



View to the southwest in the western portion of the study area.

ARCHAEOLOGICAL TECHNICAL REPORT

PROPOSED LAND REZONING – ‘STRATHEDEN HORSE STUD’

TAMWORTH NSW

SEPTEMBER 2022

Report prepared by
OzArk Environment & Heritage
for Bath Stewart Associates



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Acknowledgement

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

EXECUTIVE SUMMARY

OzArk Environment & Heritage (OzArk) has been engaged by Bath Stewart Associates to complete an Archaeological Technical Report (ATR) for the proposed land rezoning of the Stratheden Horse Stud. Bath Stewart Associates propose to rezone the current RU4 Primary Production Small Lots into R1 General Residential and R2 Low Density Residential. The proposal is located within the Tamworth Local Government Area (LGA).

The study area covers a total area of approximately 113 hectares and is bounded by Browns Lane to the north and Manilla Road to the east. The Peel River is located 120 metres to the south of the study area.

The fieldwork component of this assessment was carried out by OzArk over two days, 2–3 August 2022.

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

1. The proposed land rezoning may proceed at the Stratheden Horse Stud without further archaeological investigation.
2. The planning design of the subdivision should consider the locations of Stratheden IF-1 and Stratheden ST-1 and be designed in such a way that harm to the sites is avoided.
3. The sites should be shown on appropriate development maps to ensure they are not inadvertently harmed.
4. If future works are proposed in the study area, then the general management principles listed in **Section 7.1** should be followed depending on whether Stratheden IF-1 and Stratheden ST-1 can be avoided.
5. The initial purchaser of a lot with any recorded Aboriginal site must be informed of the site's location, its protection under the *National Parks and Wildlife Act 1974*, and the need to avoid ground disturbance (at Stratheden IF-1) or vegetation removal (at Stratheden ST-1) unless an Aboriginal Heritage Impact Permit (AHIP) has been obtained.

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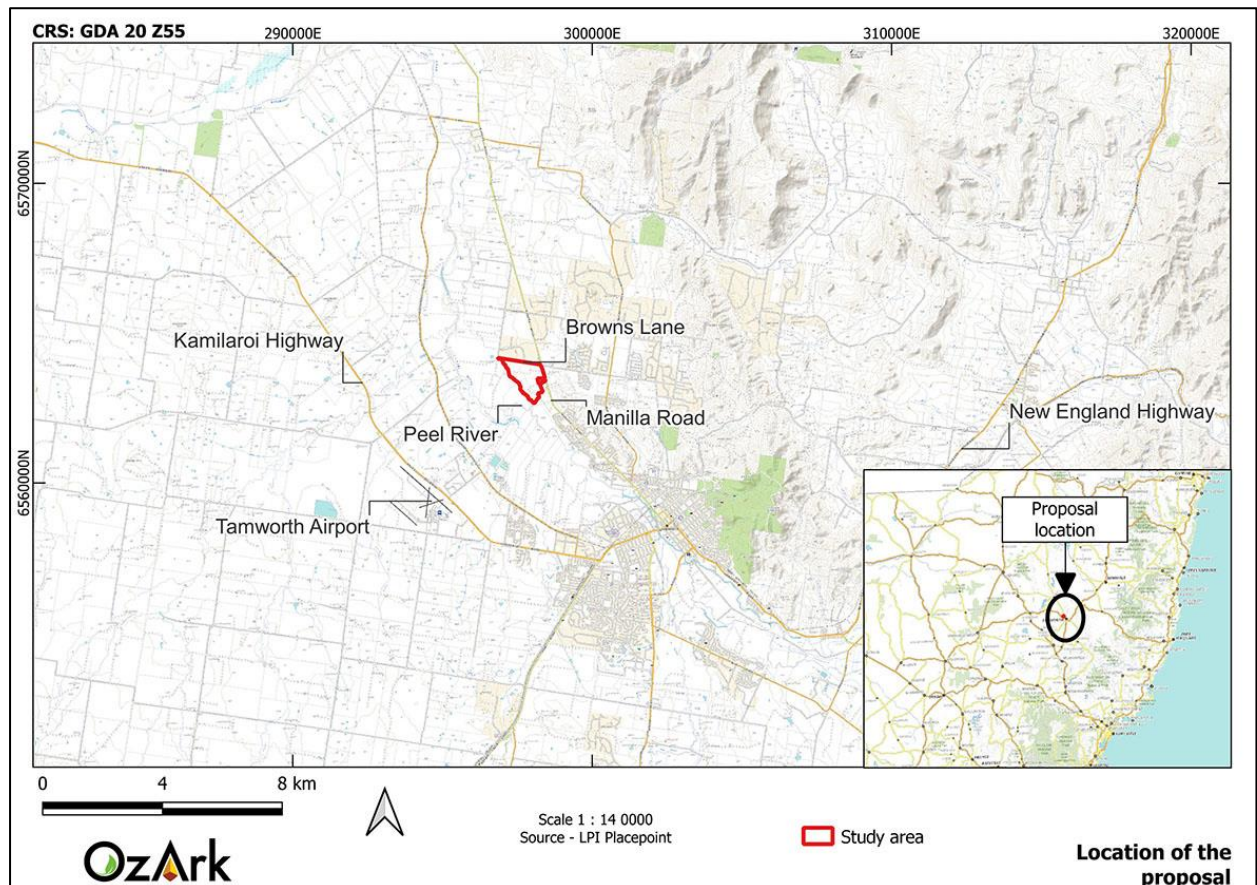
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1 INTRODUCTION

1.1 DESCRIPTION OF THE PROPOSAL

OzArk Environment & Heritage (OzArk) has been engaged by Bath Stewart Associates to complete an *Archaeological Technical Report* for the proposed land rezoning at the Stratheden Horse Stud in Tamworth NSW. The proposal is in the Tamworth Local Government Area (LGA) (Figure 1-1).

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



1.2 BACKGROUND

In May 2022, the Tamworth Local Aboriginal Land Council (LALC) conducted an Aboriginal heritage site inspection for the proposed land rezoning at the Stratheden Horse Stud. A low-density artefact scatter and a scarred tree were noted within the proposal area, however, they were not registered with the Aboriginal Heritage Information Management System (AHIMS).

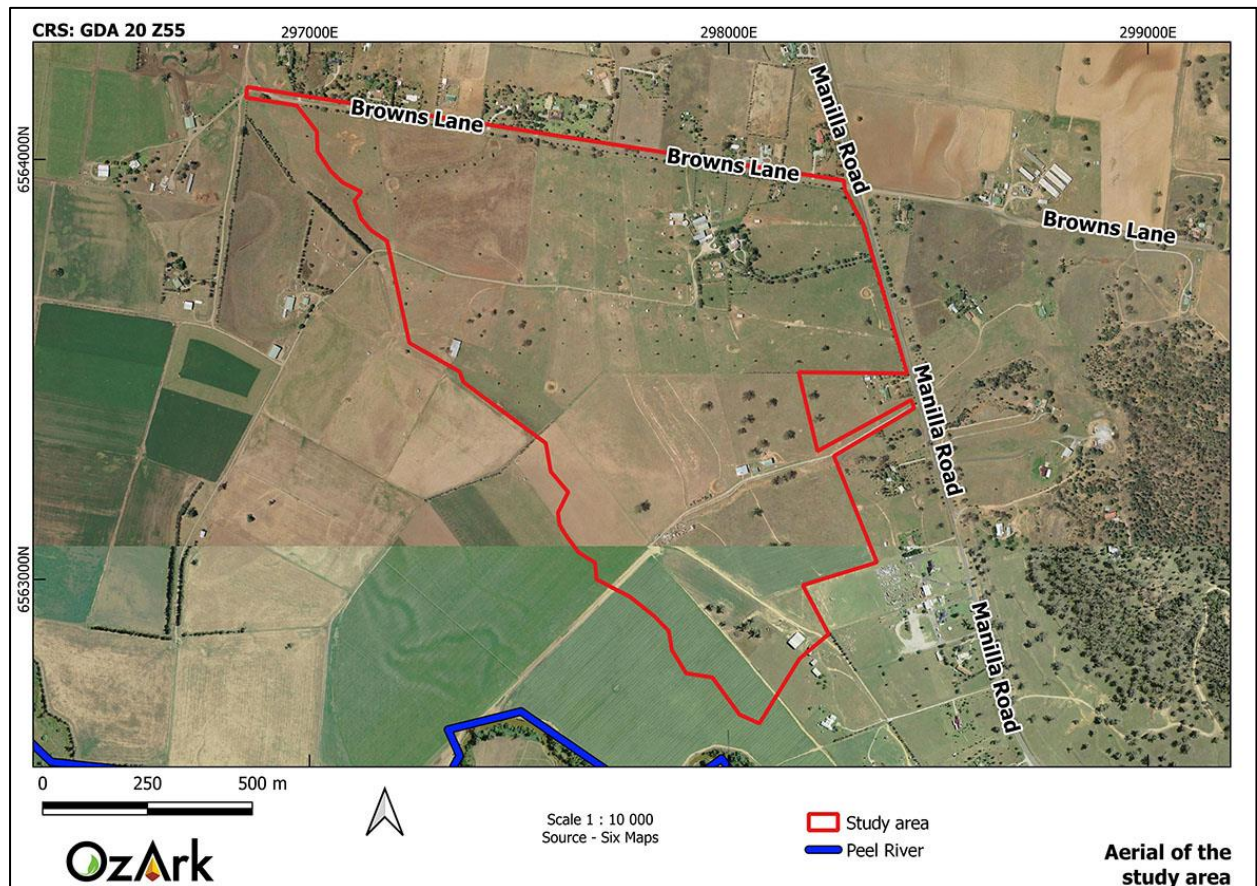
1.3 PROPOSED WORK

The proposal involves the rezoning of nine lots all within the current RU4 Primary Production Small Lots. These lots will be rezoned into R1 General Residential and R2 Low Density Residential.

1.4 STUDY AREA

The study area covers a total area of approximately 113 hectares (ha) and is bounded by Browns Lane to the north and Manilla Road to the east. The Peel River is located 120 metres (m) to the south of the study area. The study area is shown on **Figure 1-2**.

Figure 1-2: Aerial showing the study area.



1.4.1 Landscape context of the study area

The study area is situated in the Nandewar bioregion which encompasses northern NSW and extends across the Queensland border. Within this bioregion, the study area is located within the Tamworth Keepit Slopes and Plains classified by Mitchell (2011). The topography of the Tamworth Keepit Slopes and Plains is comprised of undulating to rolling slopes and plains with low hills and ranges forming the western part of the New England plateau (Mitchell 2011). The topography of the study area is consistent with the Tamworth Keepit Slopes and Plains landscape type, as the area contains low and undulating slopes generally descending towards the Peel River. These low and undulating slopes describe the single survey unit within the study area.

Geology of the Tamworth Keepit Slopes and Plains predominantly includes chert, tuff, sandstone, mudstone, and some limestone. The sedimentology of this landscape unit is defined by texture contrast soils that vary from red to yellow depending on elevation (red in higher elevated areas and yellow within the plains). As the study area slopes towards the plains associated with the

Peel River, the soils within the study area could be a mix of both red and yellow texture contrast soils.

No drainage lines intersect the study area, however, the contours of the study area (**Figure 1-3**) show that there is a possible ephemeral gully located in the central portion of the study area off Manilla Road. The survey will confirm the extent and nature of this gully. Although the Peel River is not within the study area, it is located approximately 120 metres (m) to the south (**Figure 1-3**). As the Peel River is a permanent waterway, this would have provided sufficient subsistence for long term Aboriginal occupation in the area, although any occupation sites would likely be situated on elevated terraced landforms adjacent to the Peel River. These landforms are not present in the study area.

Although the vegetation of the study area has been significantly modified since British occupation in the region, the study area would have consisted of white and yellow box woodlands intertwined with red stringybark and acacia species. **Figure 1-4** shows that some of these trees have been there for at least 50 years. Therefore, as the study area contains some mature native trees that are in proximity to the Peel River, culturally modified trees could be present.

The study area has predominantly been used for agricultural and cropping activities, which has resulted in extensive historic vegetation clearance. Both disturbances, in accumulation with natural processes (i.e. slope wash erosion), have altered the soil profile within the study area, resulting in the potential displacement of any archaeological deposits.

Figure 1-3: Contours and drainage in relation to the study area.

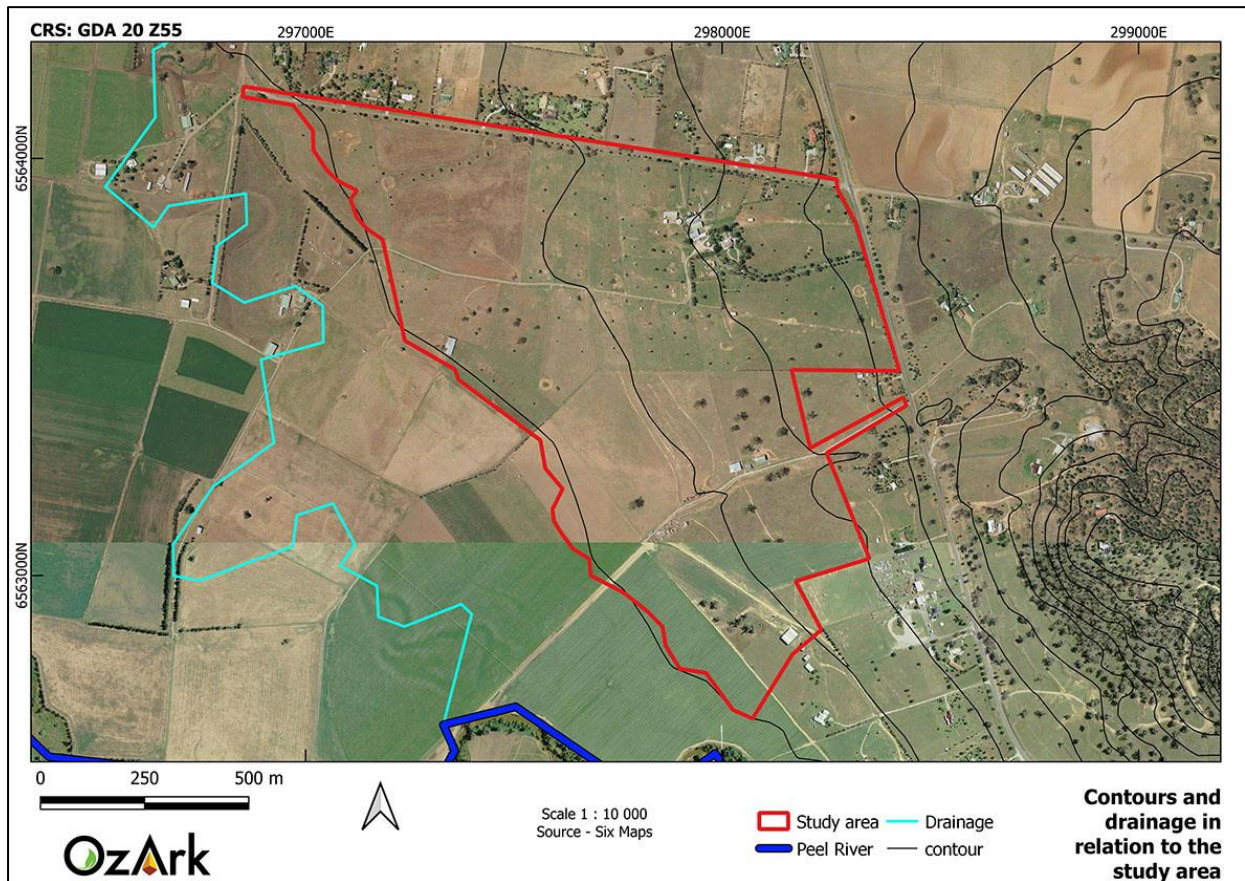
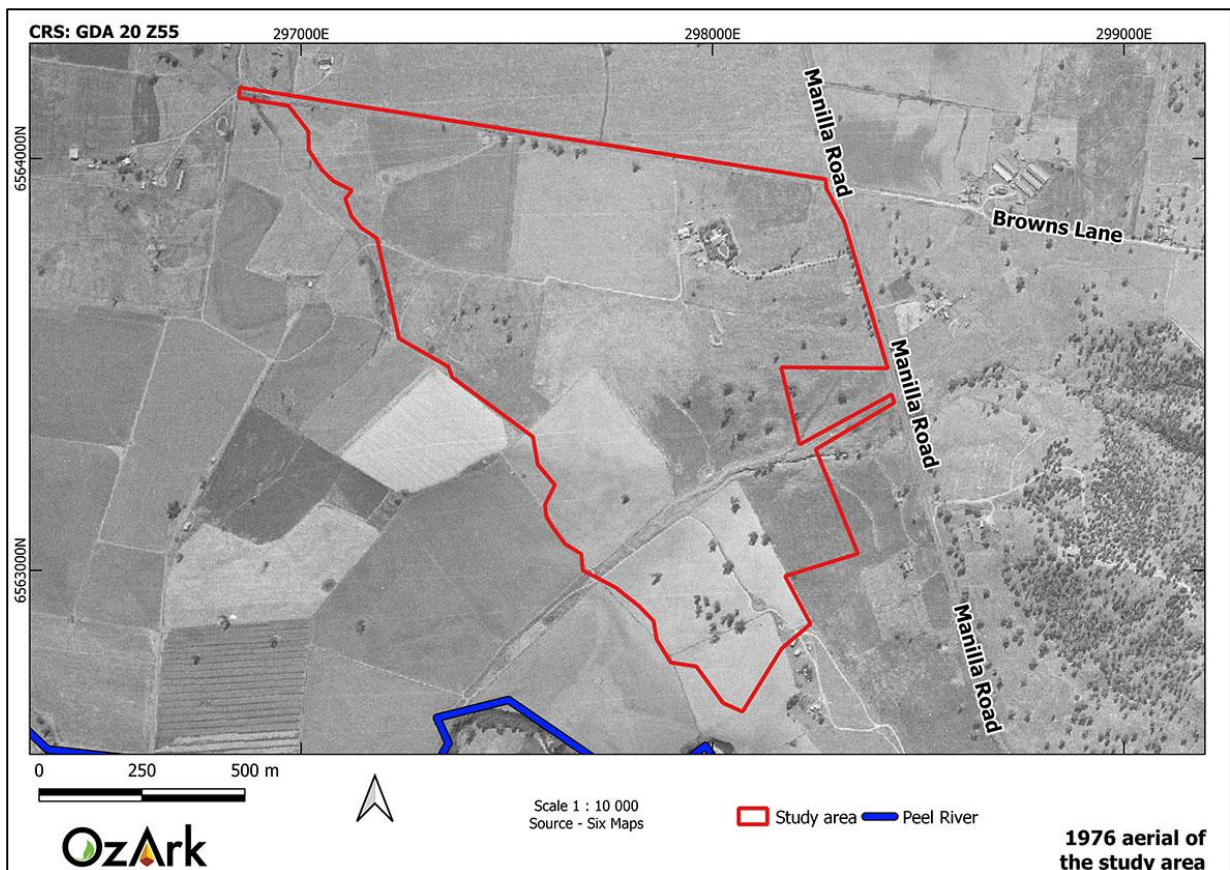


Figure 1-4: 1976 aerial of the study area.



1.4.2 Aboriginal peoples past and/or current use of the study area

According to Tindale (1974), Tamworth (in which the study area is situated) is land occupied by the Gamilaraay (Kamilaroi) language group. This language group comprised people who spoke the sub-dialects Yuwaalaraay, Yuwaaliyaay (Euahlayi), Gamilaraay, Gawambaraay, Wirayaraay (Wiriwiri) and Walaraay (O'Rourke 1997).

The name 'Tamworth' is derived from the British settlers in the region; however, the region is known as 'Calala' by the Kamilaroi people. It is believed that 'Calala' means 'place of battle', as the area of Calala is where the Kamilaroi and other language and tribal groups such as the Gweagal (Scone district), the Wonnarua (Hunter Valley), Darkinjung (Central Coast) and the Anaiwan (New England Tablelands) interacted. Such interactions included conflicts and alliances, marriage, songs, stories, dances, and ceremonial practices. Resources from stone axe quarries at Daruka, were exchanged throughout these social networks (McBryde and Binns 1970).

The Kamilaroi caught fish including eels, freshwater crayfish, yabbies, tortoises, and freshwater mussels in the rivers, creeks, and wetlands of the region (O'Rourke 1997). Watercraft were manufactured from large slabs of bark cut from river red gum trees. Fish were caught using fishing lines and nets made from reed fibre. Nets were used to catch waterbirds, whose eggs were also collected. Some of the other animals that Aboriginal people of the North West Slopes hunted include kangaroos, wallabies, koalas, possums, emus, echidnas, lizards, snakes, and frogs (Fison et al. 1880; O'Rourke 1997). Plant foods included grass seeds, wild orange, emu apple, melons, tubers, yams, and roots (Gott 1983; O'Rourke 1997).

2 THE ARCHAEOLOGICAL ASSESSMENT

2.1 RELEVANT LEGISLATION

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

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

2.1.1 Commonwealth legislation

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

The EPBC Act, administered by the Commonwealth Department of Climate Change, Energy, the Environment and Water, provides a framework to protect nationally significant flora, fauna, ecological communities, and heritage places. The EPBC Act establishes both a National Heritage List and Commonwealth Heritage List of protected places. These lists may include Aboriginal cultural sites or sites in which Aboriginal people have interests. The assessment and permitting processes of the EPBC Act are triggered when a proposed activity or development could potentially have an impact on one of the matters of national environment significance listed by the Act. Ministerial approval is required under the EPBC Act for proposals involving significant impacts to national/commonwealth heritage places.

2.1.1.2 *Aboriginal and Torres Strait Islander Heritage Protection Act 1984*

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

Applicability to the proposal

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

2.1.2 State legislation

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

This Act established requirements relating to land use and planning. The main parts of the EP&A Act that relate to development assessment and approval are Part 4 (development assessment) and Part 5 (environmental assessment). The Minister responsible for the Act is the Minister for Planning.

The EP&A Act currently provides the primary legislative basis for planning and environmental assessment in NSW. The objects of the EP&A Act include encouragement of:

- The proper management, development, and conservation of natural resources
- The provision and coordination of the orderly and economic use and development of land
- Protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats
- Ecologically sustainable development.

The objects also provide for increased opportunity for public involvement and participation in environmental planning and assessment.

The EP&A Act includes provisions to ensure that the potential environmental impacts of a development or activity are rigorously assessed and considered in the decision-making process.

Part 3 of the EP&A Act sets out the objects for planning instruments such as Local Environmental Plans (LEPs).

Rezoning applications often follow the Gateway determination that will establish the level of community consultation required.

Applicability to the proposal

Land rezoning is a formal process that amends the planning controls relating to a parcel(s) of land.

Rezoning land can result in an increase or decrease to the range of permissible uses on the subject land or change the development controls that are applicable. Land can only be rezoned through a formal amendment to the Tamworth LEP 2010. A proposed amendment to the Tamworth LEP is known as a planning proposal.

A planning proposal must be prepared in accordance with clause 3.13 of the EP&A Act and clause 3.34 (Gateway determination).

2.1.2.2 *National Parks and Wildlife Act 1974 (NPW Act)*

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

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

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

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

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

Applicability to the proposal

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

Under Section 89A of the NPW Act, it is a requirement to notify the Secretary of DPE of the location of an Aboriginal object. Identified Aboriginal items and sites are registered on AHIMS.

2.2 ASSESSMENT APPROACH

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

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

2.3 PURPOSE AND OBJECTIVES

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

The study will apply the Code of Practice and the Guide in the completion of the Aboriginal cultural heritage assessment to meet the following objectives:

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

Objective Two: Identify and record archaeological objects or deposits within the study area

2.4 DATE OF ARCHAEOLOGICAL ASSESSMENT

The field survey was undertaken by OzArk on 2–3 August 2022.

2.5 OZARK INVOLVEMENT

2.5.1 Field survey

The fieldwork survey was undertaken by:

- Fieldwork Director: Brendan Fisher (OzArk Archaeologist, BA Archaeology, The University of Sydney).

2.5.2 Reporting

The reporting component of the archaeological assessment was undertaken by:

- Report author: Brendan Fisher
- Reviewer: Ben Churcher (Principal Archaeologist, OzArk, BA[Hons], Dip Ed).

2.6 ABORIGINAL COMMUNITY INVOLVEMENT IN THE ASSESSMENT

No Aboriginal community members were involved in the assessment; however, the Tamworth Local Aboriginal Land Council conducted a separate assessment for this proposal in May 2022 (see **Section 3.2** and **Appendix 2**).

3 ARCHAEOLOGICAL CONTEXT

3.1 REGIONAL ARCHAEOLOGICAL CONTEXT

A number of archaeological investigations have been carried out near the study area that help provide an archaeological context for the study area.

McAdam and Wilson 2000

An archaeological study of the Tamworth Regional Council LGA was conducted in 2000, and prior to this assessment, 28 Aboriginal archaeological sites were registered on the AHIMS database for this area. Following the surveys for this study, an additional 38 sites were recorded. These additional sites included stone artefact sites of varying densities and scarred trees. Most of these sites were recorded in landforms adjacent to waterways.

OzArk 2010

OzArk was commissioned by TransGrid to complete a heritage assessment ahead of the dismantling of an electricity transmission line between Tamworth and Gunnedah. Although most of the sites along the alignment were previously recorded sites, two additional sites were recorded during the survey. One site was an isolated stone artefact and the other was a scarred tree, both of which were recorded near Swains Creek, a 2nd order tributary. The landform associated with the isolated find was also assessed as having potential for subsurface archaeological deposits due to the lack of disturbances.

Niche Environment and Heritage 2013

Niche Environment and Heritage (Niche) completed an Aboriginal archaeological assessment for the proposed Strathfield Intensive Livestock Facility located 8 km north of Manilla near the Namoi River. Niche predicted that isolated finds and artefact scatters were the most likely site type that would be encountered. These sites were predicted to be in association with well-drained, flat to gently inclined land; land elevated above the floodplain; creek banks, valley flats, basal and lower slopes, and alluvial silts. A total of 20 sites containing 39 Aboriginal objects were identified during the survey. Sites were recorded as low-density background scatters of less than one artefact per square metre. Artefacts were located on flats and hill slopes (basal, lower, and simple slopes); on level to gently inclined land, generally within 400 m of third order or higher streams or within 100 m of 1st and 2nd order drainage channels. Artefact densities remained low but increased in density and frequency in proximity to streams and gullies which were third order or higher. Recorded materials included quartz, tuff, and agate.

AREA 2019

AREA Environmental Consultants & Communication undertook an Aboriginal cultural heritage assessment for a solar farm at Somerton, near Tamworth, NSW. The solar farm included 200 ha

of land. Additional assessment was undertaken at the intersection of Warminster and Babbinsboon Roads, as well as at the deceleration lane for Gunnedah bound traffic, located at the intersection of Oxley Highway and Babbinsboon Road. Both ancillary locations are 4.5 km from Somerton. Across the development areas for the ancillary work, 23 sites were recorded. Most of these sites were in landforms associated with drainage lines.

OzArk 2021a

OzArk conducted an Aboriginal Cultural Heritage Assessment for the proposed Tamworth Battery Energy Storage System (BESS) south of Calala in the region of Tamworth. The predictive model for this assessment suggested that there was a low likelihood of recording additional sites due to the significant levels of disturbance, however, if any sites were to be recorded, they would most likely be stone artefacts situated in secondary context. The results of the survey conformed the predictive model, as no sites were recorded and it was assessed that the high levels of disturbance from vegetation clearing and infrastructure had likely displaced Aboriginal objects, if any.

OzArk 2021b

In 2021, OzArk completed an Aboriginal due diligence assessment for the proposed subdivision at 123 Browns Lane, approximately 3 km east of the study area. Although no additional sites were recorded during the visual inspection, two previously recorded sites were within the area. The previously recorded sites could not be located during the inspection, and it was deduced that they have likely been displaced since the original recording. Both sites were isolated finds recorded in secondary contexts.

3.2 PREVIOUS STUDIES IN OR NEAR THE STUDY AREA

In May 2022, the Tamworth LALC undertook a site inspection for the proposal and recorded two sites (**Appendix 2**). However, following this inspection, these sites were not registered with AHIMS. Tamworth LALC recommended that if the stone artefact site could not be avoided if any future works a proposed, then they should be relocated to the scarred tree and a 5 x 5 m buffer be placed around the tree. These two sites have been assessed as part of this report (see **Section 4.3**) and will be registered with AHIMS.

3.3 DESKTOP DATABASE SEARCHES CONDUCTED

A desktop search was conducted on the following databases to identify any previously recorded heritage within the study area. The results of this search are summarised in **Table 3-1** and presented in detail in **Appendix 1**.

Table 3-1: Aboriginal cultural heritage: desktop-database search results.

Name of Database Searched	Date of Search	Type of Search	Comment
Commonwealth Heritage Listings	27/7/22	Tamworth LGA	No places listed on either the National or Commonwealth heritage lists are located within the study area
National Native Title Claims Search	27/7/22	Tamworth LGA	One Native Title claim covers the study area.
AHIMS	27/7/22	2.5 x 2.5 km centred on the study area	No AHIMS sites are within the study area.
Local Environmental Plan (LEP)	27/7/22	Tamworth LEP of 2010	None of the Aboriginal places noted occur near the study area.

As per **Table 3-1**, it is noted that the study area includes land currently subject to Native Title Claim (*NC2011/006, NSD37/2019, Gomeroi People*).

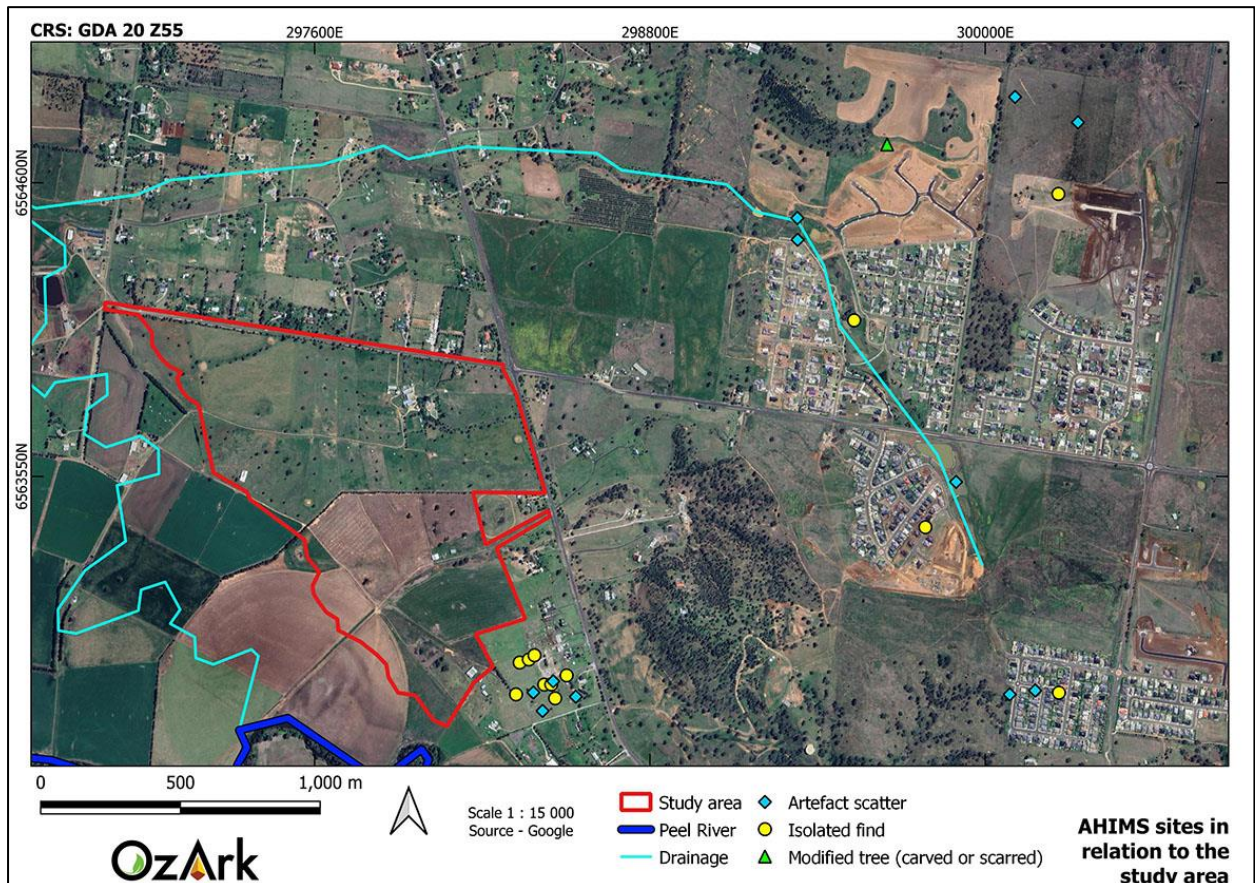
A search of the AHIMS database returned 24 records for Aboriginal heritage sites within the designated search area. **Figure 3-1** shows the location of the AHIMS sites that have been recorded near the study area.

There is a notable cluster of 12 sites recorded to the southeast of the study area on two properties at 721 and 729 Manilla Road. These sites consist of eight isolated finds and four low-density artefact scatters consisting of between three and eight artefacts each. The recordings, judging by the names of the recorders, were made by the Tamworth LALC, however, no report of the findings has been lodged with AHIMS. All sites remain valid on the AHIMS register.

There are no topographical features that would explain this cluster of recordings, and until the details of the recordings can be sighted, the current nature of these sites remains unknown.

Table 3-2: Site types and frequencies of AHIMS sites near the study area.

Site Type	Number	% Frequency
Isolated find	12	50
Artefact scatter	11	45.83
Modified tree (carved or scarred)	1	4.17
Total	24	100

Figure 3-1: Location of previously recorded AHIMS sites in relation to the study area.

3.4 PREDICTIVE MODEL FOR SITE LOCATION

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

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

infrastructure. Scarred trees, due to their nature, may survive for up to several hundred years but rarely beyond.

3.4.1 Site types in the region of the study area

The site types listed in **Table 3-3** are present in the region of the study area. The likelihood of these sites being present in the study area is discussed in **Section 3.4.3**.

Table 3-3: Site types recorded in the region of the study area.

Site type	Site description
Isolated finds	May be indicative of random loss or deliberate discard of a single artefact, the remnant of a now dispersed and disturbed artefact scatter, or an otherwise obscured or subsurface artefact scatter. They may occur anywhere within the landscape but are more likely to occur in topographies where open artefact scatters typically occur.
Open artefact scatters	<p>Artefact scatters are defined as two or more artefacts, not located within a rock shelter, and located no more than 50 m away from any other constituent artefact. This site type may occur almost anywhere that Aboriginal people have travelled and may be associated with hunting and gathering activities, short- or long-term camps, and the manufacture and maintenance of stone tools. Artefact scatters typically consist of surface scatters or sub-surface distributions of flaked stone discarded during the manufacture of tools but may also include other artefactual rock types such as hearth and anvil stones. Less commonly, artefact scatters may include archaeological stratigraphic features such as hearths and artefact concentrations which relate to activity areas. Artefact density can vary considerably between and across individual sites. Small ground exposures revealing low density scatters may be indicative of a background scatter rather than a spatially or temporally distinct artefact assemblage. These sites are classed as 'open', that is, occurring on the land surface unprotected by rock overhangs, and are sometimes referred to as 'open camp sites'.</p> <p>Artefact scatters are most likely to occur on level or low gradient contexts, along the crests of ridgelines and spurs, and elevated areas fringing watercourses or wetlands. Larger sites may be expected in association with permanent water sources.</p> <p>Topographies which afford effective through-access across, and relative to, the surrounding landscape, such as the open basal valley slopes and the valleys of creeks, will tend to contain more and larger sites, mostly camp sites evidenced by open artefact scatters.</p>
Culturally modified trees	Aboriginal scarred trees contain evidence of the removal of bark (and sometimes wood) in the past by Aboriginal people, in the form of a scar. Bark was removed from trees for a wide range of reasons. It was a raw material used in the manufacture of various tools, vessels, and commodities such as string, water containers, roofing for shelters, shields, and canoes. Bark was also removed because of gathering food, such as collecting wood boring grubs or creating footholds to climb a tree for possum hunting. Due to the multiplicity of uses and the continuous process of occlusion (or healing) following removal, it is difficult to accurately determine the intended purpose for any example of bark removal. Scarred trees may occur anywhere old growth trees survive. The identification of scars as Aboriginal cultural heritage items can be problematical because some forms of natural trauma and European bark extraction create similar scars. Many remaining scarred trees probably date to the historic period when bark was removed by Aboriginal people for both their own purposes and for roofing on early European houses. Consequently, the distinction between European and Aboriginal scarred trees may not be clear.

3.4.2 Landform modelling of archaeological potential

A consideration of the landforms within the study area enables a prediction regarding the type of and distribution of sites to be made.

Stone artefact sites could be recorded in the southern portion of the study area as there appears to be an incised gully running east–west, and this portion of the study area is closest to the Peel River. It is also noted that the cluster of 12 sites recorded by the Tamworth LALC close to the study area are near this southern portion of the study area (see **Section 3.3**).

3.4.3 Conclusion

Based on knowledge of the environmental contexts of the study area and a desktop review of the known local and regional archaeological record, the following predictions are made concerning the probability of landforms within the study area to contain Aboriginal objects (**Table 3-4**), and what types of sites may be present within the study area (**Table 3-5**).

Table 3-4: Likelihood of landform within the study area to contain Aboriginal objects.

Survey Unit	Landform type	Likelihood to contain Aboriginal objects
1	Slopes	Slopes are a degrading landform, especially in the study area where vegetation removal has accelerated soil loss. These landforms are unsuitable for occupation and Aboriginal objects recorded in such landforms are likely to be in a secondary context. The exception is in localised flat benches, if they are present, where occupation may have been possible.

Table 3-5: Likelihood of certain site types being present in the study area.

Site type	Likelihood of being present in the study area
Isolated finds	As isolated finds can occur anywhere, particularly within disturbed contexts, it is predicted that this site type could be recorded within the study area.
Open artefact scatters	As most of the study area is within sloping landforms, this site type is not predicted to be common. The significant degree of disturbance in the study area will probably mean that if any scatters are present, they will have become displaced.
Culturally modified trees	Due to the near-total clearance of trees from within the study area, this site type is predicted to be very rare. It is also noted that this site type is very rare at a regional level. However, as there are some native mature trees still within the study area, and due to the proximity to the Peel River, there is still a low possibility that this site type may be recorded.

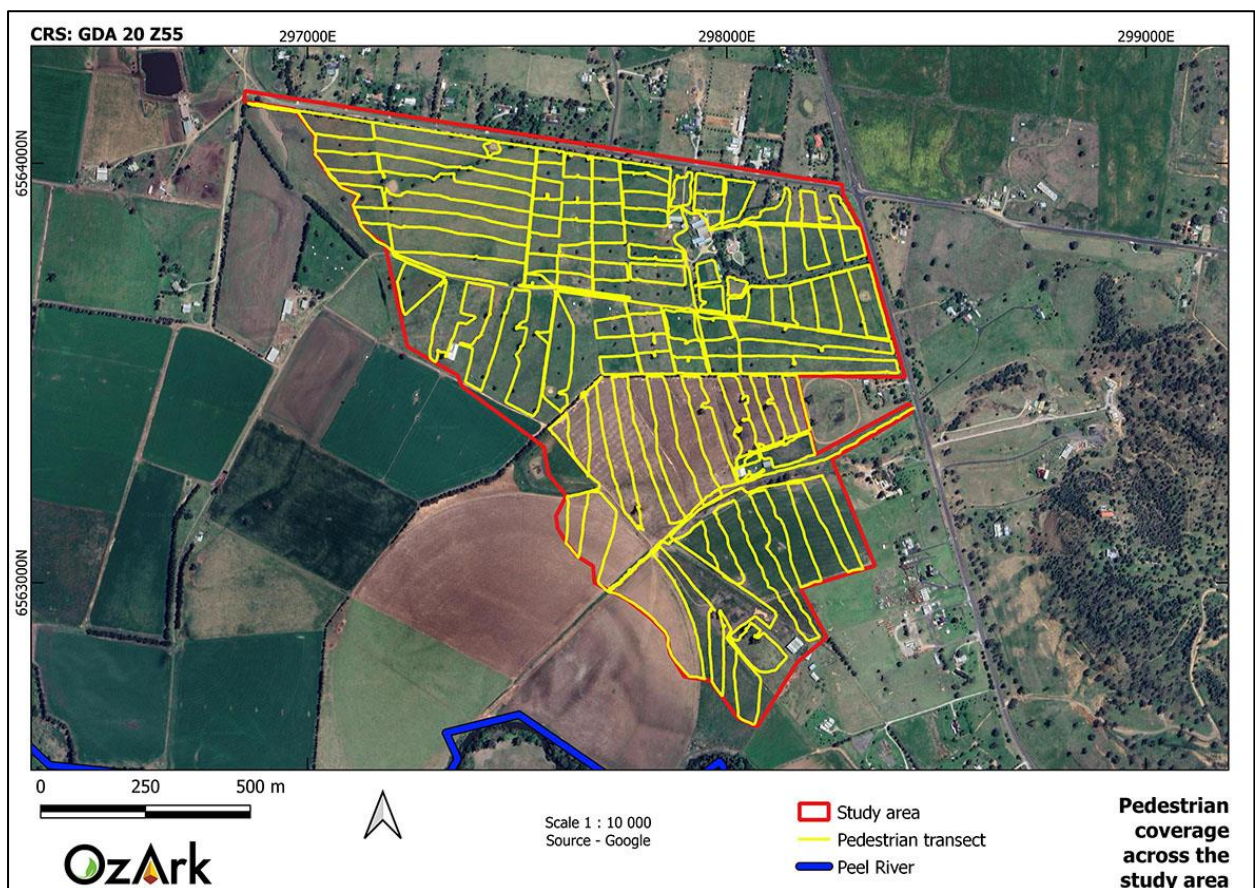
4 RESULTS OF ABORIGINAL ARCHAEOLOGICAL ASSESSMENT

4.1 SAMPLING STRATEGY AND FIELD METHODS

Standard archaeological field survey and recording methods were employed in this study (Burke & Smith 2004).

The survey was conducted by one archaeologist over two days and consisted of assessing the entirety of the study area. **Figure 4-1** shows the survey coverage across the study area.

Figure 4-1: Pedestrian coverage across the study area.



4.2 PROJECT CONSTRAINTS

The main constraint during both stages of fieldwork was poor ground surface visibility (GSV). The dense ground cover could be explained by the large amount of rainfall that the region of Tamworth has experienced since 2020 (**Figure 4-2**). However, despite the low GSV, the study area was able to be adequately assessed as there were small, although infrequent, exposures and some more extensive exposures (such as that where Stratheden IF-1 was recorded) that allowed a reasonable sample of the ground surface to be seen.

Figure 4-2: Examples of GSV within the study area.

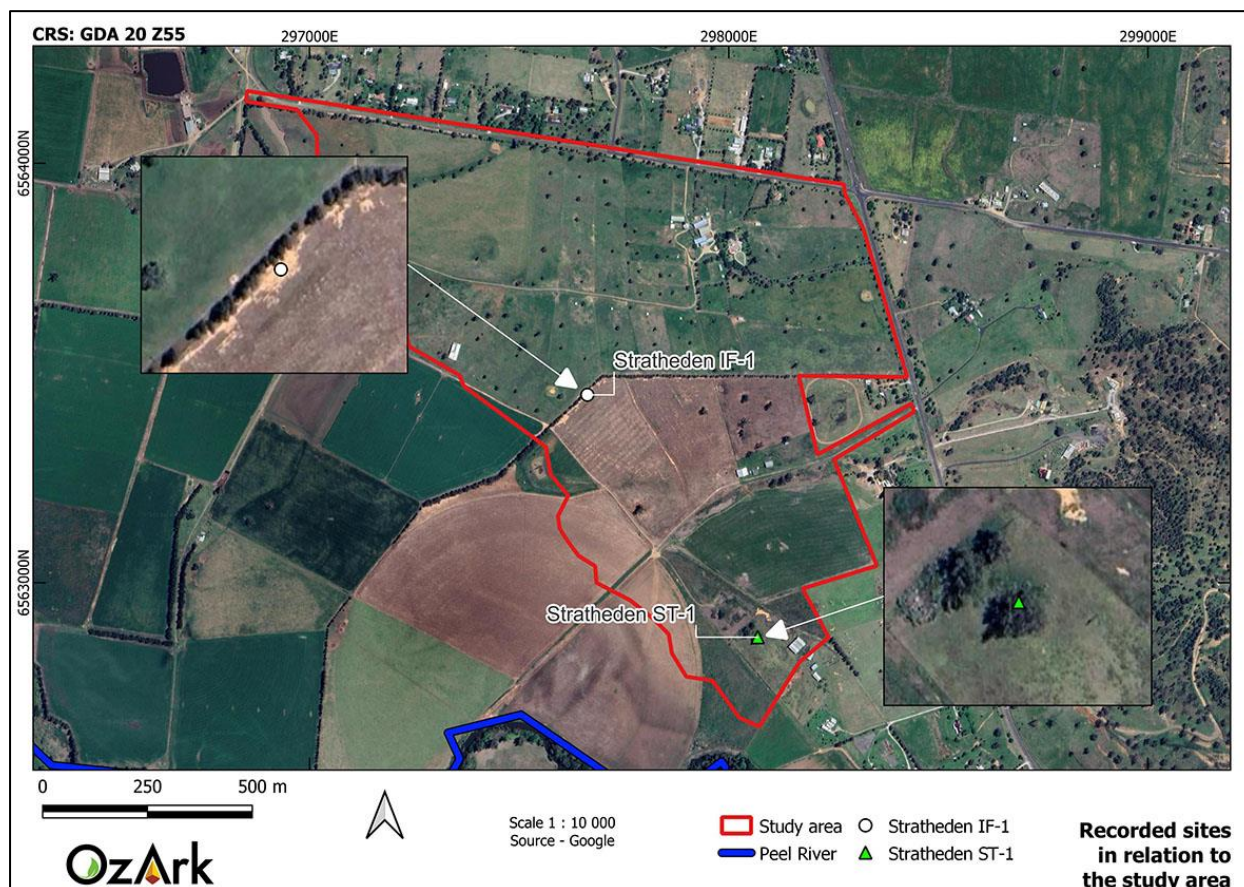
	
<p>1. View to the north showing the low GSV in the northern portion of the study area.</p>	<p>2. View to the north showing the low GSV in the north-western portion of the study area.</p>
	
<p>3. View of 0% GSV that was evident across most of the study area.</p>	<p>4. View to the west showing the low GSV in the central portion of the study area.</p>

4.3 ABORIGINAL SITES RECORDED

Table 4-1 summarises the Aboriginal cultural heritage sites recorded during the survey of the study area. The location of the recorded sites is shown on **Figure 4-3** and further details on each site follows.

Table 4-1: Aboriginal cultural heritage sites recorded during the survey.

AHIMS ID	Site name	Site type	Coordinates (GDA Zone 56) East	Coordinates (GDA Zone 55) North	Survey Unit
29-2-0417	Stratheden IF-1	Isolated find	297663	6563448	Slopes
29-2-0416	Stratheden ST-1	Scarred tree	298069	6562870	Slopes

Figure 4-3: Location of recorded sites in relation to the study area.

Stratheden IF-1

Site type: Isolated find

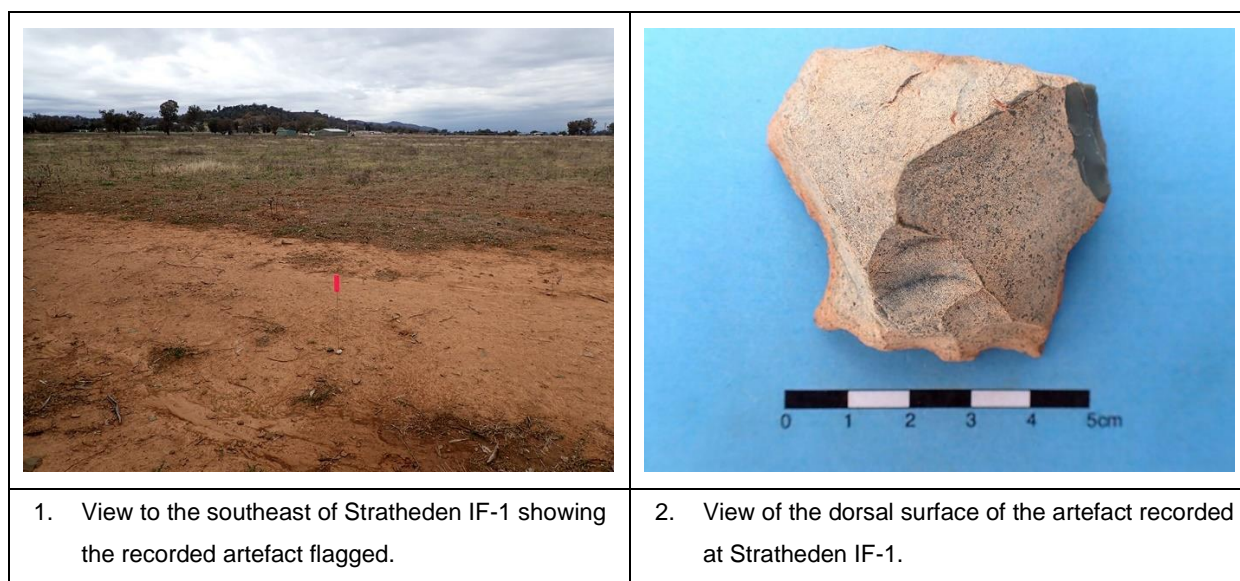
GPS coordinates: 297663E / 6563448N GDA 2020 Zone 56

Location of site: The site is situated on a gentle to moderate slope landform approximately 780 m to the north of the Peel River. The site is 765 m west of Manilla Road and 580 m south of Browns Lane (**Figure 4-3**).

Description of site: The site consists of an isolated chert core (**Figure 4-4**). The site is in an erosion scald with a site extent of 1 x 1 m. GSE was 90% with high GSV at 95%, as there was some vegetation cover. Disturbances primarily include slope wash erosion which has displaced the artefact into a secondary context, and it is likely to be further displaced following a large precipitation event. Although Tamworth LALC had noted an additional three artefacts at this site, these could not be located despite extensive exposure at the site location and have likely been further displaced because of slope wash erosion.

Table 4-2: Stratheden IF-1 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Core	Chert	N/A	Secondary	54 x 42 x 20

Figure 4-4: Stratheden IF-1. View of site and recorded artefact.

Stratheden ST-1

Site type: Scarred tree

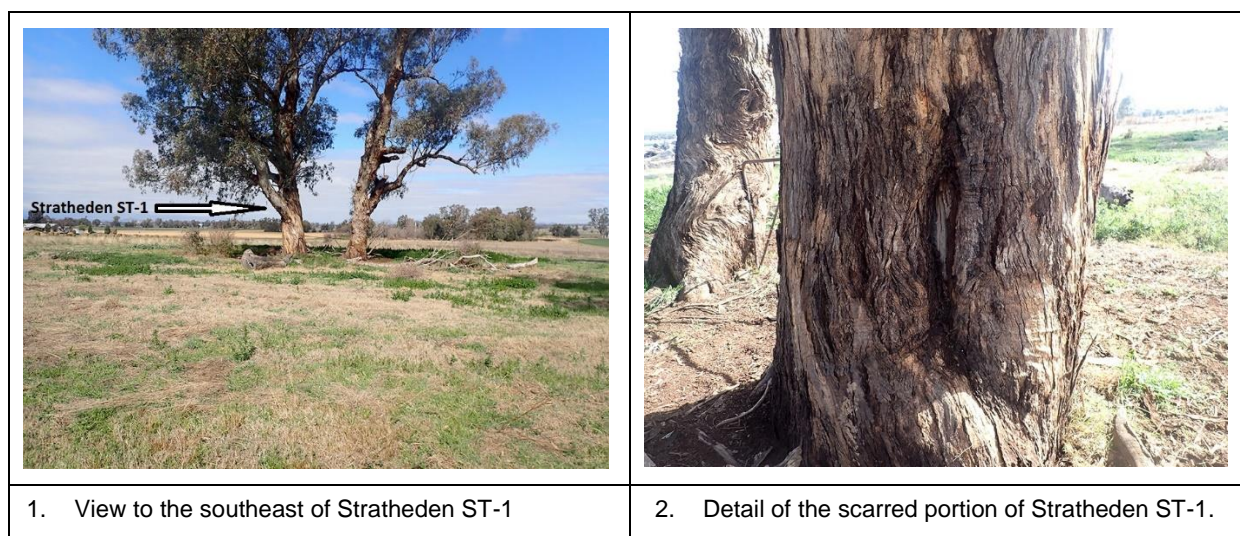
GPS coordinates: 298069E / 6562870N GDA 2020 Zone 56

Location of site: The site is situated on a flat landform approximately 310 m north of the Peel River. The site is 536 m west of Manilla Road and one km south of Browns Lane (Figure 4-3).

Description of site: Stratheden ST-1 is a eucalyptus tree containing a scar that was assessed by OzArk as non-cultural. The site was originally noted by Tamworth LALC who believed the scar to have a cultural origin and stated that the tree would be registered. As it had not been registered, OzArk contacted the LALC to confirm that they still wished to register the site.

As a result of these discussions, OzArk will register the tree on the LALC's behalf, however, OzArk do not believe this tree to be of cultural origin based on the scar not meeting sufficient criteria as set out in the NSW Scarred Tree Manual (Long 2005).

The scar details (i.e. length, width, regrowth etc) were not recorded during the survey as OzArk did not consider the scar to be a cultural site at the time. The photographs on **Figure 4-5** are the only record held by OzArk.

Figure 4-5: Stratheden ST-1. View of site and detail of the cultural scar.

4.4 SUMMARY OF SURVEY RESULTS

Two previously unrecorded Aboriginal sites were located during the survey (Stratheden IF-1 and Stratheden ST-1). As this proposal involves land rezoning, there will be no impacts to these sites as part of this proposal.

4.5 DISCUSSION

Desktop modelling indicated that there was a relatively low likelihood for most Aboriginal site types to be present in the study area due to the high levels of disturbance. Two additional sites were recorded during the survey, an isolated stone artefact and a scarred tree, which is in accordance with the modelling (see **Table 3-5**). Stratheden ST-1 is located 310 m north of the Peel River, however, Stratheden IF-1 is not situated in proximity with any waterway. However, it is likely that Stratheden IF-1 has been displaced due to slope wash erosion from an area to the northeast.

The likelihood of modified trees was expected to be low as the extensive level of historic vegetation clearing significantly reduces the likelihood of scarred trees remaining near waterways.

The absence of other site types in the study area such as hearths or artefact scatters could be influenced by significant disturbance from cropping, ploughing, and the construction of infrastructure. As such, if any artefact scatters or hearths were present in the study area, they have likely been removed or dispersed.

5 SIGNIFICANCE ASSESSMENT

5.1 INTRODUCTION TO SIGNIFICANCE ASSESSMENT

5.1.1 Identifying cultural significance

The concept of cultural significance is used in Australian heritage practice and legislation to encompass all the cultural values and meanings that might be recognised in a place. The *Burra Charter*'s definition of cultural significance is broad and encompasses places that are significant to Indigenous cultures (Burra Charter 2013).

The *Burra Charter* definition of 'place' is also broad and encompasses Indigenous places of cultural significance. 'Place' includes locations that embody spiritual value (such as Dreaming places, sacred landscapes, and stone arrangements), social and historical value (such as massacre sites), as well as scientific value (such as archaeological sites). In fact, one place may be all these things or may embody all these values at the same time.

In some cases, the find-spot of a single artefact may constitute a 'place'. Equally, a suite of related locations may together comprise a single 'place', such as the many individual elements that make up a Songline. These more complex places are sometimes called a cultural landscape or cultural route.

The Guide (OEH 2011: 8–9) notes that cultural significance is comprised of an assessment of social values, scientific values, aesthetic values, and historic values. These values are described below.

5.1.1.1 *Social or cultural value*

Social or cultural value refers to the spiritual, traditional, historical, or contemporary associations and attachments the place or area has for Aboriginal people. Social or cultural value is how people express their connection with a place and the meaning that place has for them.

Places of social or cultural value have associations with contemporary community identity. These places can have associations with tragic or warmly remembered experiences, periods, or events. Communities can experience a sense of loss should a place of social or cultural value be damaged or destroyed.

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

Social or cultural value can only be identified through consultation with Aboriginal people. This could involve a range of methodologies, such as cultural mapping, oral histories, archival

documentation, and specific information provided by Aboriginal people specifically for the investigation.

Cultural value involves both traditional links with specific areas, as well as an overall concern by Aboriginal people for their sites generally and the continued protection of these. This type of value may not be in accord with interpretations made by the archaeologist: a site may have low archaeological value but high social value, or vice versa.

5.1.1.2 *Scientific (archaeological) value*

This refers to the importance of a landscape, area, place or object because of its rarity, representativeness, and the extent to which it may contribute to further understanding and information (Burra Charter 2013).

Assessing a site in this context involves placing it into a broader regional framework, as well as assessing the site's individual merits in view of current archaeological discourse. This type of value relates to the ability of a site to answer current research questions and is also based on a site's condition (integrity), content and representativeness.

The overriding aim of cultural heritage management is to preserve a representative sample of the archaeological resource. This will ensure that future research within the discipline can be based on a valid sample of the past. Establishing whether a site can contribute to current research also involves defining 'research potential'. Questions regularly asked when determining significance are: can this site contribute information that no other site can? Is this site representative of other sites in the region?

Information about scientific values will be gathered through any archaeological investigation undertaken. Archaeological investigations must be carried out according to Heritage NSW's Code of Practice (DECCW 2010).

Often scientific values are informed by social values that allow a contemporary understanding of the archaeological data to be understood.

5.1.1.3 *Aesthetic value*

This refers to the sensory, scenic, architectural, and creative aspects of the place. It is often closely linked with the social values. It may consider form, scale, colour, texture and material of the fabric or landscape, and the smell and sounds associated with the place and its use (Burra Charter 2013).

5.1.1.4 *Historic value*

Historic value refers to the associations of a place with a historically important person, event, phase, or activity in an Aboriginal community. Historic places do not always have physical

evidence of their historical importance (such as structures, planted vegetation or landscape modifications). They may have 'shared' historic values with other (non-Aboriginal) communities.

Places of post-contact Aboriginal history have generally been poorly recognised in investigations of Aboriginal heritage. Consequently, the Aboriginal involvement and contribution to important regional historical themes is often missing from accepted historical narratives. This means it is often necessary to collect oral histories along with archival or documentary research to gain enough understanding of historic values.

5.2 ASSESSED SIGNIFICANCE OF THE RECORDED SITES

Table 5-1 presents a summary of the significance assessment of Aboriginal cultural heritage sites recorded during this assessment. Further details of each of the assessment criteria are provided below.

Social or Cultural Value

The Tamworth LALC site officers have indicated that Stratheden IF-1 and Stratheden ST-1 (**Section 3.2**) are of high cultural value and a direct, tangible link to their ancestors.

Archaeological/Scientific Value

The Aboriginal sites have been assessed as having low scientific significance.

As noted in **Section 4.3**, Stratheden ST-1 has few features that can add to our knowledge about the occupation or use of the area by Aboriginal people. As there are concerns about the origin of the scar, it has a very low scientific value.

Stratheden IF-1 is a displaced artefact that has common features with other artefacts in the region and has a very low ability to provide further information. The isolated artefact has a low scientific value.

Aesthetic Value

Both sites are located within a landscape modified by long term-term agricultural impacts and neither site has assessed aesthetic values. Stratheden IF-1 is part of a broader cultural landscape of Aboriginal sites across the region and shares the general aesthetic values of that landscape.

Historic Value

Neither site has known associations to specific people or events and there are no known historic values.

Table 5-1: Aboriginal cultural heritage: significance assessment.

Site Name	Social or Cultural Value	Archaeological / Scientific Value	Aesthetic Value	Historic Value
Stratheden IF-1	High	Low	Low	NIL
Stratheden ST-1	High	Low	Low	NIL

5.2.1 Statement of significance

The intangible Aboriginal cultural values across the wider district relate to a number of important places and themes associated with non-archaeological cultural values. These places mainly relate to spiritual and ceremonial connections across the broader landscape that may encompass culturally significant geographical features.

The sites recorded during the survey are considered to have limited ability to provide further information on the traditional Aboriginal use of the greater Tamworth region and have a low scientific value.

The remainder of the study area has low archaeological value, including the landforms near the Peel River (southern-most portion). The land within this portion of the study area is highly disturbed due to ploughing, agricultural use, and slope wash erosion that archaeological potential has been removed.

Apart from the general understanding of the aesthetic qualities of the study area, there are no known places with identified aesthetic values.

6 ASSESSING HARM

6.1 AVOIDING AND MINIMISING HARM

6.1.1 Conserving significant Aboriginal cultural heritage

An object of the NPW Act is the '*conservation of objects places and features... of cultural value within the landscape, including... places, objects and features of significance to Aboriginal people*' (s.2A(1(b)(i)).

As heritage professionals, OzArk, strives for good conservation outcomes. In particular, OzArk is primarily concerned with the conservation and protection of Aboriginal cultural heritage that is of significance to Aboriginal people.

Two primary objectives when managing harm to an Aboriginal object are:

- Impacts to significant Aboriginal objects and places should always be avoided wherever possible
- Where impacts to Aboriginal objects and places cannot be avoided, proposals should be amended to reduce the extent and severity of impacts to significant Aboriginal objects and places using reasonable and feasible measures.

6.1.1.1 Opportunities to conserve Aboriginal cultural heritage values

As this proposal is prepared of the rezoning of land, there will be no physical impacts to Aboriginal cultural heritage values. As such, both Stratheden IF-1 and Stratheden ST-1 will be avoided by the proposal.

6.2 LIKELY IMPACTS TO ABORIGINAL HERITAGE FROM THE PROPOSAL

Table 6-1 presents a summary of potential impacts to Aboriginal cultural heritage associated with the proposal.

Table 6-1: Aboriginal cultural heritage: impact assessment.

Site Name	Type of Harm (Direct/Indirect / None)	Degree of Harm (Total/Partial / None)	Consequence of Harm (Total/Partial/No Loss of Value)
Stratheden IF-1	None	None	None
Stratheden ST-1	None	None	None

7 MANAGEMENT OF ABORIGINAL CULTURAL HERITAGE SITES

7.1 GENERAL MANAGEMENT PRINCIPLES

Appropriate management of cultural heritage items is primarily determined based on their assessed significance as well as the likely impacts of the proposal. **Section 5.2** and **Section 6.2** describe, respectively, the significance / potential of the recorded sites and the likely impacts of the proposal.

The following management options are general principles, in terms of best practice and desired outcomes, rather than mitigation measures against individual site disturbance.

- Avoid harm by ensuring that future developments conserve recorded Aboriginal site in the landscape. If this can be done, then a suitable curtilage around the site must not be disturbed (ground disturbing works in the case of Stratheden IF-1 and preservation of the tree at Stratheden ST-1).
- If impact is unavoidable then approval to disturb sites under the authority of an AHIP must be sought from Heritage NSW. An Aboriginal Cultural Heritage Assessment Report (ACHAR) will be required to accompany the AHIP and Aboriginal community consultation must be undertaken (DECCW 2010b). It is noted that the Tamworth LALC consider that if Stratheden IF-1 is likely to be harmed, that it should be relocated to Stratheden ST-1 and a 5 x 5 m buffer placed around the tree (**Appendix 2**).

7.2 MANAGEMENT AND MITIGATION OF RECORDED ABORIGINAL SITES

As this proposal involves land rezoning and there are no works at this stage that would impact the recorded Aboriginal sites.

If future works are proposed in the study area, the general management options listed in **Section 7.1** should be applied.

Future developments at the study area must consider the location of the recorded sites and ensure that they are conserved in the landscape. This includes the siting of future developments to avoid known sites and ensuring that the sites are shown on appropriate development maps to ensure they are not inadvertently harmed.

8 RECOMMENDATIONS

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

To this end it is noted that two Aboriginal sites were recorded during the assessment.

The following recommendations are made based on these impacts and regarding:

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

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


1. The proposed land rezoning may proceed at the Stratheden Horse Stud without further archaeological investigation.
2. The planning design of the subdivision should consider the locations of Stratheden IF-1 and Stratheden ST-1 and be designed in such a way that harm to the sites is avoided.
3. The sites should be shown on appropriate development maps to ensure they are not inadvertently harmed.
4. If future works are proposed in the study area, then the general management principles listed in **Section 7.1** should be followed depending on whether Stratheden IF-1 and Stratheden ST-1 can be avoided.
5. The initial purchaser of a lot with any recorded Aboriginal site must be informed of the site's location, its protection under the *National Parks and Wildlife Act 1974*, and the need to avoid ground disturbance (at Stratheden IF-1) or vegetation removal (at Stratheden ST-1) unless an AHIP has been obtained.

REFERENCES


- AREA 2019 AREA Environmental Consultants & Communication. 2019. *Oriens Energy Pty Ltd Tamworth Solar Farm: Cultural Heritage Assessment*, Tamworth LGA NSW. Report to PROJECT.e-.
- Burke & Smith 2004 Burke, H. and Smith, C. 2004. *The Archaeologist's Field Handbook*, Blackwell, Oxford.
- Burra Charter 2013 International Council on Monuments and Sites 2013. *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance*.
- DECCW 2010 Department of Environment, Climate Change and Water, Sydney (now Heritage NSW). *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales*.
- DECCW 2010b Department of Environment, Climate Change and Water, Sydney (now Heritage NSW). *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*.
- Fison et al. 1880 Fison, L; Howitt, A; and Morgan, L. 1880. *Kamilaroi and Kurnai: group marriage and relationship by elopement, drawn chiefly from the usage of the Australian aborigine: also the Kurnai tribe, their customs in peace and war*. Aboriginal Studies Press for the Australian Institute of Aboriginal and Torres Strait Islander Studies, Canberra.
- Gott 1983 Gott, B. 1983. Murnong - *Microseris scapigera*. *Australian Aboriginal Studies*, Issue 2.
- Long 2005 Long, A. 2005. *Aboriginal Scarred Trees in New South Wales: A Field Manual*. Department of Environment and Conservation.
- McAdam and Wilson 2000 McAdam, L; and Wilson, J. 2000. *The Tamworth Aboriginal Archaeological Site Study*. Report to Tamworth City Council.
- McBryde and Binns 1970 I. McBryde and R.A. Binns. 1970. Preliminary report on a petrological study of ground-edge artefacts from north-eastern New South Wales, Australia. *Proceedings of the Prehistoric Society* 1969/1970: 229–235.
- Mitchell 2011 Mitchell, P. *Mitchell landscapes* (version 3). Office of Environment and Heritage.
- Niche 2013 Niche Environment and Heritage. 2013. *Proposed Intensive Livestock Industry Facility Aboriginal and Non-Aboriginal Heritage Due Diligence Assessment, near Manilla, NSW*. Report to Rostry Pty Ltd / PSA Consulting.

OEH 2011	Office of Environment and Heritage 2011. <i>Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW</i> .
O'Rourke 1997	O'Rourke, M. 1997. <i>Kamilaroi lands: North-central New South Wales in the early 19th century</i> . Self-published.
OzArk 2010	OzArk Environment & Heritage. 2010. Aboriginal and non-Indigenous Heritage Assessment: Tamworth-Gunnedah Transmission Line 875 Dismantling. Report to TransGrid.
OzArk 2021a	OzArk Environment & Heritage. 2021. <i>Aboriginal Cultural Heritage Assessment Report: Tamworth BESS</i> . Report to Accent Environmental on behalf of Maoneng.
OzArk 2021b	OzArk Environment & Heritage. 2021. <i>Aboriginal Due Diligence Assessment Report: 123 Browns Lane</i> . Report for Bath Stewart Associates on behalf of Canisby.
Tamworth LALC	Tamworth Local Aboriginal Land Council. 2022. <i>Site Inspection Report</i> . Report for Bath Stewart Associates.
Tindale 1974	Tindale N. <i>Aboriginal Tribes of Australia</i> . ANU Press, Canberra.

APPENDIX 1: AHIMS SEARCH

<div>  <div> AHIMS Web Services (AWS) Extensive search - Site list report </div> <div> Your Ref/PO Number : Stratheden Client Service ID : 703586 </div> </div>										
SiteID	SiteName	Datum	Zone	Eastings	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
29-2-0259	Rockleigh ST1	AGD	56	299543	6564547	Open site	Valid	Modified Tree (Carved or Scarred): 1		
	Contact	Recorders	Archaeological Surveys & Salvage, Ivan Johnson							
29-2-0173	Hills Plain IP/11	AGD	56	299982	6562580	Open site	Valid	Artefact: 2		3125,3148
	Contact	Recorders	Archaeological Surveys & Salvage							
29-2-0212	Glenmore IP/5	AGD	56	300156	6564370	Open site	Valid	Artefact: 1		3153,3154
	Contact	Recorders	Archaeological Surveys & Salvage							
29-2-0358	Oxley Vale Site 11	GDA	56	298334	6562884	Open site	Valid	Artefact: 1		2663,4957
	Contact	Recorders	Paul Houston, Mr. Donnie (Chris) Fermor, Mr. Steven Booby							
29-2-0353	Oxley Vale Site 6	GDA	56	298422	6562805	Open site	Valid	Artefact: 1		
	Contact	Recorders	Paul Houston, Mr. Donnie (Chris) Fermor, Mr. Steven Booby							
29-2-0356	Oxley Vale Site 9	GDA	56	298502	6562838	Open site	Valid	Artefact: 1		
	Contact	Recorders	Paul Houston, Mr. Donnie (Chris) Fermor, Mr. Steven Booby							
29-2-0174	Hills Plain IP/12	AGD	56	300073	6562594	Open site	Valid	Artefact: 2		
	Contact	Recorders	Archaeological Surveys & Salvage							
29-2-0351	Oxley Vale Site 4	GDA	56	298321	6562770	Open site	Valid	Artefact: 1		3153,3154
	Contact	Recorders	Paul Houston, Mr. Donnie (Chris) Fermor, Mr. Steven Booby							
29-2-0213	Glenmore IP/6	AGD	56	300001	6564717	Open site	Valid	Artefact: 2		
	Contact	Recorders	Archaeological Surveys & Salvage							
29-2-0211	Glenmore IP/4	AGD	56	300226	6564626	Open site	Valid	Artefact: 7		2663,4957
	Contact	Recorders	Archaeological Surveys & Salvage							
29-2-0352	Oxley Vale Site 5	GDA	56	298383	6562777	Open site	Valid	Artefact: 2		2663,4957
	Contact	Recorders	Paul Houston							
29-2-0354	Oxley Vale Site 7	GDA	56	298447	6562806	Open site	Valid	Artefact: 1		
	Contact	Recorders	Paul Houston, Mr. Donnie (Chris) Fermor, Mr. Steven Booby							
29-2-0355	Oxley Vale Site 8	GDA	56	298454	6562817	Open site	Valid	Artefact: 8		
	Contact	Recorders	Paul Houston, Mr. Donnie (Chris) Fermor, Mr. Steven Booby							
29-2-0348	Oxley Vale Site 1	GDA	56	298535	6562762	Open site	Valid	Artefact: 3		
	Contact	Recorders	Paul Houston, Mr. Donnie (Chris) Fermor, Mr. Steven Booby							
29-2-0258	Rockleigh IP/3	AGD	56	299425	6563918	Open site	Valid	Artefact: 1		
	Contact	Recorders	Archaeological Surveys & Salvage, Tamworth LALC, Ivan Johnson							
29-2-0369	Windmill Hill SGE 11 Artefact	GDA	56	299786	6563368	Open site	Valid	Artefact: 1		3125,3148
	Contact	Recorders	PJ Gaynor (consultant), Mr. Patrick Gaynor							
29-2-0172	Hills Plain IP/10	AGD	56	299790	6563340	Open site	Valid	Artefact: 3		
	Contact	Recorders	Archaeological Surveys & Salvage							
29-2-0261	Rockleigh IP/1	AGD	56	299223	6564206	Open site	Valid	Artefact: 10		3153,3154
Report generated by AHIMS Web Service on 27/07/2022 for Brendan Fisher for the following area at Datum :GDA, Zone: 56, Eastings: 295376.0 - 300376.0, Northings: 6561158.0 - 6566158.0 with a Buffer of 0 meters.. Number of Aboriginal sites and Aboriginal objects found is 24 This information is not guaranteed to be free from error omission. 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



AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : Stratheden

Client Service ID : 703586

SiteID	SiteName	Datum	Zone	Eastings	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
29-2-0357	Contact Oxley Vale Site 10	Recorders GDA	56	298367	6562895	Open site	Valid	Artefact: 1	Permits 3125,3148	
29-2-0350	Contact Oxley Vale Site 3	Recorders GDA	56	298416	6562711	Open site	Valid	Artefact: 3	Permits 3125,3148	
29-2-0260	Contact Rockleigh IP/2	Recorders AGD	56	299222	6564284	Open site	Valid	Artefact: 24	Permits 3125,3148	
29-2-0175	Contact Hills Plain IP/13	Recorders AGD	56	300158	6562586	Open site	Valid	Artefact: 1	Permits 3153,3154	
29-2-0359	Contact Oxley Vale Site 12	Recorders GDA	56	298387	6562910	Open site	Valid	Artefact: 1	Permits 3153,3154	
29-2-0349	Contact Oxley Vale Site 2	Recorders GDA	56	298461	6562756	Open site	Valid	Artefact: 1	Permits 3153,3154	

**** Site Status**

Valid - The site has been recorded and accepted onto the system as valid.

Destroyed - The site has been completely impacted or harmed usually as a consequence of permit activity but sometimes also after natural events. There is nothing left of the site on the ground but proponents should proceed with caution.

Partially Destroyed - The site has been only partially impacted or harmed usually as a consequence of permit activity but sometimes also after natural events. There might be parts or sections of the original site still present on the ground.

Not a site - The site has been originally entered and accepted onto AHIMS as a valid site but after further investigations it was decided it is NOT an aboriginal site. Impact of this type of site does not require permit but Heritage NSW should be notified.

Report generated by AHIMS Web Service on 27/07/2022 for Brendan Fisher for the following area at Datum :GDA, Zone: 56, Eastings: 295376.0 - 300376.0, Northings: 6561158.0 - 6566158.0 with a Buffer of 0 meters.. Number of Aboriginal sites and Aboriginal objects found is 24

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

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Page 2 of 2

APPENDIX 2: TAMWORTH LALC SITE INSPECTION REPORT



**TAMWORTH
LOCAL
ABORIGINAL
LAND
COUNCIL**

ABN: 38919784345

PO Box 57

123 Marius Street

Tamworth NSW 2340

Ph: 02 6766 9028

Email: admin@tamworthlalc.com.au

SITES INSPECTION REPORT

Customer:

Organization Name: Bath Stewart Associates

Address: 23A Marius Street Tamworth 2340 NSW

Phone: 0412 618 110

Contact Person: David Lord

Tamworth Local Aboriginal Land Council Contact:

Sites Officer's Name: Michelle Fennor

Michael Fennor

Site Inspection Dates: 30 May 2022

Total Hours Worked: 5hrs

Sites Location:

Marius Road - Browns Lane (Tamworth Area)

Stratheden Site Assessment

Travel:

Kilometers: _____

Current Land Tenure:

- ☐ Public
- ☒ Private
- ☐ National Park/Government Dept.



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ENVIRONMENT INFORMATION

Landform:

Plains Slopes Hills/ Mountain/ Valley/ Other

mainly plains with some slopes and contour banks

Land Use:

Farming/ Livestock Crops Corridors Development/ Road/ Other

cattle, horses, corn crops and other crops

Vegetation:

Native Introduced Established Traditional Resources/ Other

Due to vegetation there was low visibility

Water:

River/ Creek/ Lake/ Dam Other

Name: unknown

Deep eroded gully and large build dam

Artefact Information:

☒ Stone Artefact

☒ Flake

☐ Blade

☒ Core

☐ Stone Point

☐ Muller

☐ Hammerstone

☐ Axe Head

☐ Sharpening Stone

☐ Firestone

☐ Grinding Groove

☐ Other

☐ Stone Arrangement

☐ Fish Traps

☐ Ceremonial Rings

☐ Other

☒ Modified Tree

☐ Shell

☐ Ochre Quarry

☐ Art

☐ Burial

☐ Human Remains

☐ Non-Human Bone/ Organic Material

☐ Habitation Structure

☐ Ceremony and Dreaming

☐ Traditional Resources

☐ Other



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SITES REPORT BY SITES OFFICER

Fair stone artefacts found - 3 in scatter - 31°2'43"S 150°52'47"E

- Flake - 31°3'5"S 150°52'41"E

One scarred tree found - 31°3'2"S 150°53'2"E

Found two large greywattle which is to be noted as usually not found with area without reason

Half of area has already had Cultural Heritage Assessment due to this we started in unsurveyed area. We survey as much as possible but visibility was low due to vegetation, we checked all exposures. This is the area cultural material was found.

We were able to survey 1/3 of area that has previously been surveyed starting with possible scarred tree (this is not a scarred tree to our knowledge due to the way it was facing and the way the scars had healed)

Recommend - protecting of all well established trees

- move artefacts to scarred tree through proper protocols

- Create a 5m x 5m buffer around scarred tree

- If heavy traffic around scarred tree, a fence may need to be put into place

Further Inspection Required: YES/ (NO)

Job Completed: YES/ (NO) see recommendations

Prepared By: Michelle Ferman

Date Prepared: 30 May 2022

Sites Officer's Name: Michelle Ferman

Sites Officer's Signature: [Signature]

APPENDIX 3: ABORIGINAL HERITAGE: ARTEFACT IDENTIFICATION

	
A retouched silcrete flake	A quartz flake
	
Microliths (scale = 1 cm)	Volcanic flakes
	
Flake characteristics (scale = 1 cm)	A mudstone/tuff core from which flakes have been removed