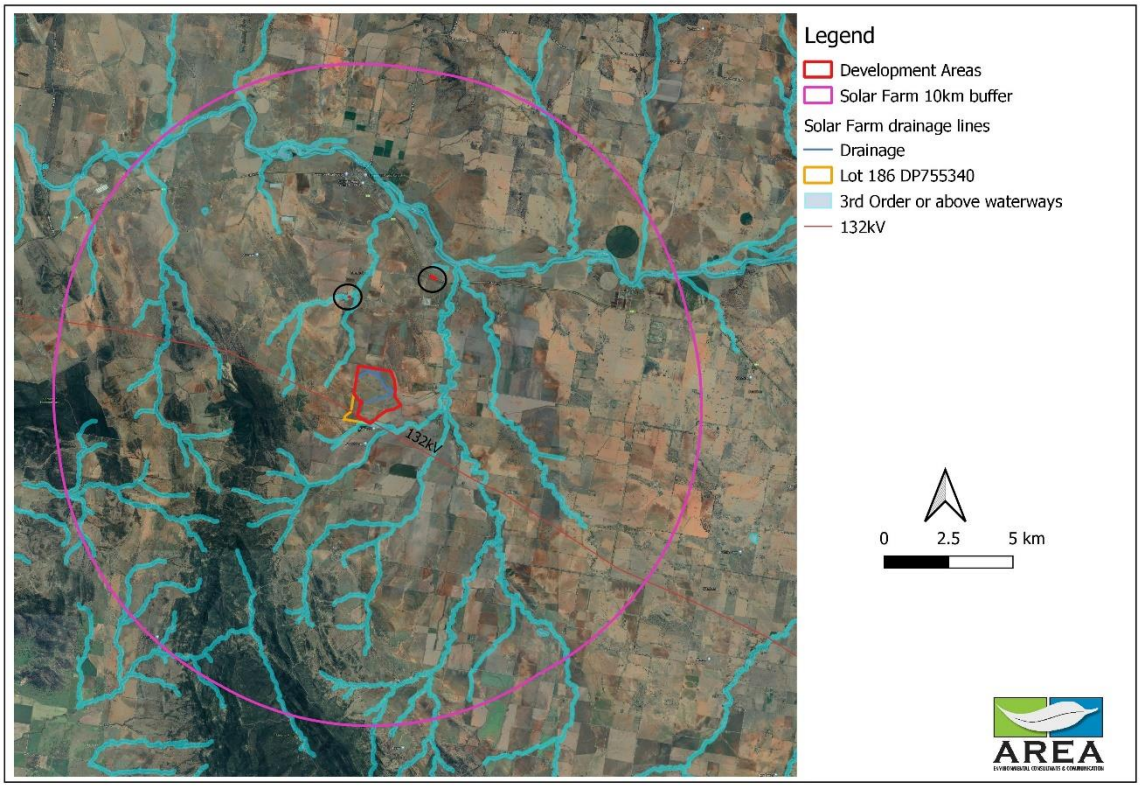


Figure 4–5: Aerial view of the Solar Farm Development Area showing drainage lines

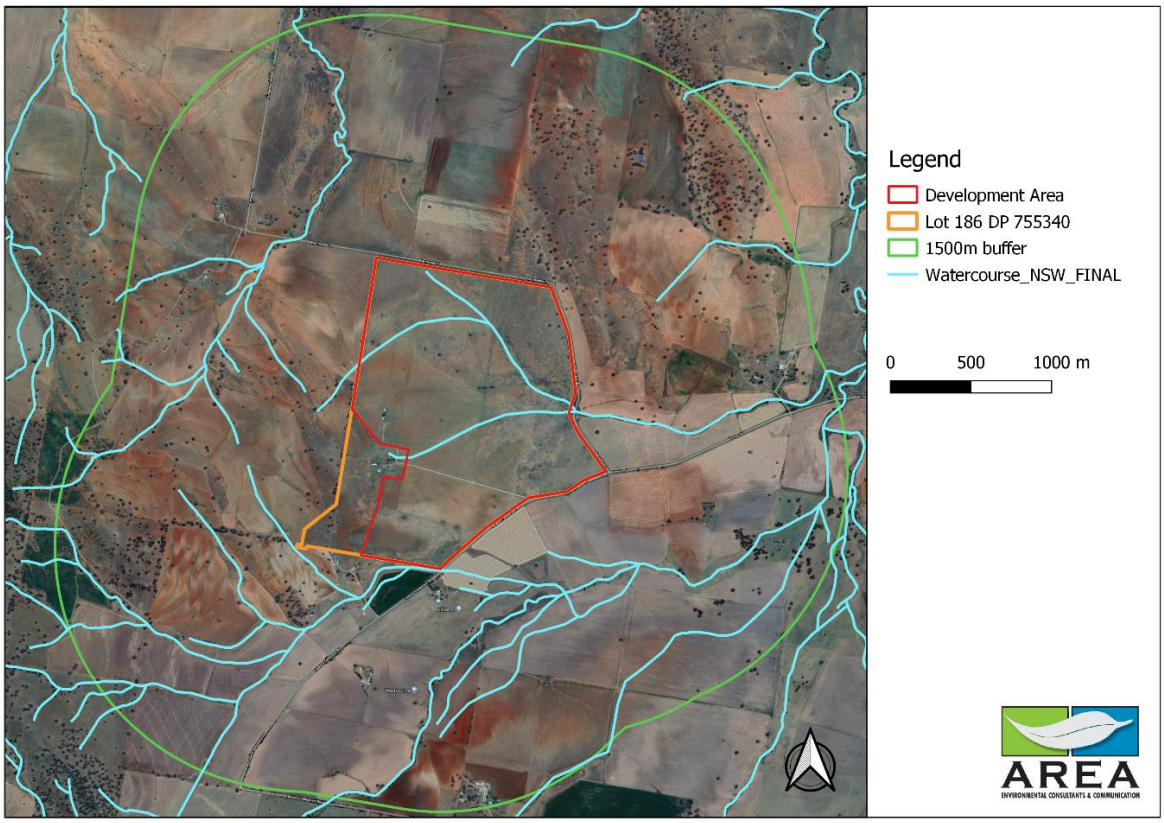
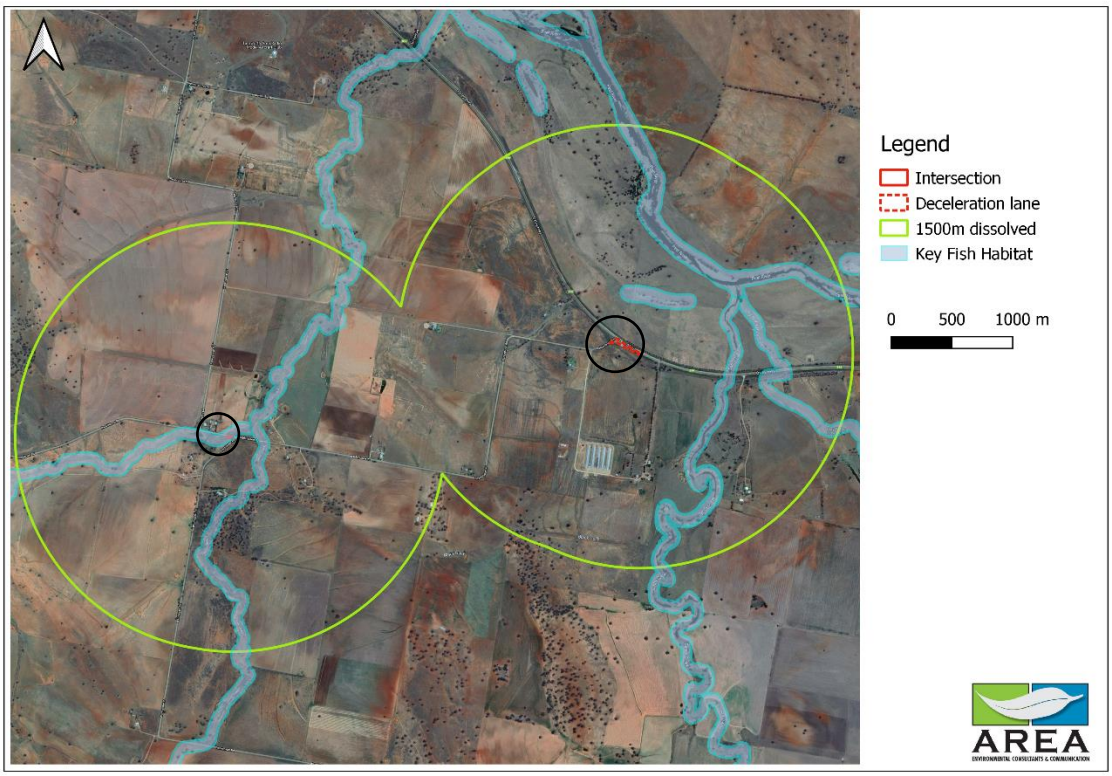


Figure 4–6: Aerial view of the Declaration lane (R) and Sight Distance (L) Development Areas showing Onus [L] and Sandy [R] Creeks.



4.5 Geology and Soils

The Nandewar Peel Bioregion has fine grained Silurian to Devonian sedimentary rocks which are strongly folded and faulted with marked northwest alignment. Areas of sub-horizontal Carboniferous shales and sandstones occur in the north. Limited areas of basalt cap from the Nandewar and Liverpool Ranges. Linear outcrops of serpentinite and scattered bodies of limestone also locally occur (OEH website).

All Development Areas possess shallow stony soils on ridges grading into plains soil types. Texture contrast soils on almost all slopes shifts in colour from red brown on upper slopes to yellow on lower slopes. Black earths also occur on basalt areas. The lower areas (plains) have alluvial loams and clays with moderate to high fertility in alluvium with harsh subsoils prone to gully development on lower slopes.

The geology in the Solar Farm Development Area is complex, with folded and faulted sedimentary and metamorphic rocks with minor interbedded volcanics. Rock types include; Silurian-Devonian chert, slate, phyllite, tuff, schist and Carboniferous conglomerate, sandstone, mudstone and andesite. Quartzite ranging from fine grained to course materials was the most common material observed.

The Solar Farm Development Area provided ample suitable resources for stone tool manufacture.

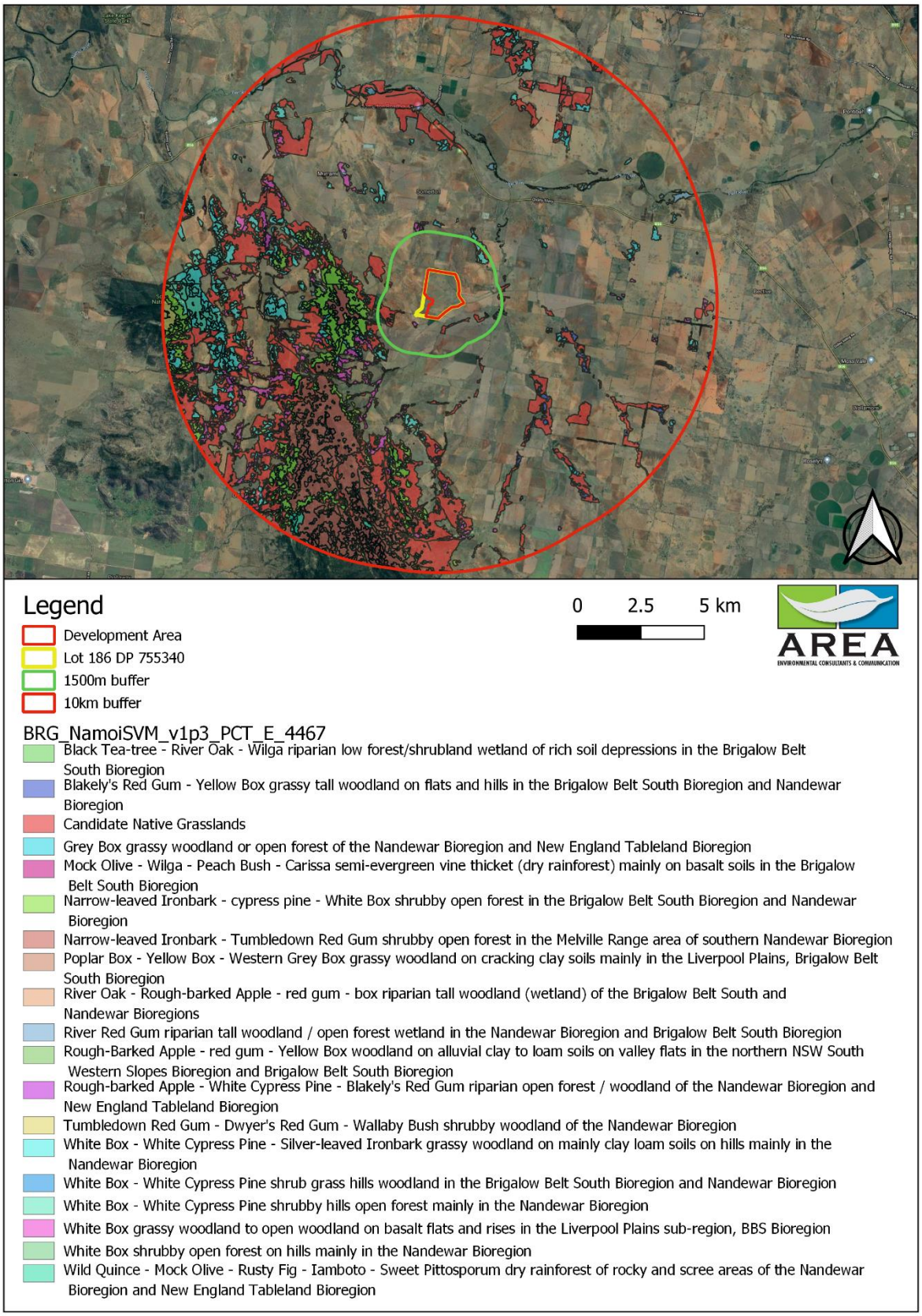
4.6 Vegetation

Before European settlement all Development Areas would have been white box grassy woodlands, with yellow box and Blakely's red gum on lower slopes. Also occurring but now removed include rough-barked apple and yellow box on flats with white cypress pine and kurrajong on stony areas.

All mid and ground stratum vegetation layers have been cleared in all Development Areas. Twenty-four mature old growth native trees remain in the Solar Farm Development Area (21 white box and three Blakely's red gum) and one white box tree remains in the Sight Distance Development Area.

Figure 4–7 provides an NSW BioNet Vegetation Information Systems (VIS) map showing what native vegetation currently remains in the vicinity of the Development Areas. Grassy woodlands dominated by Box eucalyptus, before European settlement would have provided rich and diverse food, fuel and fiber resources for Aboriginal people. Of particular note, significant foods resources for Aboriginal people are associated with grasslands and ephemeral / seasonal wetlands / depressions which are now cleared in the Development Areas.

Figure 4–7: VIS map 4467 showing remnant native vegetation in the locality



4.7 Climate

The Nandewar Bioregion is subject to summer rainfall (Benson 1999), with the rainfall pattern described as being slightly summer dominant. It is characterised by frequent rain of high intensity and high run-off caused by the steep slopes and shallow soils that feature prominently in the bioregion (Morgan and Terrey 1992).

The bioregion is considered mostly warm and dry, although average annual temperatures and rainfall vary markedly across the bioregion in relation to elevation (NSW NPWS 2000). The central areas, such as the Nandewar Range and the northern slopes of the Liverpool Range, are generally cooler as they tend to have a higher elevation, whereas the warmer areas correspond to the lowlands around the main river catchment areas.

Average annual rainfall also varies distinctly across the bioregion. Rainfall generally decreases from east to west, but the differing topography across the bioregion alters this trend somewhat, with areas at higher altitudes, such as Mt Kaputar, receiving significantly more rain annually than lower lying areas in the west (NSW NPWS 2000).

Tamworth has a sub-humid to temperate climate. It experiences a maximum mean temperature of 32.9^{0}C in January and a minimum mean temperature of 2.2^{0}C in July (BoM 2019). Tamworth has a mean rainfall of 631 mm annually with the summer months being the wettest (Table 4-4).

Table 4-4: Summary climate data (red maximum, blue minimum values)

Statistics	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Years	
	Temperature														
Mean maximum temperature (°C)	32.9	31.7	29.4	25.6	20.8	17.1	16.4	18.4	22.0	25.5	28.5	30.6	24.9	28	1992 2019
Mean minimum temperature (°C)	17.6	17.0	14.5	10.1	6.1	3.7	2.2	2.7	5.8	9.6	13.3	15.6	9.8	28	1992 2019
	Rainfall														
Mean rainfall (mm)	60.2	68.4	49.9	24.3	29.5	52.7	40.3	38.1	43.7	55.6	83.1	78.2	631.9	26	1993 2019
Decile 5 (median) rainfall (mm)	48.8	52.0	27.8	13.8	22.4	46.4	30.2	31.0	33.8	53.2	69.4	74.9	627.9	27	1993 2019
Mean number of days of rain ≥ 1 mm	5.1	5.5	4.8	2.7	3.3	5.3	4.9	4.0	4.7	5.6	7.1	6.7	59.7	26	1993 2019

The Tamworth region provided suitable all year weather and climate conditions for permanent occupation for pre-European Aboriginal people.

5 Archaeological Context

5.1 Aboriginal Cultural Heritage

5.1.1 Regional Archaeological Context

Tamworth is situated in a temperate area, but near the transition between arid and temperate climates. The boundaries of these climates have changed substantially throughout the Aboriginal occupation of Australia. Hiscock argues use of the landscape, specifically the exploitation of resources was significantly variable from region to region and throughout time (Hiscock 2004, 8: 184). The implication of this is, the late Holocene landscape, which is relatively well represented in the archaeological record, may have been used substantially differently in Tamworth by Aboriginal people to other regions in a similar climate, and to the Tamworth area in previous times. In understanding the archaeological and ethnographic context of the Tamworth region, it is important to acknowledge that existing knowledge is likely to be heavily weighted toward the late Holocene (i.e. the last 1,000 years) and may also be influenced by parallels drawn in similar regions.

The following information is provided from published research, but please note it is not better than oral information and knowledge still held within the current Aboriginal community. To this end, the following information is useful but is even better when supplemented with local knowledge provided by Aboriginal stakeholders.

Aboriginal people typically moved from place to place depending on the availability of resources and weather patterns (Clarke 200.04 7: 56). Far from this being an unplanned migration dictated by changes in seasons and weather, regular patterns of movement would have been established within a range of possible options. Within the Holocene period, which saw an increase in rainfall, the Tamworth region offered a variety of resources. The reliability of the Peel River and associated waterways, as well as the variability offered by the Nandewar Range presented the local population with a range of food and other resources.

Tamworth is within the traditional country of the Kamilaroi[1] language group or 'nation'. The Kamilaroi typically spent their summer months traveling along rivers and plains gathering a variety of resources. In the winter months, movement was generally more restricted in temperate climates (Clarke 200.04 7: 57). Semi-permanent encampments of wood and bark huts have been observed on the Liverpool plains and were possibly associated with summer life (O'Rourke as cited in Insite Heritage 2010: 24).

A variety of foods were available to Kamilaroi, due in part to the variety of landscapes and environmental conditions that could be exploited in the region and their semi-nomadic way of life. Fish, yabbies, mussels, grubs, possums, wallabies, kangaroos, emus, turkeys, lizards, snakes and more were some of the meats available to the Kamilaroi (Insite Heritage: 24). Grass seeds, yams, wild potatoes and a variety of fruits were also part of the diet.

A variety of tools were needed for the extraction and manipulation of these resources. Many of these tools were made of stone. Scrapers, blades, axes, choppers, burins, adzes and more stone tool types were used by Aboriginal people in hunting, food preparation, wood working, carving and much more. However, many tools and other objects were made from wood, bone and shell which do not survive into the archaeological record as well as stone (Clarke 200.04 7: 111). It is also important to approach the interpretation of stone tools carefully as different tribal groups may have used similar tools in different ways (Holdaway and Stern 200.04 4: 68–69). The implications of these two points are, when analysing the archaeological record it is important to be mindful that it is only representative of some of the

[1] Alternate spellings are: Kamilarai, Kamilari, Kamilroi, Kamilarai, Kamularoi, Kaamee'larrai, Kamileroi, Koomilroi, Komleroy, Gamilaroi, Gamilroi, Kahmilaharoy, Kamilary, Gumilroi, Gummilroi, Gummilray, Ghummilarai, Kimilari, Karmil, Kamil, Kahml, Comleroy, Ghummilarai, Cammealroy, Kahmilari, Cumilri, Camelleri, Cummilroy, Comleroy, Cummeroy, Gunnilaroi, Cammealroy, Duhai, Yauan, Tjake, Tyake [Tindale 1974, p. 194.]

behaviours of previous inhabitants, and the function of similar remains can be different from region to region.

By the 1830s European settlement had spread to the Liverpool Plains south east of Tamworth for the purposes of sheep and cattle grazing. (OEH 2013). As the nineteenth century progressed, land use shifted toward more intensive agriculture. This resulted in widespread land clearing and erosion. This process of intensive agriculture by European settlers, along with aggression by the settlers towards Aboriginal people and the introduction of diseases resulted in decline in the traditional Aboriginal use of the area from this time onward.

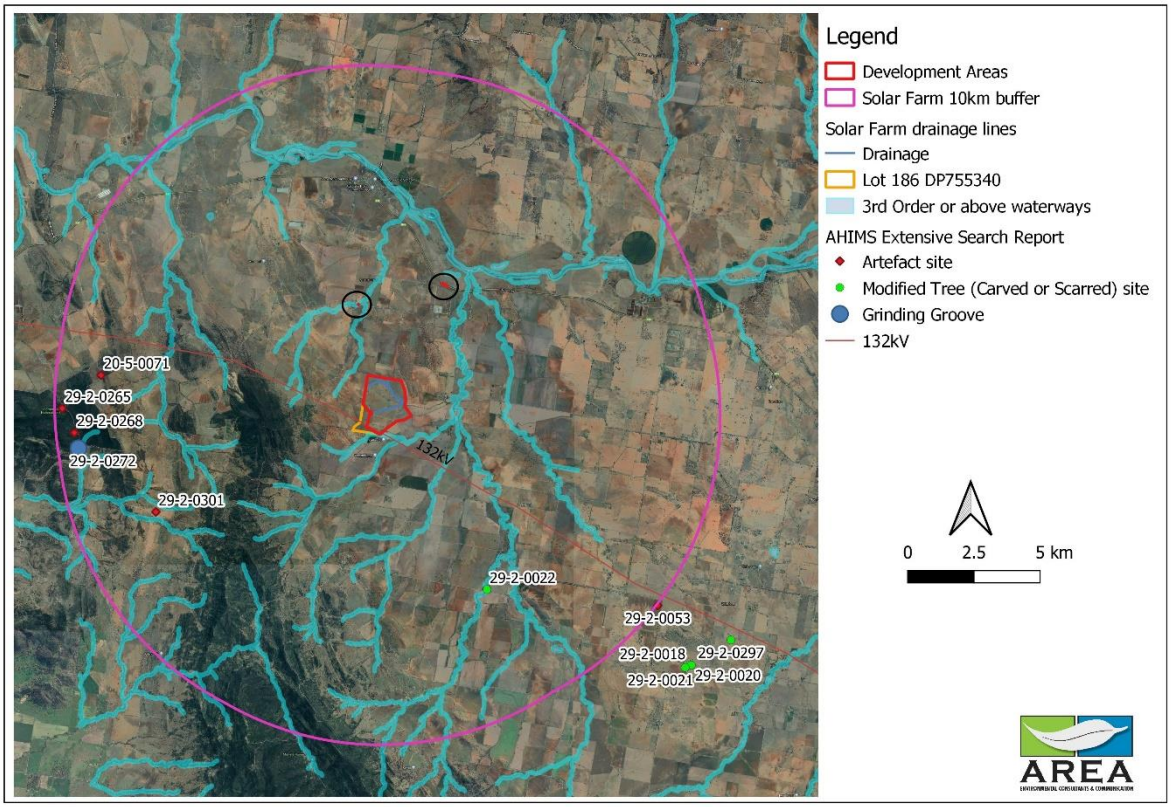
Previous Studies in the region

For the purposes of this section 'the region' is defined as GDA Zone: 56 Eastings: 264690 - 287228 Northings: 6556771 - 6578725 with a buffer of 50 metres. A search on the AHIMS database identified 16 Aboriginal sites in a 25 x 15 kilometre square area centered on the Solar Farm Development Site (Figure 5–1).

Of these recorded sites:

- Eight (50 per cent) were stone artefact sites, seven open camp sites ranging from three to 38 observed Aboriginal objects and one isolated find.
- Seven (44 per cent) are culturally modified trees.
- One is a grinding groove (six percent).

Figure 5–1: AHIMS database search results (25x15 kilometres)



Eight Aboriginal sites (five open camp sites, two culturally modified trees and grinding grooves) were recorded in the Somerton National Park (western side of the image). All sites are in proximity to drainage lines with the frequency increasing according to the hierarchy of the drainage line.

Phillip Cameron was on the heritage assessment team where Aboriginal site #29-2-0301 was recorded along TransGrid ETL 875 (in the south western part of Figure 5-1). This site was recorded next to an unnamed Strahler second Order tributary of Swains Creek. Only one artefact was recorded but others were considered likely to occur. This recorded site had similar landforms as the Solar Farm Development Area

The remaining sites, all culturally modified trees are located southwest of the proposal. A review of the topographic map and aerial imagery show these landforms and also comparable to the Solar Farm Development Area.

5.1.2 Local Archaeological Context

Databases were searched to locate previous archaeological studies and Aboriginal sites in the Development Areas. The results of these searches are summarised in Table 5-1 and presented in Appendix C.

Table 5-1: Summary of database searches for Aboriginal Heritage

Database	Date of Search	Parameters	Results
AHIMS	26/06/19	10 km x 10 km centered on Development Area	14 Aboriginal sites. None in the Development Areas, none within 8km.
Tamworth LEP 2010	04/07/17	Schedule 5	No Aboriginal sites are listed on the LEP near the Development Areas.
Native Title Vision layer https://nntt.maps.arcgis.com/	26/06/19	10 km x 10 km centered on Development Area	Native Title claimants the Gomeroi People (Application number: NC2011/006)
Native Title Determinations wms layer https://data.gov.au/geoserver/native-title-determinations-national-native-title-register/wfs?	26/06/19	10 km x 10 km centered on Development Area	No registered or conditional Determinations on Development Areas
Australian Heritage Database	26/06/19	Tamworth LGA	None in the Development Areas.

Consultation with the Registered Aboriginal Parties participating in the field assessment identified known significant cultural (non artefact type) sites on elevated landforms in sight distance north and south of the Development Sites. These landforms are about 10 kilometres from the Development Areas. The Peel River was identified as a significant cultural landform / resource gathering area. This is 840 metres north of the Deceleration Lane Development Site.

No other sites or local historical information pertaining to the Aboriginal occupation of the Development Areas or immediate surrounds have been identified through a search of the databases, previous studies in the area or by contact with the local Aboriginal community.

5.1.3 Predictive Model

A predictive model of the Development Area is a requirement of the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (NSW OEH 2011a). A predictive model combines the archaeological context for a Development Area with landscape information to propose likely site types, distributions and intactness within the area.

The predictive model for this proposal is stone Aboriginal objects / artefact sites are more likely to be recorded near drainage lines and the higher the Strahler Order the more likely they will be to occur and the more likely they will be more complex. Similarly intersecting landforms, plant community types and ecotones are likely possess higher levels of natural resources and subsequently have a higher potential for Aboriginal sites.

Culturally modified trees can occur anywhere on old growth box trees on the hills or redgums near waterways.

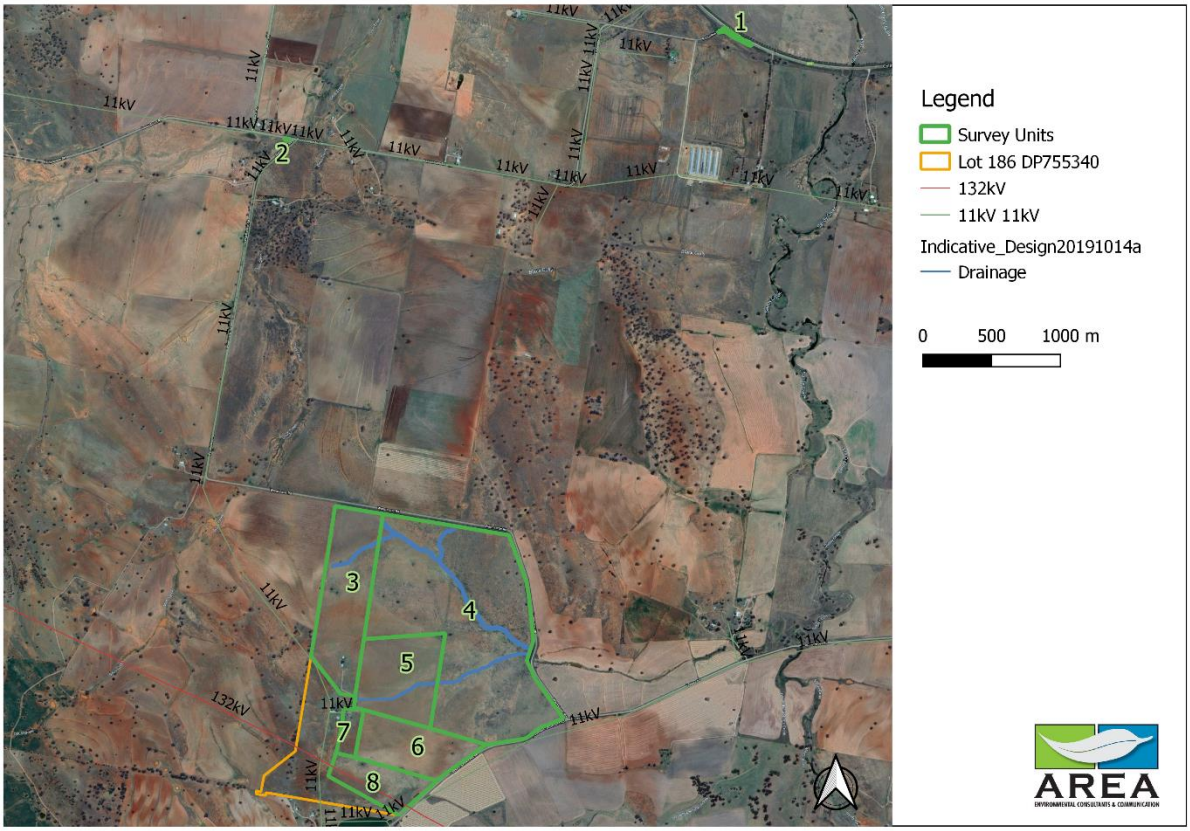
Non-physical cultural sites can occur anywhere and without traditional cultural knowledge these will be undetectable in the landscape.

6 Field Methods

6.1 Aboriginal Cultural Heritage Assessment Methodology

The field methods used to assess the Development Area follow those described in the OEH's *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (2011a). The Development Areas consists of broadly two landforms, gentle hill slopes and the plains. As access, visibility, and levels of disturbance were more or less uniform, the Development Areas were divided into eight arbitrary survey units following fenced areas or by location for ease of recording (Figure 6-1). Section 4.2 of this report (current disturbance) provides a detailed overview of each survey unit.

Figure 6–1: Survey Units



6.1.1 General Survey Methods

The afternoon of the first day was used to look at all Development Areas and assess all 24 remnant mature trees for signs of cultural modification. This process informed the assessment team what survey strategy would be most effective for other harder to detect site types for the following days.

The survey was conducted using pedestrian transects.

The Deceleration Lane and Sight Distance Development Areas are small so a higher density of transects occurred in these areas. A more concentrated survey effort also reflected a distance to water relationship where potential for Aboriginal objects to occur is higher. The one remnant mature white box tree in the Sight Distance Development Area was assessed (for indirect impact as this is not the tree to be removed) as well as the ground surface for inadvertent impact (ground surface disturbance is not proposed in this area, the work is to just remove a mature acacia with a chainsaw).

Transects involved two representatives of Tamworth LALC Lynda Bartel and Don Fermor, Steve Talbot (Registered Native Title Claimant) and Gabbi Green of AREA walking alongside each other, separated

by distances of 20 to 40 metres. The spacing between assessors varied depending on archaeological potential and ground surface visibility (See Section 4.2 to review ground surface visibility in each survey unit). Phillip Cameron of AREA joined the assessment team to look for Aboriginal objects when not recording them. The variable strategy depended on the following factors:

- Perceived archaeological potential to possess an Aboriginal object
- Proximity to drainage lines
- Ground surface visibility
- Level of disturbance
- Presence of remnant paddock trees
- Size of the survey unit.

Generally, the survey units were covered evenly with one exception; the areas within Survey Unit 4 was surveyed much more intensively due to its association with a Second Order drainage line.

6.1.2 Sampling Strategy

The Deceleration Lane and Sight Distance Development Areas are small so ensuring enough survey effort was applied was not an issue.

In the Solar Farm Development Area existing fence lines were used to subdivide the land into smaller survey units. The land in these areas was also divided into three categories. One category was land within 100 metres of a drainage line, land between 100 to 200 metres and all other land. The sampling strategies for each area are as follows:

Areas within 100 metres of a drainage line

In the Solar Farm Development Area drainage lines were assessed first using a closer spacing of assessors. These areas were surveyed with a 10 metre spacing between personnel.

Areas between 100 and 200 metres of a drainage line

The survey effort moved to land with lower potential to possess Aboriginal objects such as areas on the plains more distant to drainage lines. These zones were surveyed with irregular transects spaced approximately 20 metres apart. For the purposes of this report 'irregular' means the trajectory was not fixed on a compass point it meandered within the 20 metres to allow the assessor to look at areas of interest within the assessment band width.

Other Areas

The last transects occurred over areas considered to have lower potential also covered areas previously assessed i.e. this survey effort was used to put a 'grid pattern' of survey effort over the survey unit which may have overlapped previous assessment.

These zones contained mature trees assessed on the first afternoon of the survey.

Transects were walked at an approximate average of one every 50 metres. This considered sufficient by the assessment team on the grounds that disturbance and ground surface visibility (GSV) were both high and the archaeological sensitivity of the landform was low.

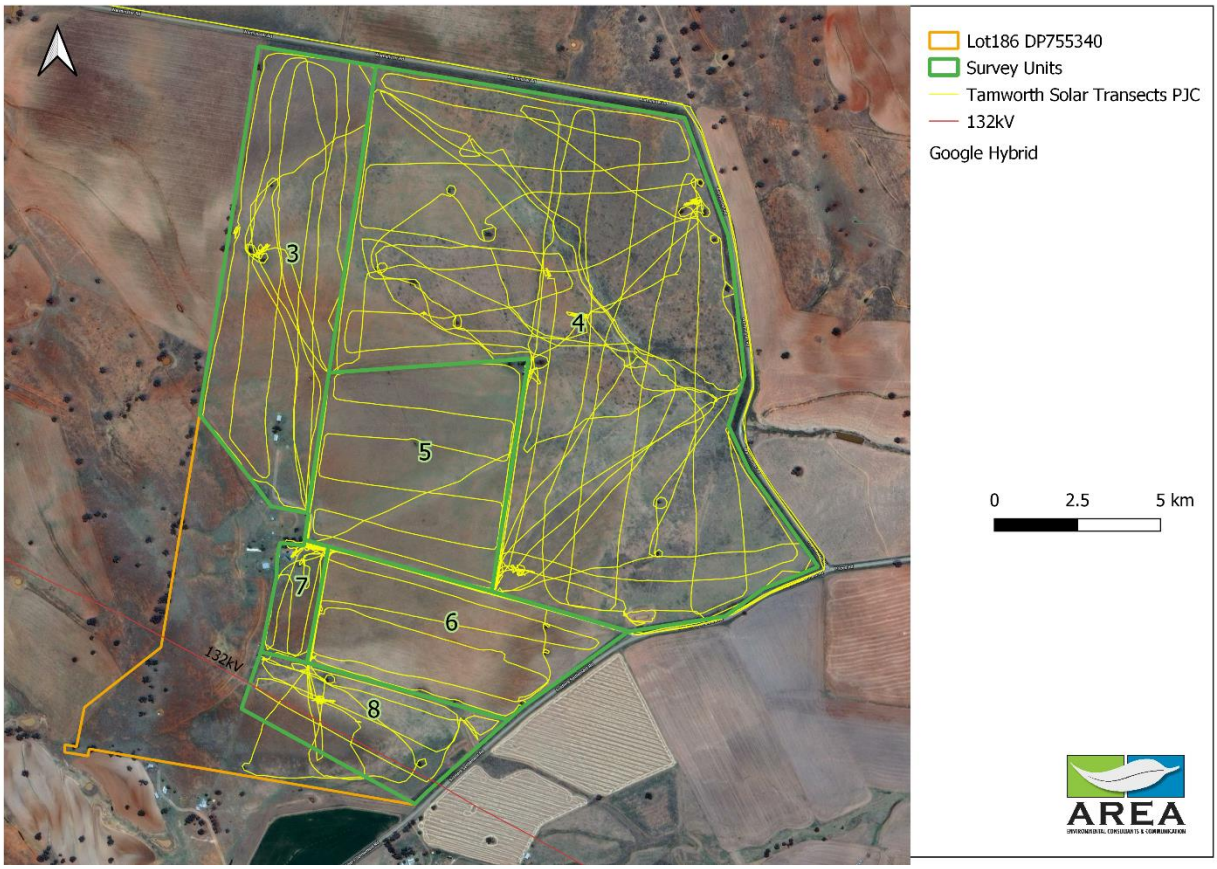
6.1.3 Recording of Field Survey

The team broke up into two assessment work units, the majority of the team completed site survey, artefact identification and once in agreement a marker was placed in the ground to flag the Aboriginal object(s). Phillip Cameron of AREA went from marker to marker to record and photograph all Aboriginal objects marked in the field. As the survey units were large and the site identification and recording personnel were more often than not well separated from each other clear lines of communication were

used to ensure the number of sites identified in the field matched the number of sites recorded in the same area.

A GPS was used to record Phillip Cameron of AREA movements in the landscape (Figure 6–2). It is important to note these tracks only represent one person, or one fifth of the survey effort. This means, within a survey unit shown in Figure 6-2 there was an additional transects completed by a Tamworth LALC sites officers (x2), Steve Talbott (Gomeroi Native Title Claimant) and Gabbi Green of AREA within the survey units.

Figure 6–2: Survey Units and survey transects (one person)



7 Fieldwork Results

7.1 Aboriginal Cultural Heritage

The field survey took place on Tuesday 10 to Thursday 12 September 2019. It was attended by three representatives of the Aboriginal community and two staff members from AREA. The Aboriginal representatives were Mr. Don Fermor and Ms. Lynda Bartel, both organised by Tamworth LALC, Mr. Steve Talbott of Gomeroi People (Application number: NC2011/006) and the two AREA staff were Mr. Phillip Cameron (Principal Consultant) and Ms. Gabbi Green (Environmental Administrator, Gomeroi descent).

Twenty-two Aboriginal sites were recorded during the survey. Ground surface visibility was generally very high, and all Development Areas were found to be substantially disturbed (see Section 4.2).

7.1.1 Survey Coverage

Metric of each Development Area and survey unit is shown in Tables 7-1 and 7-2 (note the GIS software was set to only show two decimal places so there is a degree of rounding in the numbers shown). Survey coverage is summarised in Table 7-3.

The survey coverage area was calculated by multiplying the length of the transects by 10 as a surveyor can see reasonably well for five metres either side of their transect. GIS software was used to add geometry to transects completed by Phillip Cameron to show metres recorded for one person (then multiplied by five for the team) and to add geometry of each survey unit to show the number of hectares in survey unit.

Effective survey coverage is the Deceleration Lane Development Area was 40 per cent (due to areas covered by gravel and or weeds), in the Sight Distance Development Area it was 90 per cent (representing virtually no vegetation ground stratum and the small size of the area) and an average of 63 per cent in the Solar Farm Development Area (representing virtually no to patchy vegetation ground stratum and the large size of the area).

All but one Aboriginal site was recorded within the Solar Farm Development Area. The proposed solar farm had an effective survey coverage of 63 per cent. The survey results, when compared to effective survey coverage demonstrates when the survey effort applied is conducted by skilled and experienced staff and the ground surface visibility is good to excellent there is a higher likelihood sites will be observed.

One Aboriginal site was recorded in the Deceleration Lane Development Area, this area only had 40 per cent effective survey coverage.

Effective survey coverage was a function of low ground surface visibility, which does not affect the recording of scarred trees.

Table 7-1: Metric in each Development Area

Development Area	SHAPE area m2	Hectares
Warminster and Babbinboon Roads	351.4171143	0.04
Oxley Highway and Babbinboon Road	4060.098022	0.41
Solar Farm	2000397.916	200.04
		200.49

Table 7-2: Metric per survey unit

Survey Unit	SHAPE area m2	Development Area	Hectares	
1	4061	Warminster and Babbinboon Roads	**0.41**	
2	351	Oxley Highway and Babbinboon Road	**0.04**	
3	328590	Solar Farm	32.86	
4	1058732	Solar Farm	105.87	
5	253577	Solar Farm	25.36	
6	198402	Solar Farm	19.84	
7	34787	Solar Farm	3.48	
8	126306	Solar Farm	12.63	**200.04**
			200.49	

Table 7-3: Effective survey coverage calculations for survey units

Survey Unit	transect length	m2 x10 PJC	m2 x10 (PJC) x 5 (team)	km / PJC	Survey Unit hectares	survey coverage ha PJC (10m)	Survey coverage (ha) team (n=5)	Exposure %	GSV % on unit	Survey coverage (%)	Effective survey coverage (ha)	Effective survey coverage (% of survey unit)
1	482.784	4827.84	24139.20	0.48	0.41	0.48	2.41	100.00	40	100.00	0.16	40
2	101.676	1016.76	5083.80	0.10	0.04	0.10	0.51	100.00	90	100.00	0.03	90
3	10904.1215	109041.21	545206.07	10.90	32.86	10.90	54.52	100.00	40	100.00	13.14	40
4	39441.42515	394414.25	1972071.26	39.44	105.87	39.44	197.21	100.00	50	100.00	52.94	50
5	6305.872465	63058.72	315293.62	6.31	25.36	6.31	31.53	100.00	75	100.00	19.02	75
6	14130.14247	141301.42	706507.12	14.13	19.84	14.13	70.65	100.00	65	100.00	12.90	65
7	3508.908926	35089.09	175445.45	3.51	3.48	3.51	17.54	100.00	90	100.00	3.13	90
8	5641.583117	56415.83	282079.16	5.64	12.63	5.64	28.21	100.00	60	100.00	7.58	60
				79.93	**200.49**							

7.1.2 Constraints

There were no particular constraints in undertaking the survey. Weather conditions were fine and ground surface visibility was generally high.

7.1.3 Recorded Sites

Twenty-two Aboriginal sites were recorded during the survey (Table 7-1 and to 7-3). Of these:

- One, an open camp site (stone artefacts), was recorded in Deceleration Lane Development Area
- The remainder were recorded in association with the Solar Farm:
    - 18 Aboriginal sites in the Development Area (eight open camp sites, nine isolated finds and one culturally modified tree)
    - Four Aboriginal sites recorded on or just outside the Development Area boundary (two culturally modified trees and isolated finds).

Note: CMT1 was observed over a fence, this area was not accessed as permission to enter this property had not been sought.

Figure 7–1: Location of Open Camp Site 7 recorded during the survey (Deceleration Lane) showing artefacts observed

Figure 7–2: Aerial view of the locations of Aboriginal Sites recorded on or immediately next to Lot 186 DP755340

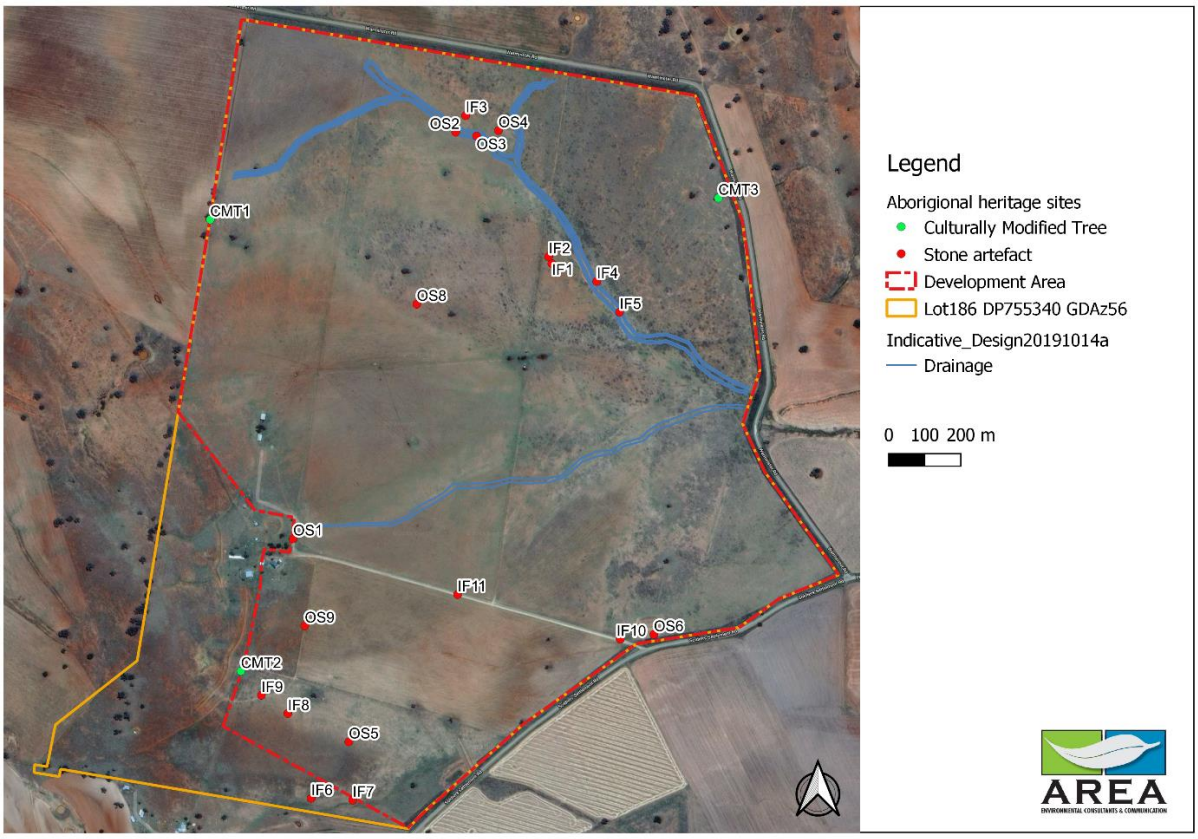


Figure 7–3: Aerial view Aboriginal Sites recorded in the Solar Farm Development Area

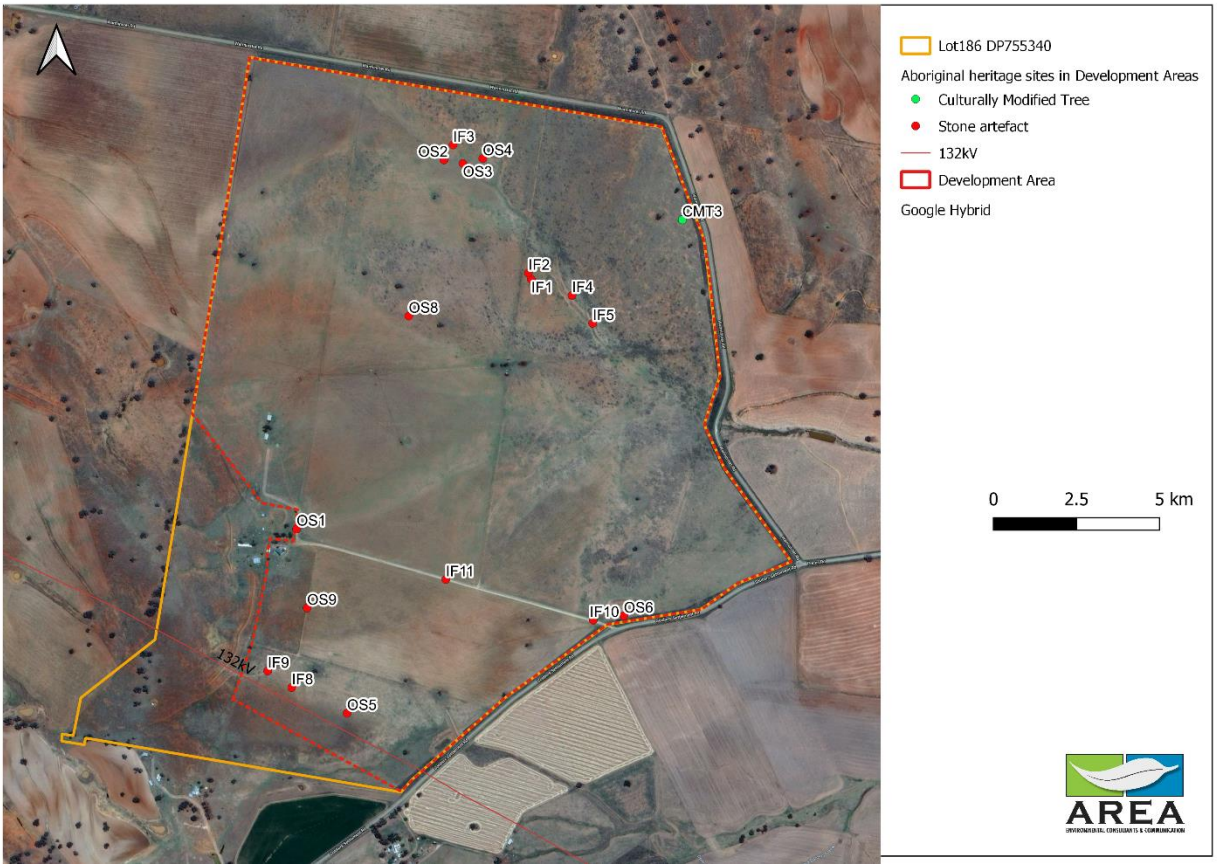


Table 7-4: Aboriginal sites recorded

GDA z56E	GDA z56N	Name Prefix	Survey Unit	Name identifier	Feature	Description	Image 1	Image 2
275322	6568168	Tamworth Solar	4	**IF1**	Stone artefact	Located on Category 1 Land 75 m west of an unnamed drainage line on Lot 186 DP755340, the Solar Farm. Surface soils eroded, on B horizon. Silcrete broken flake 18x5x8mm. Not the best example of an artefact but in the right light a negative scar and bulb on one surface is evident. Silcrete is not naturally occurring in the landscape.		
275314	6568184	Tamworth Solar	4	**IF2**	Stone artefact	Located on Category 1 Land 75 m west of an unnamed drainage line on Lot 186 DP755340, the Solar Farm about 50 m south of IF1. Surface soils eroded, on B horizon. Fine grained quartzite core 32x30x38mm. Negative scars, platforms and bulbs evident. Quartzite is naturally occurring in the landscape.		
275109	6568515	Tamworth Solar	4	**IF3**	Stone artefact	Located on Category 1 Land 33 m east of an unnamed drainage line on Lot 186 DP755340, the Solar Farm between 51 to 100 m north of OS2 and OS3 and OS4. Surface soils eroded, on B horizon. Black quartzite broken flake 42x15x13mm. Negative scars, platforms and bulb evident. Quartzite is naturally occurring in the landscape.		

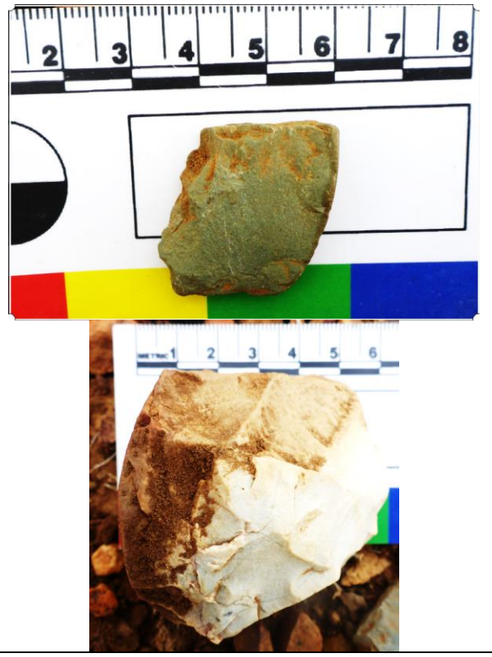
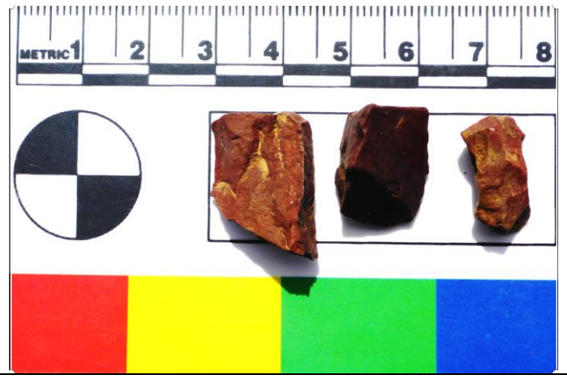
GDA z56E	GDA z56N	Name Prefix	Survey Unit	Name identifier	Feature	Description	Image 1	Image 2
275430	6568128	Tamworth Solar	4	**IF4**	Stone artefact	Located on Category 1 Land 1m east of an unnamed drainage line on Lot 186 DP755340, the Solar Farm Centrally located 51 to 100 m of IF1and IF2. Surface soils eroded, on B horizon. A brown fine-grained quartzite broken flake possessing a negative flake, a bulb and point of percussion 12x9x18mm. This material does naturally occur in the landscape.		
275486	6568056	Tamworth Solar	4	**IF5**	Stone artefact	Located on Category 1 Land 1 m east of an unnamed drainage line on Lot 186 DP755340, the Solar Farm Located 51 to 100 m south of IF1 and IF4. Surface soils eroded, on B horizon. A grey patterned Hornsfels broken flake (two pieces of same flake) possessing three negative flakes and at least two points of percussion. 42x38x8mm. This material does not naturally occur in the landscape.		

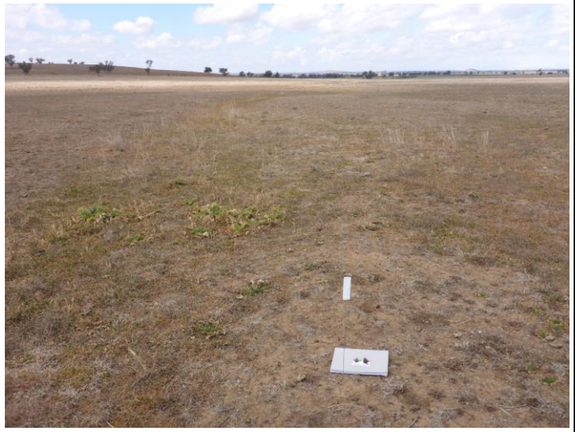
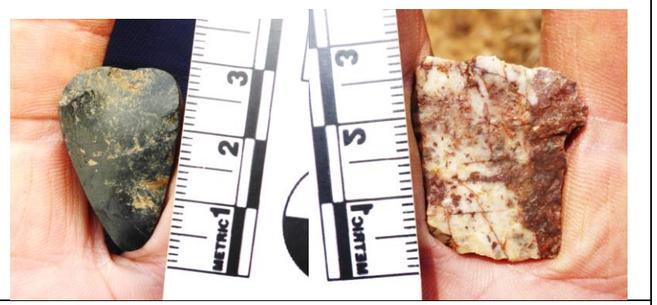
GDA z56E	GDA z56N	Name Prefix	Survey Unit	Name identifier	Feature	Description	Image 1	Image 2
274775	6566887	Tamworth Solar	8*	**IF6**	Stone artefact	Located on Category 1 Land on the southern boundary of the property in an unnamed drainage line on Lot 186 DP755340. This location is not in the Solar Farm. Located 100 m west of IF7 in the same drainage line. Quartzite hammer stone 140x52x48mm. Use wear on both end and dorsal and ventral surfaces. This material does naturally occur in the landscape.		
274874	6566885	Tamworth Solar	8*	**IF7**	Stone artefact	Located on Category 1 Land on the southern boundary of the property in an unnamed drainage line on Lot 186 DP755340. This location is not in the Solar Farm. Located 100 m east of IF6 in the same drainage line. Chert flake 18x22x6mm. Use wear on edge. This material does not naturally occur in the landscape.		

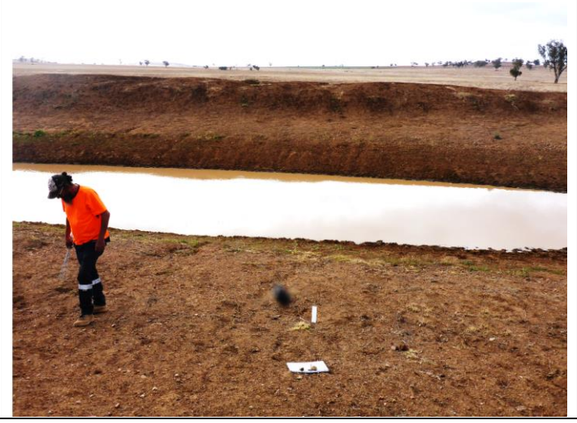
GDA z56E	GDA z56N	Name Prefix	Survey Unit	Name identifier	Feature	Description	Image 1	Image 2
274715	6567087	Tamworth Solar	8	**IF8**	Stone artefact	Located on Category 1 Land on the southern boundary of the property 210 m northwest of an unnamed drainage line on Lot 186 DP755340. This location is in the Solar Farm. White / brown quartzite core. 52x56x38mm. Points of impact, platforms and negative scars were observed. This material does naturally occur in the landscape.		
274651	6567129	Tamworth Solar	8	**IF9**	Stone artefact	Located on Category 1 Land on the southern boundary of the property 350 m northwest of an unnamed drainage line on Lot 186 DP755340. This location is in the Solar Farm. Grey with brown banded fine-grained siliceous flake. 22x18x6mm. Points of impact, bulb platforms and negative scars were observed. This material does not naturally occur in the landscape.		

GDA z56E	GDA z56N	Name Prefix	Survey Unit	Name identifier	Feature	Description	Image 1	Image 2
275504	6567280	Tamworth Solar	6	**IF10**	Stone artefact	Located on Category 1 Land on the central portion of the property 110 m west of a farm dam with OS6 on Lot 186 DP755340. This location is in the Solar Farm. Grey with brown fine-grained quartzite with white cortex. 22x28x6mm. Points of impact, bulb platforms and negative scars were observed. This material does naturally occur in the landscape.		
275114	6567378	Tamworth Solar	6	**IF11**	Stone artefact	Located on Category 1 Land on the central portion of the property 300 m south of an unnamed drainage line on Lot 186 DP755340. This location is in the central portion Solar Farm. Cream Tuff(?). 18x14x12mm. Points of impact, bulb platforms and negative scars were observed. This material does not naturally occur in the landscape.		

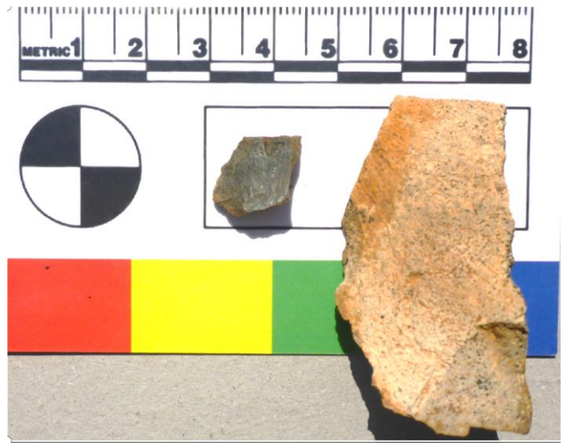
GDA z56E	GDA z56N	Name Prefix	Survey Unit	Name identifier	Feature	Description	Image 1	Image 2
274505	6568255	Tamworth Solar	3*	**CMT1**	Culturally Modified Tree	Tamworth Solar CMT1 is a cultural scar made on the south side of a white box tree on Lot 19 DP755340, the neighbouring property to the Solar Farm. The tree is on a fence line separating the two properties. The tree is alive, approximately 10 m tall with a trunk diameter of 1.2 m. The scar is elongated in shape. The following measurement were estimated (as the tree is on neighbouring land). It is 130 cm long, 30 cm wide and 10 cm deep. The base of the scar is 80 cm above ground level.		
274601	6567185	Tamworth Solar	8*	**CMT2**	Culturally Modified Tree	Tamworth Solar CMT2 is a probable cultural scar made on the south side of a white box tree on Lot 186 DP755340, the Solar Farm. The tree is on a fence line separating two paddocks. The tree is alive, approximately 30 m tall with a trunk diameter greater than 50cm dbh. The culturally modified scar is in between two non-cultural scars likely caused by horses historically, all are elongated in shape, but the others extend to the ground. The cultural scar is 64 cm long, 8 cm wide and 8 cm deep. The base of the scar is 75 cm above ground level. Card is 10 cm wide.		
275716	6568332	Tamworth Solar	4	**CMT3**	Culturally Modified Tree	Tamworth Solar CMT3 is a cultural scar made on the southwestern side of a white box tree on Lot 186 DP755340, the Solar Farm. The tree is 40 m from fence line separating the paddock from the Warminster road corridor. The tree is alive, approximately 20 m tall with a trunk diameter greater than 50 cm dbh. The culturally modified scar is elongated / rectangular. The cultural scar is 70 cm long, 25 cm wide and 20 cm deep. The base of the scar is 80 cm above ground level. Card is 10 cm wide.		

GDA z56E	GDA z56N	Name Prefix	Survey Unit	Name identifier	Feature	Description	Image 1	Image 2
274719	6567502	Tamworth Solar	5	**OS1**	Stone artefact	Two stone objects located within 5 m of each other next to an existing farm track on Lot 186 DP755340, the Solar Farm. White quartzite core 64x74x82mm with more than 10 negative flakes in all directions. Grey volcanic tuff broken flake 21x23x4mm, narrow platform, Errailure scar / bulb of percussion. Surface soils eroded, on B horizon.		
275086	6568475	Tamworth Solar	4	**OS2**	Stone artefact	Located on Category 1 Land 3 m west of an unnamed drainage line on Lot 186 DP755340, the Solar Farm between 51 to 100 m south and west of IF3 and OS3 and OS4. Surface soils eroded, on B horizon. Three red silcrete broken flakes located. 12x9x7mm, 11x6x4mm, 8x7x14mm. Negative scars, platforms and bulbs evident. Silcrete is not naturally occurring in the landscape.		

GDA z56E	GDA z56N	Name Prefix	Survey Unit	Name identifier	Feature	Description	Image 1	Image 2
275136	6568467	Tamworth Solar	4	**OS3**	Stone artefact	Located on Category 1 Land 1 m west of an unnamed drainage line on Lot 186 DP755340, the Solar Farm centrally located 51 to 100 m of IF3, OS3 and OS4. Surface soils eroded, on B horizon. One black fine-grained quartzite core and a red / white course silcrete / quartz broken flake. The latter is not a good example of an artefact, but this material does not naturally occur in the landscape. The back core is 29x32x34mm possessing a negative flake, bulb and platform. The red silcrete / quartz broken flake is 36x12x18mm and has one plane likely to have been flaked (likely meaning evidence of other features was not present).		 
275188	6568481	Tamworth Solar	4	**OS4**	Stone artefact	Located on Category 1 Land 30 m east of an unnamed drainage line on Lot 186 DP755340, the Solar Farm 51 to 100 m west of IF3, OS2 and S3. Surface soils eroded, on B horizon. Two grey chert flakes with many (3 to 10+) negative flakes, both have wide platforms and multiple points of percussion. 72x43x18mm and 56x47x12mm. This material does not naturally occur in the landscape.		

GDA z56E	GDA z56N	Name Prefix	Survey Unit	Name identifier	Feature	Description	Image 1	Image 2
274862	6567023	Tamworth Solar	8	**OS5a**	Stone artefact	Located on Category 1 Land on the southern boundary of the property 170 m north of an unnamed drainage line on Lot 186 DP755340. This location is in the Solar Farm. A grey and white / pink quartzite broken flakes were observed 5 m apart. 38x42x12mm and 31x24x9mm. Points of impact, platforms and negative scars were observed on both artefacts. These materials naturally occur in the landscape.		
274859	6567027			**OS5b**				
275584	6567293	Tamworth Solar	4	**OS6**	Stone artefact	Located on Category 1 Land on the central portion of the property next to a rural dam on Lot 186 DP755340. This location is in the Solar Farm. A banded mudstone core, course grained quartzite core and a chert scraper were observed 5 m apart next to a farm dam. 82x38x28mm, 20x214x9mm, 30x26x8mm. Points of impact and negative flakes were observed on all. Microflaking was observed in the scraper. The mudstone and chert did not naturally occur in the landscape.		

GDA z56E	GDA z56N	Name Prefix	Survey Unit	Name identifier	Feature	Description	Image 1	Image 2
								 
276990	6571712	Tamworth Solar	1	**OS7**	Stone artefact	Located on road work stockpile area at the intersection of Oxley Highway and Babbinboon Road 840 m south of Peel River just above the floodplain. This location is to be developed as a deceleration lane servicing the Solar Farm. A cream / yellow silcrete flake and a grey fine-grained siliceous flake were observed 48 m apart on undisturbed thin strips of natural soil surface in the area. 25x11x8mm and 34x21x11mm. Point of impact, platform and bulb was observed on both. We were unable to determine what material naturally occurred in the landscape due to existing disturbance and import of gravel.		

GDA z56E	GDA z56N	Name Prefix	Survey Unit	Name identifier	Feature	Description	Image 1	Image 2
								
275002	6568065	Tamworth Solar	4	**OS8**	Stone artefact	Located on Category 1 Land on the north central portion of the property on a scaled area 485 m from an unnamed drainage line on Lot 186 DP755340. This location is in the Solar Farm. A grey fine-grained quartzite and Hornsfels broken flakes were observed 15 m apart. 57x34x18mm and 18x17x9mm. The larger artefact had a platform, bulb, negative scars while the smaller showed a point of percussion and remnant of a crushed platform (otherwise not conclusive). Quartzite naturally occurs but Hornfels does not naturally occur in the landscape.		
275007	6568066							

GDA z56E	GDA z56N	Name Prefix	Survey Unit	Name identifier	Feature	Description	Image 1	Image 2
274751	6567296	Tamworth Solar	6	**OS9**	Stone artefact	Located on Category 1 Land on the southern portion of the property 250 m north of and south of unnamed drainage lines on Lot 186 DP755340. This location is in the Solar Farm. A grey fine-grained quartzite and Hornsfels broken flake were observed 5 m apart next to a farm track. 22x24x18mm and 20x214x9mm. Point of impact was observed on one while negative scars were seen on the other. Quartzite naturally occurs but Hornfels does not naturally occur in the landscape.		
274757	6567316							

7.1.4 Discussion

The Development Areas landscape, size and land-use history have influenced the type and distribution of Aboriginal cultural heritage sites. The predictive model formulated in Section 5.1.3 notes corridors alongside waterways were natural traveling routes for resource gathering and temporary encampments. This observation was proved true in the Deceleration Lane and Solar Farm Development Areas but was not evident in the Sight Distance Development Area.

The small size of the Sight Distance Development Area was likely a major contributor to no Aboriginal objects being recorded but the small size of the Deceleration Lane Development Area had other factors increasing the likelihood of recording Aboriginal objects such as the short distance to a permanent source of water, the Peel River (840 metres north) and being on an elevated landform above a floodplain.

Recording two culturally modified trees was expected where remnant trees of an age to be culturally modified occurred. There does not appear to be a correlation between the proximity of the culturally modified trees and water sources. White box is suitable for cultural modification and the trees present were of an age to be culturally scarred. One culturally modified tree was recorded on, and two were recorded immediately next to the Solar Farm Development Area. All cultural modifications on the trees appear to have been created by the procurement of bark for coolamons. Two scars either side of the coolamon scar on CMT2 is historic damage likely from horses as seen on other trees on the property.

Recording stone artefact scatters or isolated stone artefacts was somewhat expected. The high levels of ground surface disturbance in the Deceleration Lane Development Area created an environment initially thought an unlikely area to observe any natural soil surfaces. When two stone artefacts were recorded on thin slithers of residual natural soil surfaces it highlighted proximity to a major source of water on elevated land next to floodplain, despite its levels of disturbance, retained archaeological potential.

The number of stone tool sites recorded in the Solar Farm Development Area (11 isolated finds, eight open sites and two culturally modified trees) in a 200 hectare area with only first or second Strahler Order drainage lines was initially more than anticipated but then after further consideration was considered expected. There are a few logical factors in play in this area:

1. Day of the assessment factors: excellent ground surface visibility due to the severe drought, ploughed soil surfaces, high levels of effective survey coverage and an assessment using skilled people created an environment where potential to observe and identify Aboriginal objects was high. When compared to projects west of Cobar on comparable soils / landforms where similar conditions occur all the time (+ or – ploughing) the results are comparable when similar survey effort is applied.
2. Landform factors: before European settlement the 200-hectare area would have been comprised of native food gathering resources such as grassy woodland, grassland and freshwater swamps. The diversity of resources in a small area and their associated ecotones creates more opportunity to exploit them.
3. Availability and a diversity of raw materials in easy to use cobbles suitable for manufacture of stone implements creates an environment likely to be exploited.
4. Other - The Registered Aboriginal Parties noted locations of cultural places (not Aboriginal object types) within sight and walking distance (10 kilometres) on prominent landforms north and south of the Solar Farm Development Area. The 200-hectare landform is a location between points A and B and has an added advantage of possessing natural resources suitable for exploitation.

There are no other landscape features that provide a meaningful context to the site distribution within the Development Areas. There is little potential for other site types or sub-surface remains to be within the Development Areas. Resource gathering is the most common type of activity on the landforms assessed, which are evidenced by scarred trees and one-off knapping events or isolated finds. This has

been confirmed by the results of the field survey. Intensive ground surface disturbance has altered the Development Areas significantly also (Section 4.2), so any possible undetected sites are likely to have poor intactness.

7.1.5 Significance

Significance forms the basis for the management of Aboriginal cultural heritage. There are four main criteria for assessing the significance of Aboriginal cultural heritage sites listed in the OEH document *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (2011b). These are Social or Cultural significance, Aesthetic significance, Historic significance and Scientific significance.

Each criteria of significance are rated low, moderate or high. The following questions can be asked to help guide this rating (OEH 2011b; 10):

- **Research potential:** does the evidence suggest any potential to contribute to an understanding of the area and/or region and/or state's natural and cultural history?
- **Representativeness:** how much variability (outside and/or inside the subject area) exists, what is already conserved, how much connectivity is there?
- **Rarity:** is the subject area important in demonstrating a distinctive way of life, custom, process, land-use, function or design no longer practised? Is it in danger of being lost or of exceptional interest?
- **Education potential:** does the subject area contain teaching sites or sites that might have teaching potential?

The level of significance of each site is summarised in Table 7-5.

Table 7-5: Summary of significance for sites recorded

Development Area / Site ID	Social Significance	Aesthetic Significance	Historic Significance	Scientific Significance
Tamworth Solar CMT1 (On neighbouring property on boundary fence to proposal)	Moderate	Moderate	None	Low
Tamworth Solar CMT2 (On same Lot and DP but outside of proposal – on fence line)	Moderate	Low-Moderate	None	Low
Tamworth Solar CMT3	High	High	None	Moderate
Tamworth Solar IF1	Low	Low	None	Low
Tamworth Solar IF2	Low	Low	None	Low
Tamworth Solar IF3	Low	Low-Moderate	None	Low
Tamworth Solar IF4	Low	Low-Moderate	None	Low
Tamworth Solar IF5	Low	Low	None	Low
Tamworth Solar IF6 (On same Lot and DP but outside of proposal)	Low	Low-Moderate	None	Low
Tamworth Solar IF7 (On same Lot and DP but outside of proposal)	Low	Low-Moderate	None	Low
Tamworth Solar IF8	Low	Low-Moderate	None	Low
Tamworth Solar IF9	Low	Low	None	Low
Tamworth Solar IF10	Low	Low	None	Low
Tamworth Solar IF11	Low	Low	None	Low
Tamworth Solar OS1	Low	Low	None	Low
Tamworth Solar OS2	Low	Low	None	Low
Tamworth Solar OS3	Low	Low-Moderate	None	Low
Tamworth Solar OS4	Low	Low-	None	Low

Development Area / Site ID	Social Significance	Aesthetic Significance	Historic Significance	Scientific Significance
		Moderate		
Tamworth Solar OS5	Low	Low	None	Low
Tamworth Solar OS6	Low	Low-Moderate	None	Low
Deceleration Lane Solar OS7	Low	Low	None	Low
Tamworth Solar OS8	Low	Low	None	Low
Tamworth Solar OS9	Low	Low	None	Low

Social or cultural significance

Social or cultural value refers to the spiritual, traditional, historical or contemporary associations and attachments the place or area has for Aboriginal people (OEH 2011b; 8). It relates to a contemporary connection that Aboriginal people have with events that have taken place in that location or general area.

In general, presence of Aboriginal sites provides evidence of connection to country and therefore is likely to be considered as important and significant regardless of its condition or representativeness.

CMT3 was regarded to be of particular significance to the RAPs as it was an excellent example of a culturally modified tree. CMT2 has moderate-high social significance.

Aesthetic significance

This refers to the sensory, scenic, architectural and creative aspects of the place. It is often closely linked with the social values. It may consider form, scale, colour, texture and material of the fabric or landscape, and the smell and sounds associated with the place and its use (Australian ICOMOS1988, as cited in OEH 2011b; 9).

The Development Areas retain some resemblance to its appearance prior to the arrival of Europeans in the Tamworth area. Land clearance has had an impact, but there have been no major changes to the landscape. Surrounding mountains, hills, plains and floodplains are within view from each Development Area.

Culturally modified trees inherently have some aesthetic value. Mature trees have some level of aesthetic appeal and the cultural scars provide a clear link to the Aboriginal use of the area. A regularly shaped cultural scar as best represented by CMT3 can be appreciated by someone with limited knowledge of Aboriginal cultural heritage. Aboriginal stone tool objects are much harder to be appreciated by someone with limited knowledge of Aboriginal cultural heritage unless they are very distinctive and remarkable.

The aesthetic appeal of the culturally modified trees and Aboriginal stone artefact sites within each Development Area is not rare but they are representative of pre-European settlement. Some of the cultural scars are more clearly representative of their function than others and overall most stone artefacts recorded are not easily recognised without training and experience. Therefore, the recorded sites within the Development Areas have **low-moderate** or **moderate** except CMT3 which has **high** aesthetic appeal aesthetic significance.

Historic significance

Historic value refers to the associations of a place with a historically important person, event, phase or activity in an Aboriginal community. Historic places do not always have physical evidence of their historical importance (OEH 2011b; 9).

There are no specific historical associations between the Development Areas and the local Aboriginal community. Therefore, there is **no** historic significance of the Development Areas and sites within them.

Scientific significance

This refers to the importance of a landscape, area, place or object because of its rarity, representativeness and the extent to which it may contribute to further understanding and information (Australian ICOMOS 1988, as cited in OEH 2011b; 9).

The distribution of the Aboriginal stone objects and culturally modified trees conformed to the predictive model set out in **Section 5.1.3**. On this level, the recorded sites can be considered to be representative of these site types but are not rare. There is little scope for the distribution of the scarred trees or stone tool sites to contribute to the research or education of this site type in terms of distribution.

The scars on the culturally modified trees and technologies and purposes of the Aboriginal stone objects recorded are also representative and are not rare. Coolamons are common types of cultural scars and there is little further research potential available by studying the examples within the Development Area. However, the scar on CMT3 has educational potential in that the tree is relatively accessible for the local community and it possesses a good example of a cultural scar. There are other site types of this kind elsewhere that can be used for this purpose though.

Based on the factors discussed above, the scientific significance of the sites within the Development Area is rated as **low**.

8 Impact and Management

8.1 Aboriginal Cultural Heritage

Cultural heritage values require management for any proposal where they have been identified (Figures 8-1 and 8-2). Whether an impact is direct, indirect or possible, Aboriginal sites will require some level of intervention to avoid harm where possible. The SEARs for the project state that the EIS must demonstrate measures to avoid impact to Aboriginal cultural heritage and measures to mitigate the impact where avoidance is not possible (**Section 2.1**)

8.1.1 Impacts to Aboriginal Cultural Heritage

CMT2 will be avoided as it occurs outside the development footprint. CMT3 occurs inside the development footprint however the proponent has modified the proposal to avoid it. As a result, all culturally modified trees will be avoided. It is possible these trees could be accidentally affected by the proposal, particularly during the construction phase. The trees will also naturally deteriorate during the lifespan of the solar farm, and when they do, they will be at risk of being cut down for safety reasons without effective management.

Isolated Finds 6,7,8 and 9 are on the same Lot and DP as the proposal but are just outside (within 50) metres of the Development Area. These four sites will be avoided by the proposal. It is possible these sites could be accidentally affected by the proposal, particularly during the construction phase.

All remaining Aboriginal sites are directly or have a reasonable chance to be inadvertently affected by the proposal, particularly during the construction phase.

The impacts to Aboriginal cultural heritage are summarised in Table 8-1.

Table 8-1: Summary of Impacts to Aboriginal Cultural Heritage under the current form of the proposal

Development Area / Site ID	Impact Unless Managed (Direct, Indirect, Unlikely)	Effect of proposal on Significance	Actual impact with implementation of the mitigation measures
Tamworth Solar CMT2 (On same Lot and DP but outside of proposal – on fence line)	Unlikely	Possible accidental impact. None if managed effectively	Nil
Tamworth Solar CMT3	Unlikely	Possible accidental impact. None if managed effectively	Nil
Tamworth Solar IF1	Direct	Total loss.	Item collected
Tamworth Solar IF2	Direct	Total loss.	Item collected
Tamworth Solar IF3	Direct	Total loss.	Item collected
Tamworth Solar IF4	Indirect	Possible accidental impact or impact if drainage line work is needed. None if managed effectively but total if work is required in drainage line.	Nil
Tamworth Solar IF5	Indirect	Possible accidental impact or impact if drainage line work is needed. None if managed effectively but total if work is required in drainage line.	Nil
Tamworth Solar IF6 (On same Lot and DP but outside of proposal)	Unlikely	Possible accidental impact. None if managed effectively	Nil
Tamworth Solar IF7 (On same Lot and DP but outside of proposal)	Unlikely	Possible accidental impact. None if managed effectively	Nil

Development Area / Site ID	Impact Unless Managed (Direct, Indirect, Unlikely)	Effect of proposal on Significance	Actual impact with implementation of the mitigation measures
Tamworth Solar IF8	Unlikely	Possible accidental impact. None if managed effectively	Nil
Tamworth Solar IF9	Unlikely	Possible accidental impact. None if managed effectively	Nil
Tamworth Solar IF10	Direct	Total loss.	Item collected
Tamworth Solar IF11	Direct	Total loss.	Item collected
Tamworth Solar OS1	Unlikely	Possible accidental impact. None if managed effectively	Nil
Tamworth Solar OS2	Indirect	Possible accidental impact or impact if drainage line work is needed. None if managed effectively but total if work is required in drainage line.	Nil
Tamworth Solar OS3	Indirect	Possible accidental impact or impact if drainage line work is needed. None if managed effectively but total if work is required in drainage line.	Nil
Tamworth Solar OS4	Direct	Total loss.	Item collected
Tamworth Solar OS5	Direct	Total loss.	Item collected
Tamworth Solar OS6	Indirect	Possible accidental impact or impact if work on or near the dam is needed. None if managed effectively but total if work is required in this area.	Nil
Deceleration Lane Solar OS7	Direct	Total loss.	Item collected
Tamworth Solar OS8	Direct	Total loss.	Item collected
Tamworth Solar OS9	Direct	Total loss.	Item collected

In summary, 22 cultural heritage items were identified in or next to the Development Area. The impact to these can be summarised as:

- Culturally modified trees – two identified: **both avoided**
- Isolated finds – 11 identified: Five avoided and **six impacted**
- Open sites – nine identified: Four avoided and **five impacted**

Figure 8–1: Impact to Aboriginal Sites recorded on or immediately next to Lot 186 DP755340 (The Solar Farm)

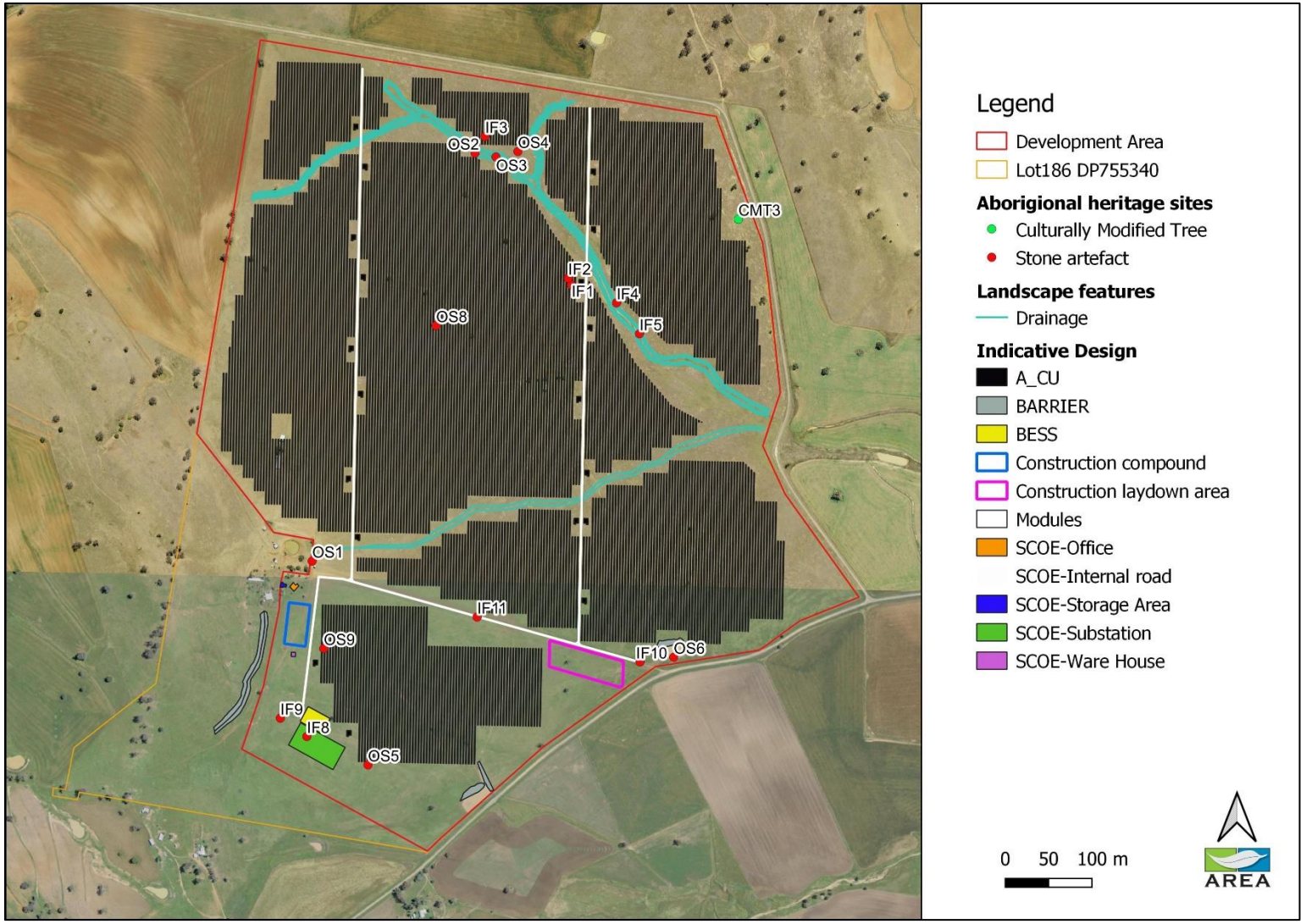


Figure 8–2: OS7 showing both Aboriginal objects affected by the proposal in the Deceleration lane Development Area

8.1.2 Management and Mitigation Options

As a general principal, avoidance of impact to sites of Aboriginal cultural heritage is the preferred method of management. This is advocated in the Burra Charter as well as various other guidelines and codes of practice (**Section 2.2**). Total avoidance of all sites of heritage value is not always feasible.

In the case avoidance presents a proponent with considerable difficulties, they may apply to damage or destroy a site. For State Significant Developments, the Department of Planning Industry and Environment is the consent authority. Consent for the removal of any Aboriginal site will either be granted or denied on the basis of a Cultural Heritage Management Plan (CHMP). This document will form part of the EIS submission and will include all measures for heritage management.

This proposal aims to relocate any Aboriginal object (excluding Culturally Modified Trees which are avoided) to an agreed safe keeping place in the fenced off area of Culturally Modified Trees #2 or #3. Should the consent for the removal of any Aboriginal objects be given, the following mitigation measures are recommended:

- The Registered Aboriginal Parties have been consulted over the process of removing and relocating Aboriginal objects during a CHMP meeting held with the RAPs on 9 December 2019. The meeting minutes present in Section 3.4 provide detail on this process.
- Removal includes salvage and relocation of impacted items to a suitable location in accordance with the Code of Practice of archaeological Investigation of Aboriginal Objects in NSW
- Any conditions that accompany the consent for the removal of Aboriginal objects must be followed.
- An Aboriginal Site Impact Recording form will need to be submitted for each site damaged or destroyed.

Any sites of Aboriginal cultural heritage that will **not** be directly impacted by a proposal may still require management measures as outlined the CHMP. In the case of the current proposal, 11 cultural heritage sites will require some management to avoid accidental impact. In order to avoid accidental impact, the following measures are recommended:

- The locations of the cultural heritage sites should be provided to the relevant supervisors responsible for the construction and operation of the solar farm and ancillary infrastructure. They should be informed cultural heritage sites are protected under the NPW Act and no harm is to come to them. The presence of the cultural heritage sites should be made clear to the workforce as part of an induction
- Fencing, a physical barrier is often the most effective solution and should be sturdy enough to present noticeable physical resistance to the machinery required to construct the solar farm and include high-visibility elements. During a CHMP meeting held with the RAPs on 9 December 2019 it was agreed that a post and rail fence with a 10-meter buffer and a sign stating ‘Environmentally Sensitive Area” would be constructed around Culturally Modified Trees #2 and #3
- Should any of the culturally modified trees fall or deteriorate to the point they are a safety risk during the operation of the solar farm, further management measures will need to be formulated with the assistance of the local Aboriginal community and a heritage professional.

Finally, the meeting held with the RAPs on 9 December 2019 discussed the possibility unrecorded Aboriginal objects may emerge during the construction or operation of the proposal. The CHMP developed for the management of cultural heritage includes an unexpected finds protocol detailing the obligations of a person who encounters an Aboriginal object. This protocol will form part of the induction for any workforce that is involved in the construction or operation of the solar farm.

9 Recommendations

9.1.1 Overview

The management of Aboriginal cultural heritage for the Development Areas will be detailed in a Cultural Heritage Management Plan (CHMP). The following sections present recommendations for the CHMP.

9.1.2 Aboriginal Heritage

1. Should the consent for the removal of any cultural heritage sites be given, the following mitigation measures are recommended:
    - The Registered Aboriginal Parties recommendations relating to managing Aboriginal objects detailed during a meeting held on 9 December 2019 are implemented.
    - Any conditions of the consent for removal must be followed.
    - An Aboriginal Site Impact Recording form will need to be submitted for each site damaged or destroyed.
2. In order to avoid accidental impact, the following measures are recommended:
    - The locations of cultural heritage sites will be provided to the relevant supervisors responsible for the construction and operation of the solar farm and the ancillary infrastructure. They will be informed cultural heritage sites are protected sites under the NPW Act and no harm is to come to them. The presence of cultural heritage sites will be made clear to the workforce as part of an induction.
    - Post and rail fencing (with access gate) around culturally trees with a 10 metre buffer will be constructed. This is sturdy enough to protect this site type and improve the health of the tree. This fenced off area will include a sign saying, “Environmentally Sensitive Area”.
    - Should any of the culturally modified trees fall or deteriorate to the point they are a safety risk during the operation of the solar farm, further management measures will need to be formulated with the assistance of the local Aboriginal community and a heritage professional.
3. Any CHMP developed for the management of cultural heritage includes an unexpected finds protocol which includes the obligations of a person who encounters an Aboriginal object. This protocol should form part of the induction for any workforce that is involved in the construction or operation of the solar farm.

10 References

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Appendix A: Standard Environmental Assessment Requirements

DPIE Input to SEARS

Planning Secretary's Environmental Assessment Requirements

Section 4.12(8) of the Environmental Planning and Assessment Act 1979
Schedule 2 of the Environmental Planning and Assessment Regulation 2000

Application Number	SSD-9264
Project Name	Tamworth Solar Farm
Location	Soldiers Settlement Road, Somerton, within Tamworth LGA
Applicant	Oriens Energy Pty Ltd
Date of Issue	20/06/2019

- **Heritage** – including an assessment of the likely Aboriginal and historic heritage (cultural and archaeological) impacts of the development, including adequate consultation with the local Aboriginal community in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents*;

Heritage	
	Aboriginal Cultural Heritage Consultation Requirements for Proponents (OEH)
	Code of Practice for Archaeological Investigations of Objects in NSW (OEH)
	Guide to investigating, assessing and reporting on aboriginal cultural heritage in NSW (OEH).
	NSW Heritage Manual (OEH)

Appendix B: Aboriginal Community Consultation

Aboriginal Community Consultation Log

Stage 1a

Date	Stage	Organisation	Communication	Method(s)	Response RECEIVED	Response Detail	Method(s)
			Stage 1				
12/07/2019	1a	Tamworth local paper- The Northern Daily Leader	Sent Public notice expression of interest to Tamworth local newspaper	email		No responses received from the newspaper article	email
10/07/2019	1a	ALRA	Sent request for potential RAPs	email			email
10/07/2019	1a	Local Land Services - LLS	Sent request for potential RAPs	email	22.7.19	Luke Raveneau <luke.raveneau@lls.nsw.gov.au> Mon, 22 Jul, 08:31 (1 day ago) Hi Gabrielle, Below are a couple of contacts who hold cultural knowledge on the area proposed for Solar farm near Somerton. Tamworth Local Aboriginal Land Council - CEO Fiona Snape Email : fiona@tamworthlalc@gmail.com.au Phone : 02 67669028 Donny Fermor - Tamworth Local Aboriginal Land Council Site Officer Phone : 0401255473 Lenny Waters - Cultural Tours Email : leonardwaters0@gmail.com Phone : 0438701576 There is also a Native Title group in this area that you will need to consult with (GOMEROI). I'm not quite sure who the main contact is though. But I'd suggest you make contact with Fiona Snape at the Local Aboriginal Land Council first, she will have your answer and point you in the right direction. If you have any questions feel free to contact me. Cheers	email
10/07/2019	1a	National Native Title Tribunal - NNTT	Sent request for potential RAPs	email	11.7.19	The National Native Title Tribunal (the Tribunal) has undertaken steps to remove itself from the formal list of sources for information about indigenous groups in development areas.	email

Stage 1a

10/07/2019	1a	NTSCORP	Sent request for potential RAPs	email	23/07/2019	Stephen Talbot was contacted by NTSCORP and provided the following response: Hi Gabbi My names Steve Talbott am 1 of 19 Applicant representing Gomeroi People Re native Title Claim over vast area of N.S.W n into Queensland. Besides progressing our claim forward we also have responsibilities in assuring Aboriginal Cultural n Heritage is properly managed n assessed. I would like to register my interest in the above said assessment n all phrases associated with Aboriginal Cultural n Heritage on above said project Thanking you Steve Talbott 0476893944 Our response was : Hi Stephen, Thankyou very much for your email and identifying that you are a traditional owner and one of the 19 applicants for the registered claim. I have added your name and contact details as Registered Aboriginal Party (RAP) for this project. On Friday this week the first round of consultation will finish which is writing to government bodies for lists of contacts. To date we have approximately 50 people/organisations on this list to contact to see if they are interesting in becoming a RAP. Next week we will be writing letters to these people, but because you have already registered your interest we will not send one to you, is that ok? Kind Regards Gabrielle Green	email
10/07/2019	1a	Office of Environment & Heritage – OEH	Sent request for potential RAPs	email	19.7.19	45 Organisations/affiliations identified	email
10/07/2019	1a	Local Aboriginal Land Services – LALC	Sent request for potential RAPs	email			email
10/07/2019	1a	Tamworth Regional Council	Sent request for potential RAPs	email			email
26/07/2019	1a	Steve Talbot /NT Gomeroi People applicant	Request for information	Phone	26/07/2019	Steve called Phil Cameron to say thankyou for our response to his email. He wanted to clarify whether the 45 candidates to contact were RAPs. PJC stated they were not they were candidates needed to be contacted. Steve raised a concern about the selection criteria for the candidates for candidates to participate in field surveys and who could speak for country. PJC offered , and Steve accepted an opportunity to review the list of RAPs on behalf of the Gomeroi People registered Applicants and provide advice.	phone

Stage 1a

30/07/2019	1a	Fiona Snape –Tamworth LALC	Emailed to ask if the LALC would be interested in becoming a RAP	Email	2/08/2019	Hello Fiona, AREA Environmental have been commissioned to complete a cultural heritage assessment for a proposed solar farm near Somerton, Tamworth LGA, NSW. We received your contact details from local land services (LLS), and are contacting you to inquire whether the land council would be interested in becoming a Registered Aboriginal Party (RAP). I have included more information in the attached document. I have also been speaking to Donny Fermor who advised he does relay with you in regards to RAP involvement and he has asked me to forward the information meant for him through to you. I have attached individual letters for you both, if it would be possible for you to please forward Donny's on to him? If you have any questions please do not hesitate to contact me. Kind Regards Gabrielle Green **Tamworth LALC Response**: Hi Gabrielle Yes Tamworth LALC would be interest in becoming a Registered Aboriginal Party Regards Fiona Snape CEO Tamworth Local Aboriginal Land Council PO Box 57 Tamworth NSW 2340	email
30/07/2019	1a	Donny Fermor	Rang to ask if Donny would be interested in becoming a RAP	Phone		Rang Donny to ask if he would be interested in being a RAP, he advised he is and he relays with Fiona from LALC. Donny asked if I could please send the project information through to Fiona Snape and he will collect it from LALC	phone
30/07/2019	1a	Lenny Waters	Emailed to ask if Lenny would be interested in becoming a RAP	email		Hello Lenny, AREA Environmental have been commissioned to complete a cultural heritage assessment for a proposed solar farm near Somerton, Tamworth LGA, NSW. We received your contact details from local land services (LLS), and are contacting you to inquire whether you would be interested in becoming a Registered Aboriginal Party (RAP). I have included more information in the attached document. Please do not hesitate to contact me if you have any questions. Kind Regards Gabrielle Green	email

Stage 1a and b

Date	Stage	Organisation	Communication	Method(s)	Response RECEIVED	Response Detail	Method(s)
30/07/2019	1a	Steve Talbot /NT Gomeroi People applicant	Emailed Steve to update him and provide him with all of the information as he has already advised he would like to be a RAP	Email		Gabrielle Green <gabbi@areaenvironmental.com.au> Attachments 12:07 (0 minutes ago) to Stephen Hi Steve, I understand you have let us know you would like to be a Registered Aboriginal Party, I just wanted to send you an email to update you on our progress. Yesterday we posted to 45 potential RAPs and today we emailed another three (four including yourself), I have attached a document with all of the information you may require. I am sending you the same information as everyone else to keep you informed. Now the letters have been sent, we will wait for 14 days to see who responds and registered as an interested party. Once this is complete we will send another letter which includes project information and a survey methodology. In response to a conversation you had with Phil please note there is a sentence in the letter to honour our promise to give the Applicants of the Gomeroi People an opportunity to provide comment on who becomes a RAP. Kind Regards	email
12.08.2019	1b	Office of Environment & Heritage – OEH	Advised of completion of stage 1a of the ACHCRs	Email	13.08.19	Automatic reply response received from OEH awaiting a formal reply.	email
12.08.2019	1b	Local Aboriginal Land Services – LALC	Advised of completion of stage 1a of the ACHCRs	Email	13.08.19		email

Stage 2

Date	Stage	Organisation	Communication	Method(s)	Response RECEIVED	Response Detail	Method(s)
				Stage 2/3			
28.08.19	2a	Contacted All RAPS-Emailed all RAPS requesting their certificate of currency and advised them of the fieldwork dates and requirements	Hello Members, This is just an email in regards to the upcoming fieldwork for the Tamworth solar project. The field work for the project will be held from 12pm on Tuesday 17 and finish 12pm on Thursday 19 September 2019 (two days). If you prefer two full days rather than two half days and one full day let me know. Can you please confirm your availability and interest in participating in the field assessment. As you know Stephen Talbott, Aaron Talbott and two positions for the LALC are available and the rate and conditions offered by the Proponent are those of the LALC (so everything is fair and equal). Before the field work can commence need to submit your workers compensation certificate of currency to the Proponent for them to officially make the offer. Without citing this the Proponent is unable to approve the paid RAP positions. On the days of the fieldwork please make sure to bring adequate food and water. Long pants, boots, hat and sunscreen are required as adequate protection from the elements and environmental hazards. Please do not hesitate to contact me if you have any questions or concerns. Kind Regards Gabrielle Green	Email	Aaron Talbott	Aaron Talbott Wed, 28 Aug, 15:55 (16 hours ago) to me Yaama Gabrielle Thankyou for your email. I will accept invitation to participate in field assessment and will. Email my insurances through as soon as possible. I quite happy to do either program you have offered. What the other RAP's are happy to do is fine with me. Regards Aaron Talbott AT Gomilaroi Cultural Consultancy M 0455 291 762 Thankyou	Email
28.08.20	2a	Contacted All RAPS-Emailed all RAPS requesting their certificate of currency and advised them of the fieldwork dates and requirements	Hello Members, This is just an email in regards to the upcoming fieldwork for the Tamworth solar project. The field work for the project will be held from 12pm on Tuesday 17 and finish 12pm on Thursday 19 September 2019 (two days). If you prefer two full days rather than two half days and one full day let me know. Can you please confirm your availability and interest in participating in the field assessment. As you know Stephen Talbott, Aaron Talbott and two positions for the LALC are available and the rate and conditions offered by the Proponent are those of the LALC (so everything is fair and equal). Before the field work can commence need to submit your workers compensation certificate of currency to the Proponent for them to officially make the offer. Without citing this the Proponent is unable to approve the paid RAP positions. On the days of the fieldwork please make sure to bring adequate food and water. Long pants, boots, hat and sunscreen are required as adequate protection from the elements and environmental hazards. Please do not hesitate to contact me if you have any questions or concerns. Kind Regards Gabrielle Green	Email	Stephen Talbot	Stephen Talbott 08:47 (3 hours ago) to me Hi Gabrielle Attached is my insurances for the upcoming field work Thanks Steve	Email

Stage 2

Date	Stage	Organisation	Communication	Method(s)	Response RECEIVED	Response Detail	Method(s)
28.08.21	2a	Contacted All RAPS-Emailed all RAPS requesting their certificate of currency and advised them of the fieldwork dates and requirements	Hello Members, This is just an email in regards to the upcoming fieldwork for the Tamworth solar project. The field work for the project will be held from 12pm on Tuesday 17 and finish 12pm on Thursday 19 September 2019 (two days). If you prefer two full days rather than two half days and one full day let me know. Can you please confirm your availability and interest in participating in the field assessment. As you know Stephen Talbott, Aaron Talbott and two positions for the LALC are available and the rate and conditions offered by the Proponent are those of the LALC (so everything is fair and equal). Before the field work can commence need to submit your workers compensation certificate of currency to the Proponent for them to officially make the offer. Without citing this the Proponent is unable to approve the paid RAP positions. On the days of the fieldwork please make sure to bring adequate food and water. Long pants, boots, hat and sunscreen are required as adequate protection from the elements and environmental hazards. Please do not hesitate to contact me if you have any questions or concerns. Kind Regards Gabrielle Green	Email	Latisha from Tamworth LALC (on behalf of Fiona Snape)	Latisha called to confirm they have 2 site Officers lined up for the field work at a rate of $120 plus gst. She advised that one lives near by and between Manila and Somerton an the second is coming from Bendemeer. Latisha advised she will send through the LALC workers comp and certificate of currencies. Latisha question about specifics of the job, location etc, Gabbi advised that there will be an email going out to all RAPs for specifics of the job closer to the date of fieldwork. Latisha was happy with this.	Phone Conversation
17-19 Sept 20	Three	All RAPs	Aaron Talbot called on 17 to apologies for not being able to attend the field assessment. The study area was assessed 17 to 19 September 2019 by Steve Talbot (TO), and Don Fermor and Lynda Bartel of the T-LALC. 23 stone artefact sites and three culturally modified trees were recorded during the assessment. A preliminary discussion after the survey was complete indicated: - A cultural Heritage Management Plan is needed to mange impact to any sites as a result of the proposal. - People involved in the survey are best placed to attend a face to face meeting to document management. A representative of the proponent should attend. - Dedicated Aboriginal positions for construction workers would be beneficial.	In person	See left hand column	See left hand column	See left hand column

Stage 3

Date	Stage	Organisation	Communication	Method(s)	Response RECEIVED	Response Detail	Method(s)
			Stage 3				
17-19 Sept 20	Three	All RAPs	Aaron Talbot called on 17 to apologies for not being able to attend the field assessment. The study area was assessed 17 to 19 September 2019 by Steve Talbot (TO), and Don Fermor and Lynda Bartel of the T-LALC. 23 stone artefact sites and three culturally modified trees were recorded during the assessment. A preliminary discussion after the survey was complete indicated: - A cultural Heritage Management Plan is needed to mange impact to any sites as a result of the proposal. - People involved in the survey are best placed to attend a face to face meeting to document management. A representative of the proponent should attend. - Dedicated Aboriginal positions for construction workers would be beneficial.	In person	See left hand column	See left hand column	See left hand column
19.09.19	Three	All RAPs	Follow up email with details above sent to all RAPs.	Email	All RAPs	N/A	email
24.09.19	Three	All RAPs	A follow up thanks for the survey with billing details of the client sent	Email	All RAPs	N/A	email

Stage 4

Date	Stage	Organisation	Communication	Method(s)	Response RECEIVED	Response Detail	Method(s)
			Stage 4				
29.10.19		All RAPs	Draft report issued	email	17-19 Sept during fieldwork. A fa	AREA liased with the proponent who was happy to facilitate a meeting to docuss the report and CHMP.	In peron
30.10.2019	Four	Tamworth LALC	Rang and spoke with Fiona from Tamworth LALC to organise a date avaliable for the RAPs to meet for a discussion in regards to what was recorded during the survey of the Tamworth solar Aborigonal heritage assesment	Phone	30.10.19	RAPs avaliable 12pm on 9th December 2019	Phone
30.10.2019	Four	Steve Talbot	Rang and spoke with Steve Talbot to organise a date avaliable for the RAPs to meet for a discussion in regards to what was recorded during the survey of the Tamworth solar Aborigonal heritage assesment	Phone	30.10.19	RAPs avaliable 12pm on 9th December 2019	Phone
30.10.2019	Four	Aaron Talbot	Rang but no answer so I sent a message to organise a date avaliable for the RAPs to meet for a discussion in regards to what was recorded during the survey of the Tamworth solar Aborigonal heritage assesment	Phone	31.10.19	Aaron returned my call and advised he would be grateful to be still included in the project and he is avaliable 12pm on 9th December 2019	Phone

Date	Stage	Organisation	Communication	Method(s)	Response RECEIVED	Response Detail	Method(s)
4.12.19	Four	All RAPs	Gabrielle Green <gabbi@areaenvironmental.com.au> 13:53 (10 minutes ago) to Stephen, Aaron, fiona, Phil, Daryl Hello everyone, This is just a reminder email about our upcoming meeting on Monday 9th December, 12 pm at the proposed Tamworth solar property 'Bonnie Brae'. The purpose of the meeting will be to discuss the sites which were recorded throughout the fieldwork. I have attached a copy of all sites that were recorded with an added column for management strategies regarding the recorded sites. A printed version of this document will be provided to everyone on the day for reference and to note your individual ideas. Artefact record for RAPs review meeting.pdf We will be providing lunch and afternoon tea for everyone attending and we look forward to seeing you there Kind Regards Gabbi Green	Email			
10.12.19	Four	Stephen Talbot	Steve rang Gabbi to ask how AREA throught the management meeting went, Gabbi replied advising that the meeting was smooth and had a positive outcome. Steve asked where to send his invoice too, gabbi advised she would send an email including the invoice details	phone			
11.12.19	Four	Daryl Brown	Gabrielle Green <gabbi@areaenvironmental.com.au> Wed, 11 Dec, 10:56 (1 day ago) to Daryl, Phil Hello Daryl, Could you please advise me of the invoice details for Tamworth Solar? I just need to forward it to the RAPs so they are aware of where to send their invoice for Tamworth Solar. Kind Regards Gabrielle Green	Email	Daryl Brown Wed, 11 Dec, 14:11 (1 day ago) to me, Phil Hi Gabrielle, The details are Tamworth Solar Farm Pty Ltd L17, 9 Castlereagh St. Sydney. NSW. 2000. ABN 19 622 261 232. The invoices can be sent directly to Victor Bocioc at victor@oriensenergy.com.au cheers Daryl		

Date	Stage	Organisation	Communication	Method(s)	Response RECEIVED	Response Detail	Method(s)
12.12.19	Four	All RAPs	Gabrielle Green <gabbi@areaenvironmental.com.au> 09:24 (5 hours ago) to fiona, stephen, Aaron, Phil, Daryl Hello everyone, Please see the below invoice details for the Tamworth solar RAPs meeting. The details are as follows; Post: Tamworth Solar Farm Pty Ltd L17, 9 Castlereagh St. Sydney. NSW. 2000. ABN 19 622 261 232. Or email: The invoices can be sent directly to Victor Bocioc at victor@oriensenergy.com.au Victor was the PROJECT.e representative who attended the RAPs meeting on Monday. If anyone has any questions or concerns please feel free to contact me. Kind Regards Gabrielle Green	Email	Aaron Talbott 09:41 (5 hours ago) to me Hi Gabrielle What amount do I invoice for?. Regards	Gabrielle Green <gabbi@areaenvironmental.com.au> 10:46 (3 hours ago) to stephen, fiona, Phil, Daryl, Aaron Hello everyone, Just continuing on from my previous email in regards to invoicing for the Tamworth solar Management meeting please invoice for $120 per hour + gst. This is the standard amount the land council charges per hour per person so we set it as a standard across the board. Number of hours to charge for is 4 hours. If anyone has any questions or concerns please feel free to contact me I hope you all have a lovely Christmas!	Email
20.12.19	Four	All RAPs	A copy of the rpeort and meeting minutes from the CHMP were issued	Email			

Example Stage 1a Request for Contact Details of Potential RAPs

ABN:29 616 529 867
Advanced Regional Environmental Assessments (AREA)

- Environmental impact assessment, approvals and adulting
- Preliminary environmental assessment (PEA)
- Review of environmental factors (REF)
- Peer review
- Community engagement
- Biobanking and biodiversity offsetting assessments
- Aboriginal heritage assessments and community walkovers

AREA
ENVIRONMENTAL CONSULTANTS & COMMUNICATION

10.07.2019

Local Land Services - Northwest
admin.northwest@lls.nsw.gov.au
PO Box 500,
Tamworth, NSW, 2340

Dear Sir / Madam,

Re: Consultation for the Aboriginal Cultural Heritage Assessment for the proposed Tamworth Solar Farm near Somerton, Tamworth LGA, NSW.

AREA Environmental Consultants & Communication (AREA) have been commissioned by PROJECT.e to complete an Aboriginal heritage report for a solar farm. The proposed solar farm is located approximately 7km South of the Somerton roadhouse on Oxley Hwy along Racecourse and Warminster Roads, the 225 Hectare property will be developed as a solar farm. An AHIMS data base search has not identified Aboriginal objects or places and there are no registered or conditional Native Title Determinations on the study area. The regional context of the study area is provided in **Table 1** and **Figures 1 to 3**.

This correspondence seeks out relevant Aboriginal parties for consultation on the project from your organisation. The closing date for Stage 1 (expressions of interest) from your organisation is 5pm 26 July 2019.

The assessments will follow Commonwealth and NSW environmental assessment legislation for State Significant Developments. The Aboriginal heritage assessment will incorporate the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW, 2010) and *Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW, 2010b).

If your organisation can provide contact details 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 proposal, we would be grateful. AREA will use these contact details to provide an opportunity for relevant Aboriginal people to register an interest in a process of community consultation for the proposal. If they register, they will form part of the formal consultation process for the project.

The proponent's representative is Victor Bocioc victor@oriensenergy.com.au but all correspondence need to addressed to Gabrielle Green (gabbi@areaenvironmental.com.au) at AREA.

Kind regards,

Gabbi Green
Environmental Administrator
gabbi@areaenvironmental.com.au

AREA Environmental Consultants & Communication
(1) 6 Belmore Street Dubbo NSW 2830
(2) "Thieles Gate" (Type 2 Voluntary Conservation Agreement property) 79 Huonbrook Rd via Mullumbimby NSW 2482
Ph 0409 852 098
phil@areaenvironmental.com.au

Table 1 Regional context of the study area

Criteria	Value
Central coordinates (GDA94)	150.64406, -31.00208
Interim Biogeographic Regionalisation for Australia (IBRA Region)	Nandewar Bioregion Peel subregion NSW
State	New South Wales
Topographical map sheet	Somerton 1:25K 9036- 3-S
Local Government Area	Tamworth LGA
Local Aboriginal Land Council area (LALC)	Tamworth LALC
Schedule of Native Title Determination Applications relevant to the study area (Claims, ILUA Future Acts etc.)	No registered or conditional claims
AHIMS study area search results	No previously recorded Aboriginal sites on the AHIMS database plot within the study area. Within A 10KM radius there are 16 Aboriginal sites.
Nearest town / locality	Somerton (locality) (7 km N)
Accessed from nearest town by	Oxley Hwy along Racecourse and Warminster Roads
Land use / disturbance	Intensive agriculture (ploughed landscapes).
Nearest waterway (Name, Strahler Order)	The study area possesses three unnamed Strahler first order and one unnamed second order drainage lines. These drainage lines are Unlikely Key Fish Habitat under the NSW FM Act. This drainage line drains into sandy Creek 2km to the East which in turn drains into the Peel river 5km to the North.
Spot point Australian Height Datum (AHD)	Lowest point is 350m the highest is, an unnamed hill is 410m AHD.
Surrounding land use	Grazing, ploughed agriculture
Expected disturbance footprint	Grazing, ploughed agriculture

Figure 1: Location of the proposal (yellow and black polygons)

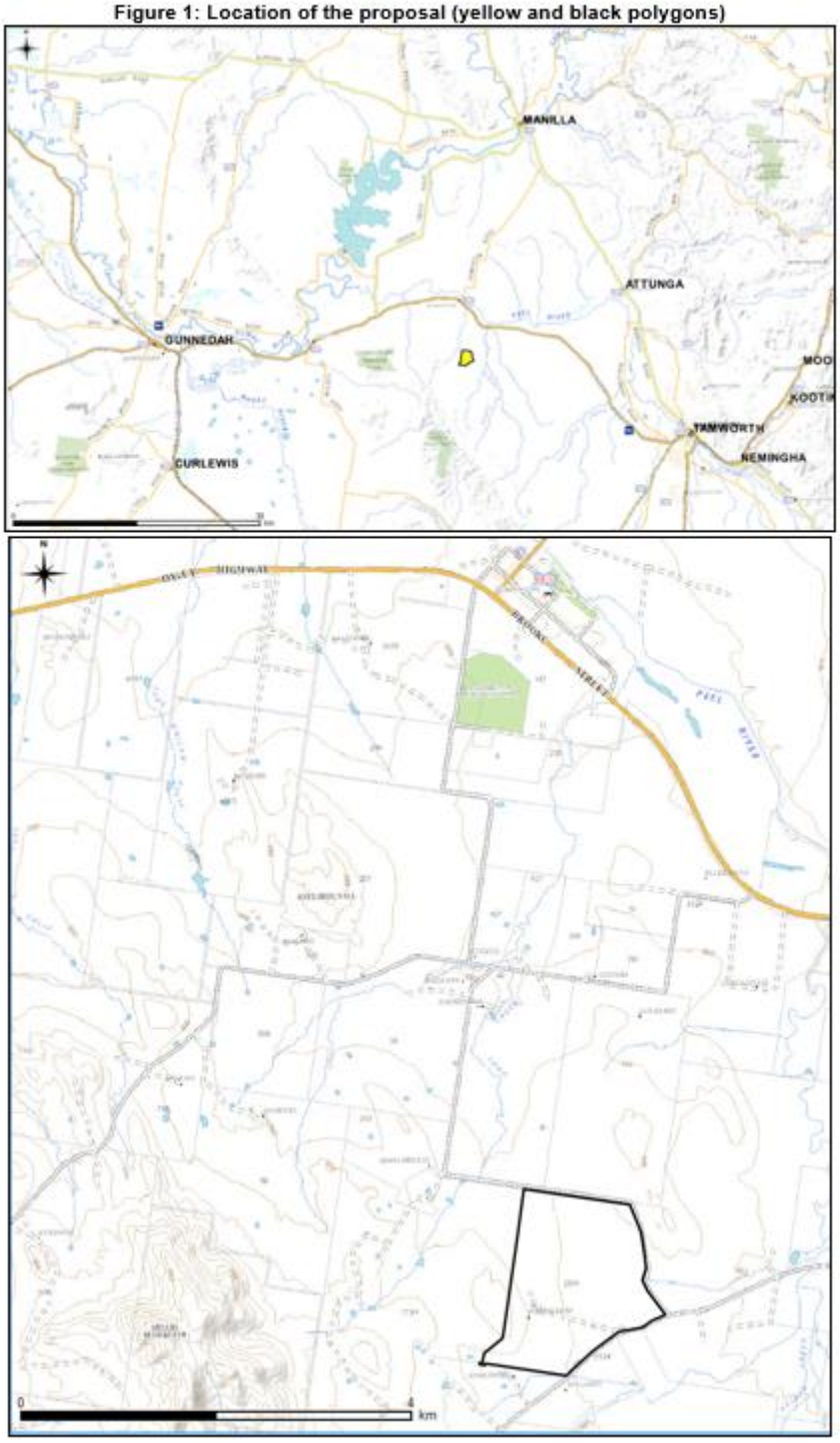

Figure 2: AHIMS 10km search results (10km buffer blue circle)

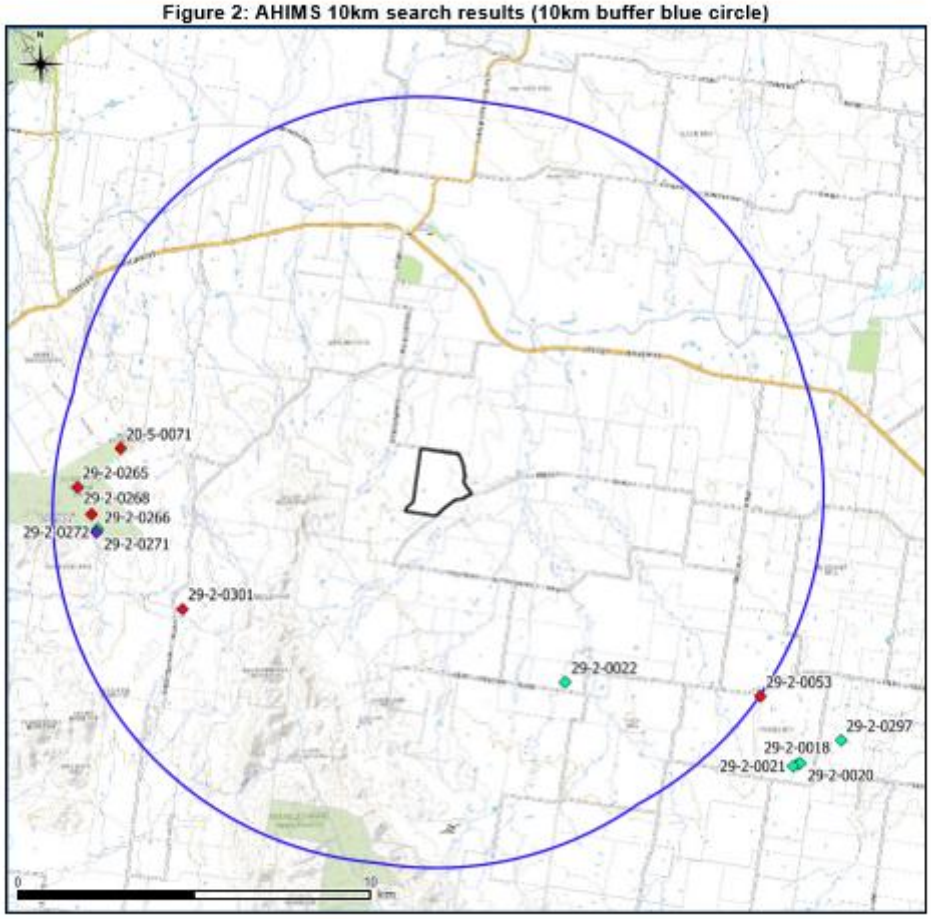

Figure 3: Study area (black polygon)

Example Stage 1b Request to Consult on the Project

ABN:29 616 529 867
Advanced Regional Environmental Assessments (AREA)

- Environmental impact assessment, approvals and adulting
- Preliminary environmental assessment (PEA)
- Review of environmental factors (REF)
- Peer review
- Community engagement
- Biobanking and biodiversity offsetting assessments
- Aboriginal heritage assessments and community walkovers
- Landscape design & architecture

AREA
ENVIRONMENTAL CONSULTANTS & COMMUNICATION

29 July 2019

Dear Sir / Madam,

Re: Consultation for the Aboriginal Cultural Heritage Assessment for the proposed Tamworth Solar Farm near Somerton, Tamworth LGA, NSW.

AREA Environmental Consultants & Communication (AREA) have been commissioned by PROJECT.e to coordinate an Aboriginal heritage assessment and complete an Aboriginal heritage report for a proposed solar farm. The proponent for the proposed solar farm is Oriens Energy.

The proposed solar farm is located approximately 7km south of the Somerton roadhouse Oxley Hwy and can be accessed along Racecourse and Warminster Roads. The 225-hectare property will be developed as a solar farm in which the 203-hectare impact will be confined to Category 1 Land (land used for ploughing agriculture or land that otherwise does not need approval from Local Land Services to be cleared of native vegetation).

An AHIMS database search has not identified Aboriginal objects or places on the property and there are no registered or conditional Native Title Determinations on the property. The regional context of the study area is provided in **Table 1** and **Figures 1 to 3**.

This correspondence seeks to contact relevant Aboriginal parties from you or your organisation for consultation on the project. The purpose of community consultation with Aboriginal people is to assist the proposed applicant in the preparation of an application for an Aboriginal Heritage Impact Permit and to assist the Director General of NSW Department of Planning Industry and Environment in his or her consideration and determination of the application. **The closing date for Stage 1 (expressions of interest) from your organisation is 5pm 26 July 2019.**

The assessments will follow Commonwealth and NSW environmental assessment legislation for State Significant Developments. The Aboriginal heritage assessment will incorporate the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW, 2010) and *Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW, 2010b).

If your organisation can provide contact details 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 proposal, we would be grateful. AREA will use these contact details to provide an opportunity for relevant Aboriginal people to register an interest in a process of community consultation for the proposal. If you or your organisation wish to reregister and interest, please do so by responding to this letter. All individuals or groups who register, will form part of the formal consultation process for the project. Registering interest in the proposal does not trigger an offer of employment in the proposal's cultural heritage assessment.

AREA Environmental Consultants & Communication 6 Belmore Street Dubbo NSW 2830 Ph: 0405 032 030
phil@areaenvironmental.com.au

Please note we must notify the Department of Planning Industry and Environment and the Local Aboriginal Land Council of the RAPs. We also have given a commitment to a Native Title Applicant representing the Gomeroi People to provide the same. As part of this process we are notifying you RAP details will be forwarded to OEH & LALC and / or a representative of the Gomeroi People unless you expressly state they do not want your details released.

The proponent's representative is Victor Bocioc victor@oriensenergy.com.au but all correspondence need to addressed to Gabrielle Green (gabbi@areaenvironmental.com.au) at AREA.

Kind regards,

Gabbi Green
Environmental Administrator
gabbi@areaenvironmental.com.au

Table 1 Regional context of the study area

Criteria	Value
Central coordinates (GDA94)	150.64406, -31.00208
Interim Biogeographic Regionalisation for Australia (IBRA Region)	Nandewar Bioregion Peel subregion NSW
State	New South Wales
Topographical map sheet	Somerton 1:25K 9036- 3-S
Local Government Area	Tamworth LGA
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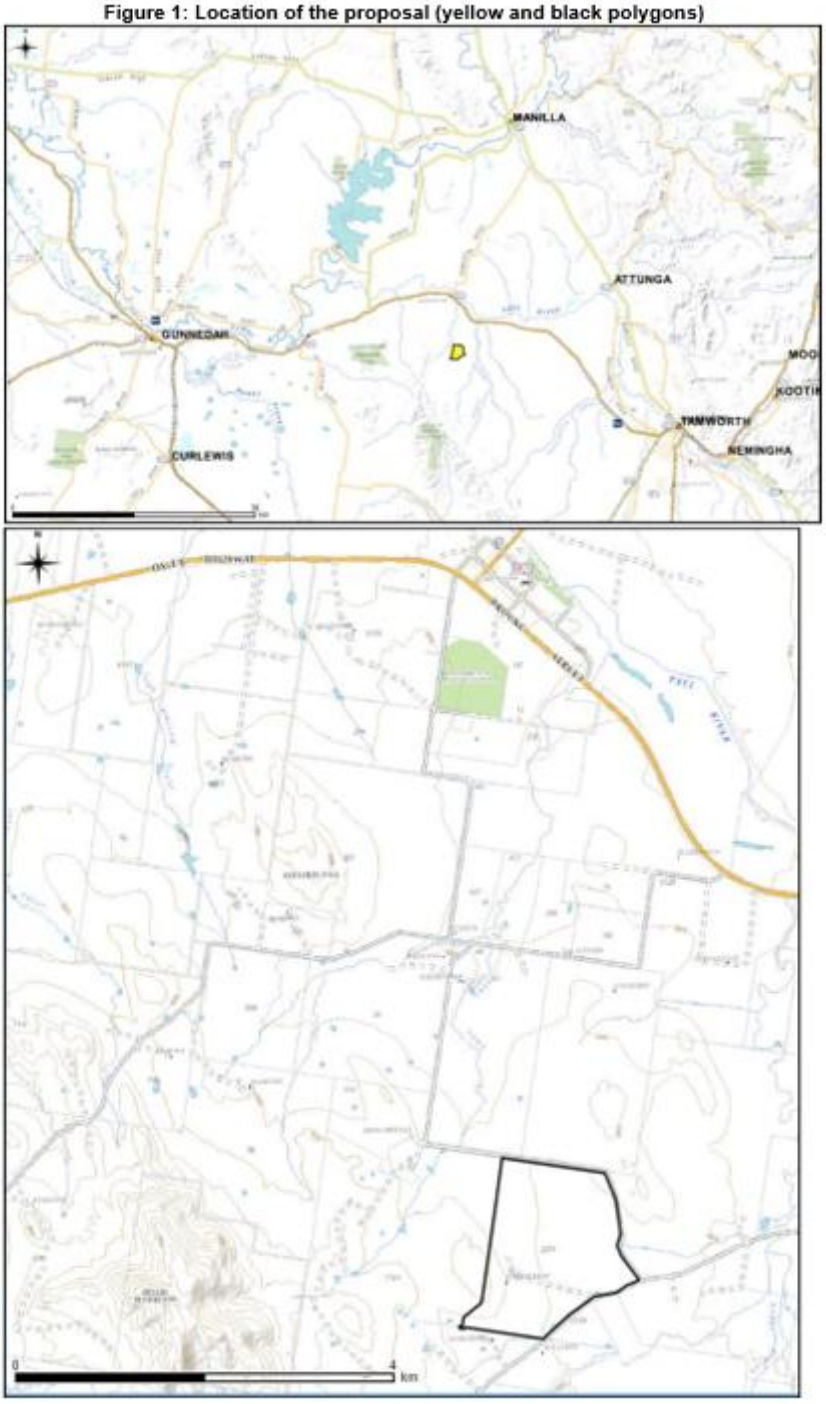
Schedule of Native Title Determination Applications relevant to the study area (Claims, ILUA Future Acts etc.)	No registered or conditional claims
AHIMS study area search results	No previously recorded Aboriginal sites on the AHIMS database plot within the study area. Within A 10KM radius there are 16 Aboriginal sites.
Nearest town / locality	Somerton (locality) (7 km N)
Accessed from nearest town by	Oxley Hwy along Racecourse and Warminster Roads
Land use / disturbance	Intensive agriculture (ploughed landscapes).
Nearest waterway (Name, Strahler Order)	The study area possesses three unnamed Strahler first order and one unnamed second order drainage lines. These drainage lines are Unlikely Key Fish Habitat under the NSW FM Act. This drainage line drains into sandy Creek 2km to the East which in turn drains into the Peel river 5km to the North.
Spot point Australian Height Datum (AHD)	Lowest point is 350m the highest is, an unnamed hill is 410m AHD.
Surrounding land use	Grazing, ploughed agriculture
Expected disturbance footprint	Grazing, ploughed agriculture

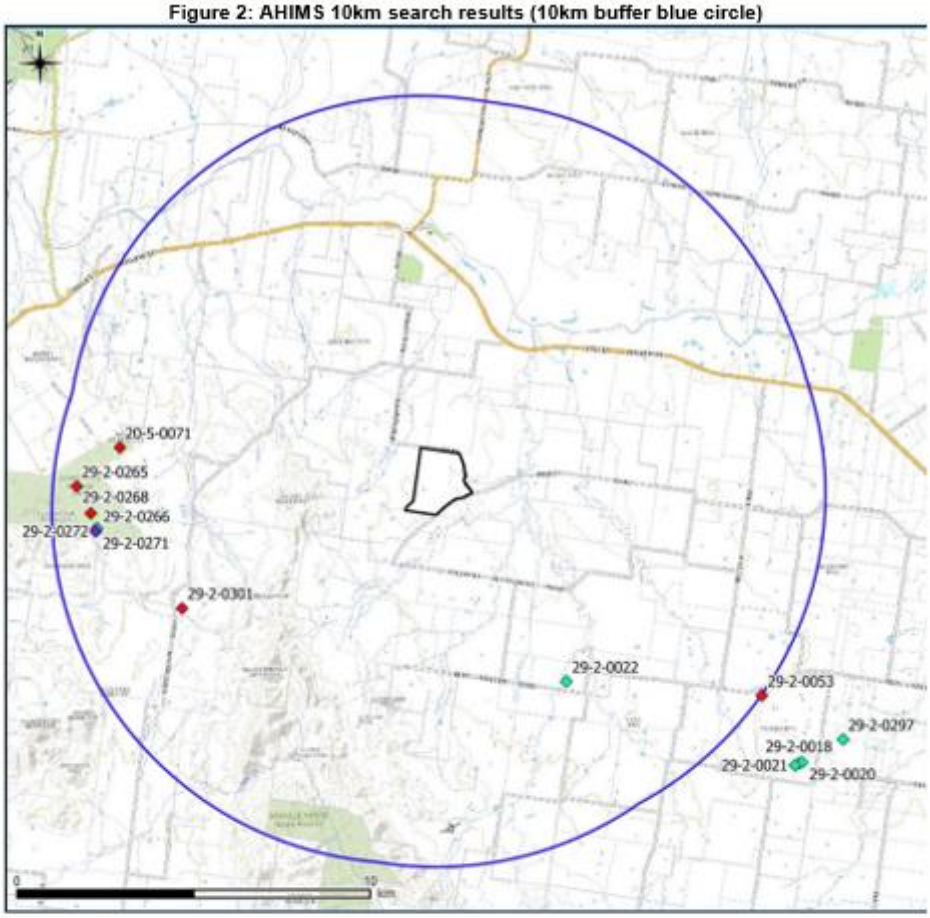
AREA Environmental Consultants & Communication 6 Belmore Street Dubbo NSW 2830 Ph 0409 852 098
phil@areaenvironmental.com.au

Figure 1: Location of the proposal (yellow and black polygons)



AREA Environmental Consultants & Communication 6 Belmore Street Dubbo NSW 2830 Ph 0409 852 098
phil@areaenvironmental.com.au

Figure 2: AHIMS 10km search results (10km buffer blue circle)



AREA Environmental Consultants & Communication 6 Belmore Street Dubbo NSW 2830 Ph 0409 852 098
phil@areaenvironmental.com.au

Figure 3: Study area (black polygon)

AREA Environmental Consultants & Communication 6 Belmore Street Dubbo NSW 2830 Ph 0409 852 098
phil@areaenvironmental.com.au

Example Stage 2 Request for Cultural Knowledge and Proposed Survey Methodology

ABN:29 616 529 867
Advanced Regional Environmental Assessments (AREA)

- ✓ Environmental impact assessment and approvals
- ✓ Preliminary environmental assessment (PEA)
- ✓ Review of environmental factors (REF) and Minor Work REF (MWREF)
- ✓ Ecology and heritage assessments
- ✓ Biobanking and biodiversity assessment method (BAM) assessments and offsetting
- ✓ Plans of Management
- ✓ Aboriginal community engagement and cultural walkovers
- ✓ Stakeholder and community engagement
- ✓ Peer review / project briefs / budgeting assistance
- ✓ Landscape design and architecture

AREA
ENVIRONMENTAL CONSULTANTS & COMMUNICATION

13 August 2019

Re: Consultation for the Aboriginal Cultural Heritage Assessment for the proposed Tamworth Solar Farm near Somerton, Tamworth LGA, NSW.

Dear Members,

Thank you for registering as an Aboriginal party for the Cultural Heritage Assessment of the proposed Tamworth solar farm.

AREA Environmental Consultants & Communication (AREA) have been commissioned by PROJECT.e to complete an Aboriginal heritage report for a proposed solar farm. The proponent for the proposed solar farm is Oriens Energy.

This letter seeks to provide detail about the proposal and an overview of the archaeological methodology. If you have any cultural heritage information within and surrounding the proposed solar farm, please let us know. **It would be appreciated if you could respond before 5pm on Tuesday 10th September 2019** (the closing date for this part of the process).

The proposed 203-hectare development shown as **Figures 1 and 2** and the last figure in this document includes:

- 2,705 solar panels
- 10 cabins for 40 inverters
- Substation
- Inverter cabins
- Transmission line 11kv
- Transmission line 132kv
- Waste area
- Storage areas
- Administration and maintenance facility
- Drainage
- Internal path
- Construction laydown area
- Construction of a turn off lane at the intersection of Babbinboon Road and Oxley Hwy.

Details of the field survey methodology are provided on the following pages of this letter.

If you do have any feedback or information regarding the cultural heritage of the area, please contact Gabbi by email at gabbi@areaenvironmental.com.au, by phone on 0439 340 940 or by post to 6 Belmore St, Dubbo, NSW 2830.

Gabbi Green
Environmental Administrator
gabbi@areaenvironmental.com.au

Methodology

The assessment methodology will follow the recommendations in the NSW OEH's documents *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (DECCW 2011) and *Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW, 2010b).

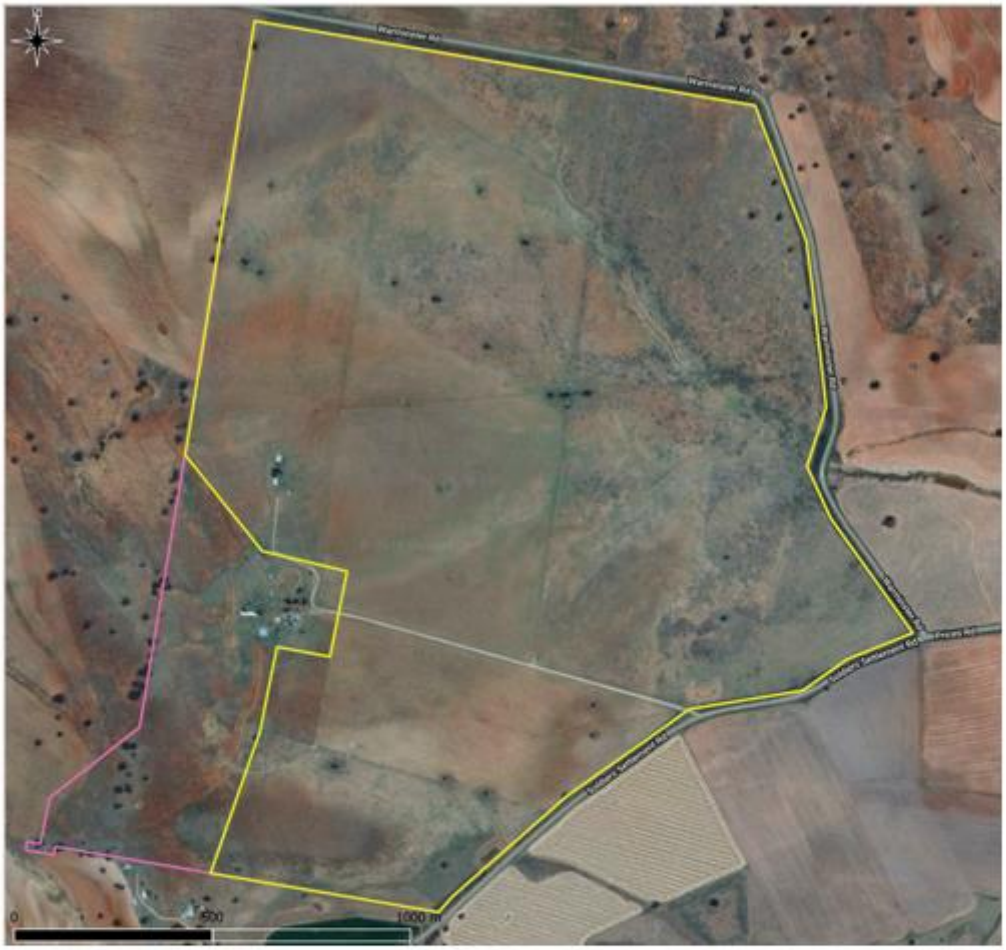
We are fully aware that what you think is the best way to do the assessment may be at odds with government published requirements. What we are aiming to achieve is to come to a workable field assessment method you are happy with which is also consistent with the guidelines.

The following list is an overview of the methodology for you to consider:

- Relevant background information will be compiled as part of the assessment. This includes a search of archaeological databases, an archaeological context based on previous studies and a landscape summary. Background research will be used to compile a predictive model.
    - An AHIMS search has been conducted and 16 sites have been listed on the database are within 10km of the Proposed solar farm (**Figure 3**). None are close to the proposal.
- AREAs Principal Consultant will survey the proposed solar farm with representatives from the Registered Aboriginal Parties. Based on preliminary background research and logistical considerations, the following survey methodology is proposed:
    - Four Registered Aboriginal Parties will be provided an opportunity to attend in the field survey. The LALC will have two representatives and the Traditional Owners will make up the other two. Preference is those Traditional Owners recognised as being an Applicant of the registered Native Title application for the Gomeroi people.
    - To ensure transparency, the fee offer for all parties will reflect LALC rates, terms and conditions.
    - The proposed solar farm will be surveyed on foot over two days (Wednesday 18 and Thursday 19 September 2019 or earlier if all Registered Aboriginal Parties agree for an earlier date).
    - An option to survey areas of low archaeological potential from a vehicle at very slow speed is there. The times to walk and or use a car will be determined by the group in the field. If there is no consensus then it will be walked.
    - Any hill crests, ridge lines and areas within 200 m of a drainage line will be surveyed on foot using transects with personnel spaced approximately 10 m apart. Hill slopes will be surveyed using transects with spacing of approximately 20 m.
    - Special attention will be given to surface exposures and all mature trees will be inspected for cultural modification (i.e. scars).
    - The survey will be recorded using written and photographic records, and relevant GPS coordinates will be taken. Any recorded sites will be lodged with AHIMS.
- All Registered Aboriginal Parties are in a position to provide input to cultural values and management of cultural heritage in this and the field assessment process so feel free to come forward with any relevant information to ensure management of cultural values is considered.
- AREA will prepare a draft report based on the field survey with preliminary comments from the Registered Aboriginal Parties and their assessment of cultural significance for the area or recorded sites.
- Each Registered Aboriginal Party will be invited to review this draft report and provide comment within a given time frame. Feedback will be included in report finalisation and provided as an appendix to the final report. Your feedback will not be altered and included in full for the Regulator to consider.
- A copy of the final report will be provided to each stakeholder group prior to the Proponent submitting it to the relevant authorities.

AREA Environmental Consultants & Communication
6 Belmore Street Dubbo NSW 2830
Ph 0409 852 098
phil@areaenvironmental.com.au

Figure 1: Location of the proposal – aerial (yellow area is the impact footprint)



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phil@areaenvironmental.com.au

Figure 2: Location of the proposal – topo (yellow area is the impact footprint)

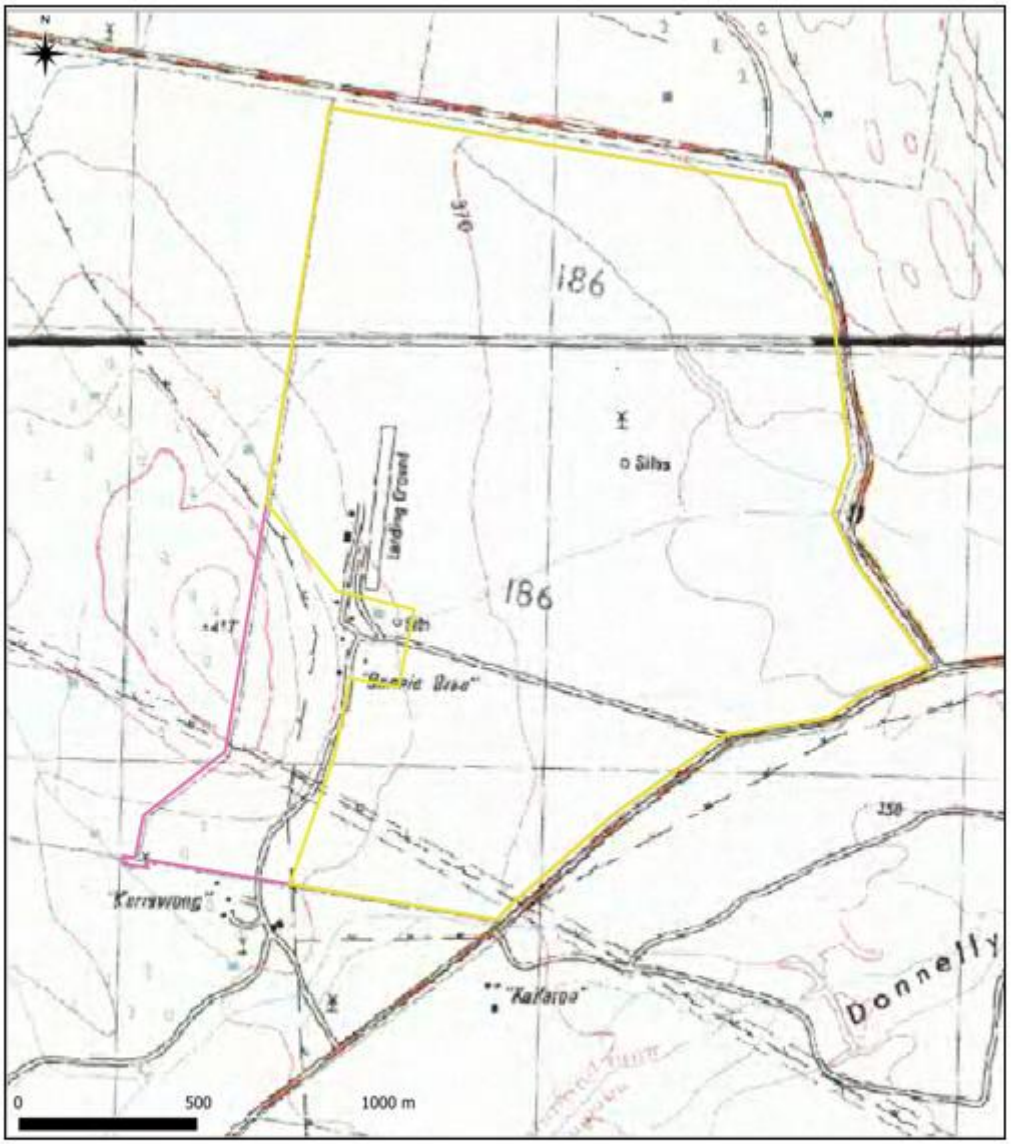

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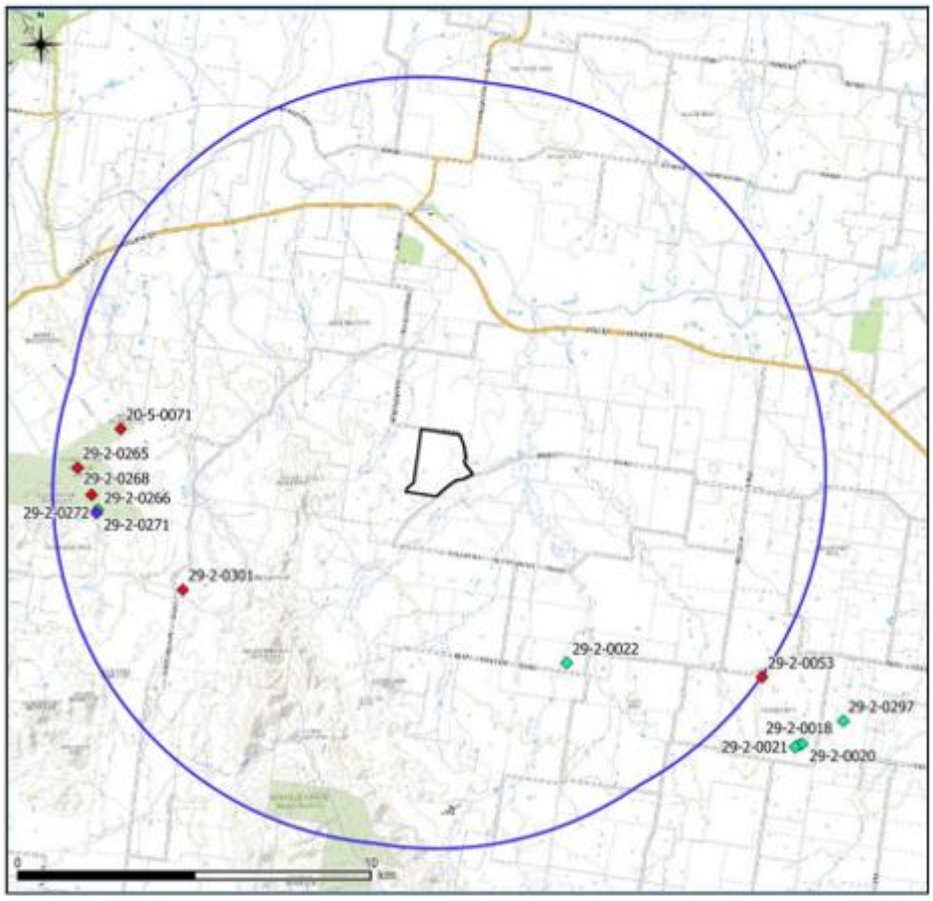
Figure 3: AHIMS results within 10km (black area is the property boundary)



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Example Stage 2 Invitation to Fieldwork

Date	Stage	Organisation	Communication	Method(s)
				Stage 2/3
28.08.19	2a	Contacted All RAPS-Emailed all RAPS requesting their certificate of currency and advised them of the fieldwork dates and requirements	Hello Members, This is just an email in regards to the upcoming fieldwork for the Tamworth solar project. The field work for the project will be held from 12pm on Tuesday 17 and finish 12pm on Thursday 19 September 2019 (two days). If you prefer two full days rather than two half days and one full day let me know. Can you please confirm your availability and interest in participating in the field assessment. As you know Stephen Talbott, Aaron Talbott and two positions for the LALC are available and the rate and conditions offered by the Proponent are those of the LALC (so everything is fair and equal). Before the field work can commence need to submit your workers compensation certificate of currency to the Proponent for them to officially make the offer. Without citing this the Proponent is unable to approve the paid RAP positions. On the days of the fieldwork please make sure to bring adequate food and water. Long pants, boots, hat and sunscreen are required as adequate protection from the elements and environmental hazards. Please do not hesitate to contact me if you have any questions or concerns. Kind Regards Gabrielle Green	Email

Appendix C: Database search results

AHIMS 25 km x 15 km search result

Office of Environment & Heritage

AHIMS Web Services (AWS)
Search Result

Purchase Order/Reference : Tamworth Solar 10km

Client Service ID : 430658

AREA Environmental Consultants and Communication

Date: 26 June 2019

6 Belmore Street
Dubbo New South Wales 2830
Attention: Gabrielle Green

Email: gabbi@areaenvironmental.com.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Datum :GDA, Zone : 56, Eastings : 264690 - 287228, Northings : 6556771 - 6578725 with a Buffer of 50 meters, conducted by Gabrielle Green on 26 June 2019.

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 the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

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

Office of Environment & Heritage

AHIMS Web Services (AWS)
Search Result

Purchase Order/Reference : Tamworth Solar

Client Service ID : 430647

AREA Environmental Consultants and Communication

Date: 26 June 2019

6 Belmore Street
Dubbo New South Wales 2830
Attention: Gabrielle Green

Email: gabbi@areaenvironmental.com.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 186, DP:DP755340 with a Buffer of 0 meters, conducted by Gabrielle Green on 26 June 2019.

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 the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

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

AHIMS Extensive Results for 10 km x 10 km Search

Office of Environment & Heritage

NSW GOVERNMENT

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : Tamworth Solar 10km

Client Service ID : 430658

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status	SiteFeatures	SiteTypes	Reports
29-2-0053	JA/WINT 1;"Sante Downs";	AGD	56	284120	6561500	Open site	Valid	Artefact : -	Isolated Find	2303
	Contact	Recorders	Mr.John Appleton					Permits		
29-2-0297	Wallamore Road ST2	GDA	56	286514	6560435	Open site	Valid	Modified Tree (Carved or Scarred) : -		
	Contact	Recorders	Ivan Johnson,Mr.Patrick Gaynor					Permits	3146,3152	
20-5-0071	Somerton Artefact 1	AGD	56	265926	6568545	Open site	Valid	Artefact : 3		
	Contact	Recorders	Ms.Daphne Cubby					Permits		
29-2-0265	Somerton Artefact 2	AGD	56	264693	6567444	Open site	Valid	Artefact : 20		
	Contact	Recorders	Ms.Daphne Cubby					Permits		
29-2-0266	Somerton Artefact 3	AGD	56	265261	6566251	Open site	Valid	Artefact : 38		
	Contact	Recorders	Ms.Daphne Cubby					Permits		
29-2-0267	Somerton Artefact 4	AGD	56	265098	6566668	Open site	Valid	Artefact : 14		
	Contact	Recorders	Ms.Daphne Cubby					Permits		
29-2-0268	Somerton Artefact 5	AGD	56	265100	6566671	Open site	Valid	Artefact : 7		
	Contact	Recorders	Ms.Daphne Cubby					Permits		
29-2-0269	Somerton Scar Tree 1	AGD	56	265262	6566250	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Ms.Daphne Cubby					Permits		
29-2-0270	Somerton Scar Tree 2	AGD	56	265262	6566250	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Ms.Daphne Cubby					Permits		
29-2-0271	Wondoba North Artefact 1	AGD	56	265246	6566170	Open site	Valid	Artefact : 14		
	Contact	Recorders	Ms.Daphne Cubby					Permits		
29-2-0272	Wondoba Grinding Grooves 1	AGD	56	265246	6566170	Open site	Valid	Grinding Groove : 3		
	Contact	Recorders	Ms.Daphne Cubby					Permits		
29-2-0018	Site 1 (Tamworth)	AGD	56	285150	6559580	Open site	Valid	Modified Tree (Carved or Scarred) : -	Scarred Tree	776
	Contact	Recorders	A Djekic					Permits		
29-2-0020	Site 2 (Tamworth)	AGD	56	285250	6559600	Open site	Valid	Modified Tree (Carved or Scarred) : -	Scarred Tree	776
	Contact	Recorders	A Djekic					Permits		

Report generated by AHIMS Web Service on 26/06/2019 for Gabrielle Green for the following area at Datum :GDA, Zone : 56, Eastings : 264690 - 287228, Northings : 6556771 - 6578725 with a Buffer of 50 meters. Additional Info : To avoid impact to cultural heritage. Number of Aboriginal sites and Aboriginal objects found is 16

This information is not guaranteed to be free from error omission. Office of Environment and Heritage (NSW) and its employees disclaim liability for any act done or omission made on the information and consequences of such acts or omission.

Page 1 of 2

Office of Environment & Heritage

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : Tamworth Solar 10km

Client Service ID : 430658

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status	SiteFeatures	SiteTypes	Reports
29-2-0021	Transmission Line Route No.3 Tamworth	AGD	56	285050	6559520	Open site	Valid	Modified Tree (Carved or Scarred) : -	Scarred Tree	776
	Contact	Recorders	A Djekic					Permits		
29-2-0022	Transmission Line Route No.4 Tamworth	AGD	56	278580	6561900	Open site	Valid	Modified Tree (Carved or Scarred) : -	Scarred Tree	776
	Contact	Recorders	A Djekic					Permits		
29-2-0301	ETL8750-OS1	GDA	56	267798	6564171	Open site	Valid	Artefact : 1		101884,101892
	Contact	Recorders	Doctor.Jodie Benton					Permits		

Appendix D: Approved PVP - Solar Farm

NSW GOVERNMENT | Local Land Services North West

17 December 2014

Our Ref: R19636

Bonnie Brae Partnership
c/- Lindsay Doyle
3269 Oxley Highway West
BECTIVE NSW 2340

Dear Lindsay,

Re: Approval of the Property Vegetation Plan (PVP) for 'Bonnie Brae', 2209 Soldier Settler's Rd Somerton NSW 2340 – under the *Native Vegetation Act 2003*

The Property Vegetation Plan (PVP) submitted to the North West Local Land Services has now been approved. Your approval number is **22PVP00121**. The start or commencement date for the PVP was **15 December 2014.** The lapse date for approvals to clear groundcover considered to be non-protected regrowth is listed in the PVP as **'in perpetuity'**.

Apart from this approval letter, I have also enclosed a copy of the original, signed and approved PVP for your convenience. Tamworth Regional Council will also be notified that a PVP has been approved on the lots identified in the PVP.

The relevant forms for registration of your PVP on property title will be sent to Land and Property Information (LPI) for this process to be finalised. Once this process is complete, copies of the relevant documents will be forwarded to you upon receipt from LPI.

If you have any questions or require further clarification, please call me on 02 6764 5916.

Sincerely,

Adam Downey
Senior Land Services Officer – Native Vegetation
North West Local Land Services – Tamworth
P: 02 6764 5916 M: 0428 615 067 F: 02 6764 5995
E: adam.downey@lls.nsw.gov.au

'Annexure A'

COPY

NSW GOVERNMENT | Local Land Services North West

Notice of existence of a Property Vegetation Plan

Under the Native Vegetation Act 2003

The North West Local Land Services has granted a Property Vegetation Plan: 19636 over the following property:

'BONNIE BRAE'
2209 SOLDIER SETTLER'S RD
SOMERTON NSW 2340

Described as:

Lot	DP	LGA	Parish	County
186	755340	TAMWORTH REGIONAL COUNCIL	SOMERTON	PARRY

The Property Vegetation Plan:

- Verifies native vegetation as non-protected regrowth (via Change of Regrowth Date)

The Property Vegetation Plan commences on: 15 DECEMBER 2014

The Property Vegetation Plan ends on: **IN PERPETUITY**

The following persons/organisations are parties consenting signatories to the registration of Property Vegetation Plan No: ~~1PVP0000~~ 22PVP00121 in accordance with section 31 of the *Native Vegetation Act 2003*:

D. 12/14

Lindsay Raymond Doyle — 6/12/2014
Name of the Landholder – Name of Partner in 'Bonnie Brae Partnership' — Signature — Date

Tina May McTavish — 8/12/14
Name of the Landholder – Name of Partner in 'Bonnie Brae Partnership' — Signature — Date

Scott Hastings Doyle — S.H Doyle — 8/12/14
Name of the Landholder – Name of Partner in 'Bonnie Brae Partnership' — Signature — Date

Amanda Maree Doyle — Amanda M Doyle — 8-12-14
Name of the Landholder – Name of Partner in Bonnie Brae Partnership' — Signature — Date

Ken Flower — 15 Dec 14.
General Manager of North West Local Land Services
Delegate of the Minister administering the *Native Vegetation Act 2003* — Signature — Date

1. Are there any registered mortgagees over the Lots identified in the PVP? (Please circle the appropriate response below) YES / NO 2. If you replied 'Yes', please complete the contact details of the relevant mortgagee(s) in the adjoining box provided.	Mortgagee(s) contact details: GARRY LITTLEJOHNS ROBOBANK – TAMWORTH

For any enquiries please contact Adam Downey on telephone 02 6764 5916
or via e-mail on adam.downey@lls.nsw.gov.au

Form: 13VP
Release: 1.2
www.lpi.nsw.gov.au

PROPERTY VEGETATION PLAN

New South Wales
Section 31
Native Vegetation Act 2003

Leave this space clear. Affix additional pages to the top left-hand corner.

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the Registrar General to collect the information required by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requires that the Register is made available to any person for search upon payment of a fee, if any.

(A) TORRENS TITLE: 186//755340

(B) LODGED BY

Document Collection Box	Name, Address or DX, Telephone, and Customer Account Number if any	CODE
1W	**North West Local Land Services (formerly Namoi CMA)** **PO Box 500 Tamworth NSW 2340** **Tel: 02 6764 5916 Fax: 02 6764 5995** Reference: 22PVP00121	VP

(C) REGISTERED PROPRIETOR: BONNIE BRAE PARTNERSHIP, LINDSAY RAYMOND DOYLE, TINA MAY MCTAVISH, SCOTT HASTINGS DOYLE, AMANDA MAREE DOYLE

(D) APPLICANT: North West Local Land Services

(E) AGREEMENT

Property Vegetation Plan dated	Abstract annexed hereto and marked
15 DECEMBER 2014	ANNEXURE A

North West Local Land Services or delegate hereby notifies the Registrar General that:

- the Minister administering the Native Vegetation Act 2003 has approved a Property Vegetation Plan affecting the above land,
- the parties to the plan have consented to the registration of the plan, and
- the relevant agreement is referred to above and an abstract of the agreement is annexed hereto,

and requests the Registrar General to record the plan on the relevant folio of the Register.

DATE 15 Dec 2014

I certify that the authorised officer of the applicant, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this application in my presence.

Signature of witness: Adam Downey

Name of witness: **Adam Downey**

Position of witness: **Senior Land Services Officer (Native Vegetation)**

Certified correct for the purposes of the Real Property Act 1900 by the authorised officer of the applicant named below.

Signature of authorised officer: Ken Flower

Name of authorised officer: **Ken Flower**

Position of authorised officer: **General Manager – North West Local Land Services**

COPY

ALL HANDWRITING MUST BE IN BLOCK CAPITALS.
0910

Page 1 of 1

LAND AND PROPERTY INFORMATION

Local Land Services North West

NORTH WEST Local Land Services

Continuing Use – Change of Regrowth Date

PROPERTY VEGETATION PLAN

Native Vegetation Act 2003

'BONNIE BRAE'
2209 SOLDIER SETTLER'S RD
SOMERTON NSW 2340

This Property Vegetation Plan applies to the land described in Schedule 1, as shown on Map 1 in Schedule 4 of this agreement.

The Landholder is authorised to undertake the activities set out in Schedule 2 and agrees to carry out the management actions and management action details set out in Schedule 2. The Landholder agrees to comply with the requirements of Schedule 3.

Notes:

1. The Director-General of Department of Premier and Cabinet (or delegate) will notify the Registrar-General once all landholders and parties with a prescribed interest have consented to the registration of this PVP. Once notified by the Director-General, the Registrar-General is required to register this PVP. This PVP will then be binding on all current and future landholders.
2. This Plan does not exempt the landholder from any Council clearing consent requirements.
3. In order to carry out the works under this PVP, the Landholder may be required to obtain other approvals from other government agencies.

Lindsay Raymond Doyle — 8/12/2014
Name of the Landholder – Name of Partner in 'Bonnie Brae Partnership' — Signature — Date

Tina May McTavish — 8/12/14
Name of the Landholder – Name of Partner in 'Bonnie Brae Partnership' — Signature — Date

Scott Hastings Doyle — 8/12/14
Name of the Landholder – Name of Partner in 'Bonnie Brae Partnership' — Signature — Date

Amanda Maree Doyle — 8-12-14
Name of the Landholder – Name of Partner in Bonnie Brae Partnership' — Signature — Date

Ken Flower — 15 Dec 14.
General Manager of North West Local Land Services
Delegate of the Minister administering the *Native Vegetation Act 2003* — Signature — Date

NWLLS File Ref: NAM03781-1

Request No: 19636

SCHEDULE TWO — AUTHORISED ACTIVITIES AND MANAGEMENT ACTIONS

MANAGEMENT ACTIONS FOR CONTINUING USE – CHANGE THE REGROWTH DATE PVPS

1. The management actions and management action details are to be continued for, or completed within, the duration specified in the column "Duration of Management Action".
2. The management actions and management action details set out below must be undertaken in the specified map unit as identified in Schedule 4.

Map Number (as per Schedule 4)	Map Unit (Area in ha)	Management Action	Duration of Management Action	Management Action Details
1	1 (202.9 ha)	Clearing non-protected regrowth via Change of Regrowth Date	In perpetuity	1) The landholder may clear native vegetation consisting of groundcover considered to be verified non-protected regrowth in the area identified as Map Unit 1, as permitted by section 9(2) of the *Native Vegetation Act 2003* and clause 10(a)(b) of the *Native Vegetation Regulation 2013*, via the Change of Regrowth Date provisions. In this instance, the regrowth date has been changed from 1990 to 1968. 2) The landholder may use all relevant Routine Agricultural Management Activities (RAMAs) in the area identified as Map Unit 1.

S-H Doyle 8/12/14
Doyle 8-12-14
8/12/14
8/12/2014.

.....
Initials & date

SCHEDULE THREE - STANDARD CONDITIONS

Commencement

1. This PVP will commence from the date at which it is signed by the Minister administering the *Native Vegetation Act 2003* (or delegate).

Words and phrases used

2. In this Schedule:

"LLS" means Local Land Services constituted under section 8 of the *Local Land Services Act 2013*;

"North West Local Land Services" means Local Land Services in the North West region;

"Landholder" means the landholder who is a party to this PVP and once this PVP is registered all future landholders;

"the works under this PVP" means the clearing, the management actions, the mitigating actions and all other works that the Landholder is authorised or required to take under this PVP;

"the Land" means the land to which this PVP applies;

"OEH" means the Office of Environment and Heritage within the Department of Premier and Cabinet and includes its successor departments or agencies; and

"PVP" means this property vegetation plan.

Monitoring and auditing

3. The carrying out of any works under this PVP may be subject to auditing by members of staff of LLS or officers of OEH who are authorised officers under the *Native Vegetation Act 2003*, as set out in sections 34 and 35.

4. Subject to reasonable notice, the Landholder will allow authorised officers of LLS or OEH access to the Land and allow those officers to do all things reasonably necessary for the purpose of monitoring or auditing compliance with this PVP.

5. Clauses 3 and 4 do not affect the powers of authorised officers of LLS, OEH or other government agencies to carry out investigations under the *Native Vegetation Act 2003*.

Registration of PVP on Title

6. For the purpose of sections 31(1) and 31(2) of the *Native Vegetation Act 2003*, the Landholder consents to the registration of this PVP in accordance with section 31 of the *Native Vegetation Act 2003*.

Dispute resolution

7. The Landholder and Minister (or delegate) agrees to attempt to resolve any dispute in relation to this PVP by negotiation in the first instance. Such negotiation may involve agreeing on a variation to the PVP. However, this clause does not apply to a dispute relating to a possible breach of the *Native Vegetation Act 2003*.

8. Where appropriate, if negotiations are not successful, the Minister (or delegate) agrees to provide a written notice to the Landholder setting out the nature of any contravention and requesting the Landholder to take the steps specified in that notice, in the time specified in that notice, to rectify that contravention. This clause does not apply to a possible breach of the *Native Vegetation Act 2003*.

9. The Landholder agrees to comply with that notice in the time specified in the notice. Failure to comply with that notice is a breach of this plan. If the Landholder does not comply with the notice, the Minister (or delegate) may consider terminating this plan, in accordance with the procedure set out in section 30 of the *Native Vegetation Act 2003*. LLS or OEH may also take other action under that Act.

10. The landholder also agrees to provide access to the property to officers of LLS and OEH.

Note: The procedure for varying or terminating a PVP is set out in section 30 of the *Native Vegetation Act 2003* and clause 11 of the *Native Vegetation Regulation 2013*.

6/12/2016 S. Hobbs 6/12/16

8/12/14

Initials & date

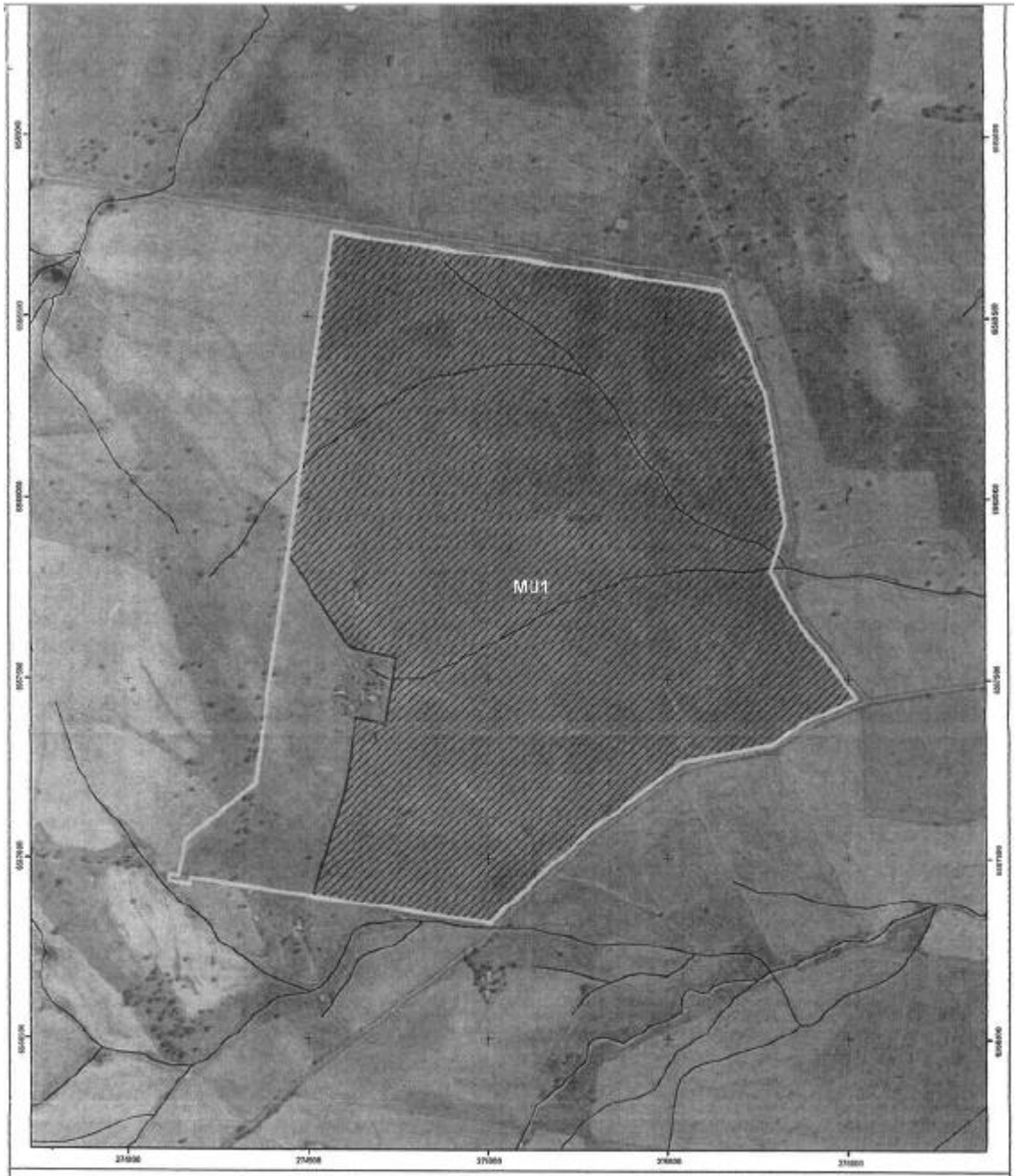
Wayle 8-12-14

SCHEDULE FOUR — MAPS

Map 1 PVP Area and Continuing Use – Regrowth (Scale: 1:10,000).

S Hoyle 8/12/14
Hoyle 8-12-14
8/12/2014
8/12/14

Initials & date


MU1
Local Land Services North West
Native Vegetation Act 2003
Property Vegetation Plan
Map 1
PVP Area and Continuing Use - Regrowth
Request No: 19636
Name: Lindsay Doyle (Bonnie Brae Partnership)
Property: 'Bonnie Brae'
2239 Soldier Settler's Rd
SOMERTON NSW 2340
Legend
Property
Regrowth (Map Unit 1 - MU1)
Drainage Line
Scale: 1:10,000
1 centimetre = 100 metres
Initials & Date
8/12/14
Page 7 of 7