View north across the study area towards the line of poplars along the northern border.

ARCHAEOLOGICAL TECHNICAL REPORT

PROPOSED REZONING AND SUBDIVISION – REDMOND PLACE, ORANGE

ORANGE CITY LOCAL GOVERNMENT AREA, NSW

MAY 2024

Report prepared by

OzArk Environment & Heritage

for Landcom

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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 Landcom (the proponent) to complete a *Historic Heritage Assessment Report* (HHAR) of a 24.2 hectare (ha) site located on the south-eastern fringe of Orange. The site is owned by Orange City Council and Landcom are taking the lead in preparing a planning proposal to amend the Orange Local Environment Plan 2011 (LEP) to rezone the study area for residential status (the proposal). The proposal is in the Orange City Council Local Government Area (LGA).

The key objectives of the project are:

- Supply – increase the supply of land to facilitate housing
- Diversity – promote housing diversity
- Affordability – increase the supply of land for affordable housing by delivering at least 20% of all residential dwellings for affordable housing
- Sustainability – develop a climate resilient, healthy and inclusive place, at the forefront of environmental and social sustainability.

The study area is located on the southeast fringe of Orange and lies on the southern side of Redmond Place, bounded by Bathurst Road / Mitchell Highway (on the northeast), Lone Pine Avenue (on the west) and Dairy Creek Road to the south. The study area is approximately 24.2 hectares in size, comprising three lots: Lot 1 DP153167 (154 Lone Pine Avenue), Lot 6 DP1031236 (3 Redmond Place), and Lot 200 DP1288388 (5255 Mitchell Highway).

The study area is situated on gently inclined landforms that have been used for agricultural and aviation purposes. The study area has been mostly cleared of mature native trees; however, a feature of the northern boundary are the line of poplar trees and memorial gardens. The nearest waterway to the study area is the semi-permanent stream known as Dairy Creek, situated approximately 193 metres southeast of the eastern boundary.

A search of the Aboriginal Heritage Information Management System completed on 17 January 2024 shows there are no previously recorded Aboriginal sites within or near the study area.

The field survey was undertaken by OzArk Archaeologist, Tenae Robertson with Doug (Ian) Sutherland representing Orange Local Aboriginal Land Council on 13 February 2024.

No Aboriginal sites or areas of archaeological sensitivity were identified during the survey, nor was there any information indicating that sites or other specific cultural heritage values may be present.

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

1. The proposal may proceed at the study area without further archaeological investigation provided the activities are confined to within the assessed study area, as this will eliminate

the risk of harm to Aboriginal objects potentially present within adjacent landforms. If the scope of the proposal changes, additional survey may be required to ensure Aboriginal cultural values are not impacted, if present.

2. If during subdivision works, however, Aboriginal objects are noted, all work should cease and the procedures in the *Unanticipated Finds Protocol* (**Appendix 2**) must be followed.
3. The *Unanticipated Skeletal Remains Protocol* (**Appendix 3**) must be followed if suspected human skeletal remains are encountered.
4. Inductions for work crews should include a cultural heritage awareness procedure to ensure they recognise Aboriginal artefacts (**Appendix 4**) and are aware of the legislative protection of Aboriginal objects under the *National Parks and Wildlife Act 1974*.

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1 INTRODUCTION

1.1 PREAMBLE

OzArk Environment & Heritage (OzArk) has been engaged by Landcom (the proponent) to complete a *Historic Heritage Assessment Report* (HHAR) of a 24.2 hectare (ha) site located on the south-eastern fringe of Orange.. The study area is owned by Orange City Council and Landcom are taking the lead in preparing a planning proposal to amend the Orange Local Environment Plan 2011 (LEP) to rezone the study area for residential status (the proposal).

1.2 DESCRIPTION OF THE PROPOSAL

The study area has significant frontage along the Mitchell Highway and has the potential to be impacted by the proposed Redmond Place rezoning and subdivision. The proposal is in the Orange City Council Local Government Area (LGA) (**Figure 1-1**).

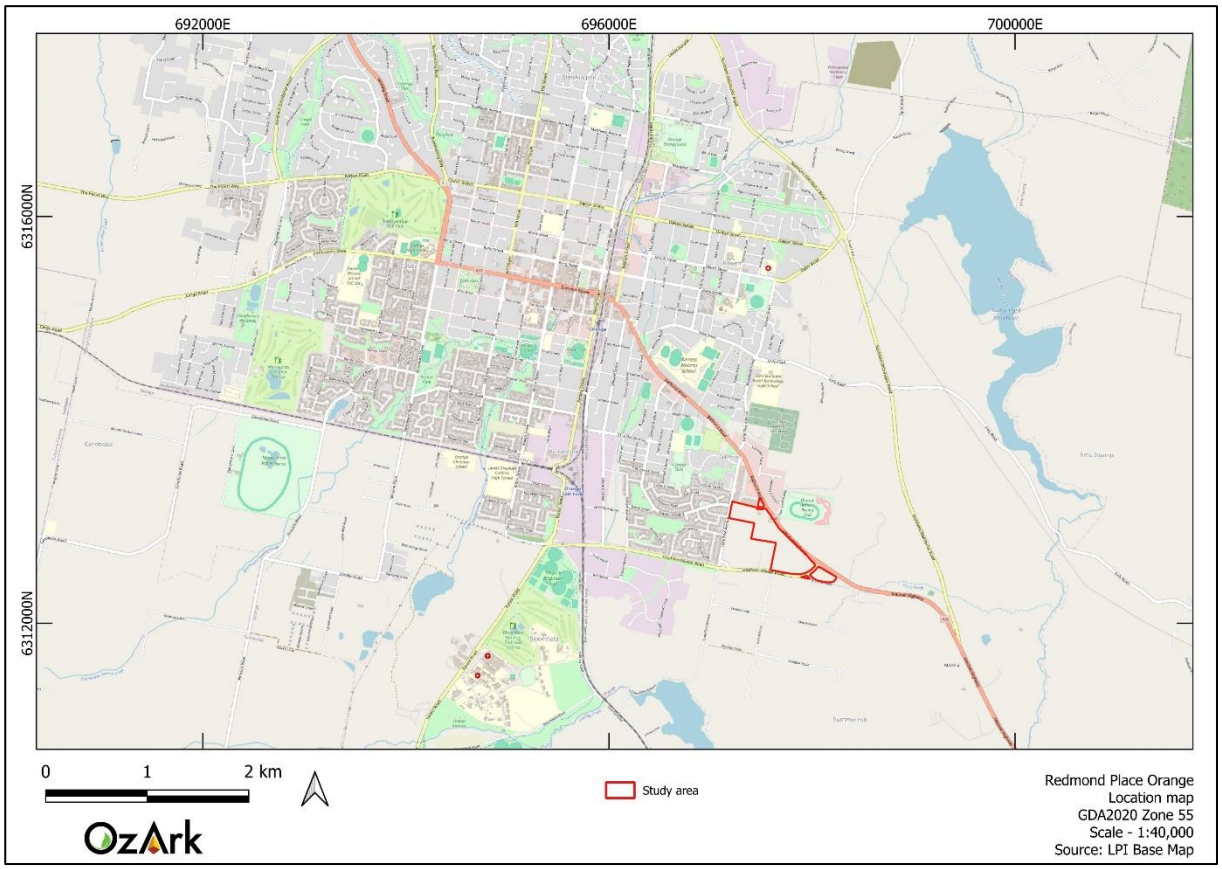
The key objectives of the project are:

- Supply – increase the supply of land to facilitate housing
- Diversity – promote housing diversity
- Affordability – increase the supply of land for affordable housing by delivering at least 20% of all residential dwellings for affordable housing
- Sustainability – develop a climate resilient, healthy and inclusive place, at the forefront of environmental and social sustainability.

The staging strategy for the project is to be determined and will need to take into consideration infrastructure availability, delivery timing, placemaking, and entry point to the area from Mitchell Highway.

The urban design approach for the project focuses on socio-economic activation, innovative sustainability solutions and urban vibrancy through place-making. The master plan for the future new community of Redmond Place will be based on a landscape-led approach to urban design, informed by the unique qualities of the site and Connecting with Country principles. A thorough community and stakeholder engagement process, including community workshops, a Walk on Country and indigenous stakeholder interviews, will also inform the urban design process.

Figure 1-1: Map showing the location of the study area for the proposal.



1.3 THE PROPOSAL

The planning proposal is to amend Orange Local Environmental Plan 2011 to rezone the site to facilitate delivery of a residential precinct in accordance with a prepared Masterplan.

The objectives of the Masterplan are to:

- increase the supply of land to facilitate housing through the creation of lots to support a sustainable, innovative and affordable community.
- promote housing diversity through supporting a diverse mix of product, including houses and townhouses.
- increase the supply of land for affordable housing by delivering at least 20% of all residential dwellings for affordable housing managed by a community housing provider.
- develop a climate resilient, healthy and inclusive place, at the forefront of environmental and social sustainability.

The proposal is expected to comprise of approximately 330 homes across a range of dwelling types, including traditional detached homes, townhouses, terraces, and low-rise residential flats. In addition, new roads, open spaces, landscaping, and amenities will be constructed.

1.4 STUDY AREA

The study area is located on the southeast fringe of Orange, the largest city in the Central West Region. It is adjacent to the suburb of Glenroi, 4.4km from Orange City Centre and approximately 3.2km from Orange train station.

The study area has a significant frontage along Mitchell Highway (A32) which runs from east to west from the M4 Motorway in Greater Sydney connecting through Penrith, Katoomba, Bathurst to Orange.

The study area lies on the southern side of Redmond Place, bounded by Bathurst Road / Mitchell Highway (on the northeast), Lone Pine Avenue (on the west) and Dairy Creek Road to the south. It is surrounded by a mixture of land uses with low density residential to the west, retail and large format retail to the north, rural farmland to the south and east, as well as a kart racing track 250m north of the Mitchell highway.

The study area is approximately 24.2 Ha in size and is currently vacant, except for a structure that previously housed an emergency services helicopter hangar.

The study area comprises the following three lots:

- Lot 1 DP153167, 154 Lone Pine Avenue, Orange (4.10 ha)
- Lot 6 DP1031236, 3 Redmond Place, Orange (2.28 ha)
- Lot 200 DP1288388, 5255 Mitchell Highway, Orange. (17.85 ha)

The study area consists of gently sloping paddocks used for agricultural purposes. A feature of the eastern boundary is a line of poplar trees which Orange City Council wishes to retain and highlight due to their historical significance.

Figure 1-2: Aerial showing the study area and cadastral details (OCULUS 2024).

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 part of the EP&A Act that relate to planning proposals is Part 3 (Planning Instruments). Division 3.4 Local Environmental Plans (LEPs) states:

3.33 Planning proposal authority to prepare explanation of and justification for proposed instrument—the planning proposal

(1) Before an environmental planning instrument is made under this Division, the planning proposal authority is required to prepare a document that explains the intended effect of the proposed instrument and sets out the justification for making the proposed instrument (the planning proposal).

(2) The planning proposal is to include the following—

(a) a statement of the objectives or intended outcomes of the proposed instrument,

(b) an explanation of the provisions that are to be included in the proposed instrument,

(c) the justification for those objectives, outcomes and provisions and the process for their implementation (including whether the proposed instrument will give effect to the local strategic planning statement of the council of the area and will comply with relevant directions under section 9.1),

(d) if maps are to be adopted by the proposed instrument, such as maps for proposed land use zones; heritage areas; flood prone land—a version of the maps containing sufficient detail to indicate the substantive effect of the proposed instrument,

(e) details of the community consultation that is to be undertaken before consideration is given to the making of the proposed instrument.

(3) The Planning Secretary may issue requirements with respect to the preparation of a planning proposal.

Applicability to the proposal

This ATR forms part of the supporting information for the planning proposal. It includes consultation with the Orange Local Aboriginal Land Council (LALC) and details of a survey.

2.1.2.1 Planning Proposals - Rezoning

Heritage assessment for planning proposals are required to demonstrate consistency with the Local Planning Directions (Section 9.1 under the EP& A Act), *Local Planning Directions* (NSW Department of Planning & Environment; now Department of Planning Housing, and Infrastructure

[DPHI]), *Ministerial Direction 3.2, Heritage Conservation*, which requires planning proposals to address the conservation of Aboriginal objects as follows:

> **Direction 3.2**
>
> (1) A planning proposal must contain provisions that facilitate the conservation of:
>
> (a) items, places, buildings, works, relics, moveable objects or precincts of environmental heritage significance to an area, in relation to the historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value of the item, area, object or place, identified in a study of the environmental heritage of the area,
>
> (b) Aboriginal objects or Aboriginal places that are protected under the *National Parks and Wildlife Act* 1974, and
>
> (c) Aboriginal areas, Aboriginal objects, Aboriginal places or landscapes identified by an Aboriginal heritage survey prepared by or on behalf of an Aboriginal Land Council, Aboriginal body or public authority and provided to the relevant planning authority, which identifies the area, object, place or landscape as being of heritage significance to Aboriginal culture and people.

Applicability to the proposal

The *Local Planning Directions* (NSW DPHI), *Ministerial Direction 3.2, Heritage Conservation* has been followed according to Direction 3.2 (1c) as the assessment considers '*Aboriginal objects, Aboriginal places or landscapes identified by an Aboriginal heritage survey*' undertaken in conjunction with the Orange LALC.

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 Climate Change, Energy, the Environment and Water (DCCEEW) of the location of an Aboriginal object. Identified Aboriginal items and sites are registered on Aboriginal Heritage Information Management System (AHIMS).

Applicability to the proposal

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

The Secretary of DCCEEW will be notified of the location of an Aboriginal object recorded by sending the relevant details to the AHIMS register.

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).

Aboriginal community consultation has been with the Orange LALC, a representative from which was involved in the field assessment.

This is considered an adequate approach to meet the *Local Planning Directions* (NSW DPHI), *Ministerial Direction 2.3, Heritage Conservation*.

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 Aboriginal cultural heritage values within the study area. This includes intangible cultural values, Aboriginal objects, and any landforms likely to contain further archaeological deposits

Objective Three: To assess the significance of any recorded Aboriginal cultural values, Aboriginal objects, or sites in consultation with the Aboriginal community

Objective Four: Assess the likely impacts of the proposed work to Aboriginal cultural heritage values and provide management recommendations.

2.4 REPORT COMPLIANCE WITH THE CODE OF PRACTICE

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

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

Code of Practice Requirement	Context of the Requirement	Concordance in this report
Requirement 1a	Review previous archaeological work	**Section 4.2**
Requirement 1b	Review AHIMS searches	**Section 4.3.1**
Requirement 2	Review the landscape context	**Section 3**
Requirement 3	Summarise and discuss the local and regional character of Aboriginal land use and its material traces	**Section 4.3.1**
Requirement 4a	Develop predictive model	**Section 4.5**
Requirement 4b	Present predictive model results	**Section** Error! Reference source not found.
Requirement 5a	Archaeological survey sampling strategy	**Section 5.2**
Requirement 5b	Archaeological survey requirements	This Requirement was fulfilled during the undertaking of the survey
Requirement 5c	Archaeological survey units	**Section 3.1**
Requirement 6	Site definition	**Section 4.5.1**
Requirement 7a	Site recording information to be recorded	Not applicable to this report as no new sites were recorded.
Requirement 7b	Site recording: scales for photography	Not applicable to this report as no new sites were recorded.
Requirement 8a	Geospatial information	Not applicable to this report as no new sites were recorded.
Requirement 8b	Datum and grid coordinates	All coordinates are provided in GDA 2020 Zone 55
Requirement 9	Record survey coverage data	**Section 5.1**
Requirement 10	Analyse survey coverage	**Section 5.2**
Requirement 11	Archaeological Report content and format	This report adheres to this Requirement.
Requirement 12	Records	OzArk undertakes to maintain all survey records for at least five years.
Requirement 13a	Notifying Heritage NSW of breaches	Not applicable
Requirement 13b	Providing Heritage NSW with information	Not applicable
Requirement 14	Test excavation which is not excluded from the definition of harm	The test excavation did not take place in any of the landforms identified in Requirement 14.
Requirement 15a	Consultation regarding test excavation	Test excavation did not take place for this assessment.
Requirement 15b	Developing a test excavation sampling strategy	Test excavation did not take place for this assessment.

Code of Practice Requirement	Context of the Requirement	Concordance in this report
Requirement 15c	Providing Heritage NSW with notification of the test excavation	Test excavation did not take place for this assessment.
Requirement 16a	Test excavation that can be carried out in accordance with the Code of Practice	Test excavation did not take place for this assessment.
Requirement 16b	Objects recovered during test excavations	Test excavation did not take place for this assessment.
Requirement 17	When to stop test excavations	Test excavation did not take place for this assessment.
Requirement 18–20	Artefact recording	Not applicable to this report as no new sites were recorded.

2.5 DATE OF ARCHAEOLOGICAL ASSESSMENT

The field survey was undertaken on 13 February 2024.

2.6 OZARK INVOLVEMENT

2.6.1 Field survey

The fieldwork survey was undertaken by OzArk Archaeologist Tenae Robertson (B. Archaeological Practices, ANU).

2.6.2 Reporting

The reporting component of the assessment was undertaken by:

- Report author: Dr. Bernadette Drabsch (B. Ancient History, Hons, PhD, University of Newcastle)
- Reviewer: Stephanie Rusden (OzArk Senior Archaeologist, BS University of Wollongong, BA University of New England).

2.7 ABORIGINAL COMMUNITY INVOLVEMENT IN THE FIELD ASSESSMENT

Doug (Ian) Sutherland represented Orange LALC during the survey.

3 LANDSCAPE CONTEXT

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

3.1 TOPOGRAPHY

The study area is in the Canobolas Sheet Basalts landscape unit defined by Mitchell (2002: 133). This landscape unit is characterised by widespread undulating high-level plains of Tertiary basalt flows. Elevation across this landscape unit generally ranges from 950 to 1200 m (Mitchell 2002:133).

The western section of the study area is 904 metres (m) Australian Height Datum (AHD) and declines very gently to 886 m in the east, presenting as a gently inclined slope (**Figure 3-1** and **Figure 3-2**). The gently inclined slope is a uniform landform across the study area and is considered one survey unit.

Figure 3-1: Topography of the study area.

<table>
<tr>
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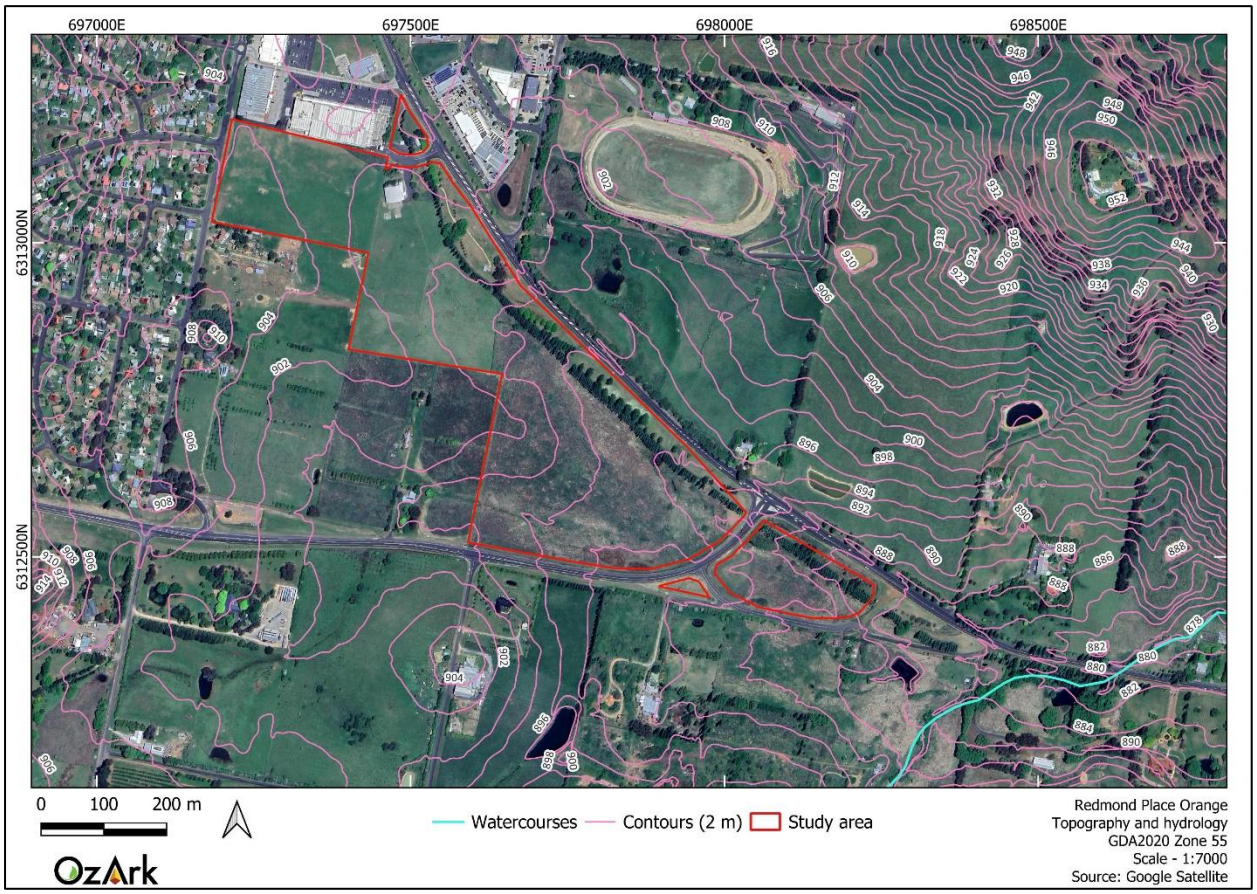
<tr>
<td>1. View across the gently inclined slope in western portion of study area.</td>
<td>2. View looking northwest from the eastern corner of the study area, the lowest point of the gentle slope.</td>
</tr>
</table>

Figure 3-2: Aerial of the study area showing elevation and surrounding watercourses.



3.2 GEOLOGY AND SOILS

As noted in **Section 3.1**, the Canobolas Sheet Basalts landscape unit is associated with basalt flows. The study area features a collection of basalt boulders in the central portion (**Figure 3-3**). These were likely cleared from the paddocks for agricultural purposes.

Soil analysis has important ramifications for archaeological research through the potential impact of different soils on human activity (such as agricultural exploitation) and the impact of the soils on archaeological evidence (such as post-depositional movement).

Soils in the study area feature shallow red brown to black stony loams and yellow-brown texture contrast soils on the lower slopes, with alluvial loams and black clays in swampy valley floors which are poorly draining (Mitchell 2002: 133). Soils across the study area would be relatively stable due to the gently inclined nature of the landforms present but will have been affected by erosion from historic land clearance and agricultural practices.

Figure 3-3: Collection of boulders in central portion of study area.

	
1. Collection of weathered granite boulders situated in the hangar paddock.	2. Granite boulders placed in the centre of the paddock.

3.3 HYDROLOGY

A second order stream, Dairy Creek is the closest waterway to the study area, being situated approximately 193 m southeast of the eastern boundary (**Figure 3-2**). Dairy Creek is a tributary of Summer Hill Creek which reaches its confluence approximately 2 km east of the study area. There are no identifiable minor watercourses in the study area itself.

3.4 VEGETATION

Vegetation in the study area before widespread clearing over the past 200 years would have been a woodland with yellow box, Blakely's red gum, red stringybark, candlebark, broad-leaved peppermint, grey box, and apple box with grasses (Mitchell 2002: 133). Remnant native trees exist close to the row or poplars along the Mitchell highway corridor and remnant native groundcovers such as pigweed, wallaby grass, native geranium, canestalk, and microlaena grass is present across the paddocks.

3.5 LAND USE HISTORY AND EXISTING LEVELS OF DISTURBANCE

Historic aerial from 1972 shows the study area has been almost completely cleared of native vegetation and the western portion previously contained an orchard (**Figure 3-4**). Disturbances to the study area include cultivation, grazing, pasture improvement, as well as the construction of aviation infrastructure within Lot 6 DP 1031236. These disturbances are likely to have disturbed the upper layer of soil across the study area.

Figure 3-4: 1972 aerial with the study area shown in red.

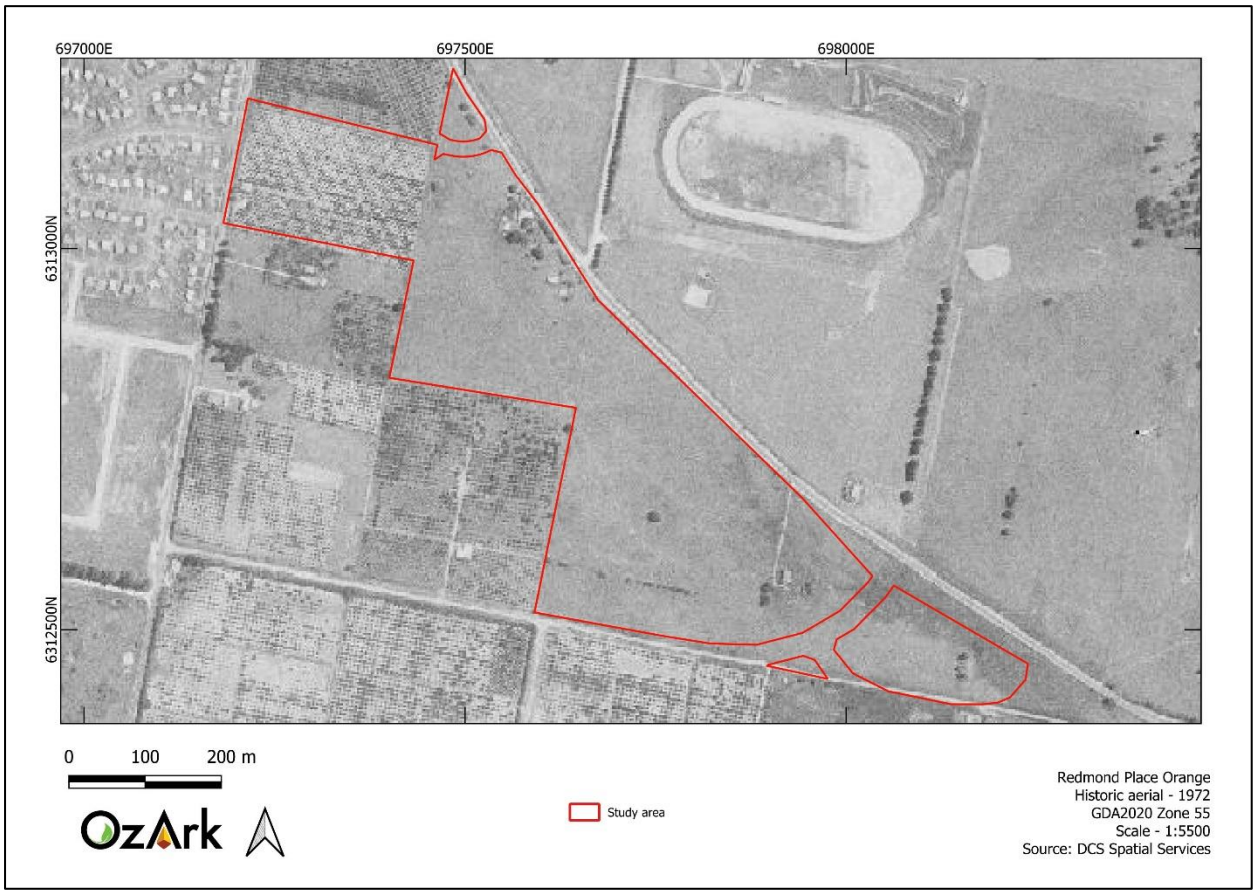


Figure 5: Views of the disturbances within Lot 6 DP 1031236 associated with aviation infrastructure.

	
1. View northeast to the base of the wind tee.	2. View west across the levelled helipad.

3.6 CONCLUSION

The review of the environmental factors associated with the study area allows the following conclusions to be drawn in terms past Aboriginal occupation:

- Topography and hydrology: the gently undulating landform which dominates the study area would have been hospitable to Aboriginal people, however, as there are no

waterways within the study area, there are no landscape features that would have encouraged substantial Aboriginal occupation of the landscape. In antiquity, the landscape is more likely to have provided habitat for game and opportunities for hunting. The absence of waterways or distinct topographic features indicates that it is unlikely that the study area formed part of a repeated transit route.

- Geology and soils: Soils present on the gentle slopes inside the study area are likely to have been affected by water erosion and are poor draining, particularly in the east of the study area. The erosional qualities of the soils present will have influenced the likelihood of *in situ* archaeological deposits being present. Furthermore, the widespread and comprehensive use of most of the study area for agricultural practices such a cultivation, orchards and grazing would have further promoted soil erosion and loss. Basalt boulders have been moved to the central portion of the study area, suggesting that the landforms in the study area contain outcropping rock. Dependent on the quality of the basalt, any outcropping rock may have been used to procure material for stone tool manufacture.

- Vegetation: the study area would have once supported an open woodland which would have provided some resources for Aboriginal subsistence in the past. However, resources likely to have supported a large population of people would have been present closer to permanent water sources. The broad-scale vegetation clearance which has taken place across the study area for pastoral purposes reduces the likelihood that any culturally modified trees remain present, however, where mature native vegetation remains extant, culturally modified trees may be present.

- Land use: ground surface disturbances such as vegetation clearance, grazing, cultivation, the development of orchards and pasture improvement exist throughout the study area. These activities may have displaced Aboriginal objects and are likely to have reduced the potential for subsurface archaeological material. However, disturbance at a given location does not necessarily mean that there will be no cultural material present, as often a disturbed context will reveal objects which may have previously been subsurface. As noted above, initial vegetation clearing would also have significantly reduced the likelihood of culturally modified trees remaining.

4 ARCHAEOLOGICAL CONTEXT

4.1 ETHNO-HISTORIC SOURCES OF REGIONAL ABORIGINAL CULTURE

According to Tindale's (1974) and Horton's (1994) maps of tribal or ethno-linguistic boundaries, the Wiradjuri language occupied the northern parts of the South Eastern Highlands bioregion in the vicinity of Orange and Bathurst. As such, the study area falls within the Wiradjuri ethno-linguistic group. The Wiradjuri are typically described as a large language group or tribal nation extended over a considerable area of New South Wales, comprising many individual groups. It is acknowledged that use of the term 'tribe' and the delineation of 'tribal boundaries' on maps is problematic; however, distinctive ethno-linguistic groups are known to exist.

The closest earliest reference to Aboriginal culture in the Orange area dates to 23 April 1817, when John Oxley passed by Limestone Creek, south of Mount Canobolas, describing the surroundings as '*a beautiful picturesque country of low hills and fine valleys well-watered*' (Whitehead 2003: 351). Further to the southwest, Oxley met with Aboriginal people at the Lachlan River carrying stone hatchets and possum skin cloaks; he then returned to Bathurst along the Bell and Macquarie rivers north of Orange. He noted the abundant resources of the areas adjacent to the Macquarie River (which included emus, ducks, swans, fish, and freshwater muscles) and that the country has running waters everywhere and on every hill was a spring (Rawson 1997: 8).

The Orange district sits within a Wiradjuri clan group that occupied the upper Macquarie (Wambuul) River and its tributaries. Other nearby clans include the Cudgegong River valley group from Mudgee and the Bell River valley group from the Wellington area. Across these three groups there was approximately 500 – 600 people living permanently in the region, owing to the consistent availability of water throughout the year. The Wiradjuri would have lived in smaller groups of 20 to 40 people on a day-to-day basis, coming together as a larger group for ceremonies, based around seasonal feasts. These events would have provided opportunities to trade and resolve disputes between groups (Balarinji 2024: 6).

A significant landscape feature in the Orange district is Mount Canobolas, located approximately 13.5 kilometres (km) southwest of the study area, which is a known men's initiation area, corroboree, and ceremony site. Its Wiradjuri name, *Gaanha-bula*, translates to 'two shoulders'. *Gaanha-bula* holds deep cultural significance for Wiradjuri people, both historically and in the present day (Balarinji 2024: 10).

A major characteristic of Wiradjuri Country are the carved trees, known as *marara.* The carved trees are believed to mark the burial of Wiradjuri men of high standing, representing part of traditional cultural practices that extend into the deep past (Balarinji 2024: 12).

The woodland vegetation of the Orange district provided resources for Aboriginal people, with greybox used to make coolamons, shields and canoes, as its bark was easy to remove. The Murnong Yam was a significant plant in Wiradjuri peoples' diet as the roots have large tubers that can either be eaten raw or roasted on campfires, providing a carbohydrate staple. The wood, bark, leaves and sap of Blakeley's Red Gum, which can be found along the edge of rivers, creeks and wetlands, were used for cultural purposes, such as spear-making and the tree also provided food for possums, birds and bees, making it a good source of honey. The Blakeley's Red Gum trees were also used as marker trees, marking boundaries and other important areas, such as birthing trees (Balarinji 2024: 14).

Many animals have strong cultural significance for the Wiradjuri people, such as the goanna, crow, and wedge-tailed eagle, which often appear as Wiradjuri totems.

4.2 REGIONAL ARCHAEOLOGICAL CONTEXT

Several archaeological surveys have been conducted in the region around the study area, providing a regional context. These are summarised below:

Pearson 1979

Pearson (1979) wrote a 'Pilot Survey' of sites in the Bathurst Orange Development Area. Much of this work, based upon Gresser's earlier site recordings, has been invaluable in forming the basis for all archaeological predicative models developed in the area since. Gresser (1960s) was an amateur archaeologist, ethno-historian and collector of aboriginal artefacts who documented the first major recording of sites and oral accounts in the Bathurst–Orange area. Pearson's main conclusions were that open camp sites are most commonly located on well drained areas accessible to fresh water and adequate fuel. A sunny aspect, elevation above cold air drainage channels in winter and adequate breeze in summer also appeared to be important factors in site location. Gentle hillslopes, level areas on ridges, river flats and creek banks were the most common places in which open camp sites were located.

Oakley 2002

An assessment of the Suma Park and Spring Creek Reservoirs, located 2.5 km northeast and 1.4 km southwest of the study area respectively, was undertaken by Oakley (2002). Seven sites were located on low gradient spurs, and many were just visible above the water line of both reservoirs. An eighth site was located on a naturally occurring quartz outcrop on a low gradient slope. The primary raw material was quartz with artefacts of basalt also recorded, and to a lesser degree, chert. Most artefacts were flakes and broken flakes, with several cores also recorded (bipolar and multi-platform), although one interesting find from site SPR-1 was labelled as a 'phallic rock' (also known as a cyclon) made from basalt. The final site was located on a naturally occurring quartz outcrop on a low gradient slope. Artefacts included flakes, broken flakes,

possible bi-polar cores and flakes. All were quartz except for one basalt flake. This site was speculated to be a quartz procurement site as good quality stone was present.

OzArk 2006

In 2006, OzArk undertook survey of 212 ha between Leeds Parade and the Ophir Road, located approximately 4.5 km north of the study area. The Aboriginal heritage assessment area included hilly country interspersed with ephemeral and permanent creeks (Summer Hill Creek and a tributary of Blackmans Swamp Creek). The assessment recorded nine Aboriginal sites and one PAD. Recorded site types included three isolated finds and six scarred trees. Artefacts were manufactured from quartz sources with a volcanic scraper also recorded. All recorded scarred trees were yellow box trees and were identified in a cluster.

OzArk 2009

OzArk (2009) also conducted an archaeological assessment of an area referred to as 'Area 51 Recreation Park', approximately 25 km northeast of the current study area. Seven Aboriginal sites were recorded, including five artefact scatters, one scarred tree, and one isolated find. Open artefact scatters were commonly located on valley floors, including creek banks and nearby terraces, and the gently sloping lower slopes of adjacent hills. Common stone artefact material types included: quartz, quartzite, and fine-grained siliceous materials, with greywhacke, hornfels and chert also present in low quantities.

NTSCORP 2012

NTSCORP (2012) conducted a review of registered AHIMS sites within the Orange City LGA to inform the preparation of an Aboriginal heritage report for the Orange City Council. Review of the registered sites indicated that hearths and stone artefacts were the most prevalent site type recorded in the LGA and were generally identified near waterways and along the ridges and slopes overlooking the creeks. A lack of site recordings along the flats was attributed to poor drainage and low temperatures associated with the low-lying areas. Carved or scarred trees were the next most numerous recorded site type. Scarring was generally undertaken to manufacture coolamons and carved trees scarred as markers for burials or ceremonial use.

Navin Officer 2012

In 2012, Navin Officer conducted a cultural heritage assessment for the 37 km long Macquarie River to Orange Pipeline, with the southernmost point being located at Suma Park Dam, approximately 5 km northeast of the current study area. The study identified two previously recorded Aboriginal sites within the assessment area, these included Oakey Creek 1 and Oakey Creek 2. Oakey Creek 1 (AHIMS # 44-2-0075) was originally recorded in 1982 by Cubis as an open artefact scatter measuring approximately 60 x 80 m and comprising 400 artefacts. The site was originally recorded as a 'contact' site that included both flaked stone and glass tools. One

chert flake was identified by Navin Officer, which was located on a low gradient spur crest bordered by a drainage line to the north that feeds into Oakey Creek. Oakey Creek 2 (AHIMS # 44-2-0075) was originally recorded in 1982 by Cubis as an open artefact scatter approximately 19 x 21 m, comprising approximately 100 artefacts, with all excepting one core being light blue chert. The site was recorded as adjacent to a deep and fast eroding gully, within 400 m of a permanent water source (Oakey Creek). A further seven previously recorded sites were identified within one kilometre of the pipeline corridor. Four of these sites are open artefact sites, found near creeks or rivers. Seventeen previously unrecorded Aboriginal sites were recorded during the survey, including 10 artefact scatters (seven associated with PADs), six isolated finds (two with associated PAD) and one possible scarred tree located on a spur crest/upper slope interface with a northerly aspect overlooking Summer Hill Creek. Five areas of potential archaeological sensitivity were also identified.

OzArk 2014

In 2014, OzArk completed the salvage on SPR-5 (#44-2-0128) in accordance with AHIP C0000423 at Suma Park Reservoir, located 2.5 km northeast of the current study area. SPR-5 was one of eight sites recorded during part of a broader assessment area for a previous design for the project (Oakley 2002) and was assessed as being a 10 by 10 m concentration of artefacts. A total of 298 artefacts were salvaged from SPR-5 which was mostly underwater at the time of the salvage. Two main trends were identified from the salvaged artefacts: many artefacts are flakes and the vast majority are made from the same grey volcanic material. Among the artefact types there was also a significant amount of debitage and shatter. Five scrapers were recorded in the salvage and five other artefacts (blades and flakes) were also backed. Many more artefacts were salvaged from SPR-5 than was expected based on previous recordings of the site. Only three artefacts were recorded within SPR-5 during the 2013 inspection, although it is important to note that water levels were significantly higher than in 2002 and 2014.

Access Archaeology 2015

In 2015 Access Archaeology undertook an Aboriginal heritage assessment for the proposed services infrastructure for the South Orange urban release area, approximately 3 km southwest of the current study area. Two stone artefact scatters were identified during the survey. The first low-density quartz scatter (AHIMS #44-2-0215, South Orange 1) covered an area of approximately 5 x 50 m and included a flake fragment, a flake, and a retouched flake. The site was identified within a small exposure within the large pasture paddock. The second scatter (AHIMS #44-2-0216, South Orange 1) was an expansion of the site extent from the two artefacts identified during the due diligence assessment for the urban release project. An additional 10 artefacts were identified spanning an area of 135 x 2 m along a pedestrian cycle path running adjacent to the fence line. AHIMS #44-2-0216 (South Orange 1) comprised a combination of chert, volcanic, quartz, and fine-grained siliceous materials including five flakes, three faked

pieces, two flake fragments, and two core fragments. The inclusion of retouched flakes in association with the broader assemblage was suggested to reflect on site manufacture of tools and therefore at least semi-permanent occupation of the area. Identification of these sites in such low visibility conditions was considered to indicate potential for more widespread materials to occur within the assessment area.

OzArk 2010, 2019

OzArk (2010, 2019) prepared an archaeology and heritage study for the 'The Springs' Fringe Camp located approximately 3 km to the southwest of the current study area. 'The Springs' was a fringe camp occupied by Aboriginal and non-Aboriginal families during the early decades of the twentieth century located on crown reserve land south of Orange, NSW. During the survey, 44-2-0157 (The Springs Orange) site complex was recorded. The site covered an area of approximately 604 x 34 m and included a habitation structure, potential archaeological deposit (PAD), and three artefacts. The habitation structure recorded related to a stone block building foundation. An additional site inspection conducted in 2019, identified no additional Aboriginal heritage sites within the area including ground truthing of the locations of seven previously recorded on AHIMS (two scarred trees, one artefact scatter, one artefact scatter/habitation structure/PAD, one stone quarry, and one stone quarry/artefact scatter). The lack of identifiable sites during the 2019 survey was attributed to the level of historic disturbance observed across the site and because the type of structures in the settlement did not leave robust archaeological remains. The low ground surface visibility also hampered the ground truthing of those sites previously identified during the 2010 survey of the area,

4.3 LOCAL ARCHAEOLOGICAL CONTEXT

4.3.1 Desktop database searches conducted.

A desktop search was conducted on the following databases to identify any previously recorded Aboriginal heritage within the study area. The results of this search are summarised in **Table 4-1** and presented in detail in **Appendix 1 Figure 1**.

Table 4-1: Aboriginal cultural heritage: desktop-database search results.

Name of Database Searched	Date of Search	Type of Search	Comment
Commonwealth Heritage Listings	17/1/24	Orange City LGA	No places listed on either the National or Commonwealth heritage lists are located within the study area.
National Native Title Claims Search	17/1/24	Orange City LGA	No Native Title Claims cover the study area.
AHIMS	17/1/24	20 x 20 km centred on the study area	Fifty-eight previously recorded Aboriginal sites returned in the search area. None of these sites are within or near the study area.
LEP	17/1/24	Orange City LEP of 2011	No locally listed items are located within the study area. LEP items I355 and I113 border the southern portion of the study area. However, neither of

Name of Database Searched	Date of Search	Type of Search	Comment
			these items are listed as having Aboriginal cultural heritage values.

A 20 x 20 km search of the AHIMS database was completed on 17 January 2024, centred on the study area. The search returned 58 results for Aboriginal heritage sites within the designated search area (GDA Zone 55 Eastings: 687847-707654, Northings: 6302794-6322621; **Appendix 1 Figure 1**). Three sites (AHIMS ID #44-2-0299; #44-2-0156, #44-2-0094) are listed on AHIMS as 'restricted sites', therefore the site types and location are unknown. On 13 March 2024, AHIMS confirmed none of these sites are located within the study area (**Appendix 1 Figure 2**). Additionally, two sites (AHIMS ID #44-2-0001 and #44-2-0179) are listed as 'not a site'.

Figure 4-1 shows the location of the AHIMS sites returned in the designated search area. None of the previously recorded AHIMS sites are within the study area.

Table 4-2 lists the known site types within the designated search area[1]. The AHIMS database shows that stone artefact sites are the most frequently recorded site type in the region and are often recorded in association with several other site types including quarries, stone arrangements and PAD. Stone artefact sites are more commonly recorded on elevated landforms such as spurs, adjacent to more reliable watercourses. The four stone quarries recorded are mostly associated with outcropping basalt and are mostly recorded in hills. Culturally modified trees are less common (n=3; 5.45%) and have been recorded within 200 m of semi-permanent watercourses. One habitation structure has been recorded in the search area, however this site is associated with 'The Springs', a mixed Aboriginal and non-Aboriginal fringe camp predominately occupied in the 1930s and 1940s, located approximately 3 km west of the study area, and is not a traditional habitation structure, i.e. a rockshelter.

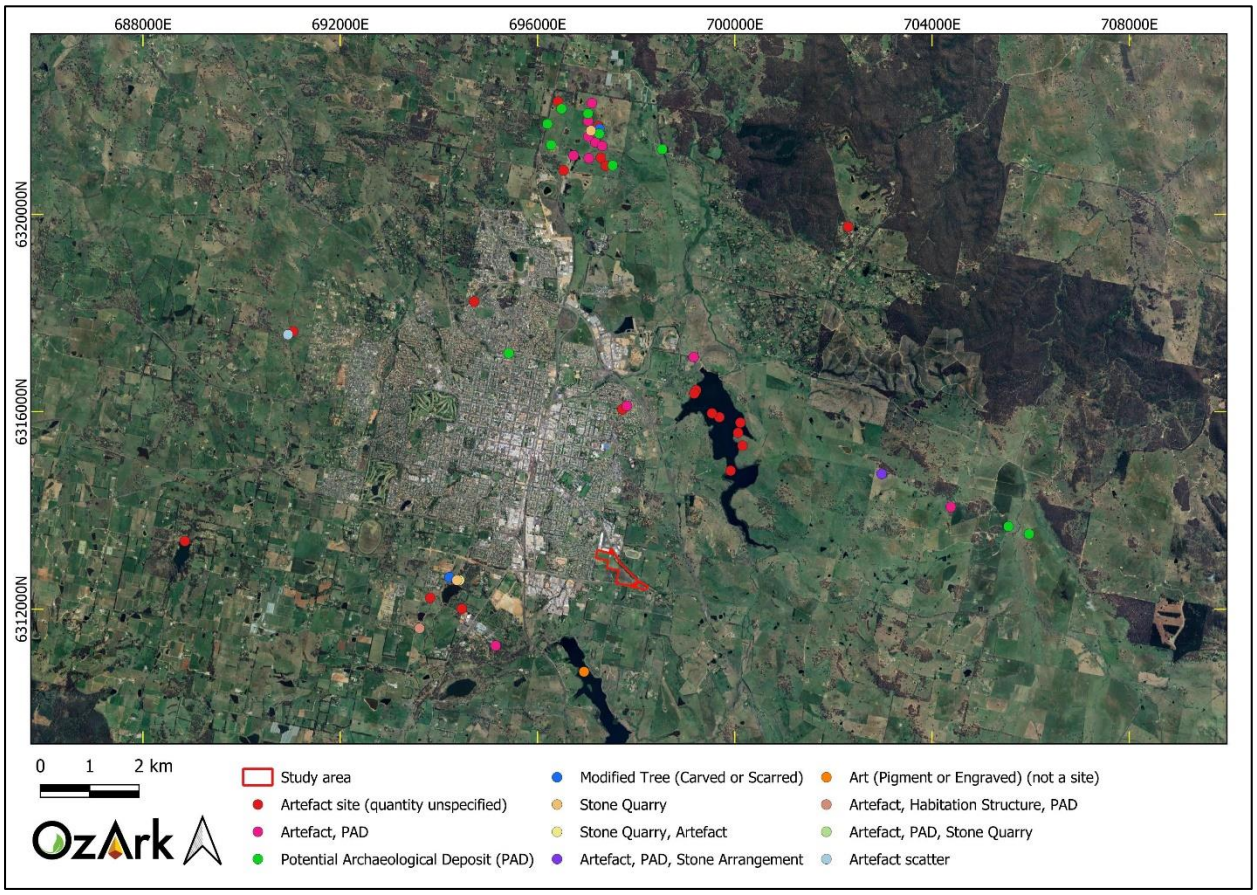
Table 4-2: Site types and frequencies of AHIMS sites near the study area.

Site Type	Number	% Frequency
Artefact site (quantity unspecified	22	41.50
Artefact and PAD	11	20.75
PAD	10	18.87
Modified tree (carved or scarred)	3	5.66
Stone quarry	2	3.77
Stone quarry and artefact	1	1.89
Artefact, PAD, stone arrangement	1	1.89
Artefact, habitation structure, PAD	1	1.89
Artefact, PAD, stone quarry	1	1.89
Artefact scatter	1	1.89

[1] Note: site types listed in **Table 3-2** does not include the 'restricted sites' and those listed as 'not a site'.

Total	53	100

Figure 4-1: Location of previously recorded AHIMS sites in relation to the study area.



4.4 ARCHAEOLOGICAL CONTEXT: SUMMARY

In summary, artefact scatters and isolated artefacts are the most likely site types to be encountered in the Orange region. Artefacts are most likely to have been manufactured from quartz, silcrete, quartzite, chert and volcanics. Artefact scatters are more likely to be located on elevated landforms adjacent to drainage lines, or on the crest of saddles and benches of ridge and spur landforms. Artefact scatters are less likely to be identified on low-lying areas adjacent to drainage lines due to poor drainage and cold temperatures experienced in the winter months. Culturally modified trees are more likely to be located close to the drainage lines or where mature trees exist but are not commonly recorded, likely due to historic land clearance. Quarries for the procurement of raw materials used to manufacture stone tools are known to be present where outcropping material of good quality is present. Basalt and quartz are the most likely materials to be quarried in the local area.

4.5 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.

4.5.1 Site types in the region of the study area

The site types listed in **Table 4-3** are present in the region of the study area. The likelihood of these sites being present within the study area is discussed in **Section 4.5.2**.

Table 4-3: 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	Artefact scatters are defined as two or more artefacts, not located within a rock shelter, and located no more than 50 m away from any other constituent artefact. This site type may occur almost anywhere that Aboriginal people have travelled and may be associated with hunting and gathering activities, short- or long-term camps, and the manufacture and maintenance of stone tools. Artefact scatters typically consist of surface scatters or sub-surface distributions of flaked stone discarded during the manufacture of tools but may also include other artefactual rock types such as hearth and anvil stones. Less commonly, artefact scatters may include archaeological stratigraphic features such as hearths and artefact concentrations which relate to activity areas. Artefact density can vary considerably between and across individual sites. Small ground exposures revealing low density scatters may be indicative of a background scatter rather than a spatially or temporally distinct artefact assemblage. These sites are classed as 'open', that is, occurring on the land surface unprotected by rock overhangs, and are sometimes referred to as 'open camp sites'. Artefact scatters are most likely to occur on level or low gradient contexts, along the crests of ridgelines and spurs, and elevated areas fringing watercourses or wetlands. Larger sites may be expected in association with permanent water sources. Topographies which afford effective through-access across, and relative to, the surrounding landscape, such as the open basal valley slopes and the valleys of creeks, will tend to contain more and larger sites, mostly camp sites evidenced by open artefact scatters.
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

Site type	Site description
	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.
Quarry sites	Typically consist of exposures of stone material where evidence for human collection, extraction and/or preliminary processing has survived. Typically, these involve the extraction of siliceous or fine grained igneous and meta-sedimentary rock types for the manufacture of artefacts. The presence of quarry/extraction sites is dependent on the availability of suitable rock formations.
Burials	Generally found in soft sediments such as aeolian sand, alluvial silts, and rock shelter deposits. In valley floor and plains contexts, burials may occur in locally elevated topographies rather than poorly drained sedimentary contexts. Burials are also known to have occurred on rocky hilltops in some limited areas. Burials are generally only visible where there has been some disturbance of sub-surface sediments or where some erosional process has exposed them.
Bora/Ceremonial sites	Places which have ceremonial or spiritual connections. Ceremonial sites may comprise of natural landscapes or have archaeological material. Bora sites are ceremonial sites which consist of a cleared area and earthen rings.

4.5.2 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 4-4**), and what types of sites may be present within the study area (**Table 4-5**).

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

Survey Unit	Landform type	Likelihood to contain Aboriginal objects
1	Gently inclined Slopes	Slopes are a degrading landform, especially in the study area where vegetation removal and agricultural use has accelerated soil loss. The slope gradient in the study area however is relatively minimal, meaning that erosion is less likely to be significant. Generally, these landforms are less favoured for occupation when distant from water, and Aboriginal objects recorded in such landforms are likely to be in a secondary context due to past disturbances.

Table 4-5: 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	Despite stone artefact sites being the most common site type previously recorded in the surrounding area, the study area is dominated by gently inclined slopes distant to permanent or semi-permanent water, indicating this site type is not predicted to be common. Furthermore, previous levels of disturbance in the study area will mean that sites are more likely to be dispersed and displaced. It is likely that any sites associated with such landforms are likely to have a low artefact density and a low complexity of tool types as the sites are either one-off events or only infrequently used.
Culturally modified trees	Due to the near-total clearance of native trees from within the study area, this site type is predicted to be very rare. It is also noted that this site type is rare at a regional level.
Quarry sites	Quarry sites previously identified in the local area are often identified within more mountainous landforms rather than the gently inclined slopes of the study area. However, geological mapping indicates basalt is a common outcropping material in the local area and known boulders are present in the study area. Depending on the quality of the basalt present, quarries may be present.
Burials	Although it is possible that this site type could be found within the study area, it is considered a rare site type especially given the disturbance that has occurred within the study area and lack of sandy landforms.
Bora/Ceremonial sites	This site type does not necessarily follow landform predictability and are, overall, a rare site type with a low likelihood of being present and remaining extant. These sites are generally identified through consultation with the Aboriginal community.

5 RESULTS OF ABORIGINAL ARCHAEOLOGICAL ASSESSMENT

5.1 SAMPLING STRATEGY AND FIELD METHODS

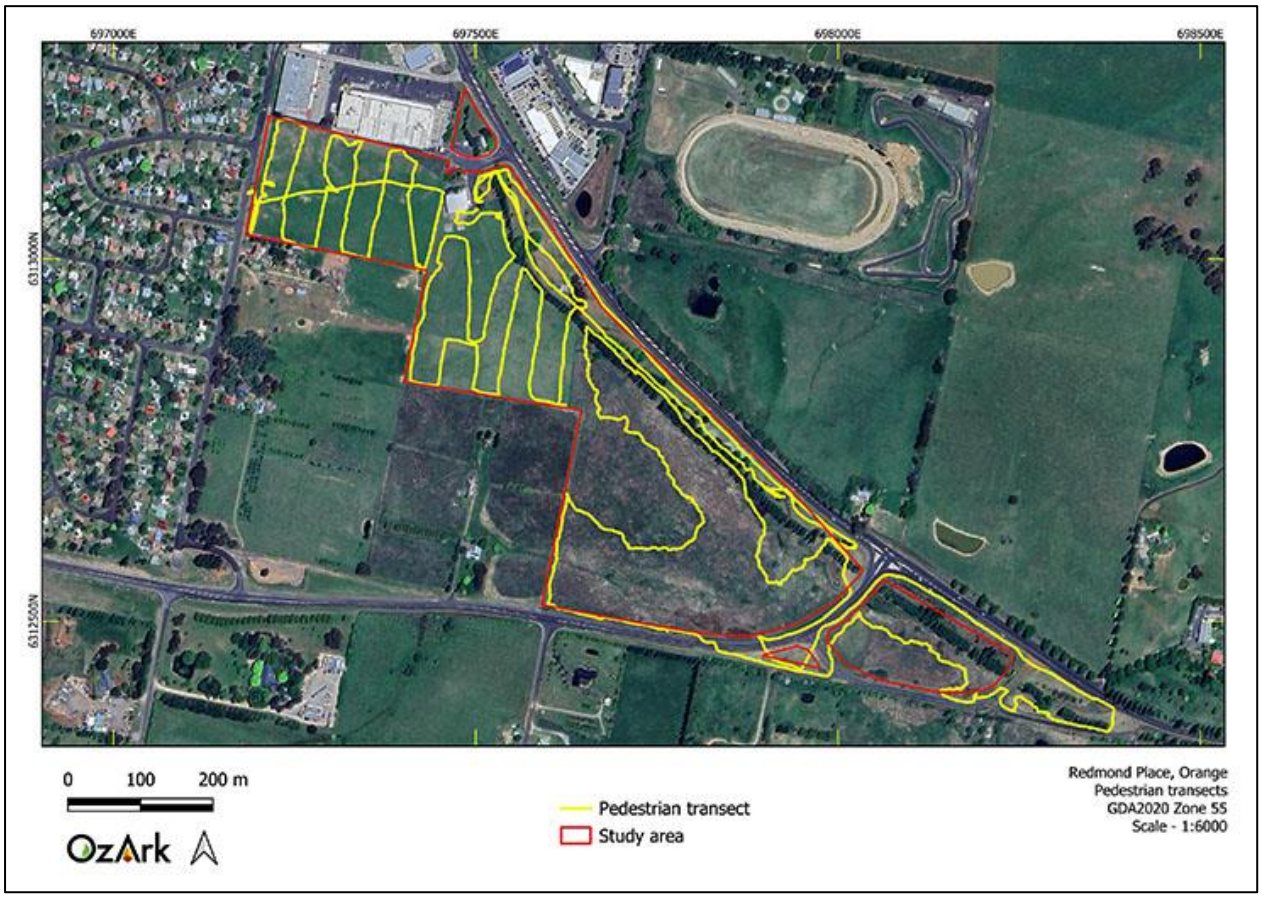
Standard archaeological field survey and recording methods were employed in this study (Burke & Smith 2004).

The survey of the study area was undertaken by OzArk Archaeologist, Tenae Robertson, as well as Doug (Ian) Sutherland representing Orange LALC on 13 February 2024. There were no significant constraints to the assessment. The entire study area was subject to systematic transects and the pedestrian tracks of one of the surveyors is shown on (**Figure 5-1**).

The aims of the survey were to:

- Conduct pedestrian survey across the study area so that the:
    - archaeological potential of the study area could be determined
    - archaeological material could be recorded, if present
- Evaluate whether the predictive model set out in **Section 4.4** is valid
- Determine of any portions of the study area contain subsurface potential to understand the archaeological potential of a particular location in more detail
- Advise on any project impact avoidance of Aboriginal heritage, if required.

Figure 5-1: Pedestrian coverage of the study area.



5.2 EFFECTIVE SURVEY COVERAGE

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

GSV is defined as:

> *… the amount of bare ground (or visibility) on the exposures which might reveal artefacts or other archaeological materials. It is important to note that visibility, on its own, is not a reliable indicator of the detectability of buried archaeological material. Things like vegetation, plant or leaf litter, loose sand, stone ground or introduced materials will affect the visibility. Put another way, visibility refers to 'what conceals'* (DECCW 2010: 39).

GSE is defined as:

> *… different to visibility because it estimates the area with a likelihood of revealing buried artefacts or deposits rather than just being an observation of the amount of bare ground. It is the percentage of land for which erosion and exposure was sufficient to reveal*

archaeological evidence on the surface of the ground. Put another way, exposure refers to 'what reveals' (DECCW 2010: 37).

Table 5-1 calculates the effective survey coverage within the study area. In general, **Table 5-1** presents an approximation of the amount of ground surface able to be seen at any location within specific landforms. For example, at any one location within the gently sloping landforms of the study area approximately 5% of the ground surface could be seen. Exposures in these landforms were generally confined to the edges of access points or modifications. Visibility in the eastern paddocks was significantly hampered by tall, dense grasses.

Table 5-1: Effective survey coverage within the study area.

Survey Unit	Landform	Survey Unit Area (sq m)	Visibility %	Exposure %	Effective Coverage Area (sq m) (= Survey Unit Area x Visibility % x Exposure %)	Effective Coverage % (= Effective Coverage Area / Survey Unit Area x 100)
1	Gently inclined slopes	247,940	25	<5	619.85	0.25

Table 5-2 demonstrates that the low survey efficacy across all survey units could have contributed to the low number of Aboriginal objects recorded. To offset the lack of visibility, the assessment relied on an examination of the archaeological potential of the landforms present and it is concluded that the low survey efficacy across the study area did not prevent the archaeological potential of these landforms being understood.

Table 5-2: Effective survey coverage and incidences of site recording.

Landform	Landform area (sq m)	Area Effectively Surveyed (sq m) (= Effective Coverage Area)	% of Landform Effectively Surveyed (= Area Effectively Surveyed / Landform x 100)	Number of Sites	Number of Artefacts or Features
1	247,940	619.85	0.25	0	0

5.3 SURVEY RESULTS AND DISCUSSION

No Aboriginal sites were recorded within the study area during the survey. Further, no landforms within the study area were assessed to have potential for subsurface archaeological deposits.

The lack of Aboriginal sites recorded during the current survey was overall predicted. It was considered that there was low to moderate potential for artefact-based sites such as isolated finds and artefact scatters to be present, however none were identified. As a result of minimal areas of ground exposure across the study area, the archaeological potential of the landform has been informed by the results of previous archaeological investigations from the local area and the analysis of the nature of the landform. Previous archaeological investigations indicate that artefact scatters are more likely to be located on elevated landforms adjacent to drainage lines, or on the crest of saddles and benches of ridge and spur landforms. As previously highlighted, the study area contains gently inclined slopes, and is at its closest almost 200 m from a semi-permanent

watercourse (Dairy Creek). Landforms closest to Dairy Creek were considered to have the highest potential to contain Aboriginal sites however survey of these landforms confirmed the soils closest to the creek are being poorly drainage and swampy and therefore not conducive for occupation. It may be that the levels of ground cover precluded the detection of these site types, but it is also considered that the distance to permanent and semi-permanent water and a lack of elevated landforms may mean that the landforms in the study area were not favoured for occupation.

The absence of modified trees was expected due to the almost completely cleared nature of the study area. Only a small number of native trees are present, located along the Mitchell Highway corridor. These trees were carefully inspected and bear no Aboriginal cultural scars.

In the central portion of the study area piles of basalt boulders were present, although no evidence of quarrying activity was identified, and it was concluded the material is poor quality and not suitable for manufacturing stone tools. Although burials and ceremonial sites cannot be completely ruled out, there were no indications that burials would be present in the study area.

No tangible or intangible Aboriginal cultural activities were identified by the site officer representing Orange LALC. The site officer noted that the study area is unlikely to contain Aboriginal objects due to the high level of disturbance.

Representative views of the study area during the survey are shown on **Figure 5-2**.

Figure 5-2: Views of the study area.

<table>
<tr>
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<tr>
<td>1. View east showing areas of moderate ground surface exposure close to the access point in the western paddock.</td>
<td>2. View north at the southeastern corner of the study area showing high levels of vegetation with low levels of ground surface exposure and visibility.</td>
</tr>
</table>

6 SIGNIFICANCE ASSESSMENT

6.1 INTRODUCTION TO SIGNIFICANCE ASSESSMENT

6.1.1 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.

6.1.1.1 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.

6.1.1.2 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.

6.1.1.3 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).

6.1.1.4 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.

6.2 ASSESSED SIGNIFICANCE OF THE RECORDED SITES

No Aboriginal sites or cultural values have been identified within the study area, as such, the significance assessment completed assesses the values of the Survey Area.

Social or Cultural Value

There may be places with intangible cultural significance within the study area, although no specific locations have so far been identified by the Aboriginal community.

Archaeological/Scientific Value

During the survey, no Aboriginal sites or objects were recorded and therefore there are no known places with archaeological significance within the study area.

Aesthetic Value

There are no known places with identified aesthetic values identified in the study area.

Historic Value

There are no known places with identified historic values identified in the study area.

7 ASSESSING HARM

7.1 AVOIDING AND MINIMISING HARM

7.1.1 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.

7.1.1.1 Opportunities to conserve Aboriginal cultural heritage values

No Aboriginal sites, areas of archaeological sensitivity or cultural values were identified in the study area, and it is therefore concluded that Aboriginal archaeological sites will not be diminished through the proposed rezoning and subdivision. As such, the proposal does not add to the cumulative impact on the region's Aboriginal cultural heritage as no identified Aboriginal objects or cultural values will be harmed. To this end it is noted that assessment was confined to the study area identified in this report. Care must be taken to ensure impacts remain within the assessed study area.

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 no 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 proposal may proceed at the study area without further archaeological investigation provided the activities are confined to within the assessed study area, as this will eliminate the risk of harm to Aboriginal objects potentially present within adjacent landforms. If the scope of the proposal changes, additional survey may be required to ensure Aboriginal cultural values are not impacted, if present
2. If during subdivision works, however, Aboriginal objects are noted, all work should cease and the procedures in the *Unanticipated Finds Protocol* (**Appendix 2**) must be followed.
3. The *Unanticipated Skeletal Remains Protocol* (**Appendix 3**) must be followed if suspected human skeletal remains are encountered.
4. Inductions for work crews should include a cultural heritage awareness procedure to ensure they recognise Aboriginal artefacts (**Appendix 4**) and are aware of the legislative protection of Aboriginal objects under the NPW Act.

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APPENDIX 1: AHIMS SEARCH RESULT

Appendix 1 Figure 1: Extensive search result

AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Redmond Place 4220
Client Service ID : 855291

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
44-2-0139	Area B Artefact Scatter	AGD	55	690823	6317377	Open site	Valid	Artefact : 28		103106
	Contact: T Russell	Recorders: Lori Sciusco (ERM)						Permits:		
44-2-0223	OA03	GDA	55	697099	6322253	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders: Biosis Pty Ltd - Wollongong,Miss.Shannon Smith						Permits:		
44-2-0225	OA05	GDA	55	697171	6321459	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders: Biosis Pty Ltd - Wollongong,Miss.Shannon Smith						Permits:		
44-2-0095	Rifle Range;	AGD	55	694300	6312400	Open site	Valid	Stone Quarry : -, Artefact : -	Open Camp Site,Quarry	
	Contact	Recorders: R Bjaaland						Permits:		
44-2-0214	Bloomfield-1	GDA	55	695150	6311257	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders: Ms.Fenella Atkinson						Permits:		
44-2-0299	Restriction applied. Please contact ahims@environment.nsw.gov.au.					Open site	Valid			
	Contact	Recorders: Mr.Bradley Bliss,Wellington Valley Wiradjuri Aboriginal Corporation						Permits:		
44-2-0228	OA09	GDA	55	697281	6321147	Open site	Valid	Artefact : -		
	Contact	Recorders: Biosis Pty Ltd - Wollongong,Miss.Shannon Smith						Permits:		
44-2-0172	W20 A22	GDA	55	697812	6316118	Open site	Partially Destroyed	Artefact : 1, Potential Archaeological Deposit (PAD) : 1		104279,104280
	Contact	Recorders: Navin Officer Heritage Consultants Pty Ltd,OzArk Environmental and Heritage Mar						Permits:	4540	
44-2-0173	W20 A23	GDA	55	702978	6314740	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : 1, Stone Arrangement : 1		
	Contact	Recorders: Navin Officer Heritage Consultants Pty Ltd						Permits:		
44-2-0222	OA02	GDA	55	696414	6322282	Open site	Valid	Artefact : -		
	Contact	Recorders: Biosis Pty Ltd - Wollongong,Miss.Shannon Smith						Permits:		
44-2-0166	W20 PAD 5	GDA	55	705548	6313675	Open site	Valid	Potential Archaeological Deposit (PAD) : 1		
	Contact	Recorders: Navin Officer Heritage Consultants Pty Ltd						Permits:		
44-2-0335	Lake Canobolas OS-1	GDA	55	688847	6313377	Open site	Valid	Artefact : -		
	Contact	Recorders: OzArk Environmental and Heritage Management - Dubbo,Mr.Brendan Fisher						Permits:		
44-2-0125	SPR 2	AGD	55	699572	6315703	Open site	Destroyed	Artefact : -		

Report generated by AHIMS Web Service on 17/01/2024 for Tenae Robertson for the following area at Datum :GDA, Zone : 55, Eastings : 687847.0 - 707654.0, Northings : 6302794.0 - 6322621.0 with a Buffer of 0 meters.. Number of Aboriginal sites and Aboriginal objects found is 58

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AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Redmond Place 4220
Client Service ID : 855291

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
	Contact	Recorders: Bobbie Oakley,Mr.Nicholas James Harrop						Permits:		
44-2-0156	Restriction applied. Please contact ahims@environment.nsw.gov.au.					Open site	Valid			
	Contact	Recorders: Orange LALC,Mr.Bradley Bliss,Wellington Valley Wiradjuri Aboriginal Corporation						Permits:	3231,3234	
44-2-0219	PAD 05	GDA	55	697250	6321633	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders: Miss.Shannon Smith						Permits:		
44-2-0179	W20 A22 (Duplicate of 44-2-0172)	GDA	55	697812	6316118	Open site	Not a Site	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders: Navin Officer Heritage Consultants Pty Ltd						Permits:		
44-2-0180	W20 A23	GDA	55	702978	6314740	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -, Stone Quarry : -		
	Contact	Recorders: Navin Officer Heritage Consultants Pty Ltd						Permits:		
44-2-0144	Burrendong 1	AGD	55	694600	6318044	Open site	Valid	Artefact : -		
	Contact	Recorders: Mr.John Appleton						Permits:		
44-2-0232	OA13	GDA	55	697026	6321888	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders: Biosis Pty Ltd - Wollongong,Miss.Shannon Smith						Permits:		
44-2-0130	SPR-7	AGD	55	699951	6315386	Open site	Destroyed	Artefact : -		
	Contact	Recorders: Bobbie Oakley,Mr.Nicholas James Harrop						Permits:		
44-2-0167	W20 PAD 6	GDA	55	705967	6313522	Open site	Valid	Potential Archaeological Deposit (PAD) : 1		
	Contact	Recorders: Navin Officer Heritage Consultants Pty Ltd						Permits:		
44-2-0141	Rifle Range ST2	AGD	55	694100	6312460	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact: T Russell	Recorders: Bill Allen						Permits:		
44-2-0224	OA04	GDA	55	697028	6321577	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders: Biosis Pty Ltd - Wollongong,Miss.Shannon Smith						Permits:		
44-2-0220	PAD 06	GDA	55	697522	6320991	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders: Miss.Shannon Smith						Permits:		

Report generated by AHIMS Web Service on 17/01/2024 for Tenae Robertson for the following area at Datum :GDA, Zone : 55, Eastings : 687847.0 - 707654.0, Northings : 6302794.0 - 6322621.0 with a Buffer of 0 meters.. Number of Aboriginal sites and Aboriginal objects found is 58

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AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : Redmond Place 4220
Client Service ID : 855291

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
44-2-0303	Artefact reburial #44-2-0172	GDA	55	697723	6316050	Open site	Valid	Artefact : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Doctor.Alyce Cameron					Permits		
44-2-0258	White Hill Lane-IF1	GDA	55	702297	6319748	Open site	Valid	Artefact : -		103708
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Doctor.Chris Lovell					Permits		
44-2-0142	Rifle Range ST1	AGD	55	694250	6312400	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact T Russell	Recorders	Bill Allen					Permits		
44-2-0124	SPR-1	AGD	55	699800	6314620	Open site	Destroyed	Artefact : -		
	Contact	Recorders	Bobbie Oakley					Permits		
44-3-0106	BSC-IF-1;	AGD	55	690930	6317440	Open site	Valid	Artefact : -	Isolated Find	103106
	Contact	Recorders	Central West Archaeological and Heritage Services Pty Ltd					Permits		
44-2-0116	O-C-IF 1;Orange Cadia;	AGD	55	690650	6303120	Open site	Valid	Artefact : -	Isolated Find	
	Contact	Recorders	Kerry Navin					Permits		
44-2-0001	Carlton Road	AGD	55	696827	6310546	Open site	Not a Site	Art (Pigment or Engraved) : 0	Not an Aboriginal Site	1310
	Contact	Recorders	Sharon Sullivan					Permits		
44-2-0237	OA08	GDA	55	697250	6321729	Open site	Valid	Modified Tree (Carved or Scarred) : -		
	Contact	Recorders	Biosis Pty Ltd - Wollongong,Miss.Shannon Smith					Permits		
44-2-0235	PAD 02	GDA	55	696200	6321832	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Biosis Pty Ltd - Wollongong,Miss.Shannon Smith					Permits		
44-2-0234	PAD 01	GDA	55	696275	6321406	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Biosis Pty Ltd - Wollongong,Miss.Shannon Smith					Permits		
44-2-0231	OA12	GDA	55	696729	6321190	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Biosis Pty Ltd - Wollongong,Miss.Shannon Smith					Permits		
44-2-0218	PAD 04	GDA	55	697024	6322041	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Miss.Shannon Smith					Permits		
44-2-0117	O-C2;Orange Cadia;	AGD	55	690650	6303120	Open site	Valid	Artefact : -	Open Camp Site	
	Contact	Recorders	Kerry Navin,Mr.Kelvin Officer					Permits		
44-2-0216	South Orange 2	GDA	55	693822	6312228	Open site	Destroyed	Artefact : -		

Report generated by AHIMS Web Service on 17/01/2024 for Tenae Robertson for the following area at Datum :GDA, Zone : 55, Eastings : 687847.0 - 707654.0, Northings : 6302794.0 - 6322621.0 with a Buffer of 0 meters.. Number of Aboriginal sites and Aboriginal objects found is 58

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AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : Redmond Place 4220
Client Service ID : 855291

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Miss.Stephanie Rusden,M					Permits	3851,3858	
44-2-0227	OA07	GDA	55	697229	6321788	Open site	Valid	Artefact : -		
	Contact	Recorders	Biosis Pty Ltd - Wollongong,Miss.Shannon Smith					Permits		
44-2-0226	OA06	GDA	55	697313	6321386	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Biosis Pty Ltd - Wollongong,Miss.Shannon Smith					Permits		
44-2-0140	Rifle Rage SQ	AGD	55	694250	6312400	Open site	Valid	Stone Quarry : 1		
	Contact T Russell	Recorders	Bill Allen					Permits		
44-2-0183	MPA1	GDA	55	699166	6317107	Open site	Partially Destroyed	Artefact : 1, Potential Archaeological Deposit (PAD) : 1		
	Contact	Recorders	Navin Officer Heritage Consultants Pty Ltd,Mr.Adrian Cressey,Mr.Nicholas James H					Permits		
44-2-0094	Restriction applied. Please contact ahims@environment.nsw.gov.au.					Open site	Valid			103106
	Contact	Recorders	Central West Archaeological and Heritage Services Pty Ltd,Mr.Bradley Bliss,Wellin					Permits		
44-2-0233	OA14	GDA	55	697083	6321695	Open site	Valid	Stone Quarry : -		
	Contact	Recorders	Biosis Pty Ltd - Wollongong,Miss.Shannon Smith					Permits		
44-2-0229	OA10	GDA	55	697380	6320984	Open site	Valid	Artefact : -		
	Contact	Recorders	Biosis Pty Ltd - Wollongong,Miss.Shannon Smith					Permits		
44-2-0157	The Springs, Orange	GDA	55	693607	6311611	Open site	Valid	Artefact : -, Habitation Structure : -, Potential Archaeological Deposit (PAD) : -		
	Contact Gallanggabang Aboriginal Corp	Recorders	Mr.Toivo Kim Tuovinen					Permits		
44-2-0128	SPR-5	AGD	55	699100	6316250	Open site	Valid	Artefact : -		
	Contact	Recorders	Bobbie Oakley					Permits	3710	
44-2-0126	SPR-3	AGD	55	699422	6315783	Open site	Destroyed	Artefact : -		
	Contact	Recorders	Bobbie Oakley,Mr.Nicholas James Harrop					Permits		
44-2-0131	SPR-8	AGD	55	699999	6315593	Open site	Destroyed	Artefact : -		
	Contact	Recorders	Bobbie Oakley,Mr.Nicholas James Harrop					Permits		
44-2-0230	OA11	GDA	55	697038	6321137	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Biosis Pty Ltd - Wollongong,Miss.Shannon Smith					Permits		
44-2-0202	MPA PASA2	GDA	55	698527	6321317	Open site	Valid	Potential Archaeological Deposit (PAD) : 1		
	Contact	Recorders	Navin Officer Heritage Consultants Pty Ltd,Mr.Adrian Cressey					Permits		

Report generated by AHIMS Web Service on 17/01/2024 for Tenae Robertson for the following area at Datum :GDA, Zone : 55, Eastings : 687847.0 - 707654.0, Northings : 6302794.0 - 6322621.0 with a Buffer of 0 meters.. Number of Aboriginal sites and Aboriginal objects found is 58

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NSW GOVERNMENT

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : Redmond Place 4220

Client Service ID : 855291

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
44-2-0215	South Orange 1	GDA	55	694464	6312006	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Mr.Douglas Williams					**Permits**		
44-2-0147	Bloomfield Hospital Grounds	AGD	55	695300	6317000	Open site	Valid	Potential Archaeological Deposit (PAD) : 1		100685
	Contact T Russell	**Recorders**	Jim Wheeler					**Permits**		
44-2-0236	PAD 03	GDA	55	696486	6322138	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact	**Recorders**	Biosis Pty Ltd - Wollongong,Miss.Shannon Smith					**Permits**		
44-2-0221	OA01	GDA	55	696528	6320890	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Biosis Pty Ltd - Wollongong,Miss.Shannon Smith					**Permits**		
44-2-0174	W20 A24	GDA	55	704378	6314070	Open site	Partially Destroyed	Artefact : 1, Potential Archaeological Deposit (PAD) : 1		104298
	Contact	**Recorders**	Navin Officer Heritage Consultants Pty Ltd,OzArk Environmental and Heritage Mar					**Permits**		
44-2-0127	SPR-4	AGD	55	699062	6316183	Open site	Destroyed	Artefact : -		
	Contact	**Recorders**	Bobbie Oakley,Mr.Nicholas James Harrop					**Permits**		
44-2-0129	SPR-6	AGD	55	700042	6315126	Open site	Destroyed	Artefact : -		
	Contact	**Recorders**	Bobbie Oakley,Mr.Nicholas James Harrop					**Permits**		

**** 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 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 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

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Appendix 1 Figure 2: Letter from AHIMS regarding restricted sites.

From: David Gordon <David.Gordon@environment.nsw.gov.au>
Sent: Thursday, January 25, 2024 9:34 AM
To: Tenae Robertson <tenae@ozarkehm.com.au>
Subject: RE: [Heritage NSW] Assignment: Restricted site locations

You don't often get email from david.gordon@environment.nsw.gov.au. Learn why this is important

Hey Tenae,

I can confirm that restricted Aboriginal Site:

- 44-2-0299
- 44-2-0156
- 44-2-0094

WILL NOT BE IMPACTED BY ANY WORKS CONDUCTED IN YOUR STUDY AREA.

Thanks
David Gordon
Senior Systems Information Officer (Aboriginal)
Information Systems,**Heritage NSW**,
Environment and Heritage Group
Department of Climate Change, Energy, the Environment and Water
Let us know your thoughts and fill out this quick Customer Feedback Survey

Level 14, 4 Parramatta Square, Parramatta | Locked Bag 5020, Parramatta, 2124

T: 02 9585 6467 | david.gordon@environment.nsw.gov.au

APPENDIX 2: ABORIGINAL HERITAGE: UNANTICIPATED FINDS PROTOCOL

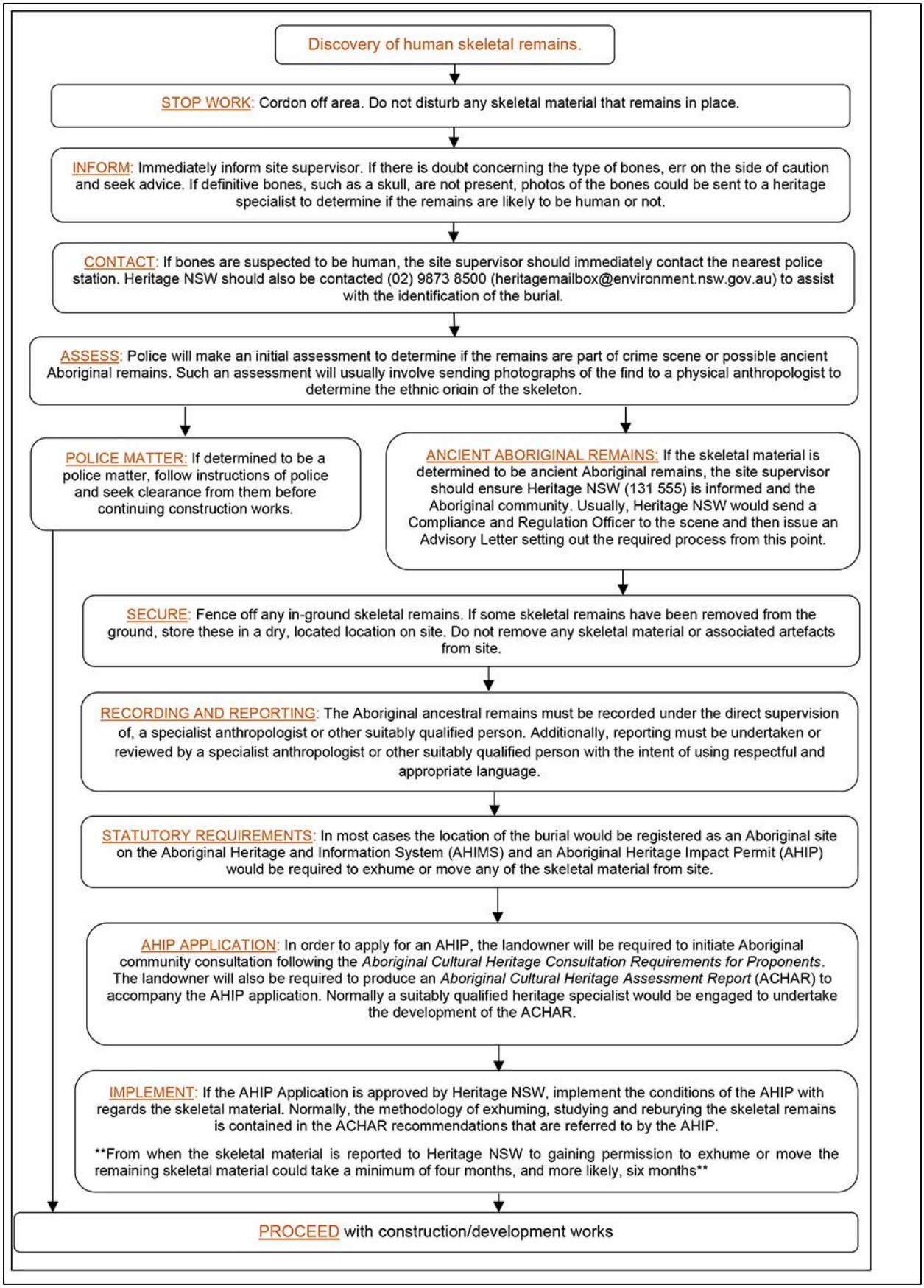
An Aboriginal artefact is anything which is the result of past Aboriginal activity. This includes stone (artefacts, rock engravings etc.), plant (culturally scarred trees) and animal (if showing signs of modification; i.e. smoothing, use). Human bone (skeletal) remains may also be uncovered while onsite.

Cultural heritage significance is assessed by the Aboriginal community and is typically based on traditional and contemporary lore, spiritual values, and oral history, and may also consider scientific and educational value.

Protocol to be followed if previously unrecorded or unanticipated Aboriginal object(s) are encountered:

1. If any Aboriginal object is discovered and/or harmed in, or under the land, while undertaking the proposed development activities, the proponent must:
    a. Not further harm the object
    b. Immediately cease all work at the particular location
    c. Secure the area to avoid further harm to the Aboriginal object
    d. Notify Heritage NSW as soon as practical on (02) 9873 8500 (heritagemailbox @environment.nsw.gov.au), providing any details of the Aboriginal object and its location; and
    e. Not recommence any work at the particular location unless authorised in writing by Heritage NSW.
2. If Aboriginal burials are unexpectedly encountered during the activity, work must stop immediately, the area secured to prevent unauthorised access and NSW Police and Heritage NSW contacted.
3. Cooperate with the appropriate authorities and relevant Aboriginal community representatives to facilitate:
    a. The recording and assessment of the find(s)
    b. The fulfilment of any legal constraints arising from the find(s), including complying with Heritage NSW directions
    c. The development and implementation of appropriate management strategies, including consultation with stakeholders and the assessment of the significance of the find(s).
4. Where the find(s) are determined to be Aboriginal object(s), recommencement of work in the area of the find(s) can only occur in accordance with any consequential legal requirements and after gaining written approval from Heritage NSW (normally an Aboriginal Heritage Impact Permit).

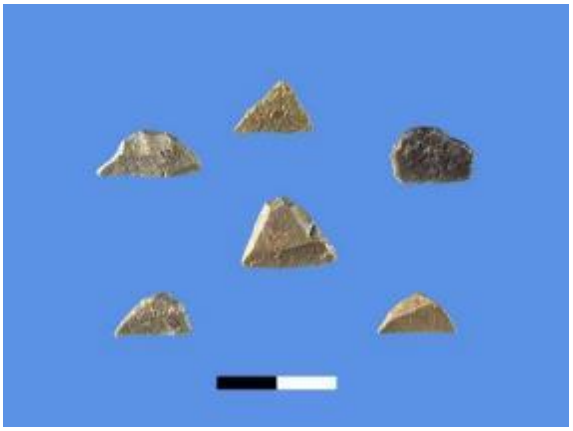
APPENDIX 3: UNANTICIPATED SKELETAL REMAINS PROTOCOL



APPENDIX 4: ABORIGINAL HERITAGE: ARTEFACT IDENTIFICATION

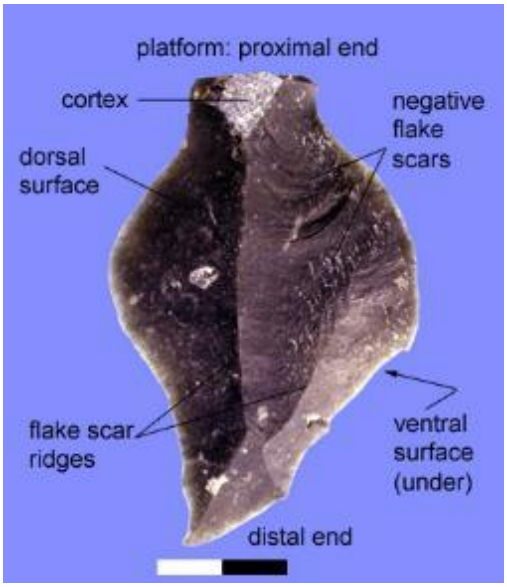
A retouched silcrete flake

A quartz flake



Microliths (scale = 1 cm)

Volcanic flakes



Flake characteristics (scale = 1 cm)

A mudstone/tuff core from which flakes have been removed