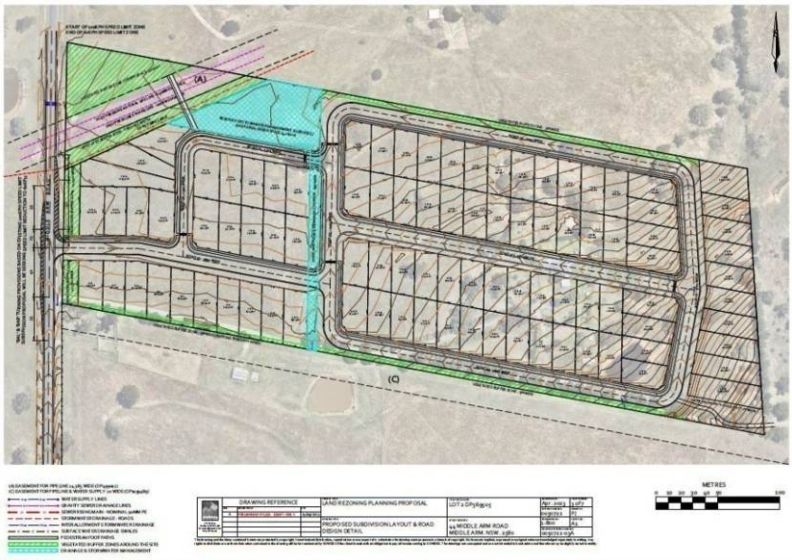

Subdivision design for Lot 2 DP 569505, the subject land. (Source: Sowdes Consultants).

View of the subject land to the northeast.

Aboriginal Cultural Heritage Assessment Report

Subdivision Planning Proposal

44 Middle Arm Road, Middle Arm (Goulburn), NSW

Lot 2 DP 569505

Report to Goulburn Mulwaree Council

May 2023

ISSUE	DESCRIPTION	DATE	ISSUED BY
A	Draft for Review	01.09.2022	PK
B	Revision	01.03.2023	PK
C	Final	02.05.2023	PK

ACRONYMS

ACHAR	Aboriginal Cultural Heritage Assessment Report
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit
AR	Archaeological Report
HNSW	Heritage NSW, part of the NSW Department of Premier & Cabinet
GPS	Global Positioning System
GSV	Ground Surface Visibility
LALC	Local Aboriginal Land Council
MGA	Map Grid of Australia
NPW	NSW National Parks and Wildlife
PAD	Potential Archaeological Deposit
RAP	Registered Aboriginal Party
SU	Survey Unit

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EXECUTIVE SUMMARY

The proponent is seeking approval for a Planning Proposal to rezone the 11.92 ha hobby farm at 44 Middle Arm Road, Middle Arm (Goulburn), NSW, Lot 2 DP 569505, (the subject land), to enable future subdivision into residential allotments. The subject land has been included within the Goulburn Mulwaree Council Urban Fringe Strategy, which the DPIE has endorsed.

This report accompanies a planning proposal to rezone the land. It provides advice about the potential of the proposal to *harm* Aboriginal places and objects pursuant to the *National Parks and Wildlife Act* (1974). A subsequent Development Application will follow.

The objectives of this Aboriginal cultural heritage assessment report (ACHAR) are to:

- Determine whether any Aboriginal places or objects of significance are present in the subject land.
- Assess the impact of the subdivision works and their potential to *harm* Aboriginal objects or values protected under the NPW Act.
- Recommend whether further requirements must be met under clause 80C of the NPW Act including whether an application for an AHIP needs to be made for undertaking test excavations.

This assessment has:

- Found no evidence of Aboriginal sites and objects within the subject land.
- Assessed the subject land as comprising *disturbed land* under the meaning of clause 80B relating to section 87(4) of the NPW Act.
- Assessed the subject land as having low archaeological potential to contain Aboriginal sites and objects.

It is recommended that:

- This proposal does not require any further assessment relevant to Aboriginal sites or objects protected under the NPW Act.
- Should Aboriginal objects be discovered during development works, all works in that area should cease and the proponent should contact Heritage NSW or a qualified archaeologist to seek some determination of the discovery and how to proceed.
- In the unlikely event that skeletal remains be discovered during earthworks, all works should cease and protocols consistent with Requirement 25 in the *Code of*

Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (2010) be implemented.

While the undertaking of this Aboriginal cultural heritage assessment acts as a defence against harming or disturbing Aboriginal objects without an Aboriginal Heritage Impact Permit (AHIP), the undertaking of this assessment alone does not negate the need for an AHIP should Aboriginal objects be *disturbed*. Investigations for an AHIP require preparation of an Aboriginal Cultural Heritage Assessment and must also be supported by Aboriginal consultation in accordance with the process outlined in the *Aboriginal cultural heritage consultation requirements for proponents* (2010).

DISCLAIMER

This assessment has been undertaken in accordance with relevant Federal, State and Local Government legislation. Black Mountains Projects accepts no liability for any damages or loss incurred as a result of use for any purpose other than that for which it was commissioned.

RESTRICTIONS

Information contained within this report is culturally sensitive and should not be made available to the general public. Restricted information includes, but is not limited to:

- Maps, reference coordinates or images which locate Aboriginal places and objects.
- Location or detailed information regarding places of Aboriginal cultural significance, as expressed or directed by representative Aboriginal people.
- Other culturally appropriate restricted information as advised by Aboriginal representatives and traditional knowledge holders.

Information in the report covered by the above categories should be redacted before being made available to the general public. This information should only be made available to those persons with a valid need for access.

ACKNOWLEDGMENTS

Black Mountain Projects acknowledges the assistance of the following people and organisations in the preparation of this report:
Simon Croker, owner;
Kyle Moffitt, Archaeologist;
Delise Freeman, Pejar LALC;
Chris McAlister, Pejar LALC.

1 INTRODUCTION

1.1. PROPONENT AND PROPOSED ACTIVITY

The proponent is seeking approval for a Planning Proposal to rezone the 11.92 ha hobby farm at 44 Middle Arm Road, Middle Arm (Goulburn), NSW, Lot 2 DP 569505, (the subject land), to enable future subdivision into residential allotments. The subject land has been included within the Goulburn Mulwaree Council Urban Fringe Strategy, which the DPIE has endorsed.

The proponent has engaged Black Mountain Projects Pty Ltd to provide this advice and to prepare an Aboriginal cultural heritage assessment report (ACHAR) consistent with the requirements of the NPW Act set out in the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (2011). The archaeological survey that informs this report has been conducted in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (2010).

1.2 STATUTORY CONTROLS

Primary protection of Aboriginal heritage in NSW is established at the State level under the NSW National Parks and Wildlife Act 1974 and to a lesser extent the NSW Heritage Act (1977). Heritage NSW and its parent department are responsible for protecting and conserving Aboriginal objects and declared Aboriginal places in NSW.

Aboriginal objects are defined in the NPW Act as any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises NSW, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains.

Aboriginal places are defined in NPW Act as a place declared under s.84 of the NPW Act that, in the opinion of the Minister, is or was of special significance to Aboriginal culture. Such areas need not contain any Aboriginal objects but can only be gazetted with the approval of the Minister.

Part 6 of the National Parks and Wildlife Act 1974 (NPW Act) provides specific protection for Aboriginal objects and declared Aboriginal places by establishing offences of harm. Harm is defined to mean destroying, defacing, damaging or moving an object from the land. There are a number of defences and exemptions to the offence of harming an Aboriginal object or place.

Aboriginal heritage may also be protected under Commonwealth and Local Government legislation being the Environment Protection and Biodiversity Conservation Act and Local Environmental Plans respectively.

A number of policies or guidelines are relevant to assist proponents avoid *harming* Aboriginal objects in NSW. These policies are listed below in order of their consideration within a planning context or assessment of a given proposal or activity:

- *Aboriginal cultural heritage consultation requirements for proponents* (2010)
- *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (2010)
- *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (2010)
- *Guide to investigation, assessing and reporting on Aboriginal Cultural heritage in NSW* (2011)

The *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* sets out reasonable and practicable steps which individuals and organisations need to take in order to:

- Identify whether or not Aboriginal objects are, or are *likely* to be, present in an area.
- Determine whether or not activities are *likely* to harm Aboriginal objects (if present).
- Determine whether further assessment or an AHIP application is required.

The Code of Practice also provides a generic due diligence process under Section 8 of the Due Diligence Code to be addressed by proponents. The basic sequential steps of the due diligence process require the proponent or their agent to consider the proposal and review whether:

- The activity or proposal will disturb the ground surface.
- The AHIMS database or other relevant databases record previously identified places.
- The activity or proposal occurs in areas where certain landscape features may indicate the presence of Aboriginal objects (on land that is not disturbed).
- Harm to Aboriginal objects or disturbance of the landscape feature can be avoided.
- An Aboriginal Cultural Heritage Assessment Report (ACHAR) and/or an Aboriginal Heritage Impact Permit (AHIP) is required.

The Due Diligence Code also discusses the common association between certain landscape features and the presence of Aboriginal objects as a result of Aboriginal people's use of those features. The Code defines the following landscape features (on land that is not *disturbed* land) and distance thresholds as indicating the *likely* presence of Aboriginal objects:

- Within 200m of waters, or
- Located within a sand dune system, or
- Located on a ridge top, ridge line or headland, or
- Located within 200m below or above a cliff face, or
- Within 20m of or in a cave, rock shelter, or a cave mouth

Consequently, if the proposal or activity is within the defined proximity thresholds to one of these landscape features (on land that is not *disturbed*) then the Code considers that there is a *likely* probability that Aboriginal objects will occur within the area.

Due diligence may also be addressed through other forms of assessment providing they meet the basic requirements set out above. A Review of Environmental Factors or other assessment under the *Environmental Planning and Assessment Act 1979* (EP&A Act) may also meet the requirements of the Due Diligence Code of Practice. While the undertaking of a due diligence process or equal assessment process acts as a defence against harming or disturbing Aboriginal objects without an Aboriginal Heritage Impact Permit (AHIP), the undertaking of these activities does not negate the need for an AHIP should Aboriginal objects be disturbed.

An application for an AHIP must be supported by a consultation process set out in the *Aboriginal cultural heritage consultation requirements for proponents* (2010)and an Aboriginal cultural heritage assessment report that complies with the requirements set out in the *Guide to investigation, assessing and reporting on Aboriginal cultural heritage in NSW* (2011).

The *Code of practice for archaeological investigation of Aboriginal objects in NSW* (2010)also provides standards and methods for how this investigation has been conducted and reported.

1.3 OBJECTIVES

The objectives of this Aboriginal cultural heritage assessment are to:

- Determine whether any Aboriginal places or objects of significance are present in the subject land.
- Assess the impact of the subdivision works and their potential to *harm* Aboriginal objects or values protected under the NPW Act.
- Recommend whether further requirements must be met under clause 80C of the NPW Act including whether an application for an AHIP needs to be made for undertaking test excavations.

2 DESCRIPTION OF THE AREA

2.1 BOUNDARIES

The subject land is a11.92 ha hobby farm at 44 Middle Arm Road, Middle Arm (Goulburn), NSW, Lot 2 DP 569505.

The land has been used for livestock grazing, from the mid 19th century to the present day, but it is now on the town edge of Goulburn. There are two stock dams on the property, each associated with water catchment earthworks. There is ac1920s single room building with fireplace, ac1940s house and several rural sheds. The subject land is located north of the City of Goulburn in the Goulburn Mulwaree Council LGA in the Parish of Goulburn, Zone 55 (UTM).

Figure 1: Aerial view of the subject land (Source: Six Maps).

2.2 DESCRIPTION & PREVIOUS LAND USE IMPACTS

The subject land is a11.92 ha hobby farm at 44 Middle Arm Road, Middle Arm (Goulburn), NSW, Lot 2 DP 569505.

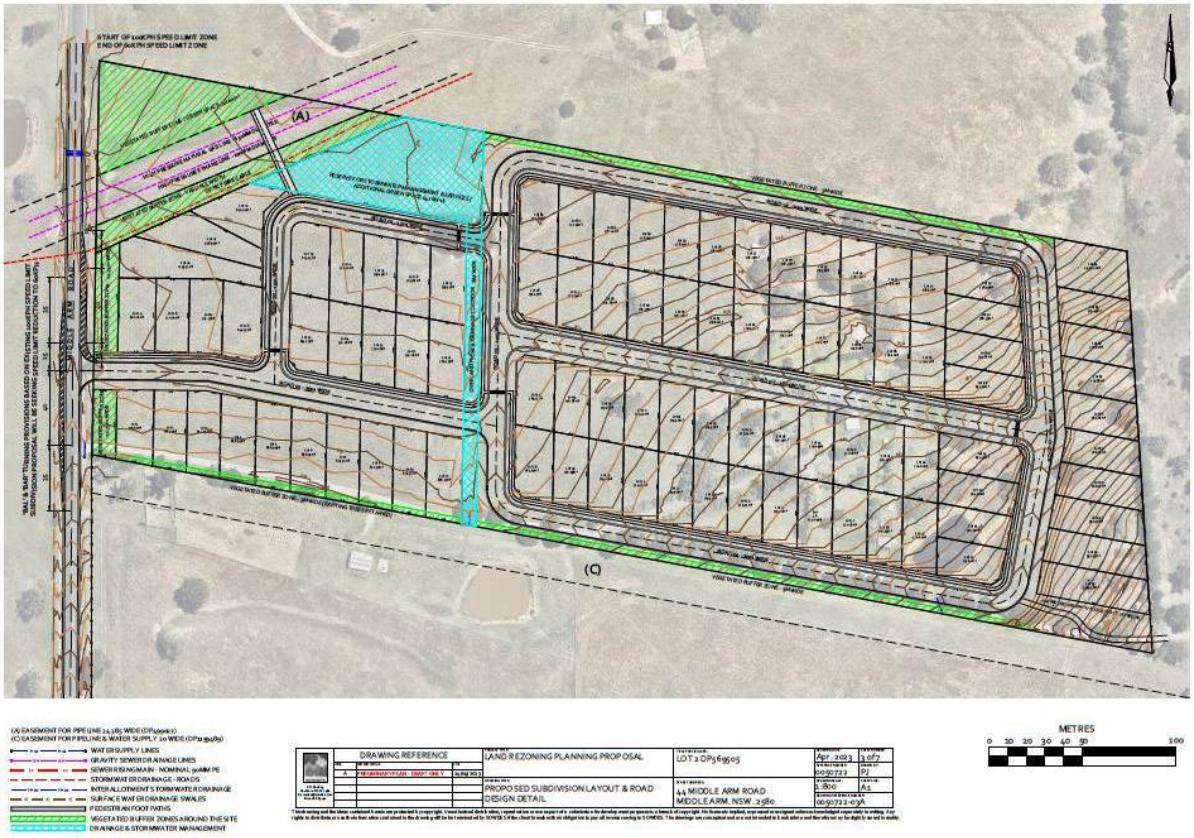

Figure 2. The subject land, overlaid with a subdivision concept plan.

A general history of European land use may be inferred from inspection of the land and field observation of the structures and their various styles of construction:

- During 19th century colonial occupation the subject land and surrounding area was cleared for grazing. This was the commencement of major disturbance to the soils and vegetation on the subject land.
- A small cottage was built, probably in the 1920s or earlier.
- The main house and several sheds were built from the 1940s to the 1960s, following subdivision.
- Subsequent owners built additional small structures and additions.

Previous owners, according to current owner Simon Croker, were Mr Murdoch, preceded by the Lachley family, preceded by the owner who built the concrete block house in the 1940s.

Historically the land was likely to have been part of Kenmore Station and would have been used for livestock grazing. The Station was broken up for construction of the Kenmore Lunatic Asylum. The subject land was a 100 acre lot which was further subdivided into three lots, each approximately 30 acres, probably for soldier settlement.

The most recent land use history was related by the current owner, Simon Croker.

From 2000 to 2012 under previous ownership the subject land was:

- Agisted for cattle and sheep as well as horse paddock.
- Pasture improved with sowing of feed grass.

From 2012 to 2022 under current ownership the subject land was:

- Fully stocked with cattle.
- Slashed twice each year for fire mitigation.
- Cropped for stock feed. This was by ploughing, ripping the ground then direct drill sowing with lucerne and oats.
- Pasture improvement to the whole of the subject land excluding the 5 acre house block. This was done twice. The process was to slash; scarify by tractor'; distribute phosphate fertiliser ("super"); then scarify a second time and distribute seed for feed grass.
- Weed controlled annually for serrated tussock.
- Regularly mowed and tree planted over the 5 acre house block and yard.

Other ground disturbances found on the subject land during this inspection include:

- c1970s excavated dam that is fed by a localised catchment swale and has almost silted up.
- Catchment swale approx 5-10m wide and half a metre deep.
- Pasture improvement in which most of the subject land (approx 25 acres) has been cultivated, spread with fertiliser and sown for feed grass; house block(approx 5 acres), constructed with residential additions and outbuildings with cultivated yard for tree plantings and gardening.
- Drainage diversion bank which was a typical soil conservation measure in the 1990s, the diversion bank is a raised earthwork approx 5m wide and a metre high;
- Catchment bank, c1990s with an earthwork intended to reduce loss of soil by erosion and redirect water towards the dam.
- A second c1990s dam & catchment bank.

Part of the land disturbance has been a major service line. The APA Melbourne to Sydney natural gas and ethane pipelines go through the western side of the subject land. These two two trenches are clearly visible on aerial photographs. They have a 25m wide easement over which no excavation, building or even tree planting is authorised to occur.

A summary of these visible, recent ground disturbances is shown on the aerial photo below.

The resulting landscape is one of ground surface disturbance. The resulting landscape is not a pristine hunter-gatherer landscape but a European settler landscape. So, although the subject land was undoubtedly part of the landscape used by Aboriginal people in the past, the likelihood of artefacts being found *in-situ* is low.

Impacts of previous land use key map

Figure 3. Impacts of previous land use key map

No	Land use impact	Observations & Assessment
1	Sydney-Melbourne gas main	Filled trench.
2	C1970s Dam excavation	This dam is fed by a localised catchment swale and has almost silted up.
3	Catchment swale	The swale is approx 5 to10m wide and half a metre deep.
4	Pasture improvement	Most of the subject land (approx 25 acres) has been cultivated, spread with fertiliser and sown for feed grass.
5	House block	The house block (approx 5 acres), constructed with residential additions and outbuildings, has a yard cultivated for tree plantings and gardening.
6	Drainage diversion bank	A typical soil conservation measure in the 1990s, the diversion bank is a raised earthwork approx 5m wide and a metre high.
7	Catchment bank 1990s	Circa 1990s, this earthwork was intended to reduce loss of soil by erosion and redirect water towards the dam.
8	Dam & catchment bank	Circa 1990s.

2.3 ENVIRONMENT

The subject land is located on the Sooley Plains north of Goulburn within the Monastery Hill soil landscape (NSW Soil and Land Information System).

Figure 4: Soil landscape boundaries in the subject land (Source eSpade, NSW DPIE, 2023). Note the abbreviation: SI5512mh (Monastery Hill soil landscape),

Monastery Hill (CS-mh) – Soils, Geology and Climate

This is a landscape formed on two teschenite intrusions which have penetrated Upper Silurian sediments. The Upper Silurian sediments include limestone outcrops. Soils have formed *in situ* from alluvial-colluvial materials derived from the parent rock. These include Chocolate Soils, Prairie Soils and Grey Clays. Local relief is 10-30m with slope gradients <10%.Permanent erosional stream channels occur. These are closely to very widely spaced and form a non-directional or convergent integrated tributary pattern. Elevations are between 670 – 700 m.

Prior to land clearing for sheep and cattle grazing, the vegetation was savannah woodland, dominated by yellow box and Blakelys red gum. Both improved and unimproved pastures

are found in this landscape with minor urban development encroaching. There was no significant erosion. More recent urban development has caused soil disturbance and created short-term erosion problems in the landform area.

Kingsdale is in Climatic Zone 3D with an annual average rainfall around 640 mm. Summers are hot and winters are very mild to cold.

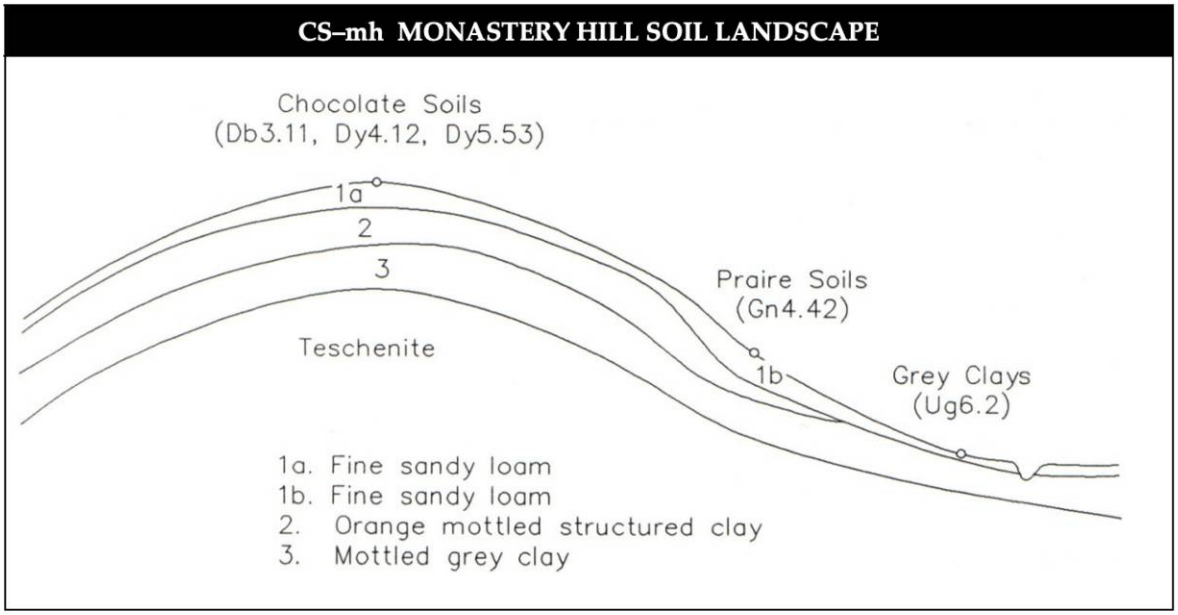

Figure 5– Monastery Hill Soil Landscape Profile provided by eSPADE, NSW Government (2023).

2.4 LAND USE

Aboriginal Land Use

The Goulburn Mulwaree LGA Aboriginal Heritage Study (2012) provides an overview of Aboriginal land use in the area. The earliest recorded archaeological site near Goulburn is the Birrigai rock shelter located approximately 80km south east of the study area. Radiocarbon dates obtained from the site, show that Aboriginal people have lived in this region for at least 21,000 years (Flood 1996:33- 35), however, the majority of archaeologically excavated sites in the region date to within the last 3,000 to 5,000 years, when the local climate and environment became warmer (Flood 1980:3,18).

Charles MacAlister, who grew up in the Goulburn region in the 1830s noted the relationship between local indigenous groups and reported "three fairly numerous tribes" in the district which he called the Cookmai or Mulwarrie (Mulwaree), the Tarlo, and the Burra Burra (MacAlister 1907:82). Norman Tindale describes two major language groups within the

Goulburn region at the time of European settlement: the Gandangara to the north of Goulburn, and the Ngun(n)awal to the south.

Aboriginal people in the Goulburn area were in frequent contact with surrounding groups due a lack of natural physical barriers (Smith 1992:3). As a result, frequent gatherings of indigenous people took place in Goulburn, with records of corroborees being held at Rocky Hill near the East Goulburn Church of England, the old railway quarry on the Wollondilly River, and Mulwaree Flats near the bridge at the brewery, as well as where the All Saints' Church in Eastgrove and Goulburn railway station are now located (Tazewell 1991:243; Wyatt 1972:111-112).

These gathering places are located near reliable water sources such as the Mulwaree River, and are habitat for a variety of wildlife, including fish, eels, fresh water mussels and water birds. Other food resources included kangaroos and wallabies and small marsupials such as possums and bandicoots. Emu, wild turkey, echidna, snakes, native bees and ants would have also supplemented the traditional diet (Bennett 1967 [1834]:173,301; Govett 1977 [1836-7]:29,32,34- 35,37; MacAlister 1907:88; Wyatt 1972:107; Koettig and Lance 1986:18).

Along the local river and stream banks, bulrushes were be collected in the spring and their starchy roots baked and eaten (Bennett 1967 [1834]:183; Gott 1999). In 1836, a Quaker missionary, James Backhouse, saw an Aboriginal woman eating sow-thistle (Backhouse 1843:441; Trott 1966). Govett also saw an Aboriginal man use an axe to cut into the bark of an apple-tree which grew on the alluvial flats near the river. A sweet, cider-like liquid flowed from the cut, which was collected and consumed (Govett 1977 [1836-7]:25). The white secretions of insects were also collected from trees such as the Manna Gum (Aslanides 1983:2; Bennett 1967 [1834]:115,319-321).

In 1836, William Govett published a series of articles in *The Saturday Magazine* describing the Aboriginal people of the County of Argyle, and their customs. He noted that local people would sometimes hunt by setting grass fires in order to drive and spear kangaroos in large numbers. This technique also encouraged the regrowth of root and herb plants which could be eaten or used to draw kangaroos back to an area (Bennett 1967 [1834]:290; Govett 1977 [1836-7]:23).

Traditional land uses came to an end in the 1820s, when the woodlands were cleared for sheep and cattle grazing, with barbed-wire fencing partitioning the landscape from the 1860s (NPWS 2003:206). The change from woodland to a grassland ecosystem radically affected the biodiversity of the area and limited the traditional resources used by Aboriginal people. William Govett noted that:

> The kangaroos have either been killed, or have fled in search of more retired forests. Sheep and cattle have taken their place, the emu and turkey are seldom seen, the millions of parrots have even become scarce. Govett 1977 [1836-7]:26).

Local Aboriginal people were devastated both by this loss of traditional resources and by introduced diseases. Surgeon George Bennet observed several Aboriginal people on the Gundary Plains with small-pox scars in the 1830s (Bennett 1967 [1834]:148). Francis Murphy of Bungonia reported in 1845 that the Aboriginal population in his area had diminished to 20-100 individuals, with survivors joining up with other people from the Goulburn district (Koettig and Lance 1986:14). Following the influenza epidemic of 1846-7, a local Aboriginal population of only 25 people was estimated by the Magistrate's bench (Tazewell 1991:244).

European Land Use

Europeans first arrived in the Goulburn region in 1798, when Governor Hunter sent John Wilson and two other men on an expedition to the southern tablelands of NSW. The men reached Mt Towrang without seeing or encountering any Aboriginal people (Flood 1980:30). Joseph Wild's expedition in 1820 to find Lake George opened the country to European settlement.

Pastoralists immediately began clearing the land and improving pastures for cattle and sheep grazing. These practices have altered the landscape through vegetation clearing, mechanical excavation, cultivation, cropping, grazing and tree planting. Land clearing and cultivation in particular, have resulted in disturbance of ground surface and churning of sediments, erosion and redeposit of soil. The resulting landscape is one of ground surface disturbance and accelerated removal and redepositing of surface soils, including minor sheet erosion and scalding. So although the subject land was undoubtedly part of the landscape used by Aboriginal people in the past, the likelihood of artefacts being found *in-situ* is low.

Photos and field observations in the survey results section provide further details.

3 CONSULTATION PROCESS

3.1 REQUIREMENTS

Aboriginal consultation is an integral part of the process of investigating and assessing Aboriginal cultural heritage. Under the NPW Act, Aboriginal people who hold cultural knowledge about the area, objects and places that may be directly or indirectly affected by the proposal must be given the opportunity to be consulted. This is done through the process of investigating, assessing and working out how to manage the harm from the

proposal. Consultation must adhere to requirements set out in clause 80C of the NPW Act where:

- an application for an AHIP will be made, or
- when undertaking test excavation according to the *Code of practice for archaeological investigation of Aboriginal objects in NSW*.

The relevant archaeological codes and guides only require Aboriginal consultation when impacts to Aboriginal heritage are envisaged. The *Due Diligence Code of Practice for the Protection of Aboriginal Objects NSW* (2010) does not require Aboriginal consultation. *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (2010) outlines how a statutory process of Aboriginal consultation is required when applications are made for permits to carry out archaeological excavations and impact Aboriginal sites (such permits are not being sought by this report).

3.2 CONTEXT AND LIMITATIONS

Although the NPW Act refers specifically to Aboriginal objects and places, the investigation requires a broader focus than just the objects or places. It also requires a knowledge and understanding of their context. Context is provided through consultation with Aboriginal people in order to reveal the meaning and significance of the objects and places. In consulting with Aboriginal people, the following limits on the use of existing information must be appreciated:

- Aboriginal people involved in previous studies or surveys may not have disclosed the existence of places with cultural heritage values as they may not have been under immediate threat when the earlier study was undertaken
- A report from AHIMS does not represent a comprehensive list of all Aboriginal objects or sites in a specified area as it lists recorded sites only and is mostly a record of survey effort.

3.3 REGISTERED ABORIGINAL PARTIES

The Pejar Local Aboriginal Land Council is the Registered Aboriginal Party (RAP) associated with this subject land. Following the principle that “the LALC speaks for country”, a representative of the Pejar LALC accompanied the archaeologist in an inspection of the subject land, in order to provide comment on behalf of the local Aboriginal community.

3.4 RESULTS OF CONSULTATION

Consultation with CEO of Pejar LALC Delise Freeman and Sites Officer Chris McAlister, both on the subject land and in the LALC Office, related that:

- The survey found the subject land to be *disturbed land*.
- No Aboriginal objects or potential archaeological deposits were found.
- Aboriginal heritage is not envisaged to be impacted.
- A permit to harm Aboriginal objects is not being applied for.

CEO of Pejar LALC Delise Freeman and Sites Officer Chris McAlister raised no specific objections. **For consultation log, refer to Appendix A**.

4 SUMMARY AND ANALYSIS OF BACKGROUND INFORMATION

4.1 ABORIGINAL ARCHAEOLOGICAL CONTEXT

Two significant archaeological studies are relevant to the Goulburn Mulwaree LGA. Koettig and Lance (1986) prepared a planning study which identified areas of known or potential Aboriginal cultural and archaeological significance. Their report also included an analysis of site distribution patterns in the landscape in relation to environmental variables such as landform, geology, and distance from water (Koettig and Lance 1986:26). The general trends in site distribution identified by Koettig and Lance are summarised in the Goulburn Mulwaree Aboriginal Heritage Study (2012:30-32):

- Artefact scatters are the most common type of site in the region, and have been identified in all environmental contexts. They are most likely to occur on gentle, well-drained lower slopes within 100m of water. Artefact scatters at the junction of watercourses tend to be large, with high densities of stone artefacts. Underlying geology does not appear to be a significant factor in the location of this type of site.
- Quarries may be present on outcrops of raw stone materials suitable for artefact manufacture, many of which occur within the study area as localised, discrete outcrops of siliceous rocks (pebble beds, quartz veins or outcrops). Types of stone used in the manufacture of implements include chert, silcrete, quartz, quartzite and fine-grained volcanic rocks.
- Burial sites are rare, and historical sources indicate that they are most likely to be found on ridges and hill tops, in hollow trees, and in caves. In some cases, they may also occur in sand bodies. Burials may be difficult to identify, as features that were used by Aboriginal people to mark graves, including carved trees and earth mounds, are unlikely to be preserved.
- Modified trees (scarred or carved) are rare, as scars are finite in age, only likely to be present on trees at least 80-100 years old. Moreover, natural vegetation in the Goulburn region has been altered by fire and forest clearance. Most of the recorded modified trees in the subject land have been destroyed in bushfires or removed to museums, such as the carved trees that were recorded at Yarra railway station and Armstrong's Paddock, Bungonia.

- Bora grounds are rare, and based on available site information and historical sources are most likely to be located on hill tops; however, their location cannot be predicted accurately.
- Shelters with art or deposit are found only in areas with suitable rock overhangs, such as sandstone outcrops with cavernous weathering. Large granite boulders and limestone rock shelters were also used as shelters.
- Grinding grooves are most commonly found near creek lines with suitable sandstone outcrops. Sandstone slabs were also transported into areas where there was no suitable stone.

Koettig and Lance's model was later field-tested by Fuller (1989), who surveyed a representative sample of environmental zones within the City of Goulburn. Fuller identified seventeen stone artefacts scatters and five isolated artefacts during the study. Two sites, located within 150m of an intermittent watercourse, also contained fragmented midden material, comprising mussel shell and shell from an unidentified species (Fuller 1989:5-6). Fuller's study located sites in all environmental zones, including those identified by Koettig and Lance as having low archaeological potential. Fuller's study contributed to a revised site distribution model for Goulburn (Figure 5); however, it should be noted that the distribution model remains somewhat generic, especially near water courses, and requires further refinement.

Other small scale archaeological studies have been carried out within Goulburn Mulwaree LGA, mostly in response to proposed developments (e.g. Koettig 1988; Navin Officer 2003; Williams 2004); linear surveys for infrastructure projects such as proposed roads, transmission lines and water supply schemes (e.g. Koettig 1983; Navin Officer 2010; Silcox 1995); and surveys over larger areas for a variety of purposes including proposed quarries, subdivisions, mining leases and State Recreation Area management (e.g. ERM 2006; McBryde 1975; Hughes 1984; Haglund 1986; Silcox 1988).

Most of these studies use the Aboriginal site distribution model proposed for the City of Goulburn by Koettig and Lance (1986) and later revised by Fuller (1989). This continues to be the predictive model used within the Goulburn Mulwaree LGA, with previously recorded sites contributing to Aboriginal archaeological sensitivity mapping in the region. In interpreting these maps, it should be noted that the current distribution pattern is not a true representation of Aboriginal land use, but rather the result of sites discovered during small-scale development surveys. As a result, the map is biased towards water courses and developed parts of the LGA (Goulburn Mulwaree Aboriginal Heritage Study, 2012:32).

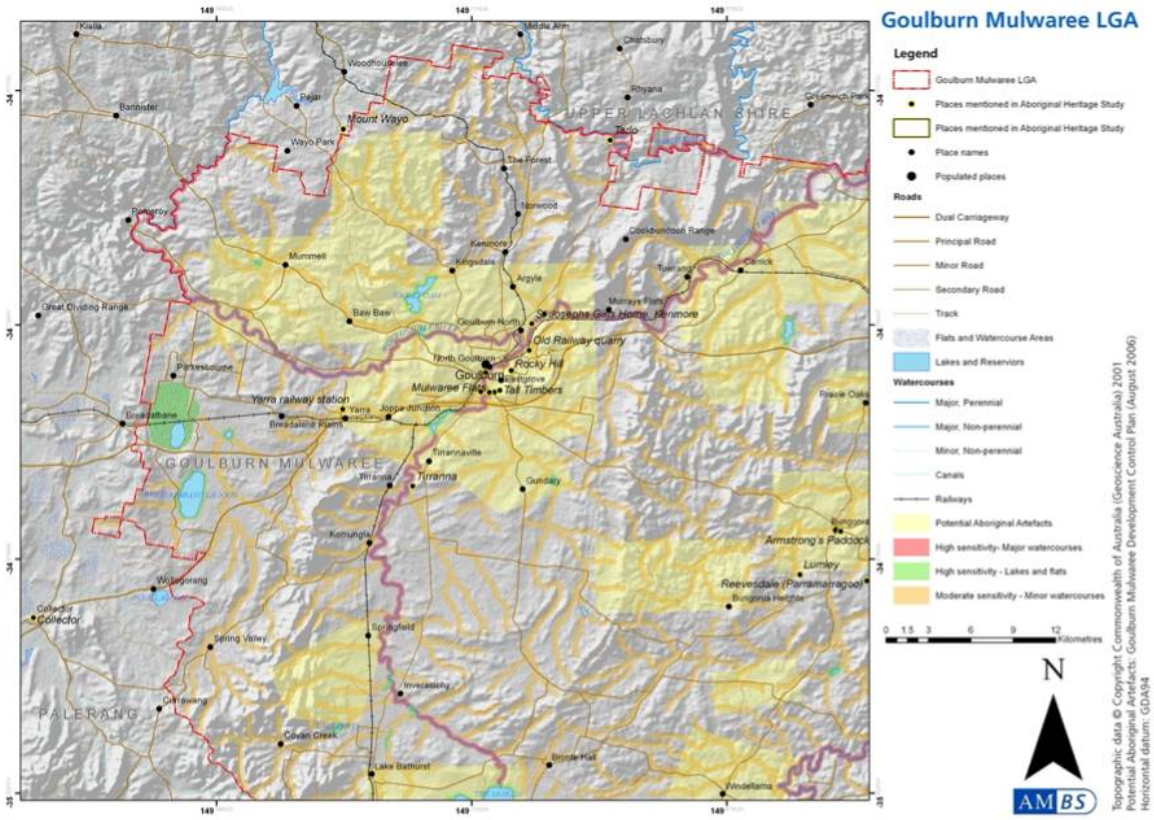

Figure 6 – Areas of Aboriginal heritage sensitivity in the north west section of Goulburn Mulwaree LGA (from the Goulburn Mulwaree Aboriginal Heritage Study, 2012:39).

4.2 AREAS OF ABORIGINAL HERITAGE SENSITIVITY

Based on the predictive model developed for the City of Goulburn by Koettig and Lance (1986) and later revised by Fuller (1989), the subject land is located in an area of “potential archaeological artefacts”. This is a low-level model of archaeological sensitivity based on generalised topographic modelling that considers sensitivity to increase in proximity to water courses. It does not take into account localised land disturbances (eg. cultivation, paddock improvement and erosion) which will impact site potential.

The result of this conjectural model is half of the land in the LGA is mapped "sensitive". This obliges the local council to require many archaeological surveys. Moreover, this modelling is an invitation for consultants to propose test excavations almost everywhere (because everywhere above a watercourse is claimed to be "sensitive"). Test excavations often find few or no artefacts. This requires expensive permits and requires artefact relocation out of its original site (a poor heritage protection outcome). Small artefact numbers are consistent with general background density (i.e. the density of stone artefacts across any landscape on the continent).

Test excavation, only in areas predicted to be "sensitive" does not contribute to knowledge because it relies on confirmation bias: Consultants excavate for artefacts in predicted areas. They can then find several artefacts in those predicted areas, thereby confirming the model. The crucial factor of ground disturbance (by two centuries of traditional farming practices and other activities) is not part of the topographic modelling. Levels of ground disturbance are best verified on site by an inspection on foot ("ground truthing"). Hence this survey report and recording of one site, to be protected from harm in a conservation area.

4.3 AHIMS SEARCH RESULTS

A search of the Aboriginal Heritage Information Management System or AHIMS register was undertaken for the subject land with a 200m buffer. The AHIMS Database search showed no previously recorded Aboriginal sites within the search area. The subject land is not within, either partly or wholly an area that has been declared an Aboriginal place.

An extensive AHIMS search with a search buffer of 1km revealed a total of 3 Aboriginal site records. Each is approximately a kilometre from the subject land.

Site cards for each of the registered sites were then obtained. Two (51-6-0070, 51-6-0071) are on the other side of the railway line to the northeast, and the third (51-6-0825) is on Mary's Mount Road residential area in Goulburn to the southwest. Each is a record of one stone fragment that is likely to be debitage. See Appendix B for details of the AHIMS extensive search and site cards.

The site cards document the nature of each registered site and the circumstances which resulted in it being recorded:

Summary of recorded sites (from site cards provided by AHIMS)

Site ref	Location	Stone artefacts	Area	Details
51-6-0070	1km northeast of subject land	1	1m2	Sue Effenberger. Proposed Goulburn Racecourse Kenmore. 1994. Flaked quartz with no usewear or retouch. Found on bank of Kenmore Creek and thought to be in situ and therefore archaeologically significant.
51-6-0071	1km northeast of subject land	1	1m2	Sue Effenberger. *Proposed Goulburn Racecourse Kenmore.* 1994. Igneous flake. Found on floor of a gully, not in situ and therefore of low archaeological significance. Consent to destroy permit application recommended and endorsed by Roley Williams of Wiradjuri RALC.
51-6-0825	1km southeast of subject land	1	1m2	Mathew Barber, NGH Environmental. *Grandview Estate Stage 2 Subsurface test.* Chert flake 12x12x3mm found within 5cm of the surface in a test pit.

4.4 SURVEY METHOD

Peter Kabaila of Black Mountain Projects, accompanied by owner Simon Croker, conducted a site inspection of the 11.92 ha lot containing the subject land on Tuesday 9th August 2022. The inspection was via a series of pedestrian transects.

The survey included buildings, structures such as dams and fences, tree plantings, land use impacts and areas of exposure that may reveal any relics of early historic settlement.

Most of the subject land is grassed with less than 1% ground surface visibility, so the survey focussed on areas of exposure that may reveal archaeological materials and this methodology sometimes resulted in a meandering transect. An approximation of the first survey route is shown on the aerial image below. This was supplemented by further, repeated re-inspections, including with the LALC.

Figure 7. Approximation of the main archaeological pedestrian survey routes (yellow line)

4.5 SURVEY RESULTS

This pedestrian survey included searching ground exposures such as livestock tracks and tops of mechanically excavated earthworks. The search was made particularly for exposures with any rock and for confirmed signs of Aboriginal stone working. This was to eliminate the more common agencies of stone fracture in places, such as the subject land, that have a long history of European land use. These agencies include clearing, machine excavation, stone transport, ploughing, fire burning, driveway grading, horse and cattle trampling and vehicle impacts. Processes such as heat, frost spalling and erosion can also cause fracture.

Ground surface visibility was generally low (less than 1%) and European landuse impacts were identified as generally high.

Survey observations indicating low archaeological potential of the subject property were:

- Water sources are far from the subject land. The nearest reliable water source, the Mulwaree River, is 1.6km to the southeast.
- No source or examples of raw stone material suitable for flaking into Aboriginal implements was found.
- No stone artefacts or Aboriginal tree scars were found.
- Any kind of stone, such as surface gravels, was generally not visible on the ground surface. While this could be partly attributed to grass cover, the compaction of soils by livestock has resulted in movement of surface gravels to the subsurface, generally leaving a layer of waterlogged clay on the surface (particularly on livestock tracks).
- High degree of ground disturbance by traditional farming practices has resulted in ground disturbance. This included clearing, ploughing, ripping, fertiliser spreading, seed drilling, building construction, service trench excavation, driveway grading, earthwork and dam mechanical excavation, tree replanting, gardening and livestock trampling.

Further details of survey observations are given below.

While most ground surface is covered with grass, the soil exposed on livestock tracks and mechanical excavations is a dark brown clayey loam. Subsurface igneous bedrock was found approx 1m below the natural ground surface (exposed by the swale excavated for a stock dam in the western paddock).

GSV less than 1%

Typical exposure of dark brown clayey loam.

Igneous bedrock approx 1m below natural ground surface.

Figure 8. Ground exposure examples.

Figure 9 – Survey panorama views:

1 Garden and recent tree planting in improved pasture on the 5 acre house block

2 View of the house block residential buildings from the north

3 Mature box trees north and east of the house block are estimated to have been planted at the time of the construction of the homestead (c1940s) or later.

4 Overview of the subject land east of the house block

5 Overview of the subject land west of the house block

Search for Aboriginal scarred trees

Whether scarred or not, remnant trees in the subject land are well worth preserving in a landscape where there has been zero regeneration due to grazing. A thorough search for Aboriginal scars on trees was made and 21 mature native trees were found and examined.

It is relevant to note that most bark extraction is unlikely to be Aboriginal in origin. With rapidly increasing rural population in NSW after the 1861 Robertson Land Acts, bark extraction by farming communities became common, including pegging boards for fox, rabbit and water rat skins; toe holds for egg and bird collecting. Where not European in origin, most old trees scars are caused by parrot damage, falling limbs and fire. More recent tree scars are generally caused by agricultural machinery damage, particularly during vegetation clearing, as well as vehicle damage and hazard reduction burning.

Mature tree key location map

Figure 10. Twenty one mature trees, generally yellow box (Eucmelliodora), were examined for Aboriginal scars, but none were found. The oldest of these mature trees were estimated to have been planted when the homestead was built (1940s). They are likely to be of insufficient age to bear pre-European bark extraction scars. Smaller trees, estimated to be less than 30 years old, were not inspected.

Mature trees examined for scars

No	Girth (mm)	Scar observations/notes All scars non-Aboriginal in origin. Measurements in mm	Image
1	2,800	Trees 1-3 were planted in a row as part of the mechanical excavation and construction of the water catchment bank and stock dam. This work dates from c1990s. The estimated age is therefore approx 30 years old, being too young for pre-European bark extraction. 1 scar, 100 wide x 600 long, resulting from fire damage.	

2	4,300	2 scars, each 200 wide x 600 long, resulting from limb tearing and insect damage.	
3	3,600	0 scars.	
4	2,900	1 scar, 400 wide x 1,300 long. Scars like this that go most of the way to the ground are most likely from fire, or perhaps machinery. It would not make sense to extract bark on your haunches or knees, when you can stand (balanced) and do it higher up the tree.	
5	2,400	0 scars.	
6	2,400	0 scars.	
7	2,900	0 scars.	

8	3,300	0 scars.	
9	2,900	1 scar, 200 wide x 600 long. The scar resulted from limb tearing.	
10	2,600	0 scars.	
11	2,600	0 scars.	
12	2,900	0 scars.	
13	2,900	0 scars.	

14	2,800	0 scars.	
15	3,500	0 scars.	
16	3,200	Agricultural machinery chain embedded in the centre of the trunk. Evidence of historic period age. This is a mature tree, however the deep embedment of a chain provides supporting evidence for rapid tree growth. So an age estimate of c1940s (or later) is appropriate.	 
17	2,500	0 scars	
18	2,900	1 scar, 150 wide x 400 long, resulting from fire/drought trauma.	

19	2,500	Trees 19-21 were most likely to have been planted as part of a row around the time of the house construction c1940s. They are therefore too young for pre-European bark extraction. Scars typically caused by limb drops, insect and fungal attack.	
20	2,500	1 scar, 200 wide x 1,000 long. The scar continues onto the base of a branch – quite possibly a fire effect. It also shows insect damage.	 
21	3,200	3 scars: 250 wide x 700 long; 150 wide x 600 long; 150 wide x 1,000 long. The first two scars result from a limb tear, the third is an agricultural machinery scrape.	 

Tree scar discussion

Aboriginal scarred trees are finite, rare and increasingly being misidentified. This is recognised in the authorised field guide to Aboriginal scarred trees: "most 'authentic' Aboriginal scarred trees are now well over a hundred years old and are becoming increasingly less commonplace as the host trees age, die or are removed. As these older trees disappear, traditional and historical scars are being replaced in the landscape with a wide range of natural and incidental wounds on both old and young trees which are often mistaken for evidence of Aboriginal activity." (Long 2005: 7)

From this consultant's archaeological survey experience of seeing Aboriginal bark extraction scars, particularly in the Riverina, many are symmetrical. Some show hatchet marks. In other words, many bark extraction scars are easily recognisable. Such sites are of high significance

and should be protected. The symmetry of the scars points to the way the bark was used. Main characteristics listed in the scarred trees field manual (Long 2005: 10-28) are: tree age of more than 170 years; “dry” scar face; tool marks; symmetry and multiple scarring. Tree scars in the subject land do not show these characteristics.

It is relevant to consider that most bark extraction is unlikely to be Aboriginal in origin. With rapidly increasing rural population in NSW after the 1861 Robertson Land Acts, bark extraction by farming communities became common, including pegging boards for fox, rabbit and water rat skins. Most common causes of tree scarring listed in the scarred trees field manual (Long 2005: 33-49) are damage by: fires; branch tears; falling limbs; termites; parrots and machinery impacts. These are often mistaken for Aboriginal scrars. In other words, there is a serious problem in scarred tree identification. Moreover, of all possible causes of scarring, pre-European tree scars are the least likely and rarest.

Whether scarred or not, remnant trees in the subject land are well worth preserving in a landscape where there has been zero regeneration due to grazing.

Taking the above observations into account, when the 21 established trees on the subject land were assessed against criteria set out in *Aboriginal scarred trees in New South Wales: a field manual.* (Long, A. 2005), the survey concluded the tree scars are not Aboriginal in origin.

Summary of survey results

The subject land is an intensively developed small hobby farm that was subdivided from the Kenmore Station pastoral property. It could be characterised as a “European settler landscape”, being heavily-impacted, now abandoned grazing land. Land uses such as repeated pasture improvement have resulted in soil compaction.

As a result of the above traditional farming practices, the ground has been *disturbed.* The absence of stone artefacts, or indeed any local stone, on the ground surface and the lack of proximity to a reliable water source further indicates that Aboriginal *objects* are unlikely to be found.

A search was made for Aboriginal scarred trees but none were found. Archaeologically the subject land surface and sediments are *disturbed* and its archaeological potential is low.

5 CULTURAL HERITAGE VALUES

5.1 ARCHAEOLOGICAL POTENTIAL

As detailed in the survey results, the subject land has been highly impacted by farming practises. This included substantial areas of disturbance by mechanical excavation. The survey did not locate any Aboriginal objects or sites within the subject land. No specific areas of Potential Archaeological Deposit (PAD) were identified or discernible.

The Due Diligence Code (and archaeology generally) recognises landforms such as flat land above a watercourse as a landform likely to contain Aboriginal artefacts. But in order to establish such a landform as a potential archaeological deposit (PAD), archaeology requires evidence, such as exposed artefacts eroding out of the landform. No such evidence was found.

Also land above drainage lines associated with each of the three stock dams is steeply sloping and so is not the landform type described in the Due Diligence Code. These two characteristics signal that

The subject land is over a kilometre from the nearest reliable water source (Mulwaree River).

The subject land, being also *disturbed* land, is unlikely to contain Aboriginal artefacts. Relic protections would still apply under law if Aboriginal objects are found.

Disturbed land

The Due Diligence Code (2010:18) defines *disturbed land* as the subject of a human activity that has changed the land's surface, being changes that remain clear and observable. Examples of disturbed land include ploughing, construction of rural infrastructure (such as dams and fences), construction of roads, trails and tracks (including fire trails and tracks and walking tracks), clearing vegetation, construction of buildings and the erection of other structures, construction or installation of utilities and other similar services (such as above or below ground electrical infrastructure, water or sewerage pipelines, stormwater drainage and other similar infrastructure) and construction of earthworks (Due Diligence Code 2010:18).

The subject land has been cleared and largely devoid of native vegetation, exhibiting a range of disturbances resulting from earthmoving machinery, rural grazing and associated activity. The land is considered *disturbed land* within the meaning of the Code.

Likely

Likely is not defined within the Due Diligence Code. Likelihood of finding *Aboriginal objects* is generally discussed in terms of archaeological potential or *sensitivity*. An index of likelihood has been devised and is presented below. Probability and confidence indicators

are those used by the Australian Army Intelligence Corps S2 Aide-Memoire. The approach is reminiscent of *levels of evidence* used in biomedical science.

Potential to contain Aboriginal objects. (Archaeological potential or "sensitivity").	**Confidence("likelihood")**	**% Probability**
Very high	Almost certain/confirmed	95% or greater
High	Probable	75%-95%
Moderate	Likely	50%-75%
Low	Possible	15%-50%
Very low	Unlikely/doubtful	15% or less

For the purposes of the Due Diligence Code, any ridgeline is considered *likely* to contain Aboriginal objects (and therefore of moderate or higher archaeological potential), unless it is *disturbed land.* Whilst the subject land includes a hill crest and may have acted as a focus point for Aboriginal occupation in the past, that area is also where the homestead and sheds have been constructed and is *disturbed* within the meaning of the Code. This means that any Aboriginal objects that may be present are likely to also be *disturbed* and unlikely to remain in-situ. It should also be noted that within the local area there are areas far more *likely* to contain Aboriginal objects resulting from Aboriginal occupation, such as higher order tributaries.

On the basis of this assessment and the extent of disturbance the subject land is assessed as having a low potential to contain Aboriginal objects.

For the purposes of the Due Diligence Code, any land within 200m of waters is considered *likely* to contain Aboriginal objects (and therefore of moderate or higher archaeological potential), unless it is *disturbed land.* Whilst the subject land includes land within 200m of an ephemeral drainage line and may have acted as a focus point for Aboriginal occupation in the past, the area is also *disturbed* within the meaning of the Code. This means that any Aboriginal objects that may be present are likely to also be *disturbed* and unlikely to remain in-situ. It should also be noted that within the local area there are areas far more *likely* to contain Aboriginal objects resulting from Aboriginal occupation, such as raised banks above permanent water sources. On the basis of this assessment and the extent of disturbance the subject land is assessed as having a low potential to contain Aboriginal objects.

5.2 STATEMENT OF SIGNIFICANCE

No Aboriginal objects or places have been identified in the subject land.

6 IMPACTS OF PROPOSAL

6.1 PREVIOUS IMPACT ASSESSMENTS

The proponent is seeking approval for a Planning Proposal to rezone the 11.92 ha hobby farm at 44 Middle Arm Road, Middle Arm (Goulburn), NSW, Lot 2 DP 569505, (the subject land), to enable future subdivision into residential allotments. The subject land has been included within the Goulburn Mulwaree Council Urban Fringe Strategy, which the DPIE has endorsed.

No previous impact assessments related to the area of the proposal exist.

6.2 IMPACTS TO ABORIGINAL CULTURAL HERITAGE VALUES

The proponent has engaged Black Mountain Projects Pty Ltd and sought advice under the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (2011) to understand whether the proposed activity on the subject land has the potential to *harm* Aboriginal objects or values protected under the *NSW National Parks and Wildlife Act* (1974).

This assessment has:

- Found no evidence of Aboriginal sites and objects within the subject land.
- Assessed the subject land as comprising *disturbed land* under the meaning of clause 80B relating to section 87(4) of the NPW Act.
- Assessed the subject land as having low archaeological potential to contain Aboriginal sites and objects. Without land disturbance, potential could have been higher on the land.

7 AVOIDING AND/OR MITIGATING HARM

There are no known Aboriginal objects or places in or near the subject land. As a result, the proposed development will not harm any known Aboriginal objects or places. Should Aboriginal objects or places be discovered during the course of development, refer to the recommendations below.

8 RECOMMENDATIONS

8.1 MANAGEMENT RECOMMENDATIONS

The following management recommendations are based on the above conclusions and in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (2010). Should Aboriginal objects or places in the area of the proposal be discovered, more detailed investigation and an impact assessment will be required. Where an Aboriginal cultural heritage assessment does not indicate that there are (or are likely to be) Aboriginal objects, you can proceed with caution without an AHIP application.

On the basis of this assessment for Aboriginal objects and their protection under the *NSW National Parks and Wildlife Act* (1974) it is recommended that:

- The proposal does not require any further assessment relevant to Aboriginal sites or objects protected under the NPW Act.
- The proponent is aware that should Aboriginal objects be discovered during development works, all works in that area should cease and the proponent should contact Heritage NSW or a qualified archaeologist to seek some determination of the discovery and how to proceed.
- In the unlikely event that skeletal remains be discovered during earthworks, all works should cease and protocols consistent with Requirement 25 in the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (2010) be implemented.

8.2 ASSESSMENT STATEMENT

I, Peter Rimgaudas Kabaila, Heritage Consultant, confirm that:

- I have conducted a visual inspection on the site of the proposed development.
- I have prepared this report, which has objectively assessed the proposed development against the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (2010),*Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (2011) and *Aboriginal cultural heritage consultation requirements for proponents* (2010).

Dr Peter Kabaila, Heritage Consultant, Black Mountain Projects Pty Ltd

GLOSSARY

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

Chert provisional identification term used by archaeologists for microcrystalline rocks with concoidal fracture, as petrological analysis would be the only way of providing firm identification.

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

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

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

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

Proposed activity The activity or works being proposed.

Subject land The land area in which the activity or works are being proposed, also being the area sampled by archaeological pedestrian survey.

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APPENDIX A – ABORIGINAL CONSULTATION

Aboriginal consultation log

Consultation with CEO of Pejar LALC Delise Freeman and Sites Officer Chris McAlister.

Date	Communication		Response
20.04.23	To Delise Freeman. Request for LALC inspection of the subject land, accompanied by the archaeologist. Verbal briefing about the subject land, including background to the development proposal; previous land use impacts; general description of the land and of the archaeologist's survey.	Mobile call	LALC requested subject land location, aerial image and owner details to prepare for the site inspection.
20.04.23	To Delise Freeman. Email providing subject land location, aerial image and owner details.	Email	Booking for archaeologist to meet Sites Officer Chris McAlister at Pejar LALC office at 9am on 29 April 2023.
29.04.23	Pejar LALC Sites Officer Chris McAlister was met by the archaeologist at Pejar LALC Office. Chris McAlister and archaeologist checked every one of the 21 mature native trees for circumference, probable age and scars. Chris McAlister and the archaeologist traversed the subject land on foot. During this pedestrian survey, the archaeologist consulted the LALC Sites Officer, giving a verbal description of the survey method and history of land use impacts. Key points were: • The survey found the subject land to be *disturbed land*. • No Aboriginal objects or potential archaeological deposits were found. • Aboriginal heritage is not envisaged to be impacted. • A permit to harm Aboriginal objects is not being applied for.	Inspect subject land on foot	Sites Officer Chris McAlister had no objections to the archaeological survey method or findings.
29.04.23	Pejar LALC Sites Officer Chris McAlister and the archaeologist returned to Pejar LALC offices. The archaeologist described the site inspection and survey results to Delise Freeman, CEO of Pejar LALC.	Meeting in LALC Office	Delise Freeman, CEO of Pejar LALC, did not raise any objection to the survey or its findings. LALC invoice for the inspection was received.  TAX INVOICE Invoice paid by proponent.

APPENDIX B – AHIMS SEARCH RESULTS

AHIMS Web Services (AWS)
Search Result

Your Ref/PO Number : 2 569505 200m
Client Service ID : 703964

Black Mountain Projects Pty Ltd
5 Wangara St
Aranda Australian Capital Territory 2614
Attention: Peter Kabaila

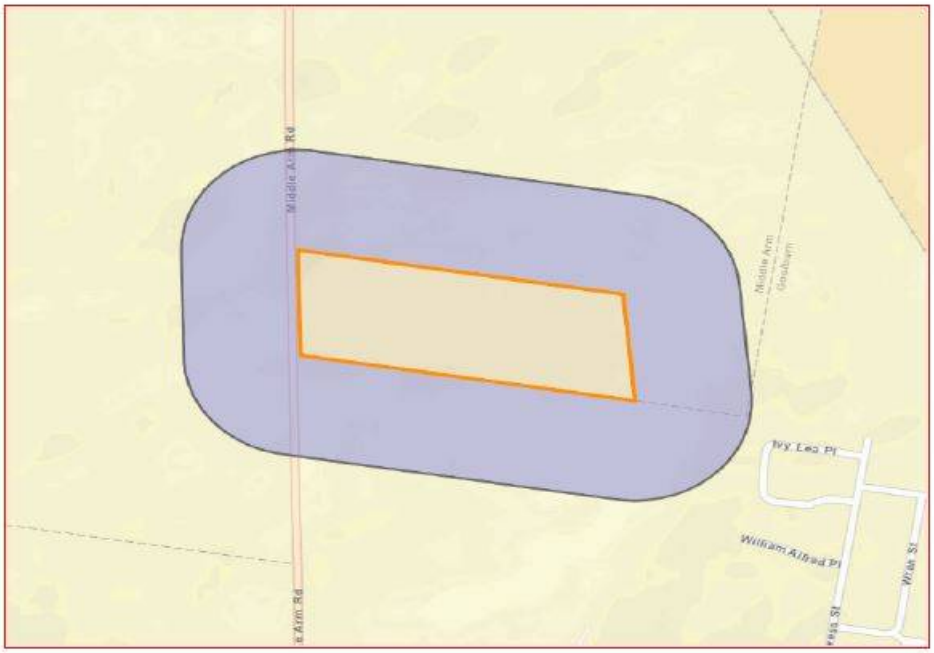
Email: peterkabaila1@gmail.com

Date: 28 July 2022

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 2, DP:DP569505, Section : - with a Buffer of 200 meters, conducted by Peter Kabaila on 28 July 2022.

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



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

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

AHIMS Web Services (AWS)
Search Result

Your Ref/PO Number : 2 569505 Ext search
Client Service ID : 704317

Black Mountain Projects Pty Ltd

Date: 29 July 2022

5 Wangara St
Aranda Australian Capital Territory 2614

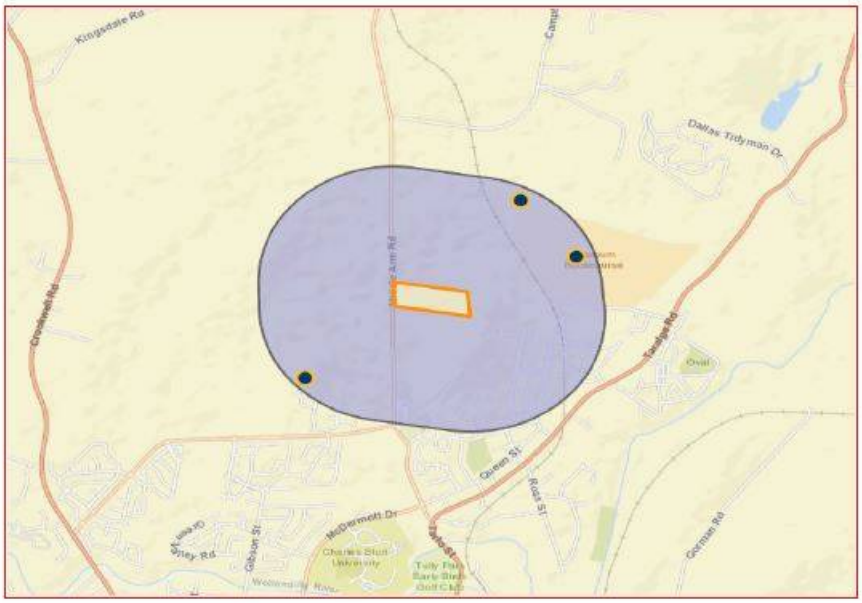
Attention: Peter Kabaila

Email: peterkabaila1@gmail.com

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 2, DP:DP569505, Section : - with a Buffer of 1000 meters, conducted by Peter Kabaila on 29 July 2022.

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



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

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

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

Your Ref/PO Number : 2 569505 Ext searcl
Client Service ID : 70431

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
51-6-0070	ISF1, Windy Hollows	AGD	55	751000	6155900	Open site	Valid	Artefact : -	Isolated Find	
	Contact	Recorders	Sue Effenberger					Permits		
51-6-0071	ISF2, Windy Hollows	AGD	55	751400	6155400	Open site	Valid	Artefact : -	Isolated Find	
	Contact	Recorders	Sue Effenberger					Permits	689	
51-6-0825	Marys Mount IF2	GDA	55	749473	6154587	Open site	Valid	Artefact : -		
	Contact	Recorders	Mr.Matthew Barber,NGH Heritage - Fyshwick					Permits		

[✓] New recording [ ] Additional Info

National Parks and Wildlife Service

Box 1967, Hurstville NSW 2220. Tel: (02) 585 6444

Standard Site Recording Form Revised 5/88

51-6-0070

NPWS Code 15,1

1:250,000 map sheet: GOULBURN

AMG Grid reference (Full reference - please include leading digits): 751000 mE 6155900 mN

Scale of map used for grid reference (Please use largest scale available): [✓] 25K, 50K (preferred) [ ] 100K [ ] 250K

1:25K, 50K, 100K map name: KINGSDALE ~~[illegible]~~ 1:25K TOPO.

HEAD OFFICE USE ONLY:

NPWS Site no: 51-6-70

Site types: Isolated Find

Accessioned by: [illegible] Date: 19Sep94

Data entered by: – Date: 25 [illegible] 1994

Owner/Manager: ~~[illegible]~~ ???

Address: ~~[illegible]~~

Site name: ISF1 (IN SITU) Locality/property name: "WINDY WILLOWS" REFER BARRY CRANSTON (048) 222222

NPWS District: NOWRA Region: SOUTH EASTERN

Reason for investigation: ARCHAEOLOGICAL FOR PROPOSED GOULBURN RACECOURSE.

Portion no: MULWAREE SHIRE

Parish: COUNTY OF ARGYLE

POR 5

Photos taken? YES

How many attached? PHOTO COPIES.

How to get to the site (refer to permanent features, give best approach to site eg. from above, below, along cliff. (Draw diagram on separate sheet.)

GOULBURN NSW. NORTH ALONG TERALBA ROAD TO KENMORE HOSPITAL. SITE IS OPPOSITE. TRACK (VEHICLE) TO ISF1

Other sites in locality? YES Site Types include: OPEN CAMP SITES, CEREMONIAL ISOLATED FINDS.

Are sites in NPWS Register? YES.

Have artefacts been removed from site? NO When? /

By whom? / Deposited where? /

Is site important to local Aborigines? YES. MR ROLEY WILLIAMS SITE OFFICER.

Give contact(s) name(s) + address(es) WIRADJURI REGIONAL ABORIGINAL LC.

Contacted for this recording? PO BOX 5515 WAGGA WAGGA (069) 216544

(Attach additional information separately) If not, why not? LOCAL KOORIS DO NOT HAVE A LAND COUNCIL

Verbal/written reference sources (including full title of accompanying report). NPWS Report Catalogue #

"ARCHAEOLOGICAL SURVEY, PROPOSED GOULBURN RACECOURSE KENMORE".

Checklist: surface visibility 100%, damage/disturbance, threat to site YES

Condition of site: ACTIVE EROSION OF KENMORE CREEK EMBANKMENT.

Recommendations for management & protection (attach separate sheet if necessary): DO NOT DISTURB (SEE REPORT).

Site recorded by: SUE EFFENBERGER

Address/institution:

ENVIROSCIENCES PTY. LTD.
SYDNEY OFFICE & LABORATORY
8/17 King Road, Hornsby, NSW 2077
Ph: (02) 476 4699 Fax: (02) 476 3568
NEWCASTLE OFFICE
122 Parry Street, Newcastle West, NSW 2302
Ph: (049) 26 2600 Fax: (049) 26 4532
A.C.N. 003 416 484

Date: 11/1/94.

X

SITE POSITION & ENVIRONMENT | OFFICE USE ONLY: NPWS site no:

1. Land form a. beach/hill slope/ridge top, etc: CREEK BANK. b. site aspect: N c. slope: 0

d. mark on diagram provided *or* on your own sketch the position of the site:

e. Describe briefly:
IN SITU QUARTZ ISOLATED FIND.

PARENT
f. Local rock type: SEDIMENTARY g. Land use/effect: GRAZING, PASTORAL

2. Distance from drinking water: 0 m Source: CREEK.

3. Resource Zone associated with site (estuarine, riverine, forest etc): CREEK, PLAINS.

4. Vegetation: GRASS, SWEET BRIAR

5. Edible plants noted: SWEETBRIAR.
6. Faunal resources (include shellfi PLAINS, CRUSTACEANS
7. Other exploitable resources (rive

Site type: ISOLATED FIND (IN SITU)

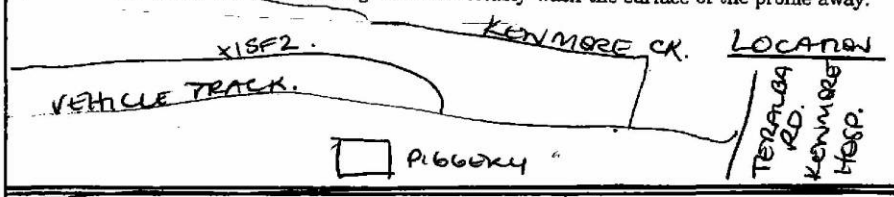
CHECKLIST TO HELP: length, width, depth, height of site, shelter, deposit, structure, element eg. tree scar, grooves in rock.
DEPOSIT: colour, texture, estimated depth, stratigraphy, contents-shell, bone, stone, charcoal, density & distribution of these, stone types, artefact types.
ART: area of surface decorated, motifs, colours, wet, dry pigment, technique of engraving, no. of figures, sizes, patination.
BURIALS: number & condition of bone, position, age, sex, associated artefacts.
TREES: number, alive, dead, likely age, scar shape, position, size, patterns, axe marks, regrowth.
QUARRIES: rock type, debris, recognisable artefacts, percentage quarried.
OTHER SITES EG. structures (fish traps, stone arrangements, bora rings, mia mias), mythological sites, rock holes, engraved groove channels, contact sites (missions massacres cemeteries) as appropriate

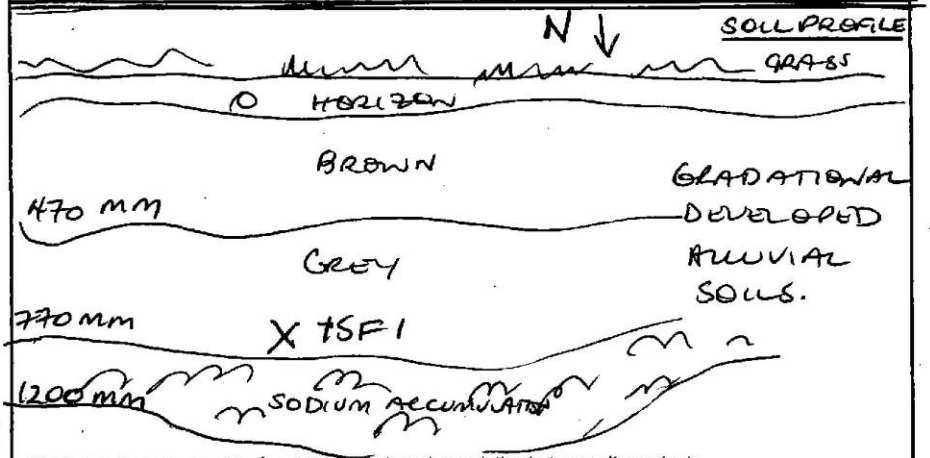
DESCRIPT
Note state
"AS" c

ISF1 Goulburn 1:25,000 topographic AMG 751000E 6155900N

ISF1 is a quartz flaked artefact, with no signs of retouch or usewear. The artefact was located *in situ*, 750 mm from the surface of an alluvial soil profile, on the south bank of Kenmore Creek which is the main waterway through the area. Quartz is the most common material for tool manufacture in the Goulburn area and for extensive sites, the proportion can be up to 90%. Being *in situ*, the artefact has a high archaeological significance. It is therefore recommended that this part of the creek remain undisturbed (see **Figure 3**, "AS"). ISF1 and "AS" are outside the development area.

The ~~c~~ontext for the artefact is the bend of a creek, at the end of a fenceline. The soil profile shows a gradational alluvial soil, with leaching to the bottom of the profile. Bull Rushes face the site. The artefact is well protected from animal trampling, ~~h~~owever flooding will undoubtably wash the surface of the profile away.





Attach sketches etc, eg. plan & section of shelter, show relation between site contents, indicate north, show scale.
Attach annotated photos (stereo where useful) showing scale, particularly for art sites.

57-6-70

FEATURES SURVEYED
TRANSECTS
ARCHAEOLOGICAL
STUDY AREA BOUNDARY
CREEK LINES
CAR/WALKING TRACKS
ENVIROSCIENCES PTY LIMITED
SCALE 1: 63,360
FIGURE 3
SURVEY COVERAGE
ARCHAEOLOGY
DATE: JANUARY 1993
PROJECT No: F1123
SOURCE: CMA KINGSDALE & TOWRANG 1:25,000 TOPOGRAPHIC
N
Kemore 479
KENMORE
Bowling Greens
Oval
QUARRY
BASALT
HIGGERY REMAINS
NATURAL GAS PIPELINE
ISF2
ISF1
"AS"
Playing Fields
DEWHIRST ST
KENMORE
REX
STREET
OULBURN-CROOKWELL
RAILWAY
680
660

[✓] New recording

National Parks and Wildlife Service

51-6-0071

Box 1967, Hurstville NSW 2220. Tel: (02) 585 6444

Standard Site Recording Form Revised 5/88

#417

CONSENT TO DESTROY ISSUED 12/4/95

1:250,000 map sheet: GOULBURN — NPWS Code: 15.1

AMG Grid reference (Full reference - please include leading digits): 751 400 mE (250K / 25K) — 6155400 mN (250K / 5/6 / 25K)

Scale of map used for grid reference (Please use largest scale available): [ ] 25K, 50K (preferred) [ ] 100K [ ] 250K

1:25K, 50K, 100K map name: KINGSDALE + ~~[illegible]~~ 1:25K TOPO.

HEAD OFFICE USE ONLY:

NPWS Site no: 51-6-71

Site types: Isolated Find.

Accessioned by: BS. Date: 19Sep94

Data entered by: [illegible] Date: 25 NOV 1994

Owner/Manager: PWD

Address: COMMERCIAL DEV. FLOOR 21 MCKELL BLD 2-24 RAWSON PLACE SYD (02)3728622.

Site name: ISF2 — Locality/property name:

NPWS District: NOWRA — Region: SOUTH EASTERN.

Reason for investigation: ARCHAEOLOGICAL SURVEY FOR PROPOSED GOULBURN RACECOURSE.

Portion no: MULWAREE SHIRE

Parish: COUNTY OF ARGYLE

POR 34.

Photos taken? YES

How many attached? PHOTOCOPIES.

How to get to the site (refer to permanent features, give best approach to site eg. from above, below, along cliff. (Draw diagram on separate sheet.)

~~NO~~ GOULBURN NSW. NORTH ALONG TERALBA ROAD. TO KENMORE HOSPITAL. SITE IS OPPOSITE. TRACK (VEHICLE) TO ISF 2 (SEE OVER).

Other sites in locality? YES — Site Types include: OPEN CAMP SITES. ISOLATED FINDS, CEREMONIAL.

Are sites in NPWS Register? YES

Have artefacts been removed from site? NO — When? /

By whom? / — Deposited where? /

Is site important to local Aborigines? ✓

Give contact(s) name(s) + address(es): MR. ROLEY WILLIAMS SITE CURATOR WIRADJURI ~~LOCAL~~ REGIONAL ABORIGINAL LC PO BOX 5515 WAGGA WAGGA. (069)216544.

Contacted for this recording? YES.

(Attach additional information separately) If not, why not? LOCAL KOORIS DO NOT HAVE A LAND COUNCIL.

Verbal/written reference sources (including full title of accompanying report): "ARCHAEOLOGICAL SURVEY PROPOSED GOULBURN RACECOURSE. KENMORE". — NPWS Report Catalogue #

Checklist: surface visibility 100% — damage/disturbance/threat to site YES

Condition of site: THE GULLY IS ERODING ACTIVELY, HOWEVER ISF2 HAS BEEN DISLOCATED FROM ORIGINAL CONTEXT.

Recommendations for management & protection (attach separate sheet if necessary): "CONSENT TO DESTROY" FOR ISF2.

Site recorded by: SUE EFFENBERGER.

Address/institution:

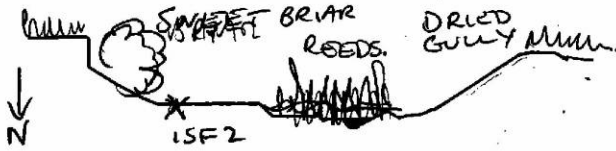
ENVIROSCIENCES PTY. LTD.
SYDNEY OFFICE & LABORATORY
8/17 King Road, Hornsby, NSW 2077
Ph: (02) 476 4699 Fax: (02) 476 3568
NEWCASTLE OFFICE
122 Parry Street, Newcastle West, NSW 2302
Ph: (049) 26 2600 Fax: (049) 26 4532
A.C.N. 003 416 484

Date: 11/1/94.

SITE POSITION & ENVIRONMENT | OFFICE USE ONLY: NPWS site no:

1. Land form a. beach/hill slope/ridge top, etc: b. site aspect: WEST c. slope:

d. mark on diagram provided *or* on your own sketch the position of the site:



e. Describe briefly: ISOLATED RIND IGNEOUS.

f. Local rock type: SED / IGNEOUS. g. Land use/effect: GRAZING PASTORAL

2. Distance from drinking water: KENMORE CK, 500 m.

3. Resource Zone associated with site (PLAINS.

4. Vegetation: SWEETBRIAR.

5. Edible plants noted:

6. Faunal resources (include shellfish): CRUSTACEANS IN FLOOD.

7. Other exploitable resources (river pe

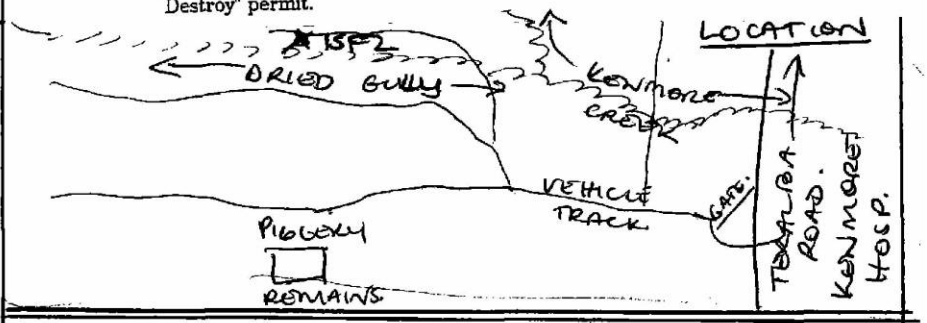
Site type: ISOLATED RIND.

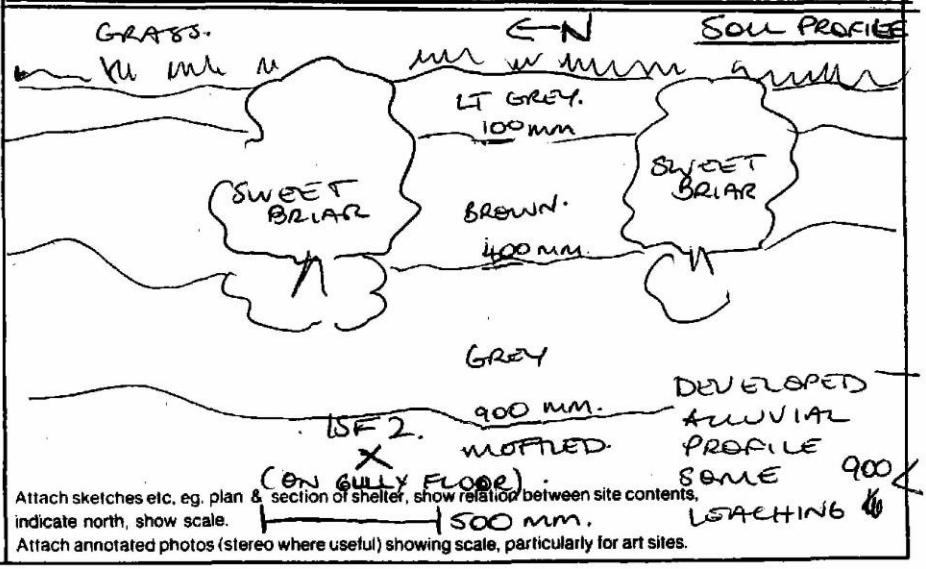
DESCRIPTION Note state of pre ↑N.

ISF2 Goulburn 1:25,000 topographic AMG 751400E 6155400N

ISF2 is an igneous flake, possibly of a fine grained andesite or rhyolite. It had been found on the floor of an arid gully close to the last Natural Gas marker near the Goulburn-Crookwell railway, near the western boundary of the site. The flake's butt end had been broken off. There were signs of usewear along the one sharp edge.

The gully had very little vegetation apart from a small amount of grass at the edge and the occasional Sweetbriar shrub. It appeared to be out of its original context, and no other archaeological material could be located so the survey team presumed that the artefact had been dropped in transit, or had been carried to its current location by water or animal. The artefact has low archaeological significance and will be affected by the proposed development. Therefore, the proponent may apply to the Director of the NSW National Parks and Wildlife Service for a "Consent to Destroy" permit.





CHECKLIST TO HELP: length, width, depth, height of site, shelter, deposit, structure, element eg. tree scar, grooves in rock.

DEPOSIT: colour, texture, estimated depth, stratigraphy, contents-shell, bone, stone, charcoal, density & distribution of these, stone types, artefact types.

ART: area of surface decorated, motifs, colours, wet, dry pigment, technique of engraving, no. of figures, sizes, patination.

BURIALS: number & condition of bone, position, age, sex, associated artefacts.

TREES: number, alive, dead, likely age, scar shape, position, size, patterns, axe marks, regrowth.

QUARRIES: rock type, debris, recognisable artefacts, percentage quarried.

OTHER SITES EG. structures (fish traps, stone arrangements, bora rings, mia mias), mythological sites, rock holes, engraved groove channels, contact sites (missions massacres cemeteries) as appropriate

Attach sketches etc. eg. plan & section of shelter, show relation between site contents, indicate north, show scale.

Attach annotated photos (stereo where useful) showing scale, particularly for art sites.

51-6-71
FEATURES SURVEYED
TRANSECTS
ARCHAEOLOGICAL
STUDY AREA BOUNDARY
CREEK LINES
CAR/WALKING TRACKS
ENVIROSCIENCES PTY LIMITED
SCALE 1:63,360
FIGURE 3
SURVEY COVERAGE
ARCHAEOLOGY
DATE: JANUARY 1993
PROJECT No.: F1123
SOURCE: CMA KINGSDALE & TOWRANG 1:25,000 TOPOGRAPHIC
Kemore
KENMORE
Bowling Greens
Oval
QUARRY
BASALT
TRIGGERY REMAINS
NATURAL GAS PIPELINE
ISF2
ISF1
Playing Fields
DEWHIRST ST
KENMORE
REX
STREET
OULBURN-CROOKWELL
RAILWAY
PIT
660
680
0

#715

Permit/Consent Pink
(Section 87, 90)
SR F2120

APPLICATION FOR A CONSENT TO DESTROY SITE 51-6-71, LOT 157, DP 821713, TARALGA ROAD, GOULBURN BY GOULBURN AND DISTRICT RACING CLUB

BACKGROUND

The Goulburn and District Racing Club is seeking consent to destroy site 51-6-71, an isolated stone artefact, located at Lot 157, Taralga Road, Goulburn, NSW.

The artefact was recorded by Sue Effenberger in January 1994 during a survey of a proposed racecourse site on the northern outskirts of Goulburn (Head Office copy of report attached). Two isolated stone artefacts were recorded during the survey.

Goulburn and District Racing Club wishes to construct a racecourse and associated facilities at Lot 157 during 1995. This work will result in the destruction of one of the recorded artefacts, ISF2 (site 51-6-71), which has low scientific and Aboriginal significance. The other recorded artefact will not be affected by the proposed development.

Ms Effenberger recommended that the proponent apply for consent to destroy the artefact prior to commencement of the racecourse development.

ABORIGINAL CONSULTATION

The area lies within the boundaries of the Wiradjuri Regional Aboriginal Land Council. Mr Roly Williams represented the Land Council during the survey and produced a report that concurs with the consultants recommendation that the artefact may be destroyed after a Section 90 Consent has been issued.

0

Aboriginal Site Recording Form

AHIMS Registrar
PO Box 1967, Hurstville 2220 NSW

AHIMS site ID: 51-6-0825 **Date recorded:** 19-11-2017

Site Location Information

Site name: Marys Mount IF2

Easting: 749473 **Northing:** 6154587 **Coordinates must be in GDA (MGA)**

Horizontal Accuracy (m): 5

Zone: 55 **Location method:** Non-Differential GPS

Recorder Information

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

Title	Surname	First name
Mr.	Barber	Matthew

Organisation: 75

Address: Po Box 62 Fyshwick ACT 2609

Phone: 0407485018 **E-mail:** matthew.b@nghenvironmental.com.au

Site Context Information

Land Form Pattern: Rolling Hills **Land Use:** Pastoral/Grazing

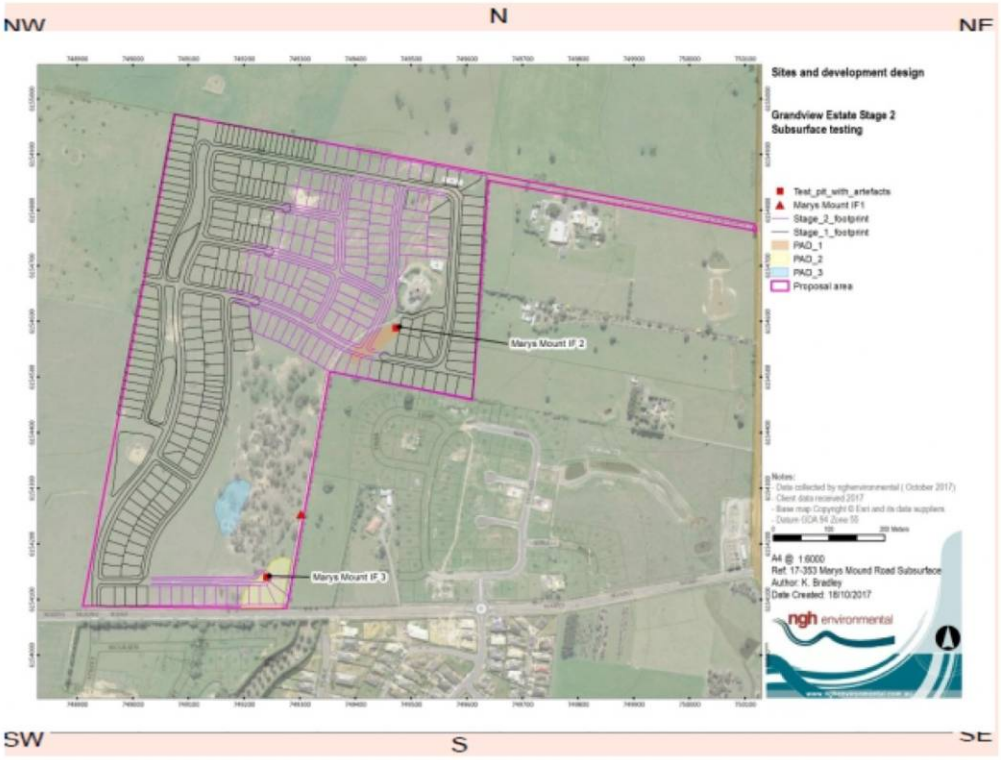
Land Form Unit: Ridge **Vegetation:** Cleared

Distance to Water (m): 800 **Primary Report:** NGH Environmental 2017 ACHA Grandview Estate Stage 2 Subsurface

How to get to the site: On private property located off Marys Mount Road at Goulburn.

Other site information:

Site location map



Site contents information

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

Features:

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

Description:

The single artefact recovered from PAD 1 Pit 1was a chert flake (dimensions 12 x 12 x 3 mm that was recovered from spit 1 (0-5cm below the surface).

Features:

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

Description:

2

Features:

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

Description:

Features:

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

Description:

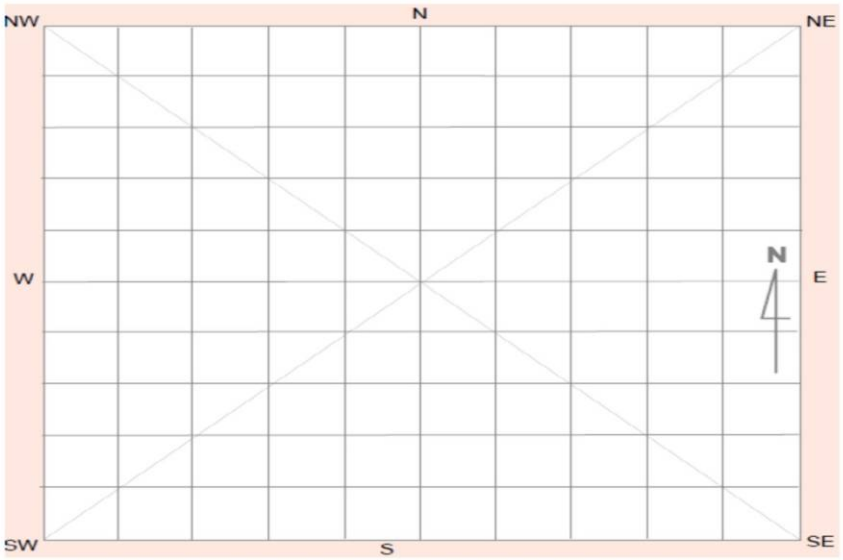
Features:

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

Description:

Other Site Info:

Site plan



3

Site photographs

Description: Artefact chert flake

Description: View south from PAD 1 Pit 1

Description:

Description:

Site restrictions

Do you want to Restrict this site?: ☐

Restriction type: Gender ☐ General ☐ Location ☐

Why is this site restricted?:

Further information contact

Title	Surname	First name

Organisation:

Address:

Phone: **E-mail:**

4