20-24 Lockyer Street, Goulburn

Aboriginal Cultural Heritage and Archaeological Report

Report Prepared for Lockyer Street Trust

By Past Traces Pty Ltd

LGA: Goulburn-Mulwaree

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Document Control

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Disclaimer

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Restricted Information

Information contained within this report is culturally sensitive and should not be made publicly available. The information that is restricted includes (but is not limited to):

- Maps, Mapping Grid Reference Co-ordinates or images for Aboriginal heritage sites, places and objects.
- Location or detailed information regarding places of Aboriginal cultural significance, as expressed or directed by Representative Aboriginal Organisations, Aboriginal elders, or members of the wider Aboriginal community.
- 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 just and reasonable need for access.

ACKNOWLEDGEMENTS

We acknowledge the traditional custodians of the Country on which we live and work and pay our respects to Elders past, present and emerging. We thank all the community members who have taken the time to speak with us, share their knowledge and express their wishes for the area under assessment.

Past Traces acknowledges the assistance of the following people and organisations in the preparation of this report:

- Pejar LALC
- Soni Rogers
- Corroboree
- Didge Ngunawal
- Guntawang
- Mundarawi
- Yurwang Gundana
- Girra Murrun
- Mulwaree
- Kamilaroi-Yankuntjatjara
- Gamila Roi
- Mura

Note on Terms

We have followed the NSW Heritage convention using terms such as 'Aboriginal' and defining groups of community, based on wide language groups i.e., 'Tharawal/Gundungurra. We apologise to any First Nations members who find this usage offensive.

Limitations

This assessment, whilst including discussions with RAPs in regards to intangible cultural heritage values does not include detailed cultural values mapping. All information is based from onsite discussions and feedback from RAPs.

This report covers the area of Aboriginal Cultural Heritage and does not include an assessment of historical archaeology or built heritage items. If the survey identifies these values as present, recommendations to further assessment would result.

History of the region is based on review of sources and does not constitute original or exhaustive historical research.

ABBREVIATIONS

ACHAR	Aboriginal Cultural Heritage Assessment Report

AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit
AR	Archaeological Report
ASDST	Aboriginal Sites Decision Support Tool
DECCW	NSW Department of Environment, Climate Change and Water now NSW Heritage
DP	Deposited Plan
GPS	Global Positioning System
GSV	Ground Surface Visibility
LALC	Local Aboriginal Land Council
MGA	Map Grid of Australia
OEH	formerly NSW Office of Environment and Heritage
PAD	Potential Archaeological Deposit
RAP	Registered Aboriginal Party
SU	Survey Unit

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).

Archaeological Survey (Field survey) – a method of data collection for assessment involving the survey team walking across the project area in a systematic way, recording information about the landscape and recording any archaeological sites or materials.

Artefact - an object formed by Aboriginal people on stone material.

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.

Development (impact) area - Area proposed to be impacted as part of a specified activity or development proposal.

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).

Heritage site – an area containing material traces of Aboriginal use.

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).

Potential archaeological deposit (PAD) - is an area where sub-surface stone artefacts and/or other cultural materials are likely to occur (DEC 2005: 67)

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.

Project area - The area that is the subject of archaeological investigation and will be impacted by the subdivision.

Registered Aboriginal Parties (RAPS) – Aboriginal representatives registered for the project.

Subsurface testing – test excavations under the Code of Practice to determine the presence of archaeological deposits.

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EXECUTIVE SUMMARY

Past Traces has been engaged by Lockyer Street Trust to undertake an Aboriginal Cultural Heritage Assessment for the proposed rezoning and future development of Lot 2 DP1238214, located at 20-24 Lockyer Street, Goulburn within the Goulburn-Mulwaree Local Government Area. The project area is located in south Goulburn, adjacent to the Hume Highway.

The project area is shown in a regional context in Figure 1 and in detail in Figure 2. The project is being undertaken to allow rezoning for future development. The future development of the project area will consist of the following:

- Installation of building envelopes within the project area
- Construction of access roads
- Installation of infrastructure and services such as electricity and communications
- Installation of boundary fences and landscaping.

To determine the impacts of the development a Due Diligence assessment has been undertaken in accordance with the *Due Diligence Code of Practice* (OEH 2010) by Hyperion Design in May 2024. The Hyperion Design assessment identified two areas of Potential Archaeological Deposit (PAD) within the project boundary. These two areas of PAD are shown in Figure 6. As the Due Diligence report found potential for Aboriginal heritage sites within the project area, progression to an Aboriginal Cultural Heritage Assessment has been completed by Past Traces in 2024 to determine the extent and significance of potential heritage impacts. This assessment includes consultation with the Aboriginal community and completion of test pitting across the two identified areas of PAD within the project area.

Consultation with the Aboriginal community has been undertaken to assist the heritage team in assessing significance of any identified heritage sites and to provide guidance in the development of culturally appropriate management strategies. Consultation was in accordance with the *Consultation Guidelines for Proponents NSW* (DECCW 2010a) with a number of Registered Aboriginal Parties (RAPs) participating in the project.

Following the completion of the test pitting program, the management recommendations for the project are:

- Within the project area three heritage sites, G15 (51-6-0019), Tait 1 (51-6-0844) and Tait 2 (51-6-0845) are present. No impacts can occur to the heritage sites prior to the approval of an Aboriginal Heritage Impact Permit (AHIP) by NSW Heritage. The AHIP area is shown on Figure 18.
- Site Tait 1 (51-6-0844) holds no deposits and the designation of associated with PAD has been removed. Heritage constraints still apply to Tait 1 due to recorded surface artefacts.

- Surface collection of the impacted sites within the project area (G15: 51-6-0019, Tait 1: 51-6-0844 & Tait 2: 51-6-0845) will be required following approval of the AHIP. The surface collection will consist of returning to the site locations, marking GPS locations of artefacts, labelling and bagging each artefact for analysis. The surface collection will follow the methodology set out in Section 9.1.1.

- The recovered artefacts from the test pitting program and surface collection will be returned to country. The return to country will be undertaken in line with the methodology and proposed location in Section 9.1.2.
- Following granting of AHIP and completion of mitigation works, an AHIP Compliance works report will be submitted to NSW Heritage including the results of the return to country at completion of works.
    - Site Impact card with updated details
    - Site Card for Return to Country location

    will be submitted to AHIMS for inclusion into the database at completion of works.
- It is an offence to disturb an Aboriginal site without an AHIP as all Aboriginal objects are protected under the NSW *National Parks and Wildlife Act 1974*. Should any Aboriginal objects be encountered during works outside of the AHIP area, then works must cease and a heritage professional contacted to assess the find. Works may not recommence until cleared by NSW Heritage

It is also recommended that:

- In the unlikely event that human remains are discovered during the construction, all work must cease. The police must immediately be notified, and their directions followed in the management of the area. Further assessment would be undertaken to determine if the remains are Aboriginal or non-Aboriginal.
- Continued consultation with the RAPs for the project should be undertaken. RAPs should be informed of any major changes in project design or scope, further investigations or finds.

1 INTRODUCTION

1.1 PROJECT BRIEF

Past Traces has been engaged by Lockyer Street Trust to undertake an Aboriginal Cultural Heritage Assessment for the proposed rezoning and future development of Lot 2 DP1238214, located at 20-24 Lockyer Street, Goulburn within the Goulburn-Mulwaree Local Government Area. The project area is located in south Goulburn, adjacent to the Hume Highway.

A Due diligence assessment has been undertaken over the project area by Hyperion Design in May 2024 which revisited three previously registered heritage sites with two of these sites associated with subsurface potential within the project boundary.

The project area is shown in a regional context in Figure 1 and in detail in Figure 2. The project is being undertaken to allow rezoning for future development. The future development of the project area will consist of the following:

- Installation of building envelopes within the project area
- Construction of access roads
- Installation of infrastructure and services such as electricity and communications
- Installation of boundary fences and landscaping.

As this project is focussing on the rezoning of the project area, no impacts are anticipated. However, the future development of the project area will involve the substantial displacement and removal of soil and the importation of materials within the immediate area of the development. Ground disturbance has the potential to impact on Aboriginal heritage sites and objects which are protected under the NSW *National Parks and Wildlife Act 1974*. The purpose of this assessment is to investigate the presence of any heritage sites and to assess the impacts and management strategies that may mitigate impacts. This may include the application for an Aboriginal Heritage Impact Permit (AHIP) if future impacts are unavoidable.

The aim of this assessment is to inform the proponents of their responsibilities in regards to cultural heritage sites and values that exist within the project area and allow for design to minimise or avoid impacts. This report will provide supporting documentation if an AHIP is required. Reporting will follow the guidelines of NSW Heritage, in particular the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010a).

Consultation with the Aboriginal community has been undertaken to assist the heritage team in assessing significance of any identified heritage sites and to provide guidance in the development of culturally appropriate management strategies. Consultation was in accordance with the *Consultation Guidelines for Proponents NSW* (DECCW 2010a).

1.2 RESTRICTED AND CONFIDENTIAL INFORMATION

Information in this report is restricted due to cultural sensitivities. Appendix 1 contains site locational information which is confidential and not to be made public.

Any figures within the report which show the location of heritage sites is restricted and not to be made available to the general public. If required to be displayed, this information should be redacted.

1.3 ASSESSMENT OBJECTIVES

The following is a summary of the major objectives of the assessment:

- Identify and consult with Registered Aboriginal Parties (RAPs).
- Review previous heritage reports to identify patterns in Aboriginal site distribution.
- Search AHIMS and LEP register to identify listed Aboriginal cultural heritage sites within the project area.
- Summarise past Aboriginal occupation within the project area using the archaeological record and develop a predictive site location model.
- Conduct an updated field survey of the project area
- Conduct subsurface testing of areas of Potential identified by previous heritage assessment survey of the project area to assess the archaeological potential and levels of previous disturbance.
- Through consultation with the Aboriginal community assess the significance of identified heritage sites.
- Identify the impacts of the proposed development on heritage sites within the project area.
- Develop management strategies for the identified heritage sites within the project area.

1.4 INVESTIGATORS AND CONTRIBUTORS

1.4.1 Lyn O'Brien

This report has been reviewed and site assistance given by Lyn O'Brien, Director of Past Traces Pty Ltd who has over 20 years' experience in the heritage profession since completing her BA (Hons) in Archaeology at the Australian National University (ANU) in 1996. Lyn has extensive experience managing major and small-scale projects, conducting numerous field surveys and excavations and authoring reports across both Aboriginal and Historical archaeology.

1.4.2 Nathaniel Cracknell

Nathaniel is a graduate of the University of Wollongong (Bachelor of Arts (Hons) majoring in History 2017). In 2021 he graduated with a Masters of Archaeological and Evolutionary Science, specialising in Bioarchaeology and Forensic Anthropology from the Australian National University. He has experience in field mapping, GIS, test excavations, salvage, and has assisted with surveys and excavations in both NSW and the ACT.

1.4.3 *Elisa Scorsini*

Elisa completed a Masters of Archaeological and Evolutionary Science (Advanced) in 2023, specialising in Environmental Archaeology and specifically micromorphology. She has experience in field surveys, test excavations, salvage and has assisted with projects in both NSW and the ACT.

Figure 1: Regional Context

Legend

- Study Area
- Highway
- Major Road

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Kilometers
Coordinate System:
GDA 1994 MGA Zone 55

Imagery: © Nearmap

PastTraces Heritage Consultants

Figure 2: Project Area Boundary

Legend

- Contour -2m
- Watercourse
- Highway
- Minor Road
- Track-Vehicular
- StudyArea
- Cadastre

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Meters
Coordinate System:
GDA 1994 MGA Zone 55

Imagery: © Nearmap

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2 ABORIGINAL CONSULTATION

Consultation with the Aboriginal community has been undertaken to assist the heritage team and to provide guidance in the development of culturally appropriate management strategies. Consultation was in accordance with the *Consultation Guidelines for Proponents NSW* (DECCW 2010a). Aboriginal representatives provided input into the management recommendations and significance assessment.

The *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* guideline (DECCW 2010a) outlines the following process to be undertaken:

- Notification of project proposal to Aboriginal stakeholders and invitation to register interest.
- Presentation of information about the proposed project and methodology to be followed.
- Gathering information about cultural significance from registered stakeholders by inviting comments, and input into management recommendations and significance
- Review of draft cultural heritage assessment report to ensure views are adequately captured and recommendations incorporated into report.

The consultation log for the project detailing the consultation steps completed and a full list of RAPs is provided in Appendix 2. Copies of notification letters, agency responses, email correspondence and comments from RAPs are provided as supporting documentation to this ACHAR.

A summary of actions completed for each of these stages are as follows.

Step 1. Letters outlining the project were sent to the Pejar Local Aboriginal Land Council (LALC) and, and statutory authorities including NSW Heritage on the 13/6/2024 as identified under the consultation guidelines (DECCW 2010). Notification letters were then sent on the 20/6/2024 to the stakeholders identified by NSW Heritage.

A public notice was placed in the local newspaper the Goulburn Post on the 19/6/2024 and ending on the 3/7/2024, seeking registrations of interest from Aboriginal stakeholders. The advertisement is provided in the supporting documentation.

As a result of this process, twelve (12) groups contacted the consultant to register their interest in the proposal. The Registered Aboriginal Groups (RAPs) who registered interest were:

- Pejar LALC
- Soni Rogers
- Corroboree
- Didge Ngunawal
- Guntawang
- Mundarawi
- Yurwang Gundana
- Girra Murrun
- Mulwaree
- Kamilaroi-Yankuntjatjara

- Gamila Roi
- Mura Cultural Services

Step 2. A Project Pack document was sent to the RAPs (8/7/2024) providing details of the project with the registration letter.

Step 3. A Methodology Pack with the proposed heritage assessment methodology for the proposal was sent to all RAPs (9/7/2024). The document invited comments regarding the proposed methodology and requested any information regarding known Aboriginal heritage sites or values within the project area with the review period ending on the 6/8/2024. Due to changes in the methodology an updated Methodology Pack was sent out on the 29/7/2024 with the review period ending on the 26/8/2024.

Step 4. A draft version of this *Aboriginal Cultural Heritage Assessment Report* for the project (this document) was forwarded to the RAPs with a timeframe of 28 days provided to allow for responses to the document.

2.1 ABORIGINAL COMMUNITY FEEDBACK

Aboriginal consultation has been ongoing through the project with feedback requested during the design of methodology and the cultural assessment. Information regarding the cultural values and known heritage sites surrounding the project area was provided onsite by the attending RAPs.

A draft of this report has been forwarded on its completion to the RAPs and any responses received have been noted in the Consultation log and included in the final ACHAR recommendations.

3 LANDSCAPE CONTEXT

3.1 GEOLOGY

The geology of the project area namely consists of Towrang Beds and Undifferentiated Silurian sediments and volcanics. This underlying geology is comprised of the Mount Fairy Group consisting of rhyolite, dacite flows and intrusives, dacitic tuff and breccia, rhyodacitic ignimbrite, pyroxene andesite, basalt, mafic volcanic breccia, felsic and mafic volcaniclastic conglomerate and sandstone, quartzose sandstone, silt.

The Geology of the project area is shown on Figure 3.

3.2 SOILS

Soils throughout the project area consist namely of the Bullamalita group consisting of alluvial sandy loam soils. These soils have formed in situ and from alluvial-colluvial material derived from the parent rock. This distribution of soils is shown on Figure 4 and the soil composition is described as follows:

- Bullamalita (bl): This alluvial soil landscape is located on the undulating rises and valleys between low hills. These soils consist of commonly acid to neutral yellow duplex soils, usually with bleached A2 horizons that set very hard on drying, occur on lower side slopes, foot slopes and drainage lines. Podzolic Soils are found on upper slopes whilst Yellow Solodic Soils and alluvial soils occur in some drainage lines (Jenkins 2000: 41-43).

3.3 FLORA AND FAUNA

The natural vegetation across the majority of the project area has been cleared and is now considered as a highly modified environment. Grass coverage appears to have been subject to pastoral activities and pasture improvement with a high proportion of weed species. These and other weed species are prevalent across the project area. The previous landscape consisted of Savannah woodland of yellow box and red gum, with Brittle gum forests occurring on the boundary with the Midgee soil landscape. This landscape provided many resources for Aboriginal people with natural grasslands also present along creek lines and other open areas.

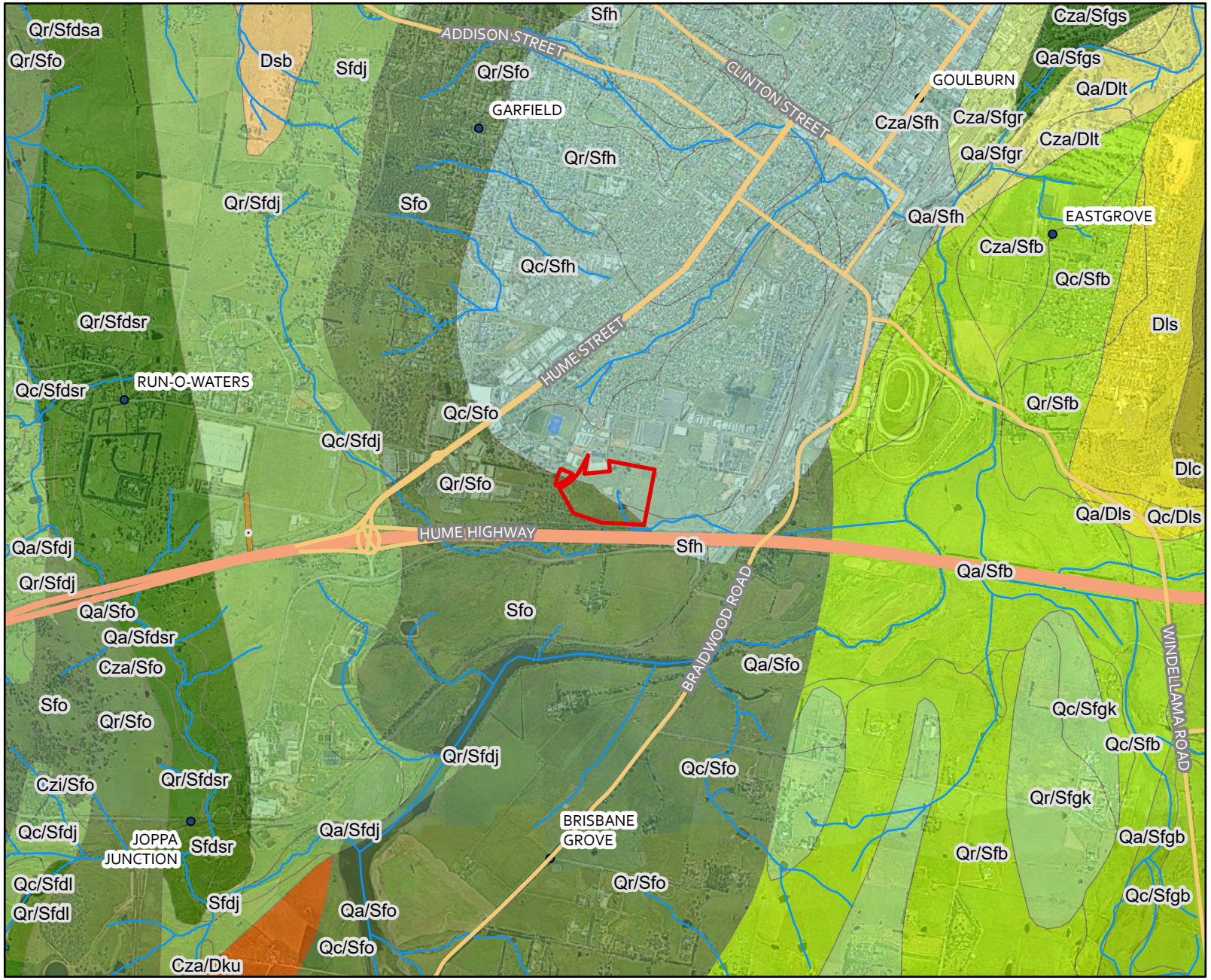

Figure 3. Geology of Project Area

Legend

- Watercourse
- Highway
- Major Road
- Study Area

Geology

- BINDOOK GROUP,Bullamalita Conglomerate
- BISHOPTHORPE SUITE,
- BISHOPTHORPE SUITE,Bishopthorpe Dolerite
- LAMBIE GROUP,Cookbundoon Formation
- LAMBIE GROUP,Strathaird Formation
- LAMBIE GROUP,Tarlo Formation
- MOUNT FAIRY GROUP,
- MOUNT FAIRY GROUP,Back Station Ignimbrite
- MOUNT FAIRY GROUP,Boxers Creek Formation
- MOUNT FAIRY GROUP,Bradfordville Volcaniclastic
- MOUNT FAIRY GROUP,Covan Creek Formation
- MOUNT FAIRY GROUP,Joppa Siltstone Member
- MOUNT FAIRY GROUP,Komungla Rhyolite Member
- MOUNT FAIRY GROUP,Rhyanna Formation

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Kilometers
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GDA 1994 MGA Zone 55

Imagery: © Nearmap

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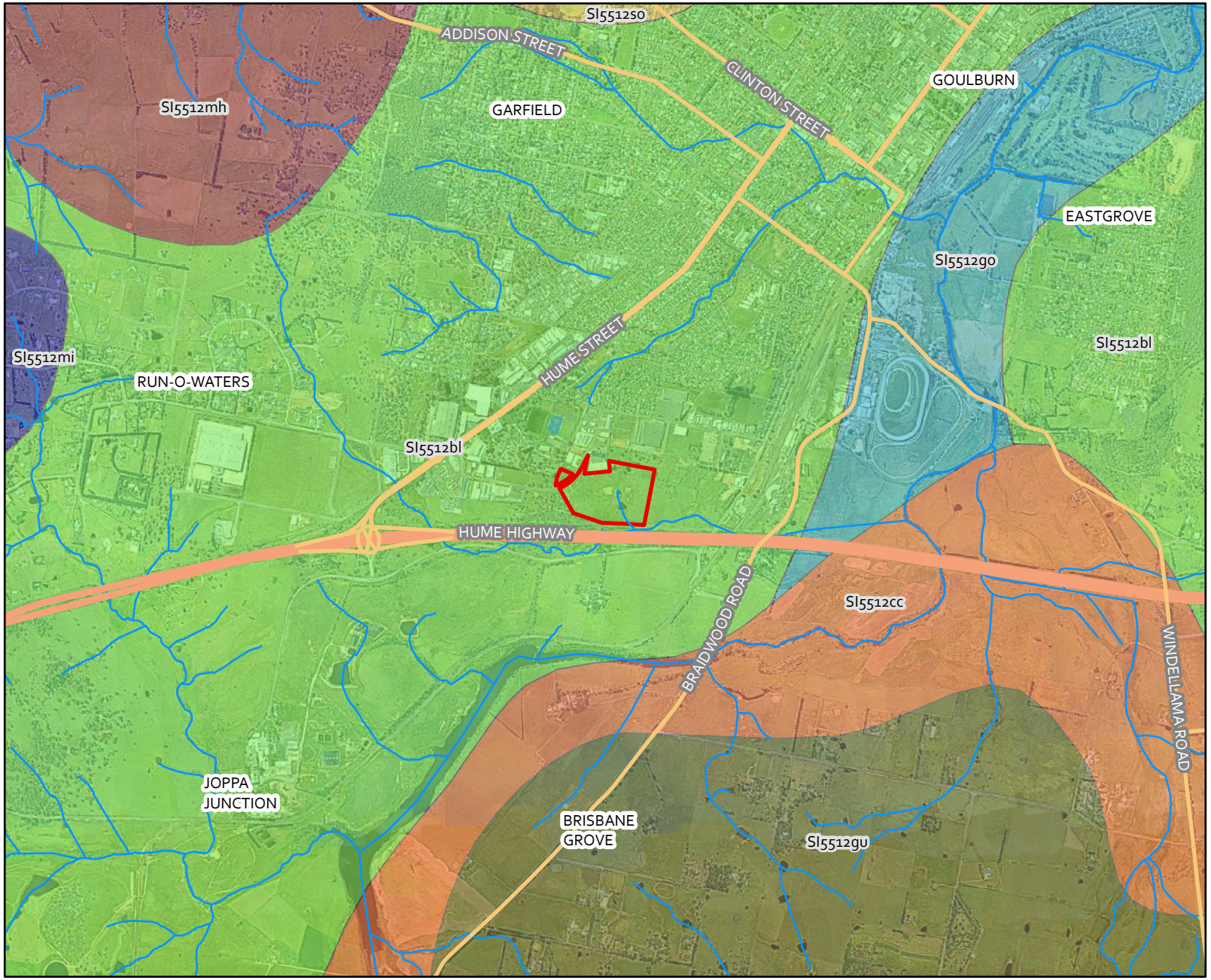

Figure 4:Soil Landscape

Legend

- Watercourse
- Highway
- Major Road
- Study Area

Soil Landscapes

- Blakney Creek
- Bullamalita
- Collector Creek
- Goulburn
- Gundary
- Midgee
- Monastry Hill
- Sooley

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Kilometers
Coordinate System:
GDA 1994 MGA Zone 55

Imagery: © Nearmap

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3.4 HISTORICAL CONTEXT

Land disturbance following European settlement affect the surviving archaeological record and by either obscuring sites through factors such as ploughing, vegetation removal or buildings, or by exposing sites through actions such as erosion, stock trails and road cuttings. Activities such as mining or large-scale forestry are highly destructive of the archaeological record of Aboriginal utilisation.

Goulburn was proclaimed Australia's first inland city in 1863 with early settlement occurring around the 1830's. Settlement surrounding the project area was extensive as depicted by the earliest available parish map (2nd Edition) of 1886. The 2nd Edition County of Argyle, Parish of Goulburn Map notes that the current project area was part of the much larger Garroorigang Estate, granted to John Archer Broughton in 1822. In 1857, 50 acres of the estate were sold to Charles Thomas who built the Black Swan (Mulwaree) Inn. The Inn became a private boy's school from 1868-1883 when it became the home of the Hume family and known as Garroorigang Homestead. The property is listed on the National Trust and NSW Heritage Register. The paddocks of the current project area were used for grazing with no infrastructure or improvements made to the property. The 3rd Edition 1875 Goulburn parish map shows the land as belonging to WH Broughton as does the 4th Edition dated 1902, with the project area remaining as part of the Garroorigang Estate well into the 1970's, as depicted in the 8th Edition Parish map. No Structures are shown as being present at this time. The extract from the 1962 (8th Edition) parish map is shown in Figure 5.

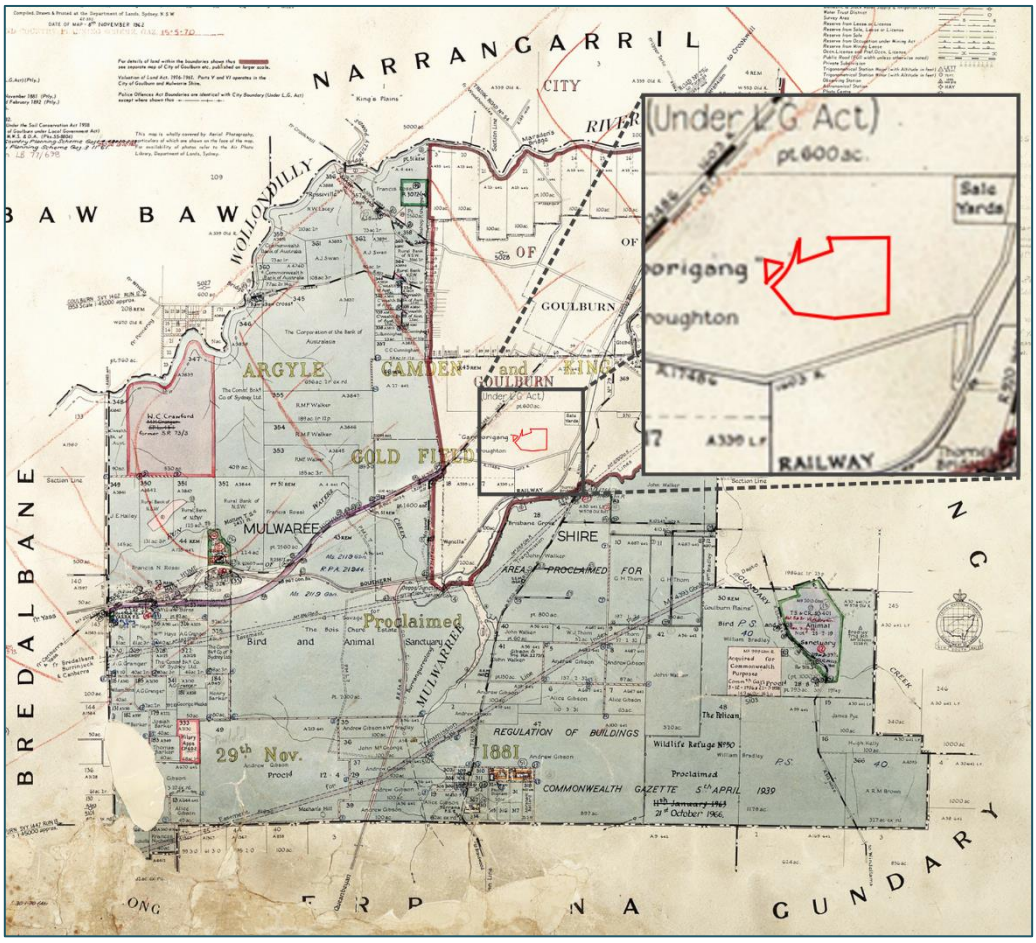

Figure 5. 1962 County of Argyle, Parish of Goulburn, 8th edition map

3.5 LANDSCAPE CONTEXT

The landscape elements within the project area affect the findings of archaeological potential, based on the conditions for use and occupation of the landscape and the availability of resources present in the region. The presence or absence of landscape features, degree of slope and exposure to wind or cold drainage all affect the assessment of potential and influence predictive modelling for the presence of Aboriginal sites. In this instance, the project area features steep to gentle gradient slopes in the western section with gentler gradient to level areas located on the eastern slopes which descend to the south.

The mapping of previous sites in the region suggests that the area of creek lines would be a focus of activity as water is a main resource. Being prone to flooding this landform may have held banks of rushes and may have been water laden during periods of rainfall resulting in 'boggy' ground. Preferred resting or camping locations would then be located on small rises of dry ground probably situated on alluvial terraces.

The study area consists namely of a small mid slope saddle between two crests to the east and west, with the centre of this saddle featuring a 1st order drainage line that descends to the south towards the Mulwaree River.

The study area has been cleared of trees and opened for grazing. Native vegetation has been removed and low levels of erosion are present along the ephemeral creek line which bisects the project area. Two constructed dams are present along this section of creek line. The project area covers steep slopes descending to this creek line. The Mulwaree River is located 750m directly south of the project area. Remnant trees are present in the northern section adjacent to the boundary.

Creek flat areas and lower slopes in close proximity to water sources are considered to hold moderate potential for Aboriginal heritage sites based on their aspect (level to gently sloping). Most common site placements are located on level terraces above the water body set back from the immediate bank. From review of aerial photos of the project area it would appear that the slopes of the majority of the project area holds low potential for unrecorded sites.

The area has been subject to agricultural landscaping (dam and bund construction), soil dumping and pastoral impacts in the past. Fence lines, vehicle impact trails and a large shed have been constructed in the project area. The landforms are classified as a stable landscape on the crests and slopes and an aggrading one within level lower slopes, creek flats and floodplains. Soils appear to have suffered impacts from pastoral activities within the project area.

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4 ABORIGINAL ARCHAEOLOGICAL CONTEXT

A desktop assessment has been undertaken to review existing archaeological studies for the Project Area, and the wider Goulburn region. This information has been used to identify previously recorded sites and to develop an Aboriginal site prediction model for the project area.

4.1 ABORIGINAL GROUPS WITHIN THE PROJECT AREAS

Within the Goulburn region two major language groups were identified by Norman Tindale in his seminal work on Aboriginal tribal boundaries. There were the Gundungurra (Gandangara) to the north of Goulburn, and the Ngunawal (Ngunnawal) also known as the Yass tribe, Lake George Blacks or Molonglo tribe to the south. The boundaries of the Ngunawal ran to the south-east where they met the Ngarigo at the Molonglo and the Wiradjuri in the Yass region (Tindale 1974). This distribution with minor amendments is still accepted and the review of tribal boundaries undertaken in the 1990s (Horton 1996) confirmed these earlier boundary locations.

The Ngunawal and Gundungurra languages are closely related with a shared majority of words but with a difference in syntax (Koettig and Lance 1986:13). This similarity can either be a result of long contact between the two groups or as a result that Matthews, one of Tindale's main source of information, was not working in the region until the 1890s when the Aboriginal people of the area had already been impacted by the results of white settlements and groups had merged together following the impacts of disease and disruption of traditional lifeways (Flood 1980:27).

The Goulburn region has many early settlers accounts of the traditional lifeways of the aboriginal community. These recorders lived in the area during the early 1830's and recorded many aspects of Aboriginal life. Some of the best sources for observations of the Indigenous inhabitants of the region are Bennett (1834). MacAlister (1907) and Govett (1977). Their observations must be viewed as from a white perspective and filtered through their cultural traditions, but they provide a glimpse of a functioning hunter and gatherer lifestyle with a cycle of repeated visits to areas at times of seasonable resource availability and a ceremonial life that imposed duties and responsibilities on members of the group.

MacAlister records that three tribes resided in the district, the Cookmai or Mulwarrie (Mulwaree), the Tarlo, and the Burra Burra (MacAlister 1907:82). MacAlister notes that Aboriginal people travelled from the Lachlan River to visit Goulburn (1907:82). Larger gatherings of Aboriginal people were recorded at Rocky Hill near the East Goulburn Church of England, the old railway quarry on the Wollondilly River, Mulwaree Flats near the historic brewery, the All-Saints church in Eastgrove and the Goulburn Railway Station (AMBS 2012:13, Tazewell 1991:243, Wyatt 1972:111-112).

The flat, rolling topography of the Goulburn region and the lack of natural physical barriers would have facilitated contact and movement through the region and the surrounding Aboriginal people. Lhotsky in 1834 crossed the Breadalbane Plains meeting a party of approximately 60 Aboriginal people at Fish River. This group told Lhotsky that they travelled as far as Goulburn and Yass Plains but not so far as Limestone (Lhotsky 1979:104-105). At a large gathering at Bathurst in c.1837 Aboriginal people were present from Goulburn, the Monaro and as far away as the Hunter Region (Boswell 1890:7-8).

Disease followed the settlement of the area and may have preceded it with the smallpox epidemic originating in Sydney in 1789 possibly spreading throughout the region (Flood 1980:32). This disease would have decimated the Aboriginal population and was followed by Influenza in 1846. The notable decline of the number of the Aboriginal people was noted in 1845 at Bungonia and in 1848 at Goulburn by the Bench of Magistrates (Tazewell 1991: 244).

4.2 PREVIOUS ARCHAEOLOGICAL WORK

Heritage assessments have been undertaken in increasing frequency due to the level of increased development within the Goulburn region and increased legislative requirements within NSW. A number of heritage studies have been undertaken in the surrounding area and southern Goulburn for residential subdivisions and development. Review of this body of work allows for the development of regional settlement models; landscape usage; the use of resources; group movements; and site locations for the region. The most relevant reports for the current project are summarised below.

4.2.1 Regional Overview

The area of Goulburn has been extensively studied due to the high prevalence of residential developments and the adjacent Hume Highway. Of these reports the most relevant are summarised below to provide an understanding of site location model and site formation processes in this area.

Koettig in 1983 undertook an assessment including field survey of the proposed Goulburn By-Pass covering a length of approximately 11km. This study was the first in the direct area and located 22 artefact scatters and 17 isolated finds. The sites were located within the undulating slopes all within 200 m of a water course. 54% of sites were located on slopes, 23% on ridges and 23% along creek or river flats. Only one site (G17) was large, consisting of stratified deposits of artefacts. This site was located on the eastern bank of the Mulwaree River near the junction with Gundary Creek. A model of larger sites in association with major water courses, with smaller sites near smaller creeks was formulated.

Koettig and Lance in 1986 undertook the Aboriginal Resources Planning Study for the City of Goulburn. Based on all available data they developed an Aboriginal site location model for Goulburn. Four landscape zones based on topography (major watercourse, undulating hills and plains, hills and residential areas) were assigned archaeological sensitivity ratings. A review of previously identified sites within the Goulburn region found artefact scatters were the predominant site class within the undulating hills and plains zones. The majority of these sites are located on basal slopes close to major waterways and they classified this landform as holding high sensitivity.

Fuller in 1989 was engaged by Goulburn City Council to test Lance and Koettig's 1986 model by undertaking sub surface testing at areas designated high sensitivity by the model. The results of this large excavation program, although supporting the overall model, concluded that all areas apart from major watercourses were of low potential and that further subdivisions were necessary in the undulating hills category if it was to be useful for predicting site locations. Fuller's system can best be explained in that sensitivity refers to the likelihood of a site occurring, and significance refers to the importance of the site when identified.

AMBS in 2012 undertook an Aboriginal Heritage Study for the entire Goulburn Mulwaree LGA for the Goulburn Mulwaree Council. This study followed on from the work of Lance and Koettig (1986) and Fuller (1989) and assessed the general importance of different landforms to the Aboriginal community and their sensitivity for archaeological potential. Previous work undertaken within the Goulburn region was concluded to support the predictive model of Fuller, finding that the model was still applicable. The findings of Fuller were used as the basis for classification of landform potential for predictive archaeological sensitivity mapping within the boundaries of the LGA.

4.2.2 Local Overview

Several heritage assessments have been undertaken for the immediate vicinity of the project area. These studies have been commissioned mainly due to rural residential subdivisions.

Koettig (1987) completed field survey and test excavation south of the current project area at the junction of Garoorigang Road and the Hume Highway. The field survey located one artefact scatter and 15 isolated finds. This study identified site G15 within the current project area. Test excavations then revealed two sites with a total of 80 artefacts mainly constructed on silcrete.

Paton in 1990 excavated and completed salvage on the 15% of site G17 in the path of the Goulburn By Pass (Hume Highway) project. Paton's excavations recovered over 15,000 artefacts with the majority of the assemblage consisting of quartz with silcrete as a secondary material. Paton suggested that the site dated from the last 5000 years and represented a regularly visited base camp.

NOHC (2005) completed the assessment for the Ducks Lane Infrastructure project on the northern boundary of the Hume Highway located 2.5kms to the west. Although the area was classified as low potential, two areas of PAD and a number of small surface scatters were recorded focused on a small creek line which bisected the area. These sites were subject to test excavations and salvage (NOHC 2006) revealing low density deposits.

AHS (2007) conducted an archaeological assessment for proposed subdivision at Run-O-Waters 3kms to the west of the current project area. Five new Aboriginal sites and one PAD was identified during the survey. All the sites located were within crest, lower or upper slope landforms. The highest density artefact scatter consisted of 53 artefacts and was located on the upper slope of a ridge (Saunders 2007: 20).

Biosis in 2015 undertook the test pitting and Aboriginal Cultural Heritage Assessment report of AHS (2005) identified areas of PAD along Clyde Street, which was proposed as the Platypus Estate (3.74km to the north west. During this assessment, the two previously recorded surface sites could not be relocated, likely due to the long period between assessments. The two area of PAD were subsurface tested with PAD1 revealing a low-density (15 artefacts from five test pits), low significance deposit and PAD2 having no artefactual deposit.

Biosis in 2016 completed further assessment for the proposed Ducks Lane Residential Development investigated by NOHC. This area was assessed to hold moderate potential based on the presence of two small creek lines with a gently sloping aspect. Areas of PAD along the creek line which based on modelling held moderate potential were tested with nil results. Two small sites were identified within the project area, both on creek line lower slopes.

Past Traces in 2018 completed a due diligence assessment for the subdivision of Lot 2-4 DP882289 and Lot 4 DP83933 on Shannon Drive, Goulburn. The area had previously been surveyed by AHS in 2007. One area of PAD was identified with no surface sites being recorded. The area was assessed as holding low potential due to previous impacts and the lack of water resources to focus utilisation of the area.

Past Traces completed a due diligence assessment on Pockley Drive, Run-O-Waters, for a future residential development covering an area of 23ha in 2019. The area had been subject to high levels of cropping and grazing and no areas of heritage sites or potential were identified.

Past Traces in 2019 undertook a Due Diligence assessment of the current project area as part of a proposed subdivision project. The property contained one previously identified AHIMS site (G15), with the field survey identifying two artefact scatters with associated areas of PAD (Tait 1 and Tait 2). Site Tait 1 (AHIMS 51-6-0844) was identified as existing on the slopes to the east of the lower dam and consists of a surface scatter of seven quartz artefacts over an area of 40m x 40m. Site Tait 2 (AHIMS-51-6-0845) consists of nineteen artefacts located at the base of, and within the drip zone of, a single old growth tree located on the mid slope to the east of the drainage line.

Past Traces undertook a Due Diligence assessment of 17 Park Close, Run O Waters in 2021. The landform elements within this area consist of gentle lower slopes with a minor drainage line present with a constructed dam. No heritage sites or areas of Potential archaeological deposits (PAD) were identified as a result of this assessment.

In 2021, Past Traces completed Compliance work for Lot 14 DP1102589, located at 17 Cowrang Place, Goulburn, in the southern end of the project area previously assessed by NOHC and Biosis as Ducks Lane. The assessment salvaged three sites under AHIP 2549, as they were considered at risk. Two sites (51-6-0398 and 51-6-0864) remained in the 2021 project area and were considered at risk of indirect impacts. The heritage fencing of sites 51-6-0398 and 51-6-0864 was completed on January 29, 2024. Site 51-6-0398 comprises an area of Potential Archaeological Deposit (PAD) and is located within Lot 4, whereas site 51-6-0864 consists of an isolated artefact within Lot 3. Following the completion of the heritage fencing, it was concluded that works may commence.

Past Traces in 2024 conducted an assessment of 101 Lillkar Road, Goulburn, located 1.8km east of the current project area. The property consists of pastoral paddocks that have been subject to previous pastoral improvement with subsurface infrastructure along its northern and southern boundaries. The field survey did not identify any Aboriginal sites or areas of subsurface potential, with a moderate level of disturbance identified across the project area.

A Due diligence assessment has been undertaken over the current project area by Hyperion Design in May 2024 which revisited three previously registered heritage sites (identified in 2019 by Past Traces) with two of these sites associated with subsurface potential within the project boundary. A field survey was conducted in July 2023 with a focus on the examination of sensitive landforms. Each of the three previously recorded AHIMS sites within the project area were inspected during the survey. Site G15 (51-6-0019) was not observed during the site visit, likely owing to increased vegetation coverage, while Tait 1 (51-6-0844) and Tait 2 (51-6-0845) were identified and found to be in a similar condition as recorded in an earlier inspection undertaken by Past Traces in 2019. No additional sites were identified.

These previous assessments for the region have returned consistent results and confirmed the importance of level areas or low rises adjacent to creeklines for small sites with water ways such as the Mulwaree River being locations for larger sites reflecting more utilised or larger congregation area. As a result, the areas of level terrace or rises in the vicinity of creek lines are considered to hold moderate to high potential (dependant of degree of disturbance) with sites being small and consisting of common materials.

4.3 HERITAGE REGISTERS

4.3.1 NSW State Heritage Inventory

The State Heritage Inventory (SHI) is maintained by NSW Heritage and consists of State heritage registered places, declared Aboriginal places and items listed on Local Environment Plans (LEPs).

A search of the SHI was undertaken on the 3/07/2024 with no listed heritage places or items within the project area. A search of the Goulburn-Mulwaree LEP 2009 was undertaken on the 3/07/2024 with no listed heritage places or items within the project area.

4.3.2 Aboriginal Heritage Information Management Systems Search and Site Analysis

An extensive search of the NSW Heritage Aboriginal Heritage Information Management Systems (AHIMS) database was undertaken on the 3/07/2024 covering the approximate 2.5km surrounding area centred on the project area from Latitude, Longitude -34.7936, 149.6723 to -34.7584, 149.734. The extensive search results revealed three previously recorded sites (G15: 51-6-0019, Tait 1: 51-6-0844 & Tait 2: 51-6-0845) within the project area with 53 sites within the wider 2.5km search area.

Two areas of PAD have been recorded within the current project area, that may require future sub-surface testing (Tait 1: 51-6-0844 & Tait 2: 51-6-0845).

The recorded sites by type as listed on AHIMS are listed in Table 1 and shown on Figure 6 in relation to the project area. Site search results are provided in Appendix 1.

Table 1. AHIMS Site Details

Site Type	Number of Sites	Percentage in region
Isolated Finds	9	15.25%
Artefact Scatters	39	66.10%
Potential Archaeological Deposit (PAD)	6	10.17%
Culturally Modified Tree	3	5.08%
Stone Quarry	1	1.7%
Burial	1	1.7%

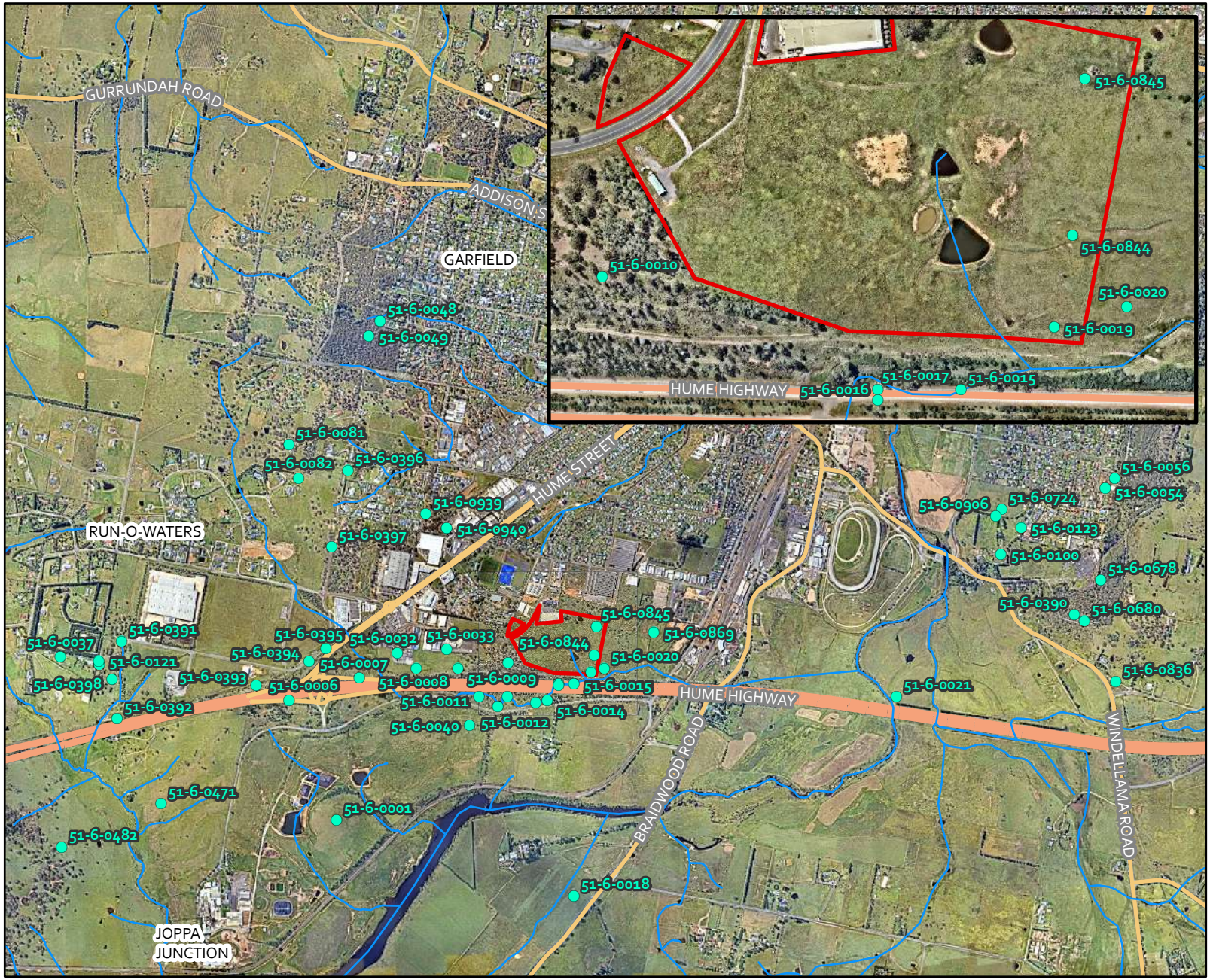

Figure 6: Previously Recorded Heritage Sites

Legend

- Watercourse
- Previously Recorded Site
- Study Area
- Highway
- Major Road
- Minor Road
- Track-Vehicular

N

1:30,000

0 0.25 0.5 1

Kilometers
Coordinate System:
GDA 1994 MGA Zone 55

Imagery: © Nearmap

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It is clear from these results that the dominant site type in the region are occurrences of stone artefacts, either as isolated finds or in clusters as small artefact scatters accounting for all site types within the record. The recorded sites are located on areas of raised terrace or lower slopes in association with creek lines. The locations of these sites and the identification of the areas of PAD, conform to the predictive model for the placement of sites in the local region.

4.3.3 Predictive Modelling

Based on the previous assessments completed through the region site locations and types can be summarised as follows:

- The majority of open artefact scatters are located near creek lines, particularly on reasonably level, elevated ground,
- artefact scatters occurring away from major creek lines tend to be small and sparse,
- scarred trees may occur wherever old growth trees of sufficient age have survived (locally at least 140-150 years); and
- stone procurement sites may occur where rock suitable for stone tool manufacture is present on the surface, but none are recorded in the area.

The following predictive model has been developed for the project area (Table 2).

Table 2. Site Prediction Model

Probability	Site Type	Definition	Typical Landform	Assessment
Moderate	Isolated finds and surface scatters of stone artefacts	Stone artefacts ranging from single artefact to high numbers	Most likely in proximity to creek lines and river flats	Project area has been impacted by pastoral and landscaping activities. Project area has a 1st order drainage line to the south and is 700m from the Mulwaree River. Recorded sites present
Moderate	Potential Archaeological Deposits (PADs)	Area considered on landform to hold higher potential for unidentified subsurface deposits	Varies, but most frequent on elevated terraces along creek lines and river frontage.	Project area has been impacted by pastoral and landscaping activities. Project area has a 1st order drainage line to the south and is 700m from the Mulwaree River. Two recorded PADs present.
Nil	Culturally Modified Trees (CMTs)	Trees which have been modified by scarring, marking or branch twining	Wherever old remnant trees remain	No old growth trees remain.

Probability	Site Type	Definition	Typical Landform	Assessment
Nil	Rock Engravings	Images engraved on flat rock surfaces	Escarpments, rock platforms or rock shelters	Not present
Nil	Stone arrangements	Arrangements of stones by human intention, including circles lines or patterns.	Any landform	Previous impacts and ongoing use suggest unlikely these sites would remain and none are previously recorded.
Nil	Stone quarries/Ochre sources	Quarry sites where resources have been mined.	Any landform	Not present based on geology.
Nil	Axe grinding grooves	Grooves in stone caused by the grinding of stone axes	Usually in creek lines, as water is used as abrasive with sand.	None previously recorded.
Nil	Burials	Burials of Aboriginal persons	Usually requiring deep sandy soils on eastern facing slopes	Relevant soils not present. None previously recorded.

4.4 PREDICTIVE MAPPING FROM THE ABORIGINAL SITE DECISION SUPPORT TOOL

The Aboriginal Site Decision Support Tool (ASDST) is a modelling tool developed to illustrate the potential distribution of site features recorded in AHIMS and to support the landscape planning of Aboriginal Heritage. The ASDST is maintained by the NSW Department of Planning and Environment with the current Version 7.5 released in 2020 at a 50m resolution.

The ASDST was developed in order to provide a set of spatial GIS layers combined with analytical techniques that presents visual and quantitative information regarding the likely distribution of Aboriginal site features across the landscape and associated accumulated impacts (Ridges 2006 & DPE 2023). The modelling provides several GIS layers that highlight the likelihood of where Aboriginal artefacts, rock art, burials, earth mounds, grinding grooves, hearths, shell middens, stone quarries and culturally modified trees are located. In addition, the ASDST provides GIS layers relating to accumulated impacts, model reliability and survey priority. It should be noted that these models show the likelihood of the feature and not the probability. The likelihood is defined as a relative measure indicating the likelihood that a grid cell (of $50m^2$) may contain the feature of interest relative to all other cells in the layer.

For this assessment, several ASDST models have been used to review the accuracy of the predictive model described in Section 4.4. The results of the ASDST modelling are depicted in Figures 7 to 9, with a basic interpretation of the modelling discussed below:

- Figure 7 – This figure highlights the general level of archaeological sensitivity.
  The model suggests a moderate archaeological sensitivity across the project area with a focus on the Mulwaree River to the south.

- Figure 8 – This depicts the accumulated impacts derived from the difference between the pre-colonial and current versions of the model.
  This suggests a high level of accumulated impacts across the project area, which is higher in the south in proximity to the Hume Highway.

- Figure 9 – This highlights the survey priority of the area derived from the potential for sites considering prior impacts and the reliability of predictions.
  This suggests a relatively moderate survey priority with a smaller areas of higher potential.

As a result of the application of the ASDST the project area is not considered to be highly sensitive or highly likely to contain significant Aboriginal sites.

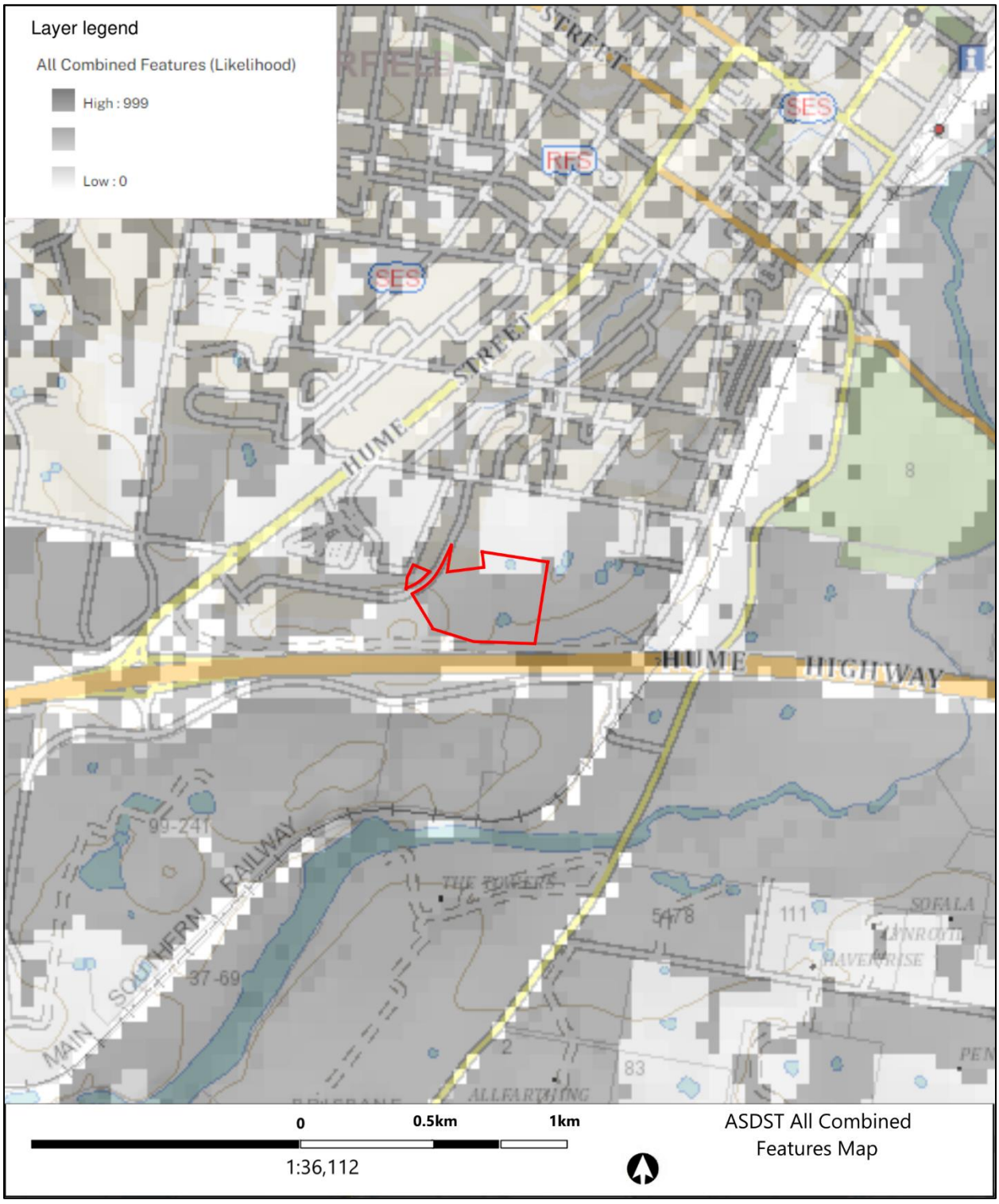

Figure 7. ASDST map of all combined Aboriginal heritage feature likelihood.

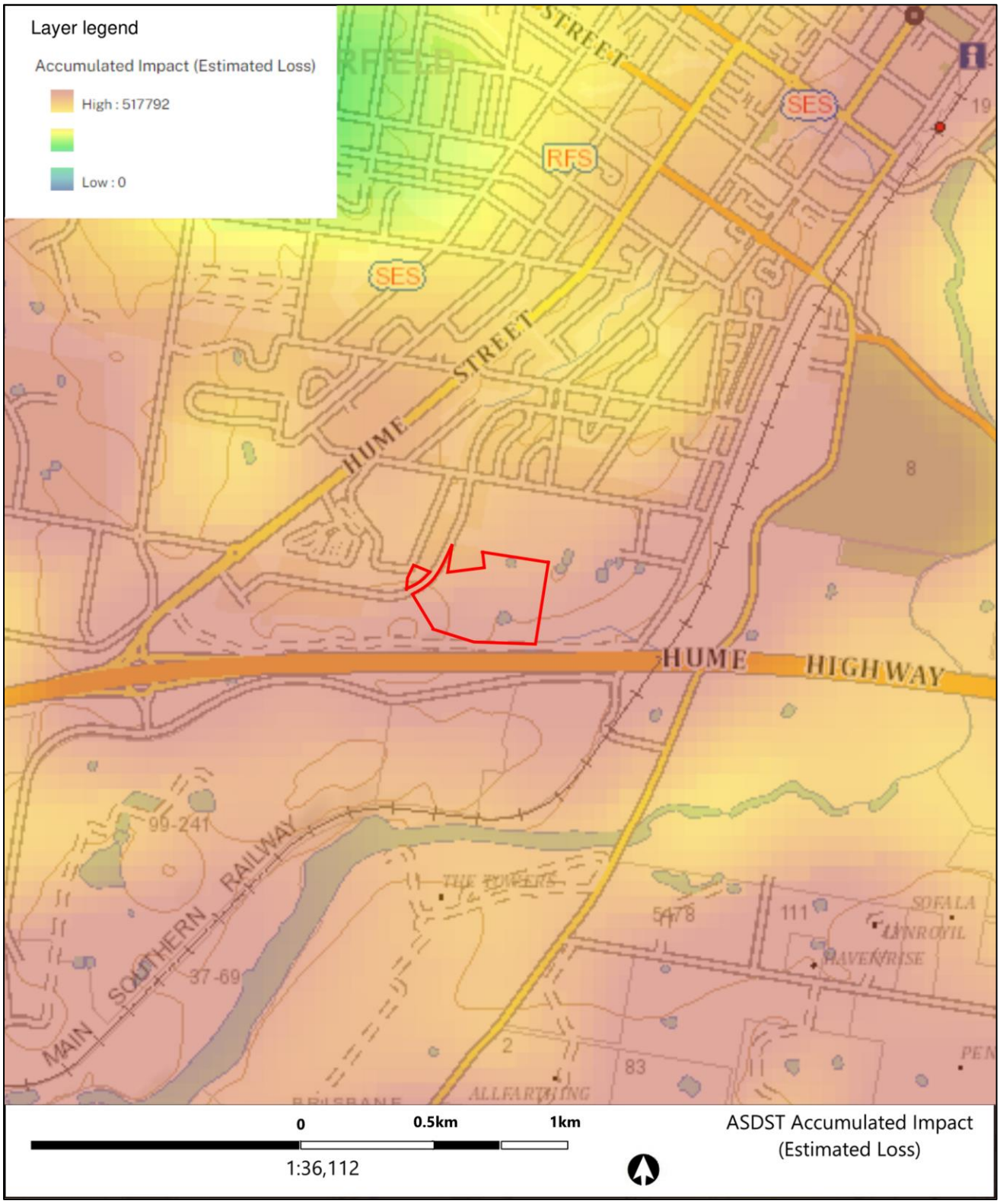

Figure 8. ASDST map of areas of accumulated impacts across the project area.

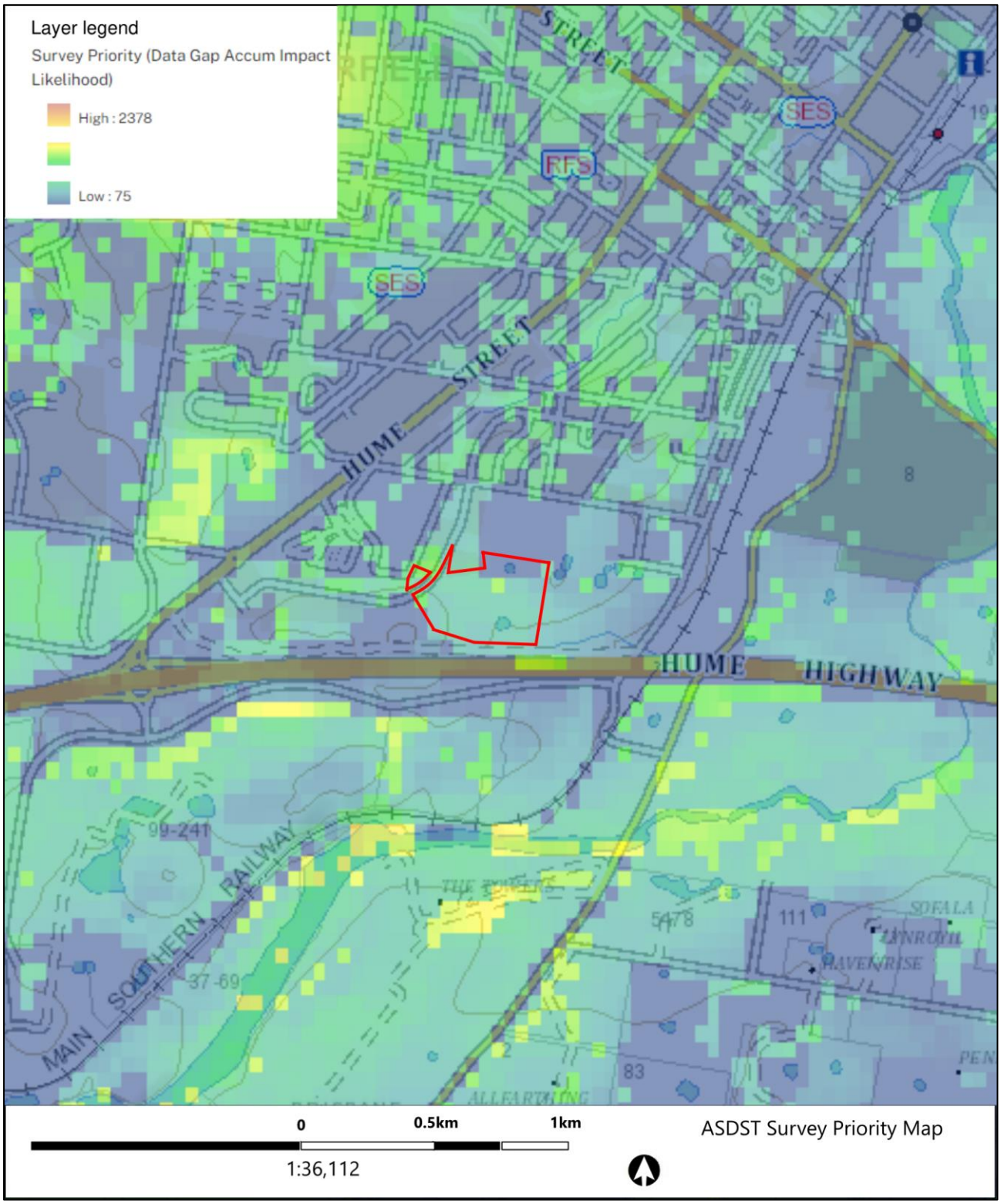

Figure 9. ASDST map of the survey priority across the project area.

5 ARCHAEOLOGICAL FIELD SURVEY

A field survey was undertaken as part of the Hyperion Design 2024 Due Diligence assessment. The main aims of this assessment were to identify Aboriginal objects, areas with the potential for subsurface archaeological deposits, and to assess the overall intactness of the project area. The entire project area was physically surveyed, with particular attention on areas of exposed ground and higher Ground Surface Visibility (GSV), as well as inspecting all mature trees for potential cultural modifications.

A detailed report of these findings is presented in Hyperion Design 2024 report, with the results of this assessment described below.

5.1 HYPERION DESIGN 2024 SURVEY RESULTS

Field survey was conducted in July 2023 with parallel transects undertaken by Kylie Christian from Hyperion Design with a focus on the examination of sensitive landforms. The survey was undertaken at a time when surface visibility was low across the project area with dense vegetation coverage with GSV estimated at 20%. Few exposures were present across the project area, namely consisting of informal vehicle tracks, eroded gullies, dams, stock tracks, areas of previous disturbance and along slopes that generated run-off were more likely to include uncovered ground surfaces. Sheltered areas near trees in the northern area of the property also had high areas of surface visibility.

Each of the three previously recorded AHIMS sites within the project area were inspected during the survey. Site G15 (51-6-0019) was not observed during the site visit, likely owing to increased vegetation coverage, while Tait 1 (51-6-0844) and Tait 2 (51-6-0845) were identified and found to be in a similar condition as recorded in an earlier inspection undertaken by Past Traces in 2019. No additional sites were identified. The results of the Hyperion Design survey are depicted in Figure 10.

The aforementioned areas of PAD are further supported by the predictive models developed for the region, as stated in Section 4.4.

The Hyperion Design (2024) report supported the rezoning of the current project area, and therefore no impacts were proposed. However, it was stated that owing to the nature to the project, the future stages of development have the potential for works to cause ground disturbance to the sites, suggesting impacts to heritage sites should be avoided and if they cannot be avoided then an application and approval of an Aboriginal Heritage Impact Permit (AHIP) must be made prior to works commencing.

Figure 10: Hyperion Design 2024 Survey Results

Legend

- Contour -10m
- Watercourse
- Study Area
- Highway
- Minor Road
- Track-Vehicular

N

1:3,000

0 25 50 100

Meters
Coordinate System:
GDA 1994 MGA Zone 55

Imagery: © Nearmap

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5.2 PAST TRACES 2024 SURVEY RESULTS

An updated field survey was conducted on the 27th August 2024 with pedestrian transects undertaken by Nat Cracknell of Past Traces and Chris MacAlister of Pejar LALC.

A field survey of the project area was undertaken to verify the findings of the desktop review of landforms and disturbance, and provide an updated assessment. The aim of the investigation was to identify heritage objects or places of potential archaeological Deposit (PAD). Based upon the background research, known Aboriginal site patterning, and current aerial photography, the entire block was inspected with particular focus taken in the areas of highest potential and recorded heritage sites

All surveyed areas and items of interest were recorded on a topographic map of the study area (using a GPS and GDA94 MGA55 coordinates), along with levels of visibility, erosion, soil conditions, and evidence of land disturbance.

Ground surface visibility (GSV) is the percentage of ground surface that is visible during the field inspection. GSV increases in areas of exposures such as stock impact trails, roads, gates and along areas of erosion such as creek banks and dam walls. As a result, surveys undertaken in areas with high exposure rates result in a more effective survey coverage.

The site visit resulted in the following findings.

5.2.1 Ground Surface Visibility

The survey was undertaken at a time when surface visibility was low across the project area with extensive vegetation coverage with GSV estimated across the project area between 10-40% with higher GSV in the upper slope and eroded mid slope areas and lower GSV in the south of the project area where waterlogged soils allowed for increased grass coverage. In these areas the GSV decreased to <20%. Exposures rates also varied across the area, with large areas of bare soils namely located along dam walls, fence lines, vehicle tracks and under trees.

The conditions at the time of the field survey are shown in Plates 1 to 10.

The GSV, degree of disturbance and rate of exposures for each landform is provided in Table 3 below.

Table 3. Ground Surface Visiblity Rating

Landform	GSV	Exposure Rate	Degree of Disturbance	Mechanism of disturbance
Upper Slope	40%	30%	Moderate to High	Vegetation clearing for stock grazing. Construction and landscaping surrounding large shed and vehicle access track with introduced material. Boundary fence lines.
Mid Slope	30%	30%	Moderate	Vegetation clearing for stock grazing. Landscaping of vehicle access track with introduced material. Two large areas of dumped

Landform	GSV	Exposure Rate	Degree of Disturbance	Mechanism of disturbance
				material in centre of property. Boundary fence lines.
Low Slope	10%	10%	Moderate	Vegetation clearing for stock grazing. Several constructed drainage contours. Boundary fence lines.
Creek Flats/ Drainage Line	30%	30%	High	Vegetation clearing for stock grazing. Four constructed dams with several constructed drainage contours and landscaping.

Plate 1. View from gate entrance overlooking project area (facing southeast)

Plate 2. Area adjacent to shed with introduced material driveway (northwest)

Plate 3. Erosion along upslope fence line (northwest)

Plate 4. Overview of the project area (east)

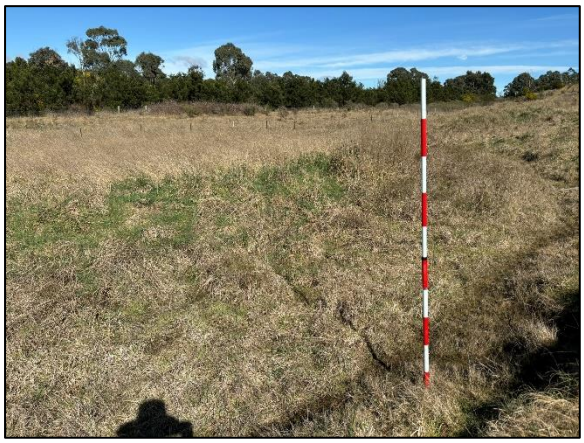

Plate 5. Southern boundary with lower lying waterlogged area (southwest)

Plate 6. Constructed drainage contour with view across project area (west)

Plate 7. Eastern boundary fence with view alone drainage contour (east)

Plate 8. Erosion along north dam wall (south)

Plate 9. Two areas of dumped material with drainage line in between (west)

Plate 10. Collapsed erosion control barrier (north)

5.2.2 *Survey Coverage*

The factors of GSV, level of disturbance, the number of survey participants and the spacing of transects all combine to provide estimates of survey coverage and effectiveness.

Two team members completed the field survey, inspecting an area of 2m on each side during the pedestrian walkover, considered to be the maximum distance of effective coverage (Burke and Smith 2004). The area was physically inspected with the GSV and exposure rate for each Landform taken into account to provide the survey coverage. At the levels recorded for the field survey, the effectiveness of the field survey is considered to be fair, and has acted to confirm the previous field survey results and landform assessment. The pedestrian transects with landform are shown Figure 11.

The landform summary and a summary of effective survey coverage for the Project Area is provided in Table 4 and 5. These calculations are based on the formula provided in Requirement 10 of the Code of Practice.

Table 4. Survey Coverage

Landform	SU Area (m^2)	GSV %	Exposure %	Effective Coverage Area m2 (SU area x GSV% x Exp%)	Effective coverage (Eff coverage area ÷ SU Area x 100)
Upper Slope	16,044.79	40%	30%	1,925.37	12%
Mid Slope	91,650.49	40%	30%	10,998.06	12%
Low Slope	2,904.88	10%	10%	29.05	1%
Creek Flats/ Drainage Line	12,990.05	30%	30%	1,169.10	9%
Total	123,590.21			14,121.58	11.43%

5.2.3 *Levels of Disturbance*

The degree of disturbance across the study area was estimated as moderate to high. The project area has been subject to a long history of pastoral regimes with pastoral improvement having been previously undertaken as well as previous tree clearance.

Four dams are present along the central drainage line featuring heavy landscaping and associated with several constructed drainage contours. On either side of the central drainage line are two large areas of deposited material. These two large mixed soil and gravel areas were deposited at some point after the 2019 Past Traces assessment, and feature collapsed erosion control barriers between the deposits and the drainage line.

Disturbance across the project area is moderate with disturbance present in the form of prior vegetation and tree removal, stock impacts, vehicle impacts and fence lines.

Table 5. Landform Summary

Landform	Area (m2)	effective coverage area (m2)	% of effective coverage	No. of sites	No. of PAD
Upper Slope	16,044.79	1,925.37	12%	0	0
Mid Slope	91,650.49	10,998.06	12%	2	2
Low Slope	2,904.88	29.05	1%	1	0
Creek Flats/ Drainage Line	12,990.05	1,169.10	9%	0	0
Total	123,590.21	14,121.58	11.43%	3	2

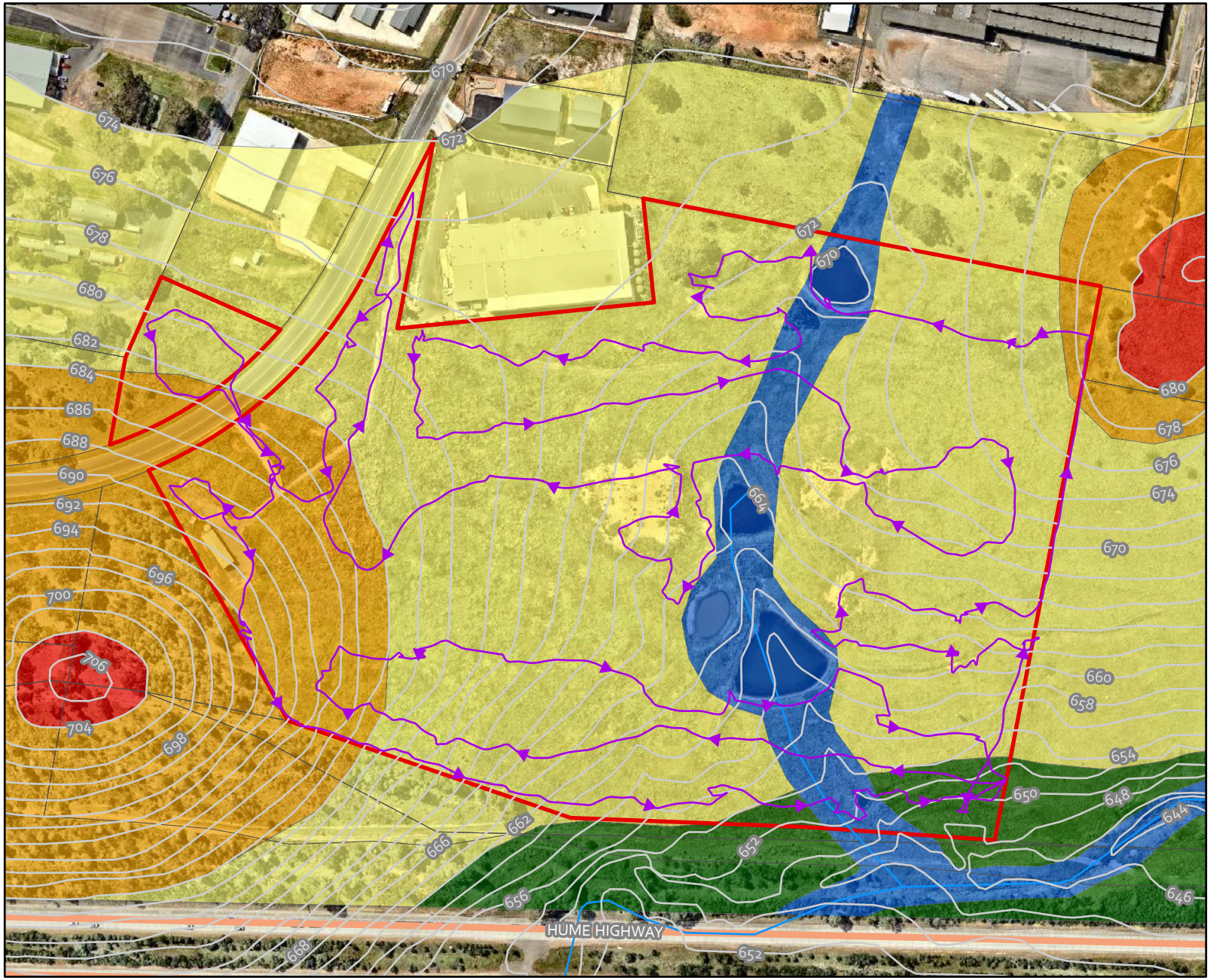

Figure 11: Landforms and Pedestrian Transects

Legend

- Contour -2m
- Watercourse
- Highway
- Study Area
- Cadastre
- Pedestrian Transect

Landform

- Crest
- Upper Slopes
- Middle Slopes
- Lower Slopes
- Drainage and Creek Flats

N

1:3,000

0 25 50 100

Meters
Coordinate System:
GDA 1994 MGA Zone 55

Imagery: ©Nearmap

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5.3 PREVIOUSLY RECORDED HERITAGE SITES

As a result of past assessments, three heritage sites are present within the project area (G15, Tait 1 & Tait 2). Site G15: 51-6-0019 was recorded by Koettig in 1983 as an artefact scatter, with sites Tait 1 (51-6-0844) and Tait 2 (51-6-0845) recorded by Past Traces in 2019.

All three of these sites were revisited during the 2024 field survey to assess their current condition. These sites are further discussed below.

Table 6. Previously recorded Aboriginal sites in the project area with GDA94 MGA55 coordinates.

AHIMS	Site Name	Easting. Northing	Site Type	Comments
51-6-0019	G15	747353.6148564	Artefact Scatter	None of the original artefacts located during previous assessments, likely due to low GSV in area and time since their recording in 1983.
51-6-0844	Tait 1	747371.6148653	Artefact Scatter & PAD	Located between two constructed drainage bunds along the eastern boundary. Associated with an area of PAD.
51-6-0845	Tait 2	747383.6148804	Artefact Scatter & PAD	Located surrounding an old growth tree. Associated with an area of PAD.

5.3.1 G15 (51-6-0019)

This site was previously recorded in 1983 by Koettig as an artefact scatter during the Goulburn bypass heritage assessment. This site was recorded along the southern boundary of the project area in a section of lower slopes near the creek junction. This site was revisited during the Past Traces 2019 and Hyperion Design 2024 assessments with no indication of its presence. The area was revisited as part of the Past Traces 2024 assessment and similarly no artefacts were identified likely due to the low GSV of the area and the time since their original recording in 1983.

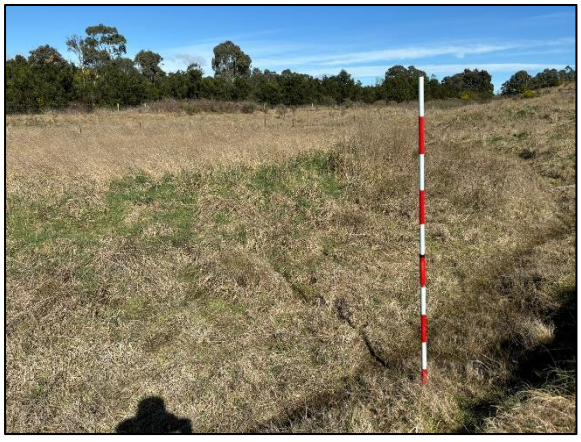

Plate 11. Area of site G15 (southwest)

Plate 12. Area of site G15 (south)

5.3.2 *Tait 1 (51-6-0844)*

This site was previously identified by Past Traces in 2019 as a surface artefact scatter with an associated area of PAD. The site is located on the lower slopes to the east of the lower dam, in the area of the constructed drainage contours. This area has been disturbed in the upper levels and it is unclear if the artefacts have been displaced by the past earthworks or just uncovered by them and the resulting areas of sheet erosion. The site consisted of a recorded exposure of seven quartz artefacts over an area of 40m x 40m. The visible site is likely to extend further than recorded and has moderate potential to be associated with subsurface deposits This area of PAD then extends further than the recorded surface artefacts and covers an area of approximately 75 x 45m centred on GDA94 MGA55 747372.6148647.

During the 2024 survey only two quartz artefacts were identified at the recorded site location.

Table 7. Aboriginal artefacts identified at Tait 1 during Past Traces 2024 Survey.

Artefact	Material	Artefact Type
1	Quartz	Proximal Flake
2	Quartz	Flake

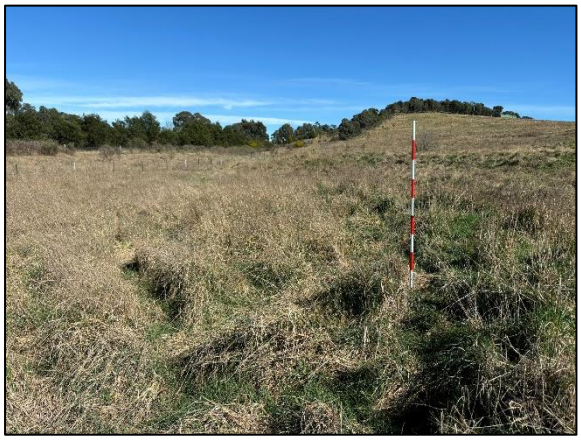

Plate 13. Location of artefact 1 within Tait 1 area, adjacent to drainage contour (west)

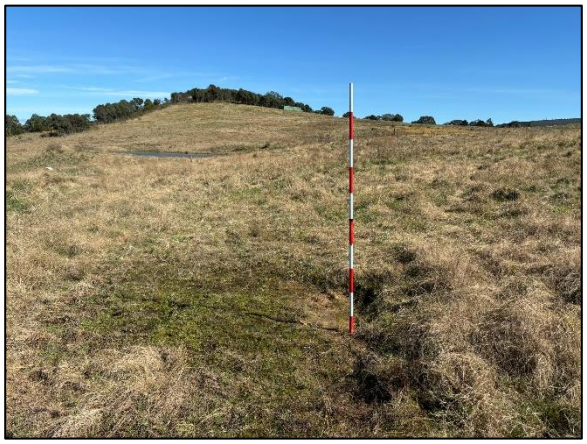

Plate 14. Location of artefact 2 within Tait 1 area (west)

Plate 15. Quartz artefact 1

Plate 16. Quartz artefact 2

5.3.3 *Tait 2 (51-6-0845)*

This site was previously identified by Past Traces in 2019 as a surface artefact scatter with an associated area of PAD. Site Tait 2 was recorded as a scatter of nineteen artefacts located within the drip zone of a single remnant tree on the mid slopes to the east of the creek line. The artefacts were visible due to the stock damage to soils under the tree which had resulted in the formation of a large clear exposures with fine sandy soils. The artefacts extend for an area of 20m^2 with the tree at the centre.

Unlike Tait 1, where the artefacts were constructed on quartz, at Tait 2 the majority of the material is a fine grey silcrete. Artefacts also consisted of cores and flakes often multidirectional and worked to exhaustion point. An unusual artefact is present within the assemblage. This artefact is a flake manufactured on glass, showing adaptation and use of new materials by the Aboriginal people. The tree may have been a single remnant or stand following early clearance by European settlement, thus representing a resting/camping location making use of the remaining shade. Alternatively, the trees have been removed past occupation, with the remnant being part of a larger occupation site. However, the following site information can be theorised based on the available evidence:

- Due to the presence of the glass artefact, the site is contemporaneous with European settlement.
- The distribution of artefacts on all sides of the tree base, indicates that the shade from the tree was of importance for site location.
- The site location on the eastern slope above the creek/drainage line would provide morning sun, access to water and a sheltered position from westerly winds.
- The removal of most tree coverage during the European period would have focused use of the slopes to the remaining shade coverage.

The 2024 Past Traces survey returned to the area, with twelve artefacts identified at the base of the tree located at approximately 747389.6148811. The artefacts from the 2024 assessment are highlighted in Table 8 and displayed in Plates 17 and 18.

Table 8. Aboriginal artefacts identified at Tait 2 during Past Traces 2024 Survey.

Artefact	Material	Artefact Type
1	Red Chert	Flake
2	Red Chert	Flake
3	Red Chert	Flake
4	Red Chert	Flake
5	Grey Silcrete	Flake
6	Grey Silcrete	Proximal Flake
7	Quartz	Core
8	Quartz	Flake
9	Quartz	Flake
10	Quartz	Flake
11	Grey Porphyritic Silicious	Flake
12	Tan porphyritic Silicious	Core

Plate 17. Tait 2 artefacts were identified surrounding the base of this tree (west)

Plate 18. Example Artefacts

5.3.4 *Results - Areas of Potential Archaeological Deposit (PAD)*

Areas of PAD are defined as landforms that hold higher potential than their surrounds to contain subsurface deposits of past Aboriginal occupation. Based on a review of previous studies completed for the region, areas of PAD would be located in association with waterways (1st or 2nd order streams) on level ground or along spur crest and ridge lines.

The two Aboriginal heritage sites (Tait 1 & Tait 2) identified during the Past Traces 2019 field survey featured associated areas of PAD. Both of these sites consist of moderately sized artefact scatters located on the eastern side of the creek line. The sites were identified within areas of exposure caused by stock damage and earthworks (drainage bunds) to the south of the constructed dam. Site locations are shown on Figure 10. The 2024 survey confirmed these PAD locations.

5.3.5 *Results Summary*

As a result of the 2019 and 2024 Past Traces field surveys, and the Hyperion 2024 assessment, of the project area and background research, it is considered that the project has low potential to impact on unrecorded Aboriginal heritage sites or areas of PAD.

Three Aboriginal heritage sites (G15: 51-6-0019, Tait 1: 51-6-0844 & Tait 2: 51-6-0845), with sites Tait 1 and Tait 2 also associated with areas of PAD, were identified as a result of the 2019 assessment as being within the project area.

Based on the assessment, the heritage restraints of the project are as follows:

- Three Aboriginal heritage sites (G15: 51-6-0019, Tait 1: 51-6-0844 & Tait 2: 51-6-0845) are located within the project area.
- Sites Tait 1 and Tait 2 (51-6-0844 & 51-6-0845) are associated with areas of moderate potential to contain unrecorded Aboriginal objects is present in the project area. Progression to subsurface testing is required to determine the presence, extent and significance of any subsurface deposits.

6 SUBSURFACE TESTING

As defined previously in Section 4.5, areas of PAD are landforms with a higher potential to contain subsurface deposits of past Aboriginal occupation than the surrounding landscape. NOHC in 2003 (Bungendore HQ assessments) stated:

> "*A potential archaeological deposit, or PAD, is defined as any location where the potential for sub-surface archaeological material is considered to be moderate or high, relative to the surrounding study area landscape*" (NOHC 2003:7).

Two areas of PAD are present within the project area, requiring subsurface testing to determine the presence, extent and significance of subsurface deposits. This testing was completed in September 2024, in accordance with the Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (DECCW 2010) and the methodology detailed in Section 6.2.

As set out in Section 3.1 of the Code of Practice (DECCW 2010), subsurface testing is only permissible where "sub-surface objects have a high probability of being present and the area cannot be avoided by the proposed development". The purpose of subsurface testing is "to collect information about the nature and extent of sub-surface deposits based on a sample recovered from the sub-surface investigations". Based on the recovered sample, the archaeologist uses the sample's data to calculate the probability of the site continuing in area. By extrapolating artefact density from the excavated test pits, the probability of further subsurface deposits being present and their significance is assessed.

Requirement 15b of the Code states that the excavation strategy must "describe the differentiation of the PAD to be test-excavated from the surrounding archaeological landscape (i.e. explain why the PAD is anticipated to be of higher significance than the continuous distribution of archaeological material in which it exists)" (DECCW 2010: 25)

Under this requirement, if a large landform with high potential is identified, an area of PAD within that landform must hold an additional feature indicating the need and/ or appropriateness of undertaking test excavations within the broad landform.

Requirement 16a of the Code states that the "test excavation should be sufficiently comprehensive to allow characterisation of the Aboriginal objects present without having a significant impact on the archaeological value of the subject area "(DECCW 2010:27).

Requirement 17 (DECCW 2010:28) provides guidance on when a test excavation is to cease:

"Any test excavation carried out under this Requirement must cease when:

1). suspected human remains are encountered (see Section 3.6), or

2). enough information has been recovered to adequately characterise the objects present with regard to their nature and significance."

Enough information is defined in the explanatory notes: "the sample of excavated material clearly and self-evidently demonstrates the deposit's nature and significance" (DECCW 2010: 28). Consequently, test excavation must cease when the archaeologist has recovered sufficient information from the test excavations, irrespective of whether all planned test pits have been completed or the extent of the

entire impact area has been physically investigated. Continuance is only permitted if there is reason to believe that a significant variance may occur within the investigation area.

6.1 AIMS OF THE SUBSURFACE TEST EXCAVATIONS

Subsurface testing was undertaken to determine the presence, significance and extent of any archaeological subsurface deposit which may be present within the identified areas of potential archaeological deposit (PAD). Subsurface testing ceased when enough information has been gathered to fulfil these aims.

The aims of the testing program were to:

- Investigate whether sub surface deposits are present which may be impacted by the development.
- If identified, to determine the extent and nature of the deposits.
- Identify the degree of disturbance within the PAD area by examining the soil profile and stratigraphy.
- Analyse any Aboriginal material recovered.
- In consultation with RAPs determine the significance of any cultural material.
- Develop management strategies for any heritage items identified by the subsurface testing program.

6.2 EXCAVATION METHODOLOGY

The following excavation methodology was developed in consultation with RAPs and in accordance with the *Code of Practice.* As a result of this process a series of test pits measuring 50 x 50cm were excavated across the identified area of PAD, sampling the area to determine the presence of subsurface deposits and to locate any areas of differing density of artefacts.

The following methodology was followed:

- Undertake excavation of 50 x 50cm test pits by hand excavation using mattocks, shovels and trowels to determine the presence of deposits. Pits will be placed on a 10m grid covering the central areas of potential.
    - Hand excavation using shovels and trowels, pits to be a minimum of 50cm x 50cmin area.
    - Removal of initial deposit in 5cm levels or 'spits' with subsequent pits at 10cm unless features found requiring a different strategy.
    - Excavate to a maximum of 40cm or if cultural material is located to culturally sterile layers. Excavation would cease if no material has been discovered at a maximum depth of 40 centimetres as previous research in the area indicates that materials are most likely to occur in the surface layers. Soil types are thin and it expected that basal levels will be reached by this depth.
    - Placement of excavated deposit in buckets labelled by spit and test square.

- Transfer of buckets to sieve station.
- Sieving of deposits through 5mm mesh (dry sieving or wet sieving will be undertaken depending on soil conditions).
- Removal of any cultural material from sieves, bag and labelled for analysis.
- Proceed with excavation until completed.
- Photographs of each test pit will be taken and pH measurements for representative soil samples taken.

- Analysis of any recovered artefacts on site and reburial in test pits in accordance with Code of Practice Requirements or in conformance with a return to country protocol which will be developed for the ACHAR.
- At completion of excavation, backfill test pits (with sieved material if possible or clean fill if required)
- The proposed Test pit spacing is at 10m intervals on transects spaced at 10m (10m grid). This provides coverage over both of the two area of PADs. Final location of test pits will be placed by heritage team and RAPs to avoid rocks, trees or other obstacles and target areas of highest potential ie less disturbance.
- To test the PAD boundaries, in the event of revealing of artefacts or deposits within a testpit, it is proposed that the methodology be adaptive with additional test pits placed at 10m intervals to the artefact locations to determine boundaries of the area of PAD. This adaptive methodology will apply to both PAD areas and any other areas of PAD if any identified by the field survey.

6.3 ANALYSIS OF CULTURAL MATERIAL

All lithic items were examined in detail using a low-power hand lens and microscope. A basic analysis of lithic variables such as raw material, size, primary and secondary flaking characteristics (platform and termination type, degree of retouch) was undertaken on recovered lithics from subsurface contexts for the study area as an assemblage.

On completion of the lithic analysis the items were stored individually in resealable plastic bags marked with their identification number and provenance. Artefacts are being held in temporary storage at the office of Past Traces for analysis while the AHIP process is undertaken.

Lithic categories are based as follows:

- Flakes – dorsal and ventral face, platform and termination.
- Flake Portions – Proximal, medial and distal. Also Laterals which are broken longitudinally through the platform to termination.
- Retouched flakes – negative scars removed after ventral face creation (flake detachment).

- Flaked pieces – negative scars on dorsal face but ambiguous ventral face and striking platform.
- Cores – one or more negative scars but no positive scars.
- Angular shatter – indistinct scar faces assumed to be cultural based on association with cultural material.

6.4 RESULTS OF SUBSURFACE TESTING PROGRAMME

The subsurface testing program was undertaken on the 13th, 16th to 18th of September 2024 with a rotating team of three RAP representatives, for the two areas of PAD (Tait 1 -51-6-0844 & Tait 2-51-6-0845). The locations of test pits across the areas of PAD are shown in Figure 12 to 14.

For both areas of PAD (Tait 1 & Tait 2) it was recommended that a test pitting programme be undertaken across the areas of highest potential based on landform.

The area of PAD Tait 1 was predicted to extend approximately east/west in an area either side of a drainage bund, however, following the excavation of ten (10) test pits it was clear that the area is highly disturbed with no artefacts recovered.

For PAD Tait 2 a minimum of ten (10) test pits were planned in order to cover the area of highest potential surrounding the recorded artefact scatter located around a central tree. Due to the presence of artefacts in the majority of test pits, additional pits were placed to determine its extent with a total of 39 test pits completed. An additional five test pits were not excavated with these being located too close to a pile of rubble, impacted fence lines, and previously disturbed areas.

Results of the test pitting programme for both Tait 1 and Tait 2 are detailed in the following sections. Appendix 3 contains test pit photos for each test pit with the lithic database at Appendix 4.

The site impact cards for sites for Tait 1 and Tait 2 have been submitted to AHIMS to reflect the results of the test pitting program. AHIMS site cards are attached at Appendix 5.

Figure 12: Initial Test Pit Locations Overview

Legend

- Watercourse
- Study Area
- Test Pit
- Minor Road
- Track-Vehicular

N

1:2,500

0 5 10 20

Meters

Coordinate System:
GDA 1994 MGA Zone 55

Imagery: © Nearmap

PastTraces Heritage Consultants

Figure 13: Tait 1 Initial Test Pit Locations

Legend

Study Area

Test Pit

N

1:500

0 5 10 20

Meters
Coordinate System:
GDA 1994 MGA Zone 55

Imagery: © Nearmap

PastTraces Heritage Consultants

Figure 14: Tait 2 Initial Test Pit Locations

Legend

Study Area

Test Pit

N

1:500

0 5 10 20

Meters
Coordinate System:
GDA 1994 MGA Zone 55

Imagery: © Nearmap

PastTraces Heritage Consultants

6.4.1 *Tait 1 (AHIMS 51-6-0844) – Approx. Centre 747371.6148653*

The area of PAD associated with Tait 1 consists of a mid-slope raised terrace in the area of a constructed bund. The PAD is located approximately 60m to the east of a 1st order drainage and covers an approximate area of 75 x 45m.

An initial ten test pits were plotted along two approximate east/west aligned transects either side of the bund and located across the central PAD area at a 10m spacing from each other. If artefacts were encountered, as set out in the methodology, an additional test pit was excavated at 10m distance to determine the extent of deposits towards the area of development. No artefacts were recovered, and therefore no additional test pits were excavated. The location of the completed test pits is shown in Figure 13 above and in Plate 19.

Plate 19. View across test pits of Tait 1 (Facing west)

The test pits were excavated to the underlying rocky clay strata in each 50cm x 50cm test pit. A 10m spacing was decided based on the typical non-uniform distribution of artefacts in open site contexts. For dispersed sites, a 10m spacing has been shown to be effective to determine overall site extent and locations of clustered distributions (Way 2014: 38).

The representative stratigraphy of Tait 1 is shown in TP2. The soil section for TP2 is provided in Table 9. The soils within the test pit consisted of heavily mixed, brown-coloured loam overlain on a compacted rocky/gravel orange clay base with a prevalence of natural gravels and rock. The basal rocky clay levels were reached from 30cm in the test pits. Soils consisted of heavily mixed loam with abundant natural gravels and rock overlaying a highly compacted gravel clay substrate. Test pits were excavated to a depth of 30cm in most test pits when the basal rock layers were reached.

Table 9. Testpit 2 (Tait 1) Section

Spit (cm)	Description	Photo
1a: 0-5cm	Heavily mixed brown loam with coarse grains (<2mm). Occasional small gravels and dense rootlets. Soil is damp.	
1b: 5-10cm	Transitional layer from brown loam to light brown loam with continued coarse grains and occasional shale and gravel. No clear transition line, likely due to previous disturbance. Rootlets thinning with depth	
2: 10-20cm	Light brown to tan loam with coarse grains and frequent gravels. Occasional larger (>10cm diameter) rocks present. Loam is friable with light compaction. Few rootlets at this depth.	
3: 20-30cm	Tan loam with increasing orange clay content with depth. Frequent rocks and gravels of varying sizes. Compaction is increasing with depth. Compact rocky orange clay layer reached at ~30cm depth End of excavation at 32cm.	

6.4.2 *Tait 2: (AHIMS 51-6-0845) – Approx. Centre 747389.6148809*

The area of Tait 2 is located on a gentle gradient area of mid slopes surrounding a remnant tree where surface artefacts were located in 2019. The PAD is located 80m to the east of a 1st order drainage line and covers an approximate area of 45x40m.

An initial ten test pits were plotted along two aligned transects across the central PAD area at a 10m spacing from each other. The transects were aligned either side the remnant tree which was considered to hold the highest potential for subsurface deposits. When artefacts were encountered, as set out in the methodology, an additional test pit was excavated at 10m distance to determine the extent of deposits across the area of development. This resulted in an additional 29 test pits being excavated for a total of 39 test pits excavated across nine approximately east/west aligned transects. The location of the completed test pits for Tait 2 is shown in Figure 15 and in Plates 20 and 21.

Plate 20. View across the initial test pits of Tait 2 (Facing west)

Plate 21. View across extended test pit area of Tait 2 (north)

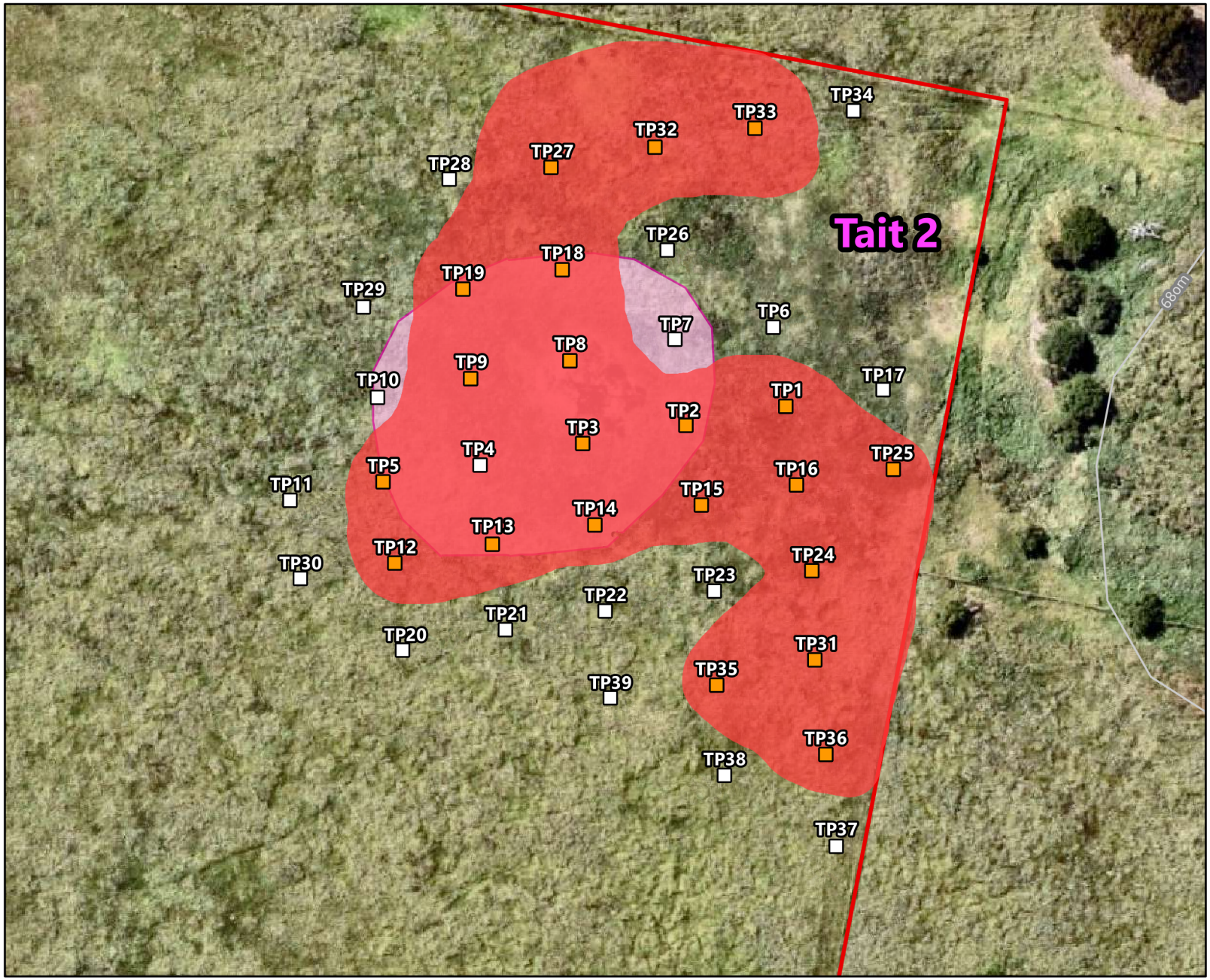

Figure 15: Tait 2 Final Test Pit Layout

Legend

Test Pits

- Artefacts Not Found
- Artefacts Found
- Study Area
- Original PAD Area
- Revised PAD Area

N

1:600

0 5 10 20

Meters
Coordinate System:
GDA 1994 MGA Zone 55

Imagery: © Nearmap

Past Traces Heritage Consultants

*Test Pits are not to scale

The test pits were excavated to the underlying clay strata in each 50cm x 50cm test pit. A 10m spacing was decided based on the typical non-uniform distribution of artefacts in open site contexts. For dispersed sites, a 10m spacing has been shown to be effective to determine overall site extent and locations of clustered distributions (Way 2014: 38).

The basal clay levels were generally reached from 30-50cm in the test pits. Soil depths were highest in the central area of PAD surrounding the tree where silty loam overlaying a compacted tan/grey clay substrate. Test pits were excavated to a depth of 30cm in most test pits where this basal level was reached.

The representative stratigraphy of Tait 2 is shown in TP9. The soil section is provided in Table 4. The soils within the test pit consisted of mixed brown silty loam and tan sandy loam overlain on a compacted orange clay base. Most of the surrounding test pits were comprised of a brown silty loam overlaying a rocky orange/tan clay basal layer. Test pit photos are provided in Appendix 3 for all excavated test pits within the area of PAD.

Table 10. Testpit 9 (Tait 2) Section

Spit	Description	Photo
1a: 0-5cm	Mixed brown silty loam with powdery/friable texture. Dense root structures. Occasional small (<2cm diameter) gravels	
1b: 5-10cm	Continued brown silty loam with fewer grass roots and small gravels.	
2: 10-20cm	Transition between 15-20cm depth to a tan sandy silt with fine sand grains and moist consistency. Continued small gravels, with occasional medium gravels (<5cm).	
3: 20-30cm	Continued tan sandy silt layer with increasing orange/tan clay content with depth.	
4: 30-40cm	Continued tan sandy silt layer with increasing orange/tan clay content. Orangey tan rocky clay layer reached at ~40cm. End of excavation at 40cm depth.	

6.4.3 *Artefact Assemblage from Tait 2 Excavations*

A total of 48 lithic (stone) artefacts were recovered from 21 of the 39 excavated test pits within the Tait 2 PAD area. The location of testpits from which artefacts were recovered are shown on Figure 15. The recovered artefacts were located in the top layers of the site, clustered tightly within the top 20-30cms amidst a silty loam matrix. Highest concentrations were evident in Spit 1 and 2 between 0 and 20cm. Basal clay level was reached at an average of 30-38cm and excavation generally ceased at 30cm depth.

The breakdown of the raw materials of the artefacts examined are provided in Table 11 and Figure 16.

Table 11. Raw Materials

Material	Number	%
Quartz	19	39.6%
Quartzite	2	4.2%
Silcrete	24	50.0%
Tuff	3	6.3%
Total	48	

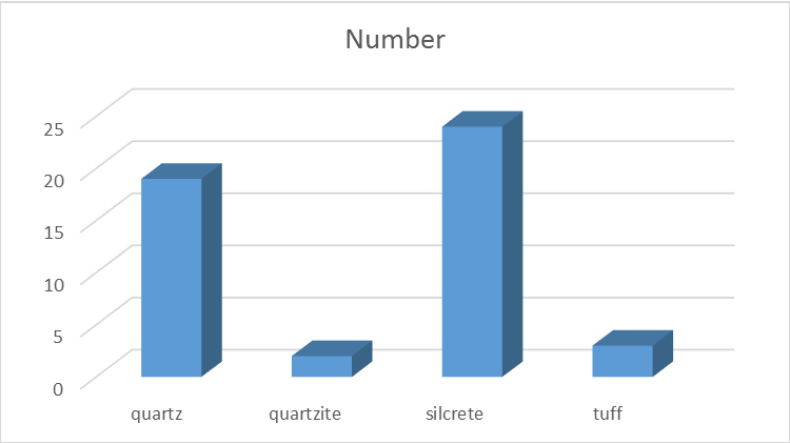

Figure 16. Distribution of Lithic materials

The distribution of artefact types are shown in Table 12 and Figure 17. The majority consisted of flakes and flake portions, with 1 core recovered. Nearly half of the assemblage consists of broken flakes, a high degree of breakage and reflective of past land uses including pasture improvement and stock agistment. The distribution of artefact types is common through the Goulburn region, where unretouched flakes predominant. The small amount of retouch, usewear and tool types such as blades is also reflective of other sites in the region. No backed blades, geometric microliths or bipolar flakes or cores were recovered indicating utilitarian lithic manufacture or retouching of lithics on site, but not indicative a focused or specialised lithic manufacture area. The lack of cores indicates primary production elsewhere with retouch (resharpening) or replacement of broken flakes being the focus of on site activity.

Table 12. Artefact types

Artefact Type	Number	%
Core	1	2%
Flake	24	50%
Proximal	11	23%
Medial	4	8%
Distal	6	13%
Lateral	1	2%
Flaked Piece	1	2%
Total	48	

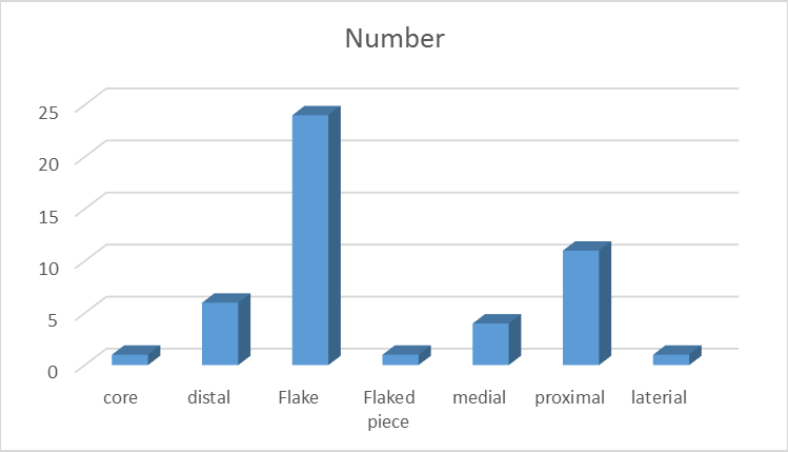

Figure 17. Artefact Types Tait 2.

The photo record of the recovered artefact assemblage is provided in Appendix 4.

6.5 TESTPIT PROGRAMME RESULTS SUMMARY

The test pitting programme has shown that no cultural deposits are present within Tait 1, with a dispersed low-density deposit located within Tait 2, where the 39 excavated test pits returned 48 artefacts, amid highly disturbed and mixed soils.

The recovered artefacts as discussed in section 6.4.3 were representative of sites in the region and consisted of common materials and artefact types. In 2019 a flaked glass artefact was recorded in a surface context but no glass artefacts or unusual artefact types were recovered from the subsurface testing.

The subsurface testing program showed the subsurface site (Tait 2) to be larger than originally expected and to extend to the boundary fencing to the north and east. The final site extent is also shown in Figure 15.

The significance of the sites in a scientific and regional context are assessed and discussed in the following section.

7 ARCHAEOLOGICAL SIGNIFICANCE ASSESSMENT

7.1 INTRODUCTION TO THE ASSESSMENT PROCESS

The NSW heritage assessment criteria is set out in the NSW Heritage guideline Assessing Heritage Significance (NSW Heritage 2001) and requires assessment against the four values in the Australia ICOMOS Burra Charter (2013) generally accepted as heritage best practice.

These values are (as defined in NSW Heritage 2001):

- Historical significance refers to historic values. Items which demonstrate strong associations to a particular event, historical theme, people or philosophies, regardless of the intactness of the item or any of its structures hold varying levels of significance.
- Aesthetic significance refers to items which demonstrate creative, aesthetic or technical excellence, innovation or achievement. Aesthetic items may also have been the inspiration for creative achievement.
- Social/cultural significance refers to items which are esteemed by the community for their cultural values; which if damaged or destroyed would cause the community a sense of loss; and/or items which contribute to a community's sense of identity.
- Scientific significance refers to the assessment of whether a site has the ability to reveal valuable archaeological, technical, or scientific information.

For assessing the significance of Aboriginal sites the two main sections that are applicable are cultural values to the Aboriginal community and archaeological (scientific) values (ICOMOS 2013).

There are two criteria generally used in assessing the scientific significance of heritage sites:

- Research potential – the potential of a site to provide information which is of value in the scientific analysis of research questions.
- Representativeness – an assessment of whether the artefact or place is a good representative of its type.

Cultural value to the Aboriginal community can only be assessed by discussion with RAPs and feedback provided in response to the site identifications.

7.2 SCIENTIFIC SIGNIFICANCE ASSESSMENT

The following archaeological significance assessment is based on Requirement 11 of the *Code of practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010). Using the Burra Charter assessment criteria of representativeness, condition and research potential, a rating of scientific significance was determined for the identified heritage sites. Scientific significance can be summarised as the potential of the site to provide important information on the past use of the area, Aboriginal technology, trade or movement. Table 13 provides the results of the archaeological significance assessment when applied to the newly identified site.

Based on this criteria, different site types feature differing levels of scientific significance. The isolated finds consist of artefacts common to the region in highly disturbed contexts relating to a low significance, whereas the three identified culturally modified trees are a much rarer site type and therefore hold high significance. The density of artefacts and proximity of sites provides potential for additional information and data into Aboriginal lifeways.

Table 13: Scientific significance assessment of archaeological sites recorded within the project area.

AHIMS	Site name	Research Potential	Representativeness	Condition	Scientific Significance
51-6-0019	G15	Low	Common	Highly Disturbed	Low
51-6-0844	Tait 1	Low	Common	Highly Disturbed	Low
51-6-0845	Tait 2	Low	Common	Highly Disturbed	Low

7.3 CULTURAL SIGNIFICANCE

All heritage sites are important to Aboriginal people, and all represent the past occupation and use of the region by Aboriginal people. As a reminder of the widespread nature of Aboriginal occupation, sites provide a physical guide to usage, and points for education, discussion and cultural transmission of knowledge. It was discussed onsite with the present RAPs that projects such as this only look at a small portion of the landscape defined by modern fence lines, and that efforts should be made to view the project area within the larger cultural landscape to better contextualise and inform heritage decision-making.

The sites within the Goulburn region are generally small and common in their nature, with the exception of occasional high-density lithic deposits. The larger sites conform to the known camping sites of past peoples and confirms landscape use. The information they provide will further support existing information but will not provide new or innovative research themes. Aboriginal communities do not accept the western view of site importance with all sites being considered to be of overall importance within the landscape.

As a result of onsite discussion with the RAPs present during the subsurface program, a low level of significance was allocated to the sites. This level of significance is due to the sites role as markers in the landscape of Aboriginal occupation and the low number of artefacts present at each of the recorded site locations.

The disturbed nature of the sites lowers this feeling of connection but does not remove it. Appropriate management consists of avoidance and minimisation of impacts whenever possible. All recovered artefacts from the test pitting program or from future collections should be returned to country which is the long term management preference of the RAPs.

The finding of cultural significance is based on the conversations with RAPs who are the primary determinants of cultural value, which can only be assessed by the Aboriginal community. The findings of cultural significance has been provided to all of the RAPs for review in the drafts of this report.

The outcomes of these discussions have been incorporated into the management recommendation for the project, provided in Section 9.

7.4 STATEMENT OF SIGNIFICANCE

The Project Area contains three Aboriginal heritage sites consisting of two surface scatters (G15: 51-6-0019 & Tait 1: 51-6-0844) and a low-density lithic deposit with surface scatter (Tait 2: 51-6-0845).

All three sites are considered to hold a low level of cultural and scientific values due to the common nature of the recorded surface and recovered artefacts and their overall low density across the landform. A rare item consisting of a glass artefact was originally recorded at Tait 2 in 2019 which currently cannot be located, all other items are common types. Recording of these sites will assist in regional studies aimed at assessing Aboriginal usage of the landscape, technology and raw material trade and sourcing. Due to the nature of low-density sites, they are considered to hold a local level of significance not warranting conservation within the disturbed areas.

Recovered artefacts should be curated by the Aboriginal community to aid in the continuation of cultural and traditional knowledge, however it is the stated wish of the RAPs, that a return to country protocol be investigated to maintain the cultural connection to country. In line with these wishes, this option is currently being investigated with the proponent

These values are provided in the following table as defined in Section 2.4 of the *Guide to Investigating, Assessing and Reporting on Aboriginal Culture in NSW* (OEH 2011).

Table 14. Table of assessed values

Value	Assessed Level
Social	The site is assessed to hold low levels of cultural value based on discussions with RAPs due to its role as a marker of past occupation and continuing connection.
Aesthetic	The sites hold no aesthetic significance.
Historical	There are no historical items within the project area. There are no LEP or State registered historical sites.
Scientific	The site holds low scientific values based on the low yield, composition of common materials and common artefact types for the region, providing little new or significant information.

8 IMPACT ASSESSMENT

8.1 DEVELOPMENT IMPACTS

The proposed rezoning and future development will require a high level of disturbance within the project area. The proposed development will cause disturbance in the form of soil excavation, vegetation removal, infrastructure installation, heavy vehicle and plant movement across the site and revegetation following completion of works. Impacts will be widespread across the majority of the project area.

The types of activities that will impact the ground surface and sub-soils include:

- Installation of building envelopes within the project area
- Construction of access roads
- Installation of infrastructure and services such as electricity and communications
- Installation of boundary fences and landscaping.

The proposed works will require high levels of disturbance and therefore have the potential to harm Aboriginal heritage directly or indirectly within the project area. Harm is defined by the NPW Act 1974 when regarding objects or places, as any act or omission that:

a) Destroys, defaces or damages the object or place, or
b) in relation to an object – moves the object from the land on which it had been situated, or
c) is specified by the regulations, or
d) causes or permits the object or place to be harmed in a manner referred to in paragraph a), b) or c).

An individual or corporation that knowingly destroys, defaces or damages, or knowingly causes or permits the destruction or defacement of, or damage to, an Aboriginal object or Aboriginal place is guilty of an offence against this Act.

Impacts as a result of works, but not anticipated by them, may also indirectly damage Aboriginal objects or places located within or in the vicinity of works.

Examples of indirect damage are:

- Damage to a CMT's root system from pedestrian and vehicular ground compaction.
- Damage to a site from increased erosion.
- Damage to a site from changes in water flow.
- Damage to a site from increased visitation.

As required by the Code of Practice, the assessed statement of impact for the Aboriginal archaeological sites in the project area are detailed below for each site.

8.1.1 G15 (51-6-0019)

Site G15 was recorded in 1983 as part of the Goulburn bypass survey and was recorded on the southern boundary in a section of lower slopes near the creek junction. While artefacts could not be relocated during the 2024 survey, it is still a registered heritage site and therefore requires AHIP approval prior to impact.

The site has been allocated low cultural and scientific significance based on the composition of the recorded surface artefacts and the following mitigation measures are required:

- An AHIP will be required to impact the site.
- Following granting of an AHIP, a salvage (surface collection) of the site will be undertaken following the methodology set out in Section 9.1.1.

8.1.2 Tait 1 (51-6-0844)

Tait 1 was recorded by Past Traces in 2019 and is located on the mid slopes to the east of the lower dam. The site is located amongst the area of constructed drainage bunds with surface artefacts recorded to the north and south of the bund. As a result of these works, the area is highly disturbed.

The site has been allocated low cultural and scientific significance based on the composition of the recorded surface artefacts and the following mitigation measures are required:

- An AHIP will be required to impact the site.
- Following granting of an AHIP, a salvage (surface collection) of the site will be undertaken following the methodology set out in Section 9.1.1.

8.1.3 Tait 2 (51-6-0845)

Tait 2 was recorded by Past Traces in 2019 and consists of an artefact scatter located at the base of and within the drip zone of a single remnant tree on the mid slopes to the east of the creek line, as well as a low-density deposit in the area surrounding this tree covering an approximate 80x60m.

The site has been allocated an overall low cultural and scientific significance based on the composition of the recorded surface artefacts and excavated assemblage and the following mitigation measures are required:

- An AHIP will be required to impact the site.
- Following granting of an AHIP, a salvage (surface collection) of the site will be undertaken following the methodology set out in Section 9.1.1.

The assessed impacts from the project have been summarised in Table 15, along with recommended mitigation measures.

Table 15: Summary of potential archaeological impact

AHIMS	Site name	Type of Harm	Degree of Harm	Impact of Harm	Mitigation Measures
51-6-0019	G15	Direct	Partial to Total	Partial to total removal of values	If impacts unavoidable, then apply for AHIP. Salvage (surface collection) of artefacts following granting of AHIP.
51-6-0844	Tait 1	Direct	Total	Total removal of values	If impacts unavoidable, then apply for AHIP. Salvage (surface collection) of artefacts following granting of AHIP.
51-6-0845	Tait 2	Direct	Partial to Total	Partial to total removal of values	If impacts unavoidable, then apply for AHIP. Salvage (surface collection) of artefacts following granting of AHIP.

8.2 SUSTAINABLE DEVELOPMENT PRINCIPLES

Australia's *National Strategy for Ecologically Sustainable Development (1992)* defines ecologically sustainable development as: 'using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased'.

In regards to cultural heritage the main aspects of the ESD principles are intergenerational equity and the assessing of cumulative impacts on the heritage resource.

8.2.1 Intergenerational Equity

The concept of Intergenerational equity can be explained as the concept that resources (such as heritage sites) do not belong to any generation but are to be administered in trust for all future generations.

A key factor in intergenerational equity is the preservation of sites to ensure cultural information can be communicated to future generations. This concept can be also be explained as sites that if lost cause pain or sorrow to the community. This is generally understood as sites that are highly valued by the community and play an active role in the transmission, education and continuance of Aboriginal tradition.

Within Aboriginal communities intergenerational equity is maintained by the transmission of cultural knowledge, traditions and continued access and visitation to cultural sites. Loss of cultural knowledge, heritage sites or access to highly significant sites is detrimental to the current and future communities.

Destruction of cultural heritage sites may impact on future generations if by the action the cultural record is significantly altered or a continuing traditional link is broken. Assessing these impacts can be addressed by understanding the significance of sites, the range and variety of the site type that is present in the area and the role that the site plays with the Aboriginal community. Sites may play various roles as teaching sites, ceremonial areas or areas for cultural traditions (birthing trees, scarred trees, rock shelters for example).

In assessing the role of the sites at 24 Lockyer Street, Goulburn, and the effects of their removal from the archaeological record the main factors are the archaeological and cultural values.

Archaeological

- The sites' significance in the region
- The frequency of occurrence of this type of site in the region
- The effect of removal of these sites on the regional archaeological record

Sites G15 (51-6-0019) and Tait 1 (51-6-0844) consist of artefact scatters where site Tait 2 (51-6-0845) consists of a low-density lithic deposit and surface artefact scatter. Based on the assessment criteria in Section 7.2, the deposit and surface scatters consist of artefacts and materials common to the region and are low in density located in an area of mixed soils, resulting in a finding of low scientific significance.

Based on extended AHIMS searches covering the approximate 2.5km centred on the project area (generated on the 3/07/2024) 53 archaeological sites are present of which, nine are listed as isolated finds, 39 as artefact scatters and 6 as areas of PAD. These registered sites are protected under legislation and show the common nature of lithic sites in the region.

The high number of low-density lithic sites in the region listed on AHIMS shows that the removal of these artefact surface sites would not materially affect the archaeological record for the region.

Cultural

- Whether sites are highly valued by community
- Play or may play an active role in communicating cultural information
- Whether the removal of these sites would result in significant loss of cultural knowledge or result in break of cultural tradition.

The present sites (G15: 51-6-0019, Tait 1: 51-6-0844 & Tait 2: 51-6-0845) are considered to be of low cultural significance by the community. This association is mainly with the role of the site as a marker of past utilisation of the region, reflecting use of the landscape.

The sites at 20-24 Lockyer Street, Goulburn are currently not playing any role in ongoing cultural traditions, transmission of knowledge or learning for the next generation. These site types of low-density lithic deposits and surface scatters are generally included in landscape discussions of cultural transmission in regards to connection to country, obligations to country and song lines. More visible sites such as large surface scatters, rock art, scarred trees or resource areas (waterholes, rivers, woodland, wetlands) are preferred centres for learning, generating discussion between participants. Whilst using the visible sites as anchors for discussions, intangible values, creation lore and song lines are the main focus.

As these sites are located on private land, they have not played any role in ongoing cultural traditions, transmission of knowledge or learning for the next generation as there has been no available access to them. As such, the impacts to the site will not have a detrimental effect on continuing traditions and the transmission of knowledge to future generations, as they play no active role in the current and future community. Preservation of these sites would not increase cultural knowledge or provide a ready pathway of communication of cultural values.

These factors for assessing cultural impact are provided in Table 16.

Table 16. Site Factors

Factor	Role
Highly valued by Community	No
Plays active role in communicating cultural information	No
Loss will result in significant change in cultural record	No
Loss will result in break with cultural tradition	No
Frequency of site type in area	Common
Site occurrence in protected areas	Common

8.2.2 *Cumulative Impacts*

Developments in the Goulburn area are planned for the future and the cumulative impacts by the continued destruction of sites is of concern to the community and should be addressed by continued assessments and focus on preserving sites that are either intact, contain many artefacts, or are significant to the community. The determination of which sites warrant conservation should be undertaken by heritage professionals and the Aboriginal community through a process of consultation and involvement.

The cumulative impact of future developments in Goulburn should be considered, due to the current expansion of Goulburn and surrounding suburbs in recent times. The predictive model indicates that areas adjacent to creeks and water courses have the highest potential for surface and subsurface sites.

The cumulative impact of the current development at Lockyer Street will be minimal, with the areas of impact impacting a small number of low significance sites. No conservation areas were recommended due to the low density of artefacts and disturbance levels across the project area. However, environmentally sensitive design and minimisation of impacts are an aim of the project.

Any future housing and/or infrastructure developments will need to be assessed for their heritage impacts during the development assessment process and consultation with the Aboriginal community undertaken to mitigate impacts whenever possible.

By applying this process, heritage sites can be identified prior to construction and a conservation approach can be applied to reduce or remove development impacts through these areas and conserve sites of importance.

9 MANAGEMENT AND MITIGATION STRATEGY

Avoidance of impact to archaeological and cultural heritage sites through design of the development is the primary mitigation and management strategy, and should be implemented where practicable. In cases where avoidance and conservation are not practical, the salvage of artefacts, gathering of information through collection (especially where impact cannot be avoided) and interpretation are management options.

For this project, the low significance of the identified Aboriginal heritage sites does not warrant protection from the area of impact in the form of a conservation area. The nature of sites G15 (51-6-0019), Tait 1 (51-6-0844) and Tait 2 (51-6-0845), consist of common artefact types and materials do not warrant this class of treatment to ensure their preservation. A mitigation strategy of analysis and reburial (return to country) should be undertaken for these sites if future impacts are unavoidable.

Further details of the proposed measures are provided within section 9.1.

9.1 PROGRESSION TO AHIP

If sites cannot be reasonably avoided, and there is the potential for works to impact the heritage sites in the Project area, an Aboriginal Heritage Impact Permit will be required for the following mitigation measures to be undertaken:

9.1.1 Surface Collection (Salvage)

If impacts to the three surface sites (G15: 51-6-0019, Tait 1: 51-6-0844 & Tait 2: 51-6-0845) cannot be avoided, following the granting of an AHIP a surface collection is recommended. The surface collection of the lithic sites must be undertaken prior to impacts. The methodology to be followed would consist of:

- Returning to GPS location and flagging all surface artefacts within a 10m radius of site location.
- Each artefact to be collected, given a number and bagged individually with their GPS location.
- Artefacts to be analysed (noting materials, basic technological attributes, etc.)
- The completion of an AHIP Compliance works report submitted to NSW Heritage including the results of the surface collection.

9.1.2 Return to Country Protocol

The recovered artefacts from the test pit programme and surface collection (salvage) will be returned to country in a conserved location. A return to country protocol is under discussion with the proponents and RAPs and is proposed to consist of the following steps:

- Excavate 50 x 50cm Pit by hand at agreed location and place artefact in base of pit in contact with soil. Final placement to be undertaken by representative of the RAP on the day of reburial.

- Cultural practice in line with RAP wishes (to be developed prior to AHIP submission)
- Grid location, photos of reburial location taken and report on compliance completed. Site card completed for submission to AHIMS database.

9.2 MANAGEMENT RECOMMENDATIONS

Based on results of the test pitting subsurface program and consultation with the Registered Aboriginal Parties the following recommendations have been developed in regards to Aboriginal Cultural Heritage values and heritage sites located within the project area. Following the implementation of these heritage recommendations development of the area should be able to proceed.

The management recommendations for the project are:

- Within the project area three heritage sites G15 (51-6-0019), Tait 1 (51-6-0844) and Tait 2 (51-6-0845) are present. No impacts can occur to the heritage sites prior to the approval of an AHIP by NSW Heritage. The AHIP area is shown on Figure 18.
- Site Tait 1 (51-6-0844) holds no deposits and the designation of associated with PAD has been removed. Heritage constraints still apply to Tait 1 due to recorded surface artefacts.
- Surface collection of the impacted sites within the project area (G15: 51-6-0019, Tait 1: 51-6-0844 & Tait 2: 51-6-0845) will be required following approval of the AHIP and prior to any works being undertaken. The surface collection will consist of returning to the site locations, marking GPS locations of artefacts, labelling and bagging each artefact for analysis. The surface collection will follow the methodology set out in Section 9.1.1.
- The recovered artefacts from the test pitting program and surface collection will be returned to country. The return to country will be undertaken in line with the methodology in Section 9.1.2.
- Following granting of AHIP and completion of mitigation works, an AHIP Compliance works report will be submitted to NSW Heritage including the results of the return to country at completion of works.
    - Site Impact card with updated details will be submitted to AHIMS for inclusion into the database at completion of works.
    - Site card for the Return to Country (RTC) location will be submitted to AHIMS for inclusion at completion of RTC.
- It is an offence to disturb an Aboriginal site without an AHIP as all Aboriginal objects are protected under the NSW *National Parks and Wildlife Act 1974*. Should any Aboriginal objects be encountered during works outside of the AHIP area, then works

must cease and a heritage professional contacted to assess the find. Works may not recommence until cleared by NSW Heritage

It is also recommended that:

- In the unlikely event that human remains are discovered during the construction, all work must cease. The police must immediately be notified, and their directions followed in the management of the area. Further assessment would be undertaken to determine if the remains are Aboriginal or non-Aboriginal.
- Continued consultation with the RAPs for the project should be undertaken. RAPs should be informed of any major changes in project design or scope, further investigations or finds.

Figure 18: AHIP Area

Legend

- Watercourse
- Highway
- Minor Road
- Track-Vehicular
- AHIP Area
- Cadastre

N

1:3,000

0 25 50 100

Meters
Coordinate System:
GDA 1994 MGA Zone 55

PastTraces Heritage Consultants

10 REFERENCES

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A.1 AHIMS SITE SEARCH

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : Lockyer Street 1

Client Service ID : 906506

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
51-6-0009	Goulburn, G04	AGD	55	746540	6148400	Open site	Valid	Artefact : -	Open Camp Site	495
	Contact	**Recorders**	Rex Silcox					**Permits**		
51-6-0014	Goulburn, G10	AGD	55	747010	6148230	Open site	Valid	Artefact : -	Open Camp Site	495
	Contact	**Recorders**	Rex Silcox					**Permits**		
51-6-0040	GC04	AGD	55	746600	6148100	Open site	Valid	Artefact : -	Open Camp Site	1578
	Contact	**Recorders**	Ms.N Fuller					**Permits**		
51-6-0018	Goulburn, G14	AGD	55	747150	6147200	Open site	Valid	Artefact : -	Open Camp Site	495
	Contact	**Recorders**	Rex Silcox					**Permits**		
51-6-0032	Goulburn, G23	AGD	55	746220	6148480	Open site	Valid	Artefact : -	Open Camp Site	495,1243,1321, 99368,105120
	Contact	**Recorders**	Margrit Koettig					**Permits**	36	
51-6-0056	GC20	AGD	55	750000	6149400	Open site	Valid	Artefact : -	Open Camp Site	1578
	Contact	**Recorders**	Ms.N Fuller					**Permits**		
51-6-0082	Garrorigane 2	AGD	55	745700	6149400	Open site	Valid	Artefact : -	Isolated Find	99368
	Contact	**Recorders**	Mr.Peter Kuskie					**Permits**		
51-6-0027	Goulburn, G07	AGD	55	746800	6148250	Open site	Valid	Artefact : -	Open Camp Site	495
	Contact	**Recorders**	Rex Silcox					**Permits**		
51-6-0836	Rifleisf1	GDA	55	750119	6148515	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Pejar Local Aboriginal Land Council					**Permits**		
51-6-0845	Tait 2	GDA	55	747383	6148804	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	**Recorders**	Ms.Lyn O'Brien,Past Traces Pty Ltd					**Permits**		
51-6-0015	Goulburn, G11	AGD	55	747150	6148320	Open site	Valid	Artefact : -	Open Camp Site	495
	Contact	**Recorders**	Rex Silcox					**Permits**		
51-6-0037	GC03	AGD	55	744445	6148460	Open site	Valid	Stone Quarry : -, Artefact : -	Quarry	1210
	Contact	**Recorders**	Doctor.Tim Stone					**Permits**		
51-6-0397	Ducks Lane 7 (DL7)	AGD	55	745874	6149039	Open site	Valid	Artefact : 8		99717
	Contact T Russell	**Recorders**	Navin Officer Heritage Consultants Pty Ltd					**Permits**	2459	
51-6-0724	Leeson ST1	GDA	55	749519	6149423	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Biosis Pty Ltd - Canberra					**Permits**		
51-6-0123	Tall Timbers 1	GDA	55	749620	6149326	Open site	Partially Destroyed	Artefact : 100, Potential Archaeological Deposit (PAD) : -		98991
	Contact	**Recorders**	Ms.Lyn O'Brien,Ms.Lyn O'Brien,Past Traces Pty Ltd,Past Traces Pty Ltd,Mr.Douglas					**Permits**	2027,3952	
51-6-0012	Goulburn, G08	AGD	55	746750	6148200	Open site	Valid	Artefact : -	Open Camp Site	495

Report generated by AHIMS Web Service on 03/07/2024 for Nathaniel Cracknell for the following area at Lat, Long From : -34.7936, 149.6723 - Lat, Long To : -34.7584, 149.734. Number of Aboriginal sites and Aboriginal objects found is 53

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
	Contact	**Recorders**	Rex Silcox					**Permits**		
51-6-0013	Goulburn, G09	AGD	55	746950	6148220	Open site	Valid	Artefact : -	Open Camp Site	495
	Contact	**Recorders**	Rex Silcox					**Permits**		
51-6-0017	Goulburn, G13	AGD	55	747070	6148320	Open site	Valid	Artefact : -	Open Camp Site	495
	Contact	**Recorders**	Rex Silcox					**Permits**		
51-6-0121	PA1	AGD	55	744650	6148420	Open site	Valid	Artefact : 2		98767,99368,103424,104907
	Contact	**Recorders**	Navin Officer Heritage Consultants Pty Ltd					**Permits**		
51-6-0395	Ducks Lane 5 (DL5)	AGD	55	745844	6148506	Open site	Valid	Artefact : 1		99717
	Contact T Russell	**Recorders**	Navin Officer Heritage Consultants Pty Ltd					**Permits**	2459	
51-6-0396	Ducks Lane 6 (DL6)	AGD	55	745960	6149443	Open site	Valid	Artefact : 1		99717
	Contact T Russell	**Recorders**	Navin Officer Heritage Consultants Pty Ltd					**Permits**	2459	
51-6-0680	MD-OS-1 and PAD	AGD	55	749840	6148650	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		102657
	Contact	**Recorders**	Mrs.Robynne Mills					**Permits**		
51-6-0864	DIF1	GDA	55	744760	6148624	Open site	Valid	Artefact : -		104113
	Contact	**Recorders**	Biosis Pty Ltd - Canberra					**Permits**		
51-6-0033	Goulburn, G24	AGD	55	746480	6148500	Open site	Valid	Artefact : -	Open Camp Site	495,1321
	Contact	**Recorders**	Margrit Koettig					**Permits**		
51-6-0016	Goulburn, G12	AGD	55	747070	6148310	Open site	Valid	Artefact : -	Open Camp Site	495
	Contact	**Recorders**	Rex Silcox					**Permits**		
51-6-0844	Tait1	GDA	55	747371	6148653	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	**Recorders**	Ms.Lyn O'Brien,Past Traces Pty Ltd					**Permits**		
51-6-0391	Ducks Lane 1 (DL1)	AGD	55	744768	6148543	Open site	Valid	Artefact : 1		99717,103424,104907
	Contact T Russell	**Recorders**	Navin Officer Heritage Consultants Pty Ltd					**Permits**	2459	
51-6-0006	Goulburn, G01	AGD	55	745650	6148230	Open site	Valid	Artefact : -	Open Camp Site	495,99368
	Contact	**Recorders**	Rex Silcox					**Permits**		
51-6-0007	Goulburn, G02	AGD	55	746020	6148350	Open site	Valid	Artefact : -	Open Camp Site	495,99368
	Contact	**Recorders**	Rex Silcox					**Permits**		
51-6-0019	Goulburn, G15	AGD	55	747240	6148380	Open site	Valid	Artefact : -	Open Camp Site	495
	Contact	**Recorders**	Rex Silcox					**Permits**		
51-6-0471	HS1	GDA	55	745089	6147872	Open site	Valid	Artefact : 2		
	Contact Searle	**Recorders**	Pejar Local Aboriginal Land Council					**Permits**		
51-6-0394	Ducks Lane 4 (DL4)	AGD	55	745755	6148438	Open site	Valid	Artefact : 1		99717

Report generated by AHIMS Web Service on 03/07/2024 for Nathaniel Cracknell for the following area at Lat, Long From : -34.7936, 149.6723 - Lat, Long To : -34.7584, 149.734. Number of Aboriginal sites and Aboriginal objects found is 53

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : Lockyer Street 1

Client Service ID : 906506

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
	Contact T Russell	**Recorders**	Navin Officer Heritage Consultants Pty Ltd					**Permits**	2459	
51-6-0398	Ducks Lane PAD (DLPAD)	AGD	55	744717	6148342	Open site	Valid	Potential Archaeological Deposit (PAD) : -		99717,103424, 104907
	Contact T Russell	**Recorders**	Navin Officer Heritage Consultants Pty Ltd					**Permits**		
51-6-0010	Goulburn, G05	GDA	55	746918	6148613	Open site	Valid	Artefact : -	Open Camp Site	495
	Contact	**Recorders**	Rex Silcox,Mr.Matthew Barber,NGH Heritage - Fyshwick					**Permits**		
51-6-0011	Goulburn, G06	AGD	55	746650	6148250	Open site	Valid	Artefact : -	Open Camp Site	495
	Contact	**Recorders**	Rex Silcox					**Permits**		
51-6-0390	Memorial Road South	AGD	55	749788	6148685	Open site	Valid	Artefact : 15		
	Contact T Russell	**Recorders**	Rod Wellington					**Permits**		
51-6-0048	GC12	AGD	55	746130	6150230	Open site	Valid	Artefact : -	Open Camp Site	1578
	Contact	**Recorders**	Ms.N Fuller					**Permits**		
51-6-0678	RH-IF-1	GDA	55	750040	6149050	Open site	Valid	Artefact : 1		
	Contact	**Recorders**	Mrs.Robynne Mills					**Permits**		
51-6-0081	Garrorigane 1	AGD	55	745650	6149580	Open site	Valid	Artefact : -	Open Camp Site	99368
	Contact	**Recorders**	Mr.Peter Kuskie					**Permits**		
51-6-0049	GC13	AGD	55	746070	6150150	Open site	Valid	Artefact : -	Open Camp Site	1578
	Contact	**Recorders**	Ms.N Fuller					**Permits**		
51-6-0054	GC18	AGD	55	749950	6149350	Open site	Valid	Artefact : -	Open Camp Site	1578
	Contact	**Recorders**	Ms.N Fuller					**Permits**		
51-6-0939	Cathcart Street Goulburn Ring Tree	GDA	55	746484	6149399	Open site	Valid	Modified Tree (Carved or Scarred) : -		
	Contact	**Recorders**	Goulburn Mulwaree Council,Mr.Brian Faulkner					**Permits**		
51-6-0020	Goulburn, G16	AGD	55	747310	6148400	Open site	Valid	Artefact : -	Open Camp Site	495
	Contact	**Recorders**	Rex Silcox					**Permits**		
51-6-0021	Goulburn, G17	AGD	55	748850	6148250	Open site	Valid	Artefact : -	Open Camp Site	495
	Contact	**Recorders**	Rex Silcox					**Permits**	100,122	
51-6-0100	Wollondilly Graves	AGD	55	749400	6149000	Open site	Valid	Burial : -	Burial/s	
	Contact	**Recorders**	Ms.Adrienne Howe-Piening					**Permits**		
51-6-0008	Goulburn, G03	AGD	55	746320	6148400	Open site	Valid	Artefact : -	Open Camp Site	495,99368
	Contact	**Recorders**	Rex Silcox					**Permits**		
51-6-0392	Ducks Lane 2 and PAD (DL2&PAD) - not a site	AGD	55	744744	6148135	Open site	Not a Site	Artefact : 1, Potential Archaeological Deposit (PAD) : -		99717,100227, 103424,10490 7
	Contact T Russell	**Recorders**	Navin Officer Heritage Consultants Pty Ltd,Navin Officer Heritage Consultants Pty I					**Permits**	2458	

Report generated by AHIMS Web Service on 03/07/2024 for Nathaniel Cracknell for the following area at Lat, Long From : -34.7936, 149.6723 - Lat, Long To : -34.7584, 149.734. Number of Aboriginal sites and Aboriginal objects found is 53

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : Lockyer Street 1

Client Service ID : 906506

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
51-6-0001	Yarra Railway Station	AGD	55	745900	6147600	Open site	Valid	Modified Tree (Carved or Scarred) : -	Carved Tree	99368
	Contact	**Recorders**	David Bell					**Permits**		
51-6-0869	Tait 3	GDA	55	747685	6148775	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Mr.Matthew Barber,NGH Heritage - Fyshwick					**Permits**		
51-6-0482	HS7	GDA	55	744565	6147642	Open site	Valid	Artefact : 10		
	Contact Searle	**Recorders**	Pejar Local Aboriginal Land Council					**Permits**		
51-6-0906	Lansdowne Park1 (LP1)	GDA	55	749487	6149386	Open site	Valid	Artefact : -		
	Contact	**Recorders**	Ms.Lyn O'Brien,Past Traces Pty Ltd					**Permits**		
51-6-0393	Ducks Lane 3 (DL3)	AGD	55	745477	6148310	Open site	Valid	Artefact : 1		99717
	Contact T Russell	**Recorders**	Navin Officer Heritage Consultants Pty Ltd					**Permits**	2459	
51-6-0940	Finlay & Robinson Street Goulburn Scar Tree	GDA	55	746594	6149323	Open site	Valid	Modified Tree (Carved or Scarred) : -		
	Contact	**Recorders**	Goulburn Mulwaree Council,Mr.Brian Faulkner					**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

Report generated by AHIMS Web Service on 03/07/2024 for Nathaniel Cracknell for the following area at Lat, Long From : -34.7936, 149.6723 - Lat, Long To : -34.7584, 149.734. Number of Aboriginal sites and Aboriginal objects found is 53

A.2 CONSULTATION LOG

20-24 Lockyer St Goulburn

Date/Time	Type of Consultation	Organisation	Response
	Step 1 – Public Notice	**Goulburn Post – 19/6 end 3/7/2024**	
	Step 2 – Notice to Regulators	**Ends 27/6/2024**	
13/6/2024	Online search	NNTT	No claims
13/6/2024	Email	NTSCorp	
13/6/2024	Email	NSW Heritage	18/6 – Stakeholder list provided
13/6/2024	Email	Goulburn Mulwaree Council	14/6 Contact: Pejar LALC – Delise Freeman Burra Burra – Graham Meranda Murrindyarr – Teena Riley Mulwaree - Jennie Gordon
13/6/2024	Email	Registrar ALR	14/6 contact Pejar LALC
13/6/2024	Email	Pejar LALC	19/6 – Phone call Delise Freeman.
13/6/2024	Email	South East Land Services	
	Step 3 – letter/email to identified stakeholders from Above	Ends 4/7/2024	
20/6		Badu	
		Barraby Cultural Services	
		Bilinga	
		Buru Ngunawal Aboriginal Corporation	
		Clive Freeman	
		Clorine Lyons	
		Corroboree	Registered 20/6
		Didge Ngunawal Clan	Registered 20/6
		Duncan Falk Consultancy	
		Gadhu Dreaming	
		Gilay Consultants	
		Ginninderra Aboriginal Corporation	
		Goobah Development	
		Gundungurra Aboriginal Heritage Association	
		Gundungurra Tribal Council	
		Gunjeewong	
		Guntawang	Registered 20/6
		Gunyuu	
		Janine Thompson	
		Jason Davison	
		Jerringong	
		Kamilaroi Yaknuntjatjara	Registered 24/6
		Ngunnawal Descendants	
		Karlai Ngunnawal PajongWallabalooa Descendants	
		Karrial	
		King Brown Tribal Group	
		Konanggo	

Date/Time	Type of Consultation	Organisation	Response
		Maria Williams	
		Merrigarn	
		Mulwaree	Registered 23/6
		Mundawari	Registered 20/6
		Munyunga	
		Muragadi	
		Murra Bidgee Mullangari	
		Ngunawal Consultancy	
		Ngunawal Heritage	
	Letter	Ngunnawal Elder	
		Ngunnawal Elders Corporation	
		Ngurambang	
		Nundagurri	
		Oak Hill Enterprises	
		Pemulwuy	
		Thauaira	
		Gaimla Roi	
		Thoorga Nura	
		Thunderstone	
		Timothy Stubbs	
		Walbunja	
		Walgalu	
		Wingikara	
		Wullung	
		Yerramurra	
		Yukumbruk	
		Yurwang Gundana	Registered 21/6
		Teena Riley	
		Bradley Bell	
		Mura Culture Services	
		Sonione Wakabut Rogers	Registered 20/6
		Girragirra Murun Aboriginal Corporation	Registered 23/6
		Wingarra Wilay	
		Gadu CHTS	
		On Country Living	
		Murrumbidjuri Facilty Service	
		Burra Burra	
	Step 3A – List of Registrations	**Closing date 4/7/2024**	
20/6	**Email**	**Soni Rogers**	
20/6		Corroboree	
20/6		Didge Ngunawal	
20/6		Guntawang	
20/6		Mundarawi	
21/6		Yurwang Gundana	
23/6		Girra Murrun	
23/6		Mulwaree	
24/6		Kamilaroi-Yankuntjatjara	
25/6		Gamila Roi	
27/6		Mura	
9/7		Murrabidgee Mullangari	

Date/Time	Type of Consultation	Organisation	Response
11/7		Muragadi	
	Step 3A - List of RAPs to NSW Heritage and LALC (by 28 days from Step 4)		
8/7/2024	Email	NSW Heritage	
8/7/2024	Email	Pejar LALC	
	Step 4 – Project Pack		
8/7/2024	Email	**Soni Rogers**	
		Corroboree	
		Didge Ngunawal	
		Guntawang	
		Mundarawi	
		Yurwang Gundana	
		Girra Murrun	
		Mulwaree	
		Kamilaroi-Yankuntjatjara	
		Gamila Roi	
		Mura	
		Murrabidgee Mullangari	
	Step 5 – Methodology pack (end review period 6/8/24)		
9/7/2024	Email	**Soni Rogers**	
		Corroboree	
		Didge Ngunawal	
		Guntawang	
		Mundarawi	
		Yurwang Gundana	9/7 – email supporting
		Girra Murrun	
		Mulwaree	
		Kamilaroi-Yankuntjatjara	
		Gamila Roi	
		Mura	
		Murrabidgee Mullangari	**10/7 – email supporting**
		Muragadi	
29/7/2024	**Updated methodology pack sent out ends 26/8**	All RAPS	**Yurwang Gundana** **Wendy Morgan** **Didge Ngunawal** **Girra Murrun** **Teena Riley –questioned selection of RAPs and inclusion of LALC** **Phil khan 30/8 – supportive**
5/9/2024	**Step 6 – Field work notification**	Pejar LALC Corroboree	
27/8/2024	**Notice to NSW Heritage Commencement of SST**	SST planned for 11/9/2024	

20-24 Lockyer St Goulburn

Date/Time	Type of Consultation	Organisation	Response
27/8/2024	**Field survey**	PEJAR LALC participated.	
13/9/2024 - 16-18/9/2024	**SST**	Pejar LALC Corroboree Aboriginal Corporation	
	Notice to NSW Heritage Completion of SST		
23/9/2024	**Email to NSW Heritage**		
	Step 7 – Draft Report		
22/10/2024	**Email to All RAPS**		**No Responses**

A.3 TESTPIT SECTIONS

TAIT 1 **51-6-0844**		
		
		
		

TAIT 2 **51-6-0845**		
		
		
		

 LOCKYER ST TAIT 2 TP12 N 13/9/24	 LOCKYER ST TAIT 2 TP13 N 13/9/24	 LOCKYER ST TAIT 2 TP14 N 13/9/24
 LOCKYER ST TAIT 2 TP15 N 13/9/24	 LOCKYER ST TAIT 2 TP16 N 13/9/24	 LOCKYER ST TAIT 2 TP17 E 16/9/24
 LOCKYER ST TAIT 2 TP18 S 16/9/24	 LOCKYER ST TAIT 2 TP19 N 16/9/24	 LOCKYER ST TAIT 2 TP20 N 16/9/24
 LOCKYER ST TAIT 2 TP21 N 16/9/24	 LOCKYER ST TAIT 2 TP22 N 16/9/24	 LOCKYER ST TAIT 2 TP23 S 16/9/24

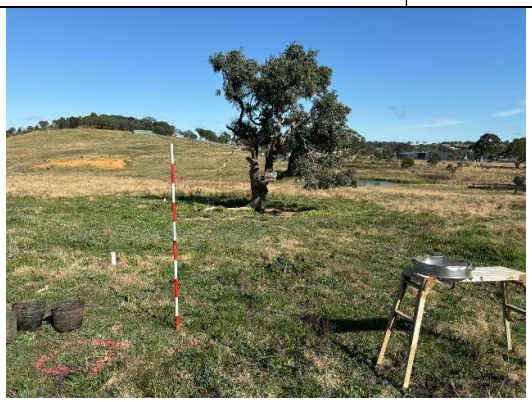
 LOCKYER ST TAIT 2 TP24 S 16/9/24	 LOCKYER ST TAIT 2 TP25 S 16/9/24	 LOCKYER ST TAIT 2 TP26 S 16/9/24
 LOCKYER ST TAIT 2 TP27 S 16/9/24	 LOCKYER ST TAIT 2 TP28 N 17/9/24	 LOCKYER ST TAIT 2 TP29 N 17/9/24
 LOCKYER ST TAIT 2 TP30 N 16/9/24	 LOCKYER ST TAIT 2 TP31 S 17/9/24	 LOCKYER ST TAIT 2 TP32 S 16/9/24
 LOCKYER ST TAIT 2 TP33 N 17/9/24	 LOCKYER ST TAIT 2 TP34 S 17/9/24	 LOCKYER ST TAIT 2 TP35 S 17/9/24


LOCKYER ST
TAIT 2
TP36 S
17/9/24


LOCKYER ST
TAIT 2
TP37 S
17/9/24


LOCKYER ST
TAIT 2
TP38 S
17/9/24


LOCKYER ST
TAIT 2
TP39 S
17/9/24



A.4 LITHIC DATABASE AND PHOTOS

Square	Spit	Artefact Number	Material	Colour	Class	Platform type	Termination	Retouch	Form	length	width	Thickness	crosssection	Neg scars	Comments (Cortex
1	1	1	quartz	white	Flake	flat	feather	llm	standard	11.38	7.39	2.06	low/weak	1	
1	2	1	silcrete	brown	proximal	flat	na		standard	13.9	19.29	5.35	low/strong	2	usewear rlm
1	2	2	silcrete	red	Flake	flat	feather		standard	7.93	6.41	1.65	low/weak	2	debitage
1	2	3	quartz	white	proximal	flat	na	llm	standard	9.65	8.46	3.16	low/weak	1	
1	3	1	silcrete	white	flake	cortical	step		broad	12.78	10.56	5.59	high/strong	2	
2	2	1	silcrete	red	medial					9.24	15.56	2.68	low/weak	2	
3	1	1	silcrete	grey	distal		feather		broad	10.95	17.22	4.23	high/weak	2	snapped
3	1	2	silcrete	red	flake	flat	hinge	distal	focused	10.83	14.03	2.2	low/weak	1	
3	2	1	silcrete	grey	proximal	flat	na	distal removed	na	23.61	22.81	4.16	low/weak	3	usewear rlm
5	2	1	silcrete	grey	flake	flaked	feather	distal LLM	focused	15.3	10.55	3.99	high/weak	3	
8	1	1	silcrete	red	proximal	flat	na		standard	17.78	4.58	3.63	low/weak	2	
8	1	2	silcrete	red	distal			proximal and rlm removed		16.46	17.53	3.39	low/weak	1	heat crazed
8	1	3	silcrete	pink	flake	flat	retouched	distal and llm	focused	25.38	13.12	6.02	high/strong	2	
8	1	4	quartz	white	flake	flat	step		broad	15.9	9.03	5.17	low/weak	2	
8	1	5	tuff	light grey	flake	flaked	feather		broad	16.17	9.92	4.33	high/strong	3	
8	2	1	silcrete	grey	distal	na	feather	both lats	na	14.89	7.11	3.61			
9	1	1	silcrete	grey/pink	flaked piece					28.73	45.1	21.34			
12	1	1	silcrete	red	proximal	flat	snapped		broad	25.36	20.79	4.27	high/strong	2	
12	3	1	quartz	clear	proximal	flaked	snapped	rlm	standard	20.13	17.28	7.41	high/strong	1	
13	2	1	quartz	white	flake	focal	feather	llm/rlm	focused	28.43	16.81	7.43	high/weak	3	
14	2	1	tuff	light grey	proximal	flat			focused	7.26	11.46	2.56	low/weak	2	
15	1	1	quartz	clear	flake	focal	feather	both lats	focused	12.71	6.76	4.2	low/weak	2	barb
15	2	1	silcrete	red	medial flake					15.15	25.88	9.52	low/weak	3	

Square	Spit	Artefact Number	Material	Colour	Class	Platform type	Termination	Retouch	Form	length	width	Thickness	crosssection	Neg scars	Comments (Cortex
16	1	1	quartz	white	flake	flat	step	notched retouch along rlm and distal , flake removal on llm	broad	29.19	30.4	15.12	low/weak5		
18	2	1	quartz	white	flake	flaked	feather	rlm	broad	18.01	15.07	9.65	high/strong	3	
19	2	1	silcrete	light grey	core					46.53	23.47	18.06			4 unifacial scars, 4 faces
19	2	2	silcrete	grey	flake	flaked	feather	distal to sharpen angle	standard	20.01	19.7	6.56	high/weal	2	
19	2	3	silcrete	grey	flake	focal	hinge		focused	15.22	5.9	3.43	high/strong	2	
19	2	4	silcrete	grey	distal		featjer		broad	16.43	26.29	7.88	low/weak	2	
19	2	5	silcrete	grey	flake	flaked	feather		elongate	39.55	13.16	4.04	high/weak	4	blade - good example
19	2	6	quartz	white	medial				standard	9.84	9.93	4.46	low/weak	1	
19	2	7	quartz	white	proximal	flaked	na		standard	9.32	9.69	3.64	low/weak	1	
19	2	8	quartz	white	flake	flaked	feather		broad	12.57	11.5	2.8	low/weak	1	
24	1	1	quartz	white	distal	flaked	na		broad	10.24	6.07	1.63	low/weak	1	broken point
24	2	1	silcrete	grey	flake	flaked	feather	both lates	broad	25.3	20.8	6.15	low/weak	2	usewear distal
24	2	2	silcrete	grey	flake	flat	feather		broad	20.23	15.48	3.2	low/weak	3	
25	2	1	quartz	white	proximal	facetted	snapped		standard	6.93	8.73	2	low/weak	2	
27	1	1	quartz	white	proximal	flaked	snapped		elongate	12.15	7.6	2.94	high/strong	2	broken blade
31	2	1	quartz	white	flake	fkat	feather	both lats	focused	11.43	13.38	3.43	low/weak	1	
32	1	1	quartz	white	flake	focal	feaher	all margins	focused	12.59	12.77	3.69	high/weak	2	
33	1	1	quartz	white	flake	flat	step	rlm removed	focused	27.98	19.32	13.17	high/weak	2	
33	1	2	tuff	light grey	distal		feather		broad	14.07	13.82	7.13	high/strong	2	
33	1	3	silcrete	grey	flake	flat	feather	both lats	broad	10.93	4.11	3.61	low/weak	1	

Square	Spit	Artefact Number	Material	Colour	Class	Platform type	Termination	Retouch	Form	length	width	Thickness	crosssection	Neg scars	Comments (Cortex
35	1	1	quartzite	grey	flake	flaked	hinge		elongate	17.84	9.63	4.92	high/strong	2	blade - usewear rlm and distal
35	2	1	quartzite	brown	right lateral	flat	feather		focused	13.61	6.79	1.91	low/weak	1	longitudinal snap
35	2	2	silcrete	grey	medial				standard	7.34	6.01	1.56	high/weak	2	
36	2	1	quartz	white	flake	focal	feather	llm	focused	27.64	19.45	6.6	low/weak	3	
36	2	2	quartz	white	proximal	flaked	snapped		standard	6.86	6.92	3.21	high/strong	2	


CM
Avoid incorrect exposures by taking meter readings before

A.5 UPDATED SITE CARDS

Aboriginal Site Impact Recording Form

Manager, Informamtion Systems
Heritage NSW, Locked Bag 5020 NSW 2124

1 This form must be completed following impacts to AHIMS sites that are:
   a) a result of test excavation carried out in accordance with the *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW*
   b) authorised by an Aboriginal Heritage Impact Permit (AHIP) issued by the Office of Environment and Heritage (OEH)
   c) undertaken for the purpose of complying with Director General's Requirements issued by the Department of Planning and Infrastructure (DP&I) for:
      - State Significant Development (SSD - Part 4),
      - State Significant Infrastructure (SSI - Part 5.1), or
      - A Major Project (Part 3A - now repealed) under the *Environmental Planning and Assessment Act 1979 (EP&A Act),* or
   d) authorised by a SSD/SSI/Part 3A consent/approval under the EP&A Act.
2 Completed forms must be submitted to the AHIMS Registrar (www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm).
3 This form is intended to complement (not replace) the AHIMS Site Recording Form. Where there is a need to provide detailed information about the nature of a site, use the AHIMS Site Recording Form.
4 This form does not replace the need to submit reports to OEH (as a condition of an AHIP or SSD/SSI/Part 3A consent/approval) This form must be submitted in addition to any reports.

AHIMS site ID: 51-6-0844 **Date recorded:** 23-11-2024

Site impact authorisation (select one)

Reference numbers, dates

[X] Archaeological Code (The impacts to this site were the result of test excavation carried out in accordance with the *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW.*)

Date OEH was notified (under requirement 15c of the Code): 26-08-2024

OEH Regional office notified: 26-08-2024

[ ] AHIP (The impacts to this site were authorised by an AHIP.)

AHIP number:

Date issued/signed:

AHIMS permit ID/number:

[ ] SSD/SSI/Part 3A application (The impacts to this site were undertaken for the purposes of complying with Director General's Requirements issued by the DP&I

Project number:

Date Director General's Requirements issued:

or

[ ] SSD/SSI/Part 3A approved project (The impacts to this site were authorised by a consent/approval under Parts 4/5.1/3A of the EP&A Act.)

Date of project approval:

Site status following impacts:

[ ] Not a site (The investigations concluded that this is not a site.)

[ ] Valid site (The investigations confirmed that this is an Aboriginal site.)

[X] Partially destroyed (The site was partially destroyed following authorised impacts; a portion of the site remains in situ.)

[ ] Destroyed (The site was completely destroyed following authorised impacts.)

Site Location Information:

Site name: Tait1

Easting: 747371 **Northing:** 6148653 **Coordinates must be in GDA94 (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
Ms.	OBrien	Lyn

Organisation: Past Traces

Address: GPO BOX 1584 Canberra ACT 2601

Phone: 0403021296 **E-mail:** pasttraces@ozemail.com.au

Location map

Clearly demarcate the original AHIMS site boundary, show the boundaries of impacted areas and the areas where the site remains in situ. Display map coordinates.

Site contents information

open/closed site: Open

Site condition: Erosion

Features:

Feature condition: Disturbed

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)
1.	Artefact	7	40	40

Scarred Trees

Scar Depth (cm)	Regrowth (cm)	Scar Length (cm)	Scar Width (cm)

Scar shape:

Tree Species:

Description:

Artefacts located in areas of erosion exposures on lower slopes above constructed dam on creek line

Features:

Feature condition: Disturbed

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)
2.	Potential Archaeological Deposit		40	40

Scarred Trees

Scar Depth (cm)	Regrowth (cm)	Scar Length (cm)	Scar Width (cm)

Scar shape:

Tree Species:

Description:

This area of lower slopes with occasional surface exposures of artefacts will extend below the displaced eroded soils. This area is to the east of the creek line in an area of displaced soils.

Features:

Feature condition:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)
3.				

Scarred Trees

Scar Depth (cm)	Regrowth (cm)	Scar Length (cm)	Scar Width (cm)

Scar shape:

Tree Species:

Description:

Features:

Feature condition:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)
4.				

Scarred Trees

Scar Depth (cm)	Regrowth (cm)	Scar Length (cm)	Scar Width (cm)

Scar shape:

Tree Species:

Description:

Features:

Feature condition:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)
5.				

Scarred Trees

Scar Depth (cm)	Regrowth (cm)	Scar Length (cm)	Scar Width (cm)

Scar shape:

Tree Species:

Description:

Other Site Info: located in area of erosional swales and prior construction stockpiles

Methodology and results

Summary of the methodology and results of the activity or works undertaken through the authorised impacts, as relevant to the AHIMS site

Ten 50x50cm test pits were divided along two transects. They were placed across the area of highest potential within the PAD area at a spacing of 10m apart with additional pits to be excavated if cultural material was located. Pits were excavated in 10cm spits. All ten pits were excavated yielding no cultural material and highly disturbed soils. It was concluded that this area features no subsurface potential, though the presence of surface artefacts is still valid.

Management recommendations

Summary of any management recommendations for the AHIMS site

The Tait1 area features no subsurface potential, however at least some of the surface artefacts are still present. These artefacts have been recommended to be salvaged via a surface collection following the granting of an AHIP.

Post-investigation significance

Discuss if the scientific/archaeological or cultural significance of the site has changed in light of the results of the investigations or works conducted at the site.

Low significance - few surface artefacts common types and material

Additional comments

Subsurface testing of the PAD has shown no subsurface deposits. Designation of PAD should be removed.

Site photographs

Include photographs of the authorised impacts activity, as relevant to the AHIMS site. Please keep photo size to a maximum of 200 kb.

Description: Area of Tait1 excavation facing west.

Description:

Description:

Description:

Aboriginal Site Impact Recording Form

Manager, Informamtion Systems
Heritage NSW, Locked Bag 5020 NSW 2124

1 This form must be completed following impacts to AHIMS sites that are:
   a) a result of test excavation carried out in accordance with the *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW*
   b) authorised by an Aboriginal Heritage Impact Permit (AHIP) issued by the Office of Environment and Heritage (OEH)
   c) undertaken for the purpose of complying with Director General's Requirements issued by the Department of Planning and Infrastructure (DP&I) for:
      - State Significant Development (SSD - Part 4),
      - State Significant Infrastructure (SSI - Part 5.1), or
      - A Major Project (Part 3A - now repealed) under the *Environmental Planning and Assessment Act 1979 (EP&A Act),* or
   d) authorised by a SSD/SSI/Part 3A consent/approval under the EP&A Act.
2 Completed forms must be submitted to the AHIMS Registrar (www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm).
3 This form is intended to complement (not replace) the AHIMS Site Recording Form. Where there is a need to provide detailed information about the nature of a site, use the AHIMS Site Recording Form.
4 This form does not replace the need to submit reports to OEH (as a condition of an AHIP or SSD/SSI/Part 3A consent/approval) This form must be submitted in addition to any reports.

AHIMS site ID: 51-6-0845 **Date recorded:** 23-11-2024

Site impact authorisation (select one)

Reference numbers, dates

[X] Archaeological Code (The impacts to this site were the result of test excavation carried out in accordance with the *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW.*)

Date OEH was notified (under requirement 15c of the Code): 26-08-2024

OEH Regional office notified: 26-08-2024

[ ] AHIP (The impacts to this site were authorised by an AHIP.)

AHIP number:

Date issued/signed:

AHIMS permit ID/number:

[ ] SSD/SSI/Part 3A application (The impacts to this site were undertaken for the purposes of complying with Director General's Requirements issued by the DP&I

Project number:

Date Director General's Requirements issued:

or

[ ] SSD/SSI/Part 3A approved project (The impacts to this site were authorised by a consent/approval under Parts 4/5.1/3A of the EP&A Act.)

Date of project approval:

Site status following impacts:

[ ] Not a site (The investigations concluded that this is not a site.)

[X] Valid site (The investigations confirmed that this is an Aboriginal site.)

[ ] Partially destroyed (The site was partially destroyed following authorised impacts; a portion of the site remains in situ.)

[ ] Destroyed (The site was completely destroyed following authorised impacts.)

Site Location Information:

Site name: Tait2

Easting: 747383 **Northing:** 6148804 **Coordinates must be in GDA94 (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
Ms.	OBrien	Lyn

Organisation: Past Traces

Address: GPO BOX 1584 Canberra ACT 2601

Phone: 0403021296 **E-mail:** pasttraces@ozemail.com.au

Location map

Clearly demarcate the original AHIMS site boundary, show the boundaries of impacted areas and the areas where the site remains in situ.
Display map coordinates.

Site contents information

open/closed site: Open

Site condition: Erosion

Features:

Feature condition: Erosion

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)
1.	Artefact	19	50	50

Scarred Trees

Scar Depth (cm)	Regrowth (cm)	Scar Length (cm)	Scar Width (cm)

Scar shape:

Tree Species:

Description:

At the time of original recording around the base of the tree artefacts are present in all directions extending 20m in all directions from the tree. Artefacts are visible due to the exposed soils caused by stock resting under the tree. Glass flaked artefacts were present showing use of unusual materials.

Features:

Feature condition: Erosion

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)
2.	Potential Archaeological Deposit		20	20

Scarred Trees

Scar Depth (cm)	Regrowth (cm)	Scar Length (cm)	Scar Width (cm)

Scar shape:

Tree Species:

Description:

the loose sandy soil under the tree has potential to contain further artefacts and for subsurface deposits.

Features:

Feature condition:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)
3.				

Scarred Trees

Scar Depth (cm)	Regrowth (cm)	Scar Length (cm)	Scar Width (cm)

Scar shape:

Tree Species:

Description:

Features:

Feature condition:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)
4.				

Scarred Trees

Scar Depth (cm)	Regrowth (cm)	Scar Length (cm)	Scar Width (cm)

Scar shape:

Tree Species:

Description:

Features:

Feature condition:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)
5.				

Scarred Trees

Scar Depth (cm)	Regrowth (cm)	Scar Length (cm)	Scar Width (cm)

Scar shape

Tree Species

Description:

Other Site Info: -

Methodology and results

Summary of the methodology and results of the activity or works undertaken through the authorised impacts, as relevant to the AHIMS site

Ten 50x50cm test pits were divided along two transects. They were placed across the area of highest potential within the PAD area at a spacing of 10m apart with additional pits to be excavated if cultural material was located which resulted in a total of 39 pits. Pits were excavated in 10cm spits. A total of 48 lithic artefacts were recovered from 21 of the 39 excavated test pits.

Management recommendations

Summary of any management recommendations for the AHIMS site

The Tait2 area features a low-density subsurface deposit with surface artefacts still present in the area around the tree. These artefacts have been recommended to be salvaged via a surface collection following the granting of an AHIP and no impacts can occur to the Tait2 site (incl. surface artefacts & subsurface deposit) without an approved AHIP.

Post-investigation significance

Discuss if the scientific/archaeological or cultural significance of the site has changed in light of the results of the investigations or works conducted at the site.

The significance of the site is considered low with no glass artefacts or unusual types present. The recovered materials were constructed on common materials and are common artefact types.

Additional comments

Subsurface testing of the PAD has shown a low-density deposit with 48 artefacts recovered from 21 of the 39 test pits.

Site photographs

Include photographs of the authorised impacts activity, as relevant to the AHIMS site. Please keep photo size to a maximum of 200 kb.

Description: View of initial testpits either side of the tree facing west

Description: View from southern extent of testing facing north

Description: view of southern extent facing southwest

Description: