

APPENDIX K

DRAFT ABORIGINAL CULTURAL HERITAGE AND ARCHAEOLOGICAL REPORT

2 Redall St Yass NSW

Aboriginal Cultural Heritage and Archaeological Report



Report Prepared for Warwick Farm Investments Pty Ltd

By Past Traces Pty Ltd

LGA: Yass Valley

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- ❖ 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:

- ❖ Onerwal Local Aboriginal Land Council
- ❖ Didge Ngunawal
- ❖ Konanggo
- ❖ Sonione Rogers
- ❖ King Brown Tribal Council
- ❖ Mundawari
- ❖ Murrumbidjeri
- ❖ Tiarna Bird
- ❖ Yurwang Gundana
- ❖ Merrigarn

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. 'Ngunnawal/ Wiradjuri. 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 Warwick Farm Investments to undertake an Aboriginal Cultural Heritage Assessment for the proposed subdivision of 2 Redall Street Yass (Lot 4 DP255064). The proposed area covers an approximate 10.92ha. The property has been moderately impacted by the construction of the current dwelling, sheds, associated infrastructure and ongoing use of the property. The study area is shown on Figure 1 in a regional context with details of the proposed subdivision in Figure 2.

A Due Diligence assessment completed in 2024 identified an area of potential within the project area which required further investigation. To allow the testing to be completed and the project to progress, this detailed Aboriginal Cultural Heritage Assessment Report (ACHAR) has been undertaken.

The project is being undertaken to allow for the subdivision of the blocks for industrial development. The project will consist of the following:

- ❖ Construction of industrial lots,
- ❖ Construction of internal access roads,
- ❖ Installation of infrastructure and services such as water, electricity and communications
- ❖ Installation of boundary fences and landscaping.

An Aboriginal Cultural Heritage Assessment was undertaken in accordance with the *Code of Practice for the Investigation of Aboriginal Objects* (DECCW 2010) and the *Consultation Guidelines for Proponents* (OEH 2011) to assess whether unrecorded sites or areas of potential are present within the project area. This assessment consisted of a review of heritage registers, review of relevant reports, predictive landform modelling, field survey, subsurface testing of areas of potential and development of management recommendations.

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. Members of the Onerwal LALC participated in the field survey and members of the RAPs participated in the subsurface testing.

Following the completion of the heritage assessment, the management recommendations for the project are:

- ❖ Within the project area one heritage site (RSYASSPAD1) is present. No impacts can occur to the heritage site prior to the approval of an AHIP by NSW Heritage.
- ❖ As site RSYASSPAD1 (*AHIMS Pending*) cannot be reasonably avoided and works will impact this site, then an Aboriginal heritage Impact Permit (AHIP) is required to allow works to proceed. No impacts can occur to the heritage sites prior to the approval of an AHIP by NSW Heritage, and if any works are to occur in the vicinity, then barrier fencing will be required to be installed at the site boundary with a buffer of 10m to

prevent impacts, prior to any works commencing. On granting of an AHIP this fencing may be removed and the site impacted. The AHIP area is shown on Figure 12.

- ❖ The recovered artefacts from the test pitting program will be returned to country or curated by the Onerwal LALC under a care and control permit.
- ❖ Following granting of AHIP and completion of mitigation works, an AHIP Compliance works report will be submitted to NSW Heritage at completion of works.
 - Site Impact card with updated details 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
- ❖ 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.
- ❖ No further heritage investigations are required, other than those listed, should the AHIP be approved, except in the event that unanticipated Aboriginal Objects and/or human remains are unearthed during any phase of the Project.

1 INTRODUCTION

1.1 PROJECT BRIEF

Past Traces has been engaged by Warwick Farm Investments to undertake an Aboriginal Cultural Heritage Assessment for the proposed subdivision of 2 Redall Street Yass (Lot 4 DP255064). The property has been moderately impacted by the construction of the current dwelling, sheds, associated infrastructure and ongoing use of the property. The project area is shown on Figure 1 in a regional context with details of the proposed subdivision in Figure 2.

A Due Diligence assessment completed in 2024 identified an area of potential within the project area which required further investigation. To allow the testing to be completed and the project to progress, this detailed Aboriginal Cultural Heritage Assessment Report (ACHAR) has been undertaken.

The project is being undertaken to allow for the subdivision of the blocks for industrial development. The project will consist of the following:

- ❖ Construction of industrial lots,
- ❖ Construction of internal access roads,
- ❖ Installation of infrastructure and services such as water, electricity and communications
- ❖ Installation of boundary fences and landscaping.

The proposed works will involve the substantial displacement and removal of soil and the importation of materials within the immediate area of the residential 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, including application for an Aboriginal Heritage Impact Permit (AHIP) if 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 are 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 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 a pedestrian survey of the project area to identify the presence and potential of heritage sites and areas of Potential Archaeological Deposits (PADs).
- ❖ Conduct subsurface testing of areas of any Potential if identified during the field survey, 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 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*

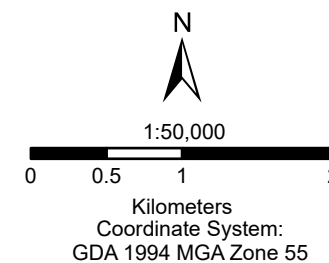
Nathaniel is a graduate of the University of Wollongong (Bachelor of Arts (Hons) majoring in History 2017). In 2021 he graduated with a Masters of Archaeological and Evolutionary Science, specialising in Bioarchaeology and Forensic Anthropology from the Australian National University. He has experience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



Figure 1: Regional Context

Legend

-  Study Area
-  Highway
-  Major Road



Imagery: © NSW Spatial Services

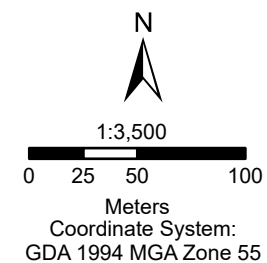
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Figure 2: Project Area

Legend

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



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, copies of 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 Onerwal Local Aboriginal Land Council (LALC) and statutory authorities including NSW Heritage on the 18/11/2024 as identified under the consultation guidelines (DECCW 2010). Notification letters were then sent on the 29/11/2024 to the stakeholders identified by NSW Heritage.

A public notice was placed in the local newspaper the Yass Tribune on the 20/11/2024 (ending on 4/12/2024), seeking registrations of interest from Aboriginal stakeholders.

As a result of this process, ten (10) groups contacted the consultant to register their interest in the proposal. The Registered Aboriginal Groups (RAPs) who registered interest were:

- ❖ Onerwal Local Aboriginal Land Council
- ❖ Didge Ngunawal
- ❖ Konanggo
- ❖ Sonione Rogers
- ❖ King Brown Tribal Council
- ❖ Mundawari
- ❖ Murrumbidjeri
- ❖ Tiarna Bird
- ❖ Yurwang Gundana
- ❖ Merrigarn

Step 2. A Project Pack document was sent to the RAPs (12/1/2025) providing details of the project with the registration letter. This project pack is provided with the supporting documentation

Step 3. A Methodology Pack with the proposed heritage assessment methodology for the proposal was sent to all RAPs (13/1/2025) with a 28 day review period. The document invited comments regarding the proposed methodology and requested any information regarding known Aboriginal heritage sites or values within the project area.

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. Feedback was provided by the RAPs on the draft recommendations which are discussed in the following section.

2.1 ABORIGINAL COMMUNITY FEEDBACK

Aboriginal consultation has been ongoing through the project with feedback requested during the field survey with LALC, design of methodology through the methodology review, and the cultural assessment. The consultation log for the project is provided in Appendix 2. Information regarding the cultural values and known heritage sites surrounding the project area was provided onsite by the attending representatives.

Representatives were present during the field survey and subsurface testing programs.

A draft of this report has been forwarded on its completion to the RAPs for their comments and review.

All responses received have been included in the final ACHAR recommendations and are listed in the consultation log and provided as supporting documentation.

3 LANDSCAPE CONTEXT

3.1 GEOLOGY

The geology of the project area consists of a combination of Palaeozoic granites (averaging 182-171 million years old), metamorphosed sedimentary rock and Tertiary basalts (up to 300 million years old). These are overlaid by Teschenite intrusions (a coarse grained, dark-coloured, intrusive igneous rock) (Best et al 1963; Meakin 2013). The oldest rock type in the region are Douro deposits formed during the Silurian Period (averaging 430 million years old) (Geological Map 1:250,000, Yass Sheet, Series SI 55-12). Existing within the Douro Group is middle Silurian period (416 million years old) Hawkins volcanic deposits that include tightly welded rhyolite ignimbrites (a very hard, fine grained rock which is essentially an altered basalt and only 1.1 million years old) (Geological Map 1:250,000, Yass Sheet, Series SI 55-12; Dibden 2009:20).

The geomorphology of the region is defined by the Lachlan fold belt that covers the whole of eastern Australia. It comprises sandstones, shales and volcanic with numerous granite intrusions and a few areas of Tertiary basalt flow occurring. Volcanic flows on the Monaro are close in nature to the Yass Valley and Limestone deposits near Wee Jasper have been found to contain a fossil record dating back to marine beds of the Early Ordovician Period (488.3 million years ago) (Abell 1991). Quaternary period sands (2.6 million years ago), clays and gravels along with alluvial soils occur along the margins of Yass River, with pockets of alluvial soil, gravel and sand interspersed throughout the entire area, especially in association with lower elevated flood zones.

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

3.2 SOILS

Soils throughout the project area consist of the Binalong landscape group. All soils are moderately deep (50-100cm) with a low wet-bearing strength. This distribution of soils is shown on Figure 4 and the soil composition is described as follows:

- ❖ Binalong (YE-bi): This soil landscape is located on the gentle gradient undulating low hills between Yass and Boorowa. These soils consist of moderately deep, bright yellowish brown or rarely red, gradational or occasionally duplex textured, weakly to moderately structured soils occurring on crests and side slopes. These soils are underlain by moderately deep yellow mottled clay and grey mottled clay situated on the underlying geology. This soil group is moderately deep (50-100cm) and features a low-wet bearing strength, highly erodible topsoils and acidic (Jenkins 2000: 25-28).

These soils are not conducive to in situ archaeological sites being highly erodible and shallow.

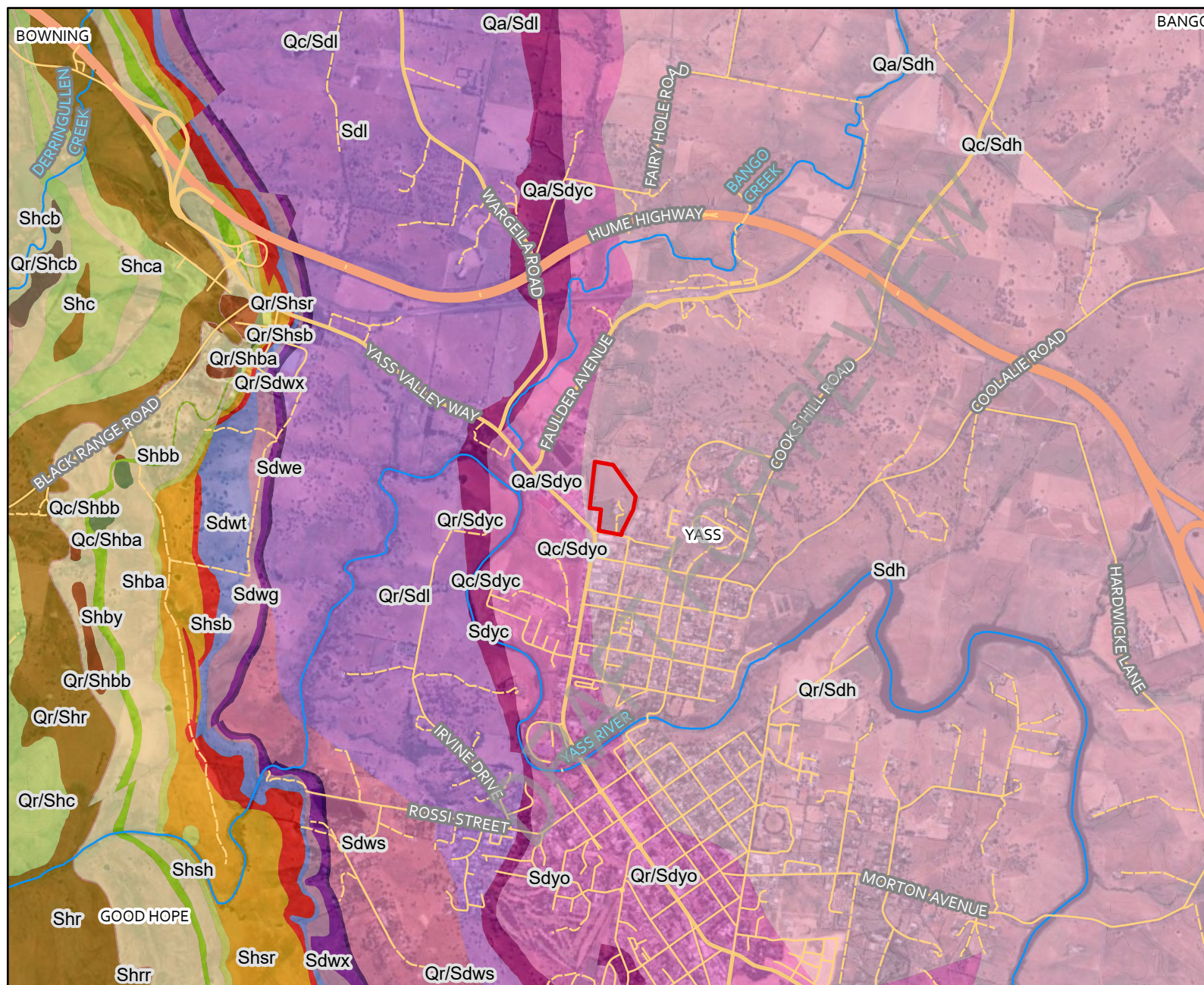
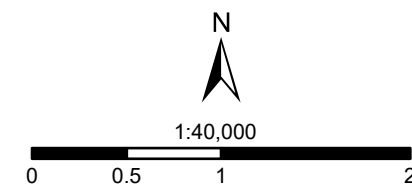
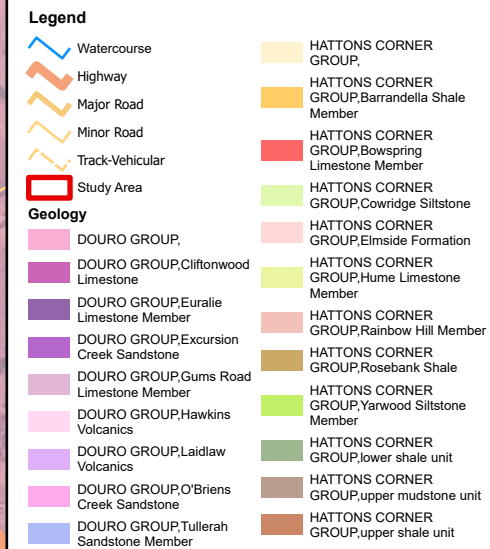


Figure 3: Geology of Project Area



Kilometers
Coordinate System:
GDA 1994 MGA Zone 55
Imagery: © NSW Spatial Services

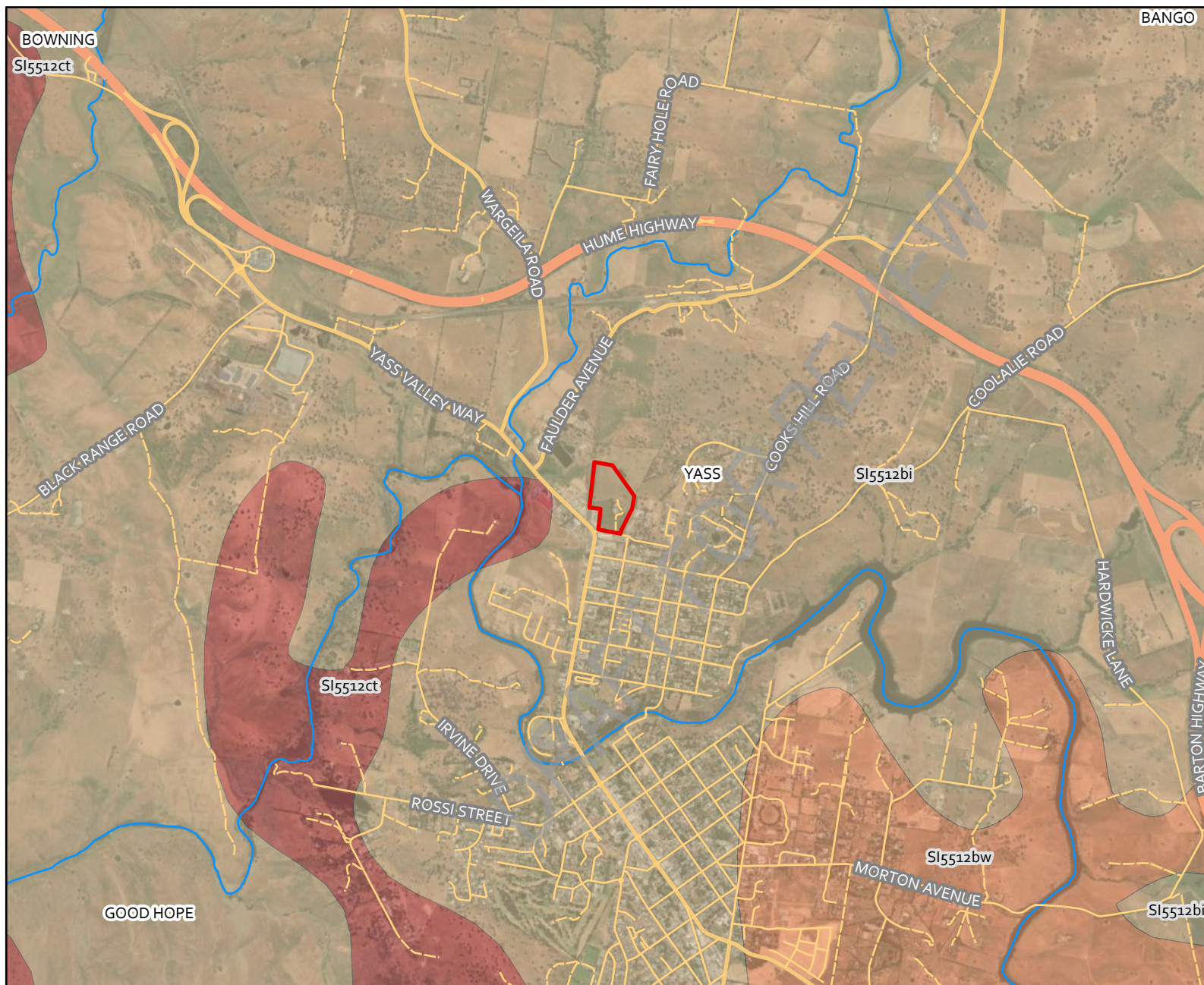


Figure 4: Soil Landscape

Legend

-  Watercourse
-  Highway
-  Major Road
-  Minor Road
-  Track-Vehicular

 Study Area

Soil Landscapes

-  Binalong
-  Boorowa
-  Cockatoo



1:41,000

0 0.5 1 2

Kilometers
Coordinate System:
GDA 1994 MGA Zone 55

Imagery: © NSW Spatial Services

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3.3 FLORA AND FAUNA

The natural vegetation across the proposal area has been totally cleared and is now considered as a modified environment. Native vegetation has been removed and would most likely have consisted of temperate grasslands on the creek edges prior to clearing with native grasses under an understory of Eucalypts (Jenkins 2000).

The native grasslands and open woodland environment would have supported a large resource base for Aboriginal people with a wide range of edible plant and fauna species. Fauna present would range from fish, turtles, frogs, small marsupials (i.e. possums), to avian species and macropods. A range of lizards also inhabit this environment that would have been utilised by Aboriginal groups. Grass seeds and rushes from the flood zones may have been gathered for use in fibre production and ground into food supplies (Percival and Stewart 1999).

Since European settlement, surface ground layers and the associated flora within the study area have been substantially altered to make way for pasture.

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.

Within the project area settlement had occurred prior to the earliest available parish map of 1890 (2nd Edition County of King, Parish of Yass). The 1890 County of King, Parish of Yass Map notes that the 1920ac. Lot 15 (containing the current project area) was owned by Luke William Reddall and was part of the Oakhill Estate. By 1916 this large portion was owned by George Barber. No Structures are shown as being present at this time.

3.5 LANDSCAPE CONTEXT

The landforms within the project area consist of moderately steep undulating hillslopes with two crest features connected by saddle. Water sources are not present, with a single dam located along the west boundary of the project area. The landscape naturally drains to the west towards the Yass River (500m away) at the base of slopes. The Yass River would have provided fresh water and riverine resources being the main source of water for the area. Within the project area no permanent water source is present.

The project area has been impacted by European settlement from the mid nineteenth century. The project area has as a result been under continual grazing and pastoral regimes over a lengthy period of time. These past use impacts are typical for the Yass and Southern Tablelands region and consist of the following:

- ❖ Vegetation and tree clearance
- ❖ Stock impacts

- ❖ Fencing
- ❖ Vehicle tracks – some consisting of minor roads, other of impact trails
- ❖ Extensive impacts in areas of housing including landscaping
- ❖ Construction of sheds, outbuildings and yards
- ❖ Ploughing of topsoils for pasture improvement or light cropping.

All of these landscape and soil impacts reduce the potential for archaeological or heritage sites to remain intact within the landscape. Confined areas of disturbance are present at gates and along fence lines. Exposed ground is present in areas of animal impacts, vehicle tracks, fence lines, under trees and large areas of erosion.

Review of previous Aboriginal sites located in the vicinity indicates a site location model based on level areas in proximity to water resources such as creek lines with smaller sites located on hilltop ridgelines. The study area consists of gentle to moderate undulating slopes classified as holding low overall low potential for heritage sites with two crest landforms considered to hold moderate potential.

As a result of the landform assessment the study area contains overall low potential to contain any unrecorded heritage sites or areas of PAD with two hill crest areas which may depending on level of disturbance hold higher levels of potential. The project area has suffered a moderate degree of previous impact. An aim of the field survey will be to investigate the potential of the landforms, along with the degree of disturbance to verify the desktop findings.

The landscape of the project area suggests that Aboriginal groups would have travelled across and utilised the area, which may be present in the landscape in the form of small archaeological sites and deposits. However, no areas of high potential are present and any heritage sites are predicted to be small and limited in significance. The area of Oak Hill to the east approximately 1km is an important area to the community, being the location where many families were resettled following European expansion.

4 ABORIGINAL ARCHAEOLOGICAL CONTEXT

A desktop assessment has been undertaken to review existing archaeological studies for the Project Area, and the wider Yass 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

The major language group identified in the Yass Valley region by Norman Tindale (1974) in his seminal work on Aboriginal tribal boundaries is that of the Ngunnawal people. The boundaries of the Ngunnawal ran to the southeast where they met the Ngarigo at the Molonglo and the Wiradjuri to the west of the Yass region. The boundary with the Gundungurra (Gandangara) people lies to the north of Goulburn, and the Lake George Blacks or Molonglo tribe to the south (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 traditional clothing of the Aboriginal people in the region was described as consisting of long possum cloaks, worn with the fur turned in for warmth and the tanned skins on the outside for waterproofing, and string belts made from possum or kangaroo hair (Govett 1977:8, Bennett 1967:175, Boswell 1890:9). Boswell described in detail the process of making possum cloaks (Boswell 1890:9). Boswell records that glass was now being used by the Aboriginal community in the making of the possum cloaks and was replacing traditional materials.

The ceremonial dress used was also described by Bennett with head dresses of kangaroo incisors and possum tails, head bands and necklaces. The use of white and red ochre to decorate the upper body and face for ceremonies was noted (Bennett 1967:323-326).

The men travelled with spears, (Govett 1977:36,) some of which were used for hunting while others were for fighting. Woomerahs (spear throwers) were approximately 1m long with a flat handle and a hook at the end (Govett 1977: 11, 36). Hatchets or axes had a ground stone head fastened to a wooden shaft by fibre binding. Govett notes that like the use of glass, iron axes were replacing stone ground axeheads and were greatly valued by the Aboriginal community (Govett 1977:11).

The women travelled with items that showed their main focus on gathering. Women constructed nets from plant fibres which were used to carry items slung over the body – this could also include babies and infants. Govett recalls this practise of 'slinging' babies behind a mothers shoulders (1977:8). Digging sticks consisting of hard wood approximately 1.5m long, burnt at one end to create a hardened point were carried by the women. The process of foraging was continued whilst on the move with food stored in the expanding nets until a camping site was reached (Govett 1977:23).

This traditional clothing was replaced by the blankets distributed by the Government and a mixture of European clothing. Governor Macquarie began a policy of distributing blankets to Aboriginal people in 1814 and groups became increasingly dependent as their traditional resources were destroyed by the impact of pastoralism and their groups suffered cultural impacts from disease, alcohol and displacement.

4.2 PREVIOUS ARCHAEOLOGICAL WORK

Heritage assessments have been undertaken in increasing frequency due to the level of increased development and increased legislative requirements. As a result, a number of cultural heritage surface surveys and sub-surface excavations have been conducted throughout the Yass Region. 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.

Due to this large body of work completed for the region, only the most relevant have been summarised in the following section.

4.2.1 *Local Overview*

A number of heritage studies have been undertaken in the immediate area close to the Yass Township and region. These studies have been mainly commissioned due to residential developments and the construction of the Yass Bypass and associated infrastructure. The most relevant of these studies are summarised below.

Koettig & Silcox (1983 & 1985) carried out a survey for a proposed alternate Yass bypass route. The survey identified nine stone artefact scatters and six isolated stone artefacts. Majority of identified sites were situated on ridgeline slopes or hill crests within 200 metres of a waterway. By far the majority of artefacts were unmodified flakes or flaked pieces and quartz was the dominant artefact material.

Koettig 1988 following on from their 1985 survey, they conducted more survey work and test excavations within a 6km route of the proposed Barton Highway extension. Five isolated artefacts, a large stone artefact scatter and two moderately dense subsurface stone artefact sites were located. The artefacts were made up of flaked pieces, cored and backed blades. The main artefact material was silcrete and the rest was made up of quartz, mudstone, volcanic and chert.

Koettig 1986a & b produced an assessment for the water pipeline between Bowning and Yass along Derringullen Creek. This survey was followed by Subsurface testing of areas of PAD. This survey identified potential landforms along the banks of Derringullen Creek.

Koettig 1986c worked on another assessment for Yellow Creek Road Area for residential Development. Four artefact scatters were identified all holding low significance.

Navin Officer (2001) produced assessment for the proposed Yass substation (4km south of the current project), on low gradient slopes along the middle reaches of Booroo Ponds Creek was investigated. At this location Navin Officer located one small artefact scatter along a spur crest. The site comprised four flakes of volcanic, silcrete and chert. Confirmed modelling of creek line and spur crest as area of concentration.

AHS (2003) surveyed a 60ha block of land for a residential subdivision in East Yass. Only one low density stone artefact scatter was located during the site inspection and one area of archaeological potential. The artefacts were all quartz flakes located on the crest of a ridgeline knoll. This indicated a spur crest or ridgeline potential.

Thompson (2003a) conducted a heritage assessment for the Yellow Creek Estate located at Part Lot 2 DP255064 Yass (500m east of the current project area). As a result of the field survey, six

archaeological sites were recorded consisting of three scarred trees and three isolated stone artefacts within 200m of creek line.

Thompson in 2003b also conducted an assessment for residential development at Part Lot 2 DP623848. Five sites were identified on the property: one scarred tree, one possible burial, one artefact scatter and two isolated finds.

New South Wales Archaeology undertook a heritage assessment in 2009 of the proposed Yass Dam Raising Project. The survey for the project was conducted along each side of the dam wall, the additional inundation area as a result of the dam raising, four upstream culvert sites and the site of a construction compound on the west side of the dam wall. Four Aboriginal sites of low-scientific significance were identified, with 33 previously recorded sites located outside of the areas of impact. A model of ridgeline sites relating to travel and low lying sites near water was developed.

Bowen Heritage Management (2016) completed an assessment for residential development at Lot 107/108 Irvine Drive Yass. The field survey covered 106 acres located to the southwest of the current project area at a distance of approximately 1.5km. The survey identified 3 Aboriginal sites (2 isolated finds and one small surface scatters). The model of site location focused on waterways was found to be supported.

OzArch (2017) completed an assessment for transmission line installation. It resulted in the identification of one artefact scatter overlooking Derringgullen Creek on midslope level area.

Past Traces (2022) completed a heritage assessment for the development of Lot 2 DP1280115, Hatton Park, Yass for residential housing. One heritage site (PTHP1) was identified by the field survey in an upper slope location.

Past Traces (2023) undertook an archaeological investigation for an industrial development area at Lot 8 – part of subdivision of Lots 1 and 2 DP1277037 Yass Valley Way, Yass. No heritage sites or areas of Potential Archaeological Deposit (PAD) were identified within the area of interest.

These previous assessments for the region have returned consistent results with areas of level terrace or rises in the vicinity of creek lines considered to hold moderate to high potential (dependant of degree of disturbance). Based on this information from these previous reports the predictive modelling developed by NSW Archaeology (2009) and reinforced by BHM (2016) for the project area appears robust.

4.3 HERITAGE REGISTERS

4.3.1 *Aboriginal Heritage Information Management Systems Search and Site Analysis*

A search of the NSW Heritage AHIMS database was undertaken on the 30/09/2024 covering the approximate 2km surrounding area centred on the project area. The extensive search revealed no previously recorded heritage sites within the project area with 44 sites within the wider search area. The recorded sites consisted of a range of site types, but namely consisting of isolated artefacts, artefact scatters and areas of Potential Archaeological Deposit (PAD). Other rarer sites like Culturally Modified Tree (CMT), burial, grinding groove and hearth sites were also recorded within the search area.

Within the wider Yass area several studies have been undertaken (Thompson 2003ab & Bowen 2016) which have resulted in the identification of a number of Aboriginal sites, mainly consisting of artefact scatters or isolated finds. These studies have resulted in a site location model being developed for the region. This model predicts the majority of sites will consist of small artefact sites located on level ground or terrace features in proximity to water sources, with larger sites with subsurface deposits being present in proximity to water features such as a creek confluence or major water sources. This is directly applicable to the project area. This predictive model is discussed in more detail in Section 2.2.

The recorded sites on AHIMS for the area are listed in Table 1 and shown on Figure 5 in relation to the project area.

Table 1. AHIMS Site Types

Site Type	Number	Percentage
Isolated Find	9	19.57%
Artefact Scatter	19	41.30%
Potential Archaeological Deposit (PAD)	9	19.57%
Culturally Modified Tree (CMT)	3	6.52%
Burial	2	4.35%
Grinding Groove	1	2.17%
Hearth/Habitation Structure	3	6.52%

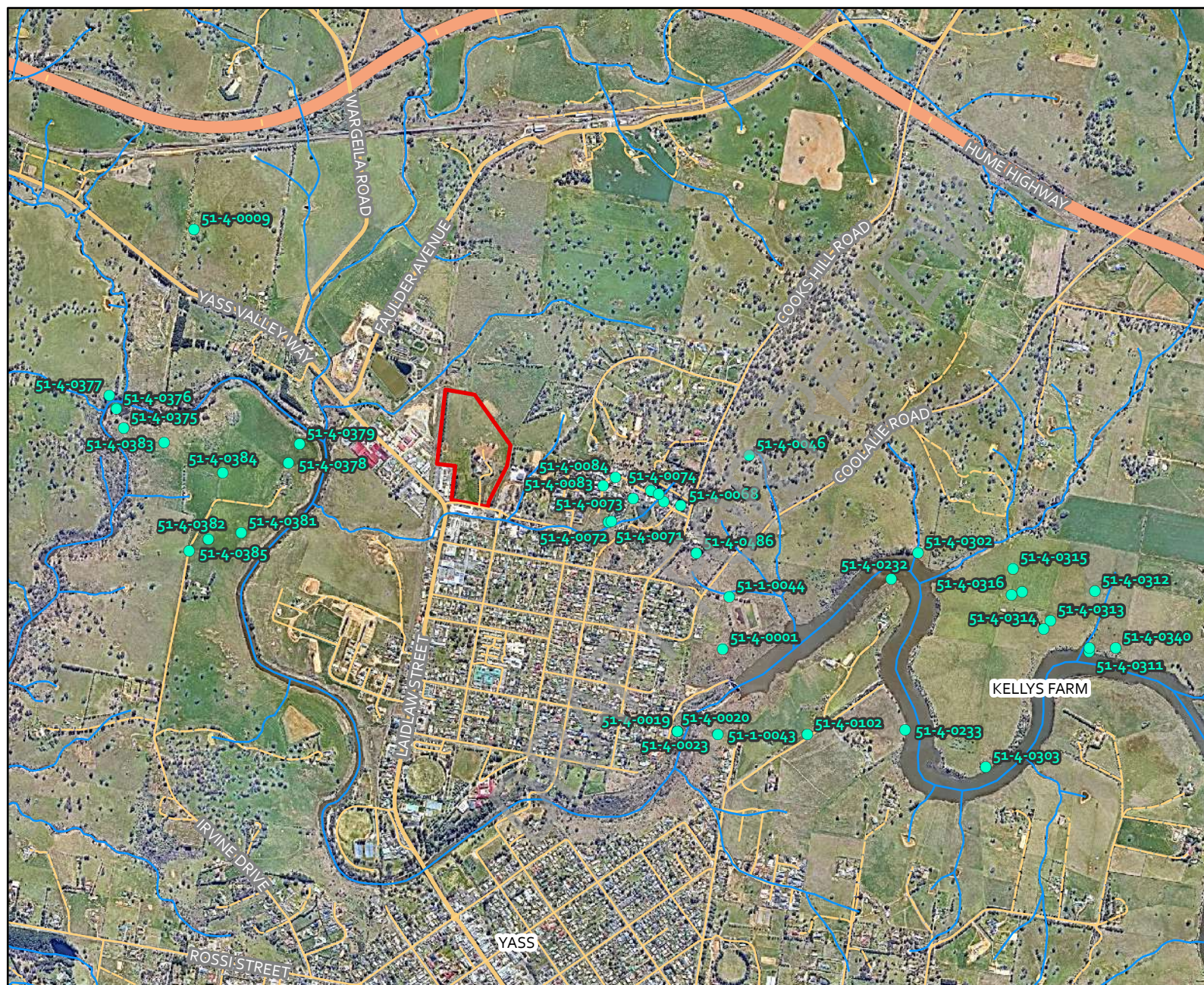
4.4 HISTORICAL HERITAGE REGISTER SEARCHES

Within NSW Local government is responsible for managing heritage items. This responsibility is mainly fulfilled by listing heritage items in the Local Environmental Plans (LEPs) under the *Environmental Planning & Assessment Act 1979*. Council approval is required to impact any listed item.

Heritage items can also be of 'state significance' in which case they are listed on the NSW Heritage Register by the NSW Heritage Council under the *Heritage Act 1977*. These items are usually substantial and consist of buildings, bridges or other structures that represent events in the local area.

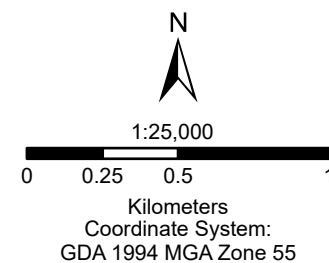
A search of the NSW Heritage Register and the Yass Valley 2013 was undertaken for the project. No historical items were located during these searches. A review of historical parish maps was also undertaken including the earliest available historical parish map of the 1881 County of King, Parish of Yass 2nd Edition Parish Map with no known structures or items identified within the project area.

Figure 5: Previously Recorded Heritage Sites



Legend

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



Imagery: © Nearmap

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4.4.1 Predictive Modelling

Based on the AHIMS search results and previous reports completed for the Yass region, 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. 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.

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) following KNC 2008.

Table 2. Site Prediction Model

Probability	Site Type	Definition	Landform
Low to Moderate	Isolated finds and surface scatters of stone artefacts	Stone artefacts ranging from single artefact to high numbers	Varies, but most frequent on elevated terraces along creek lines and spurlines – No water sources are present with the project area being 500m from the Yass River. Two crest landforms are present.
Low to Moderate	Potential Archaeological Deposits (PADs)	Area considered on landform to hold higher potential for unidentified subsurface deposits	No water sources are present with the project area being 500m from the Yass River. Two crest landforms are present
Low	Culturally Modified Trees (CMTs)	Trees which have been modified by scarring, marking or branch twining	May be present on old remaining trees - very few remaining old growth trees
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.	Crest lines or large ceremonial areas on creekflats, - not present

Probability	Site Type	Definition	Landform
Nil	Stone quarries/Ochre sources	Quarry sites where resources have been mined.	Any landform that has not been disturbed – not present
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 - not present
Nil	Burials	Burials of Aboriginal persons	Usually requiring deep sandy soils on eastern facing slopes – not present
Nil	Aboriginal places	A place that hold spiritual, traditional or historical significance to Aboriginal people	Any landform, identified through consultation with RAPs and historical sources – not previously reported.

4.5 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. 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 50m²) 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 6 to 8, with a basic interpretation of the modelling discussed below:

- ❖ Figure 6 – This figure highlights the general level of archaeological sensitivity. The model suggests a low to moderate level of archaeological sensitivity across the whole project area.
- ❖ Figure 7 – This depicts the accumulated impacts derived from the difference between the pre-colonial and current versions of the model.

This suggests a moderate to high level of accumulated impacts across the study area, with higher levels of disturbance in the northeast corner.

- ❖ Figure 8 – 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 low to moderate survey priority across the project area.

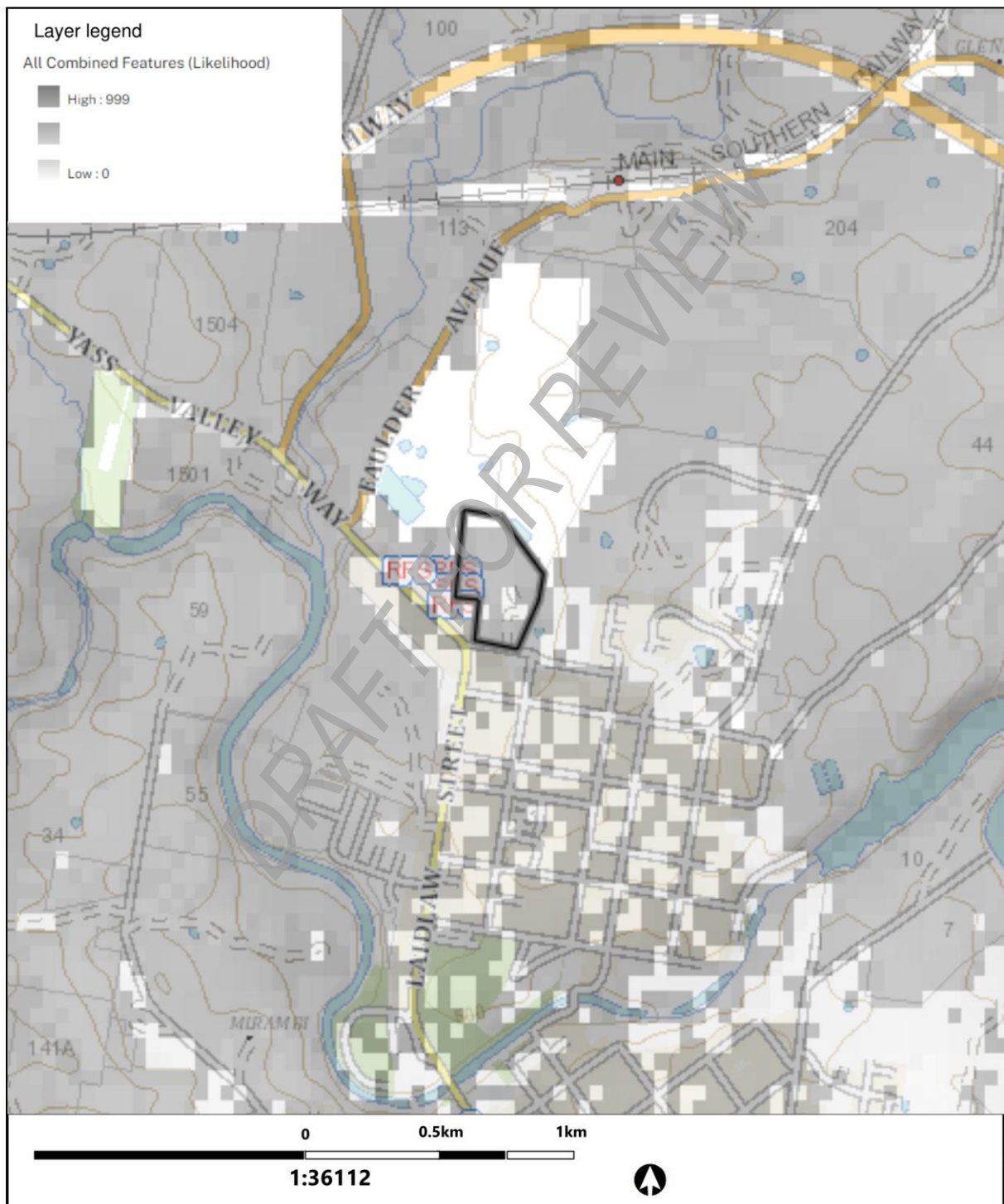


Figure 6. ASDST map of all combined Aboriginal heritage feature likelihood.

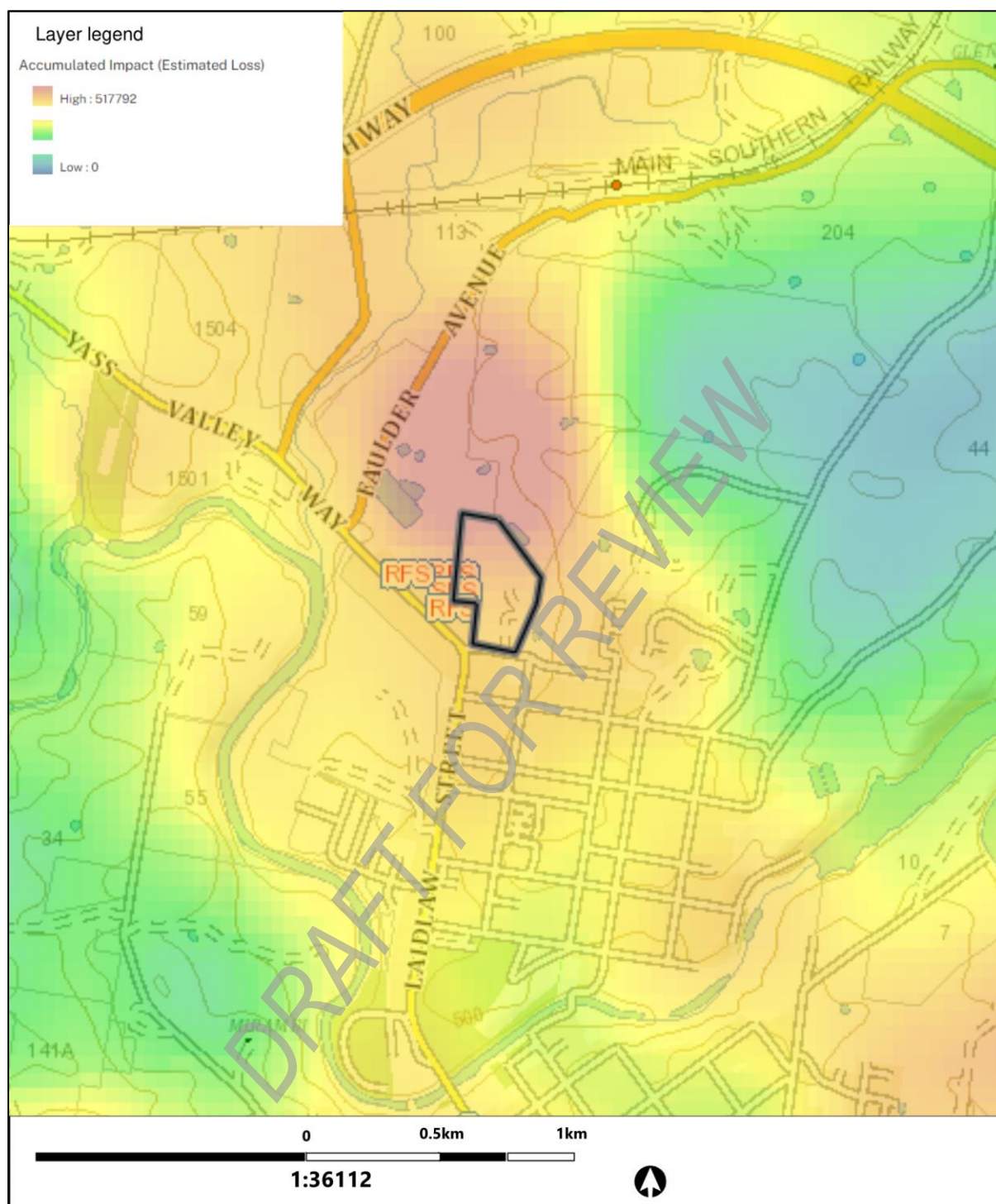


Figure 7. ASDST map of areas of accumulated impacts across the project area.

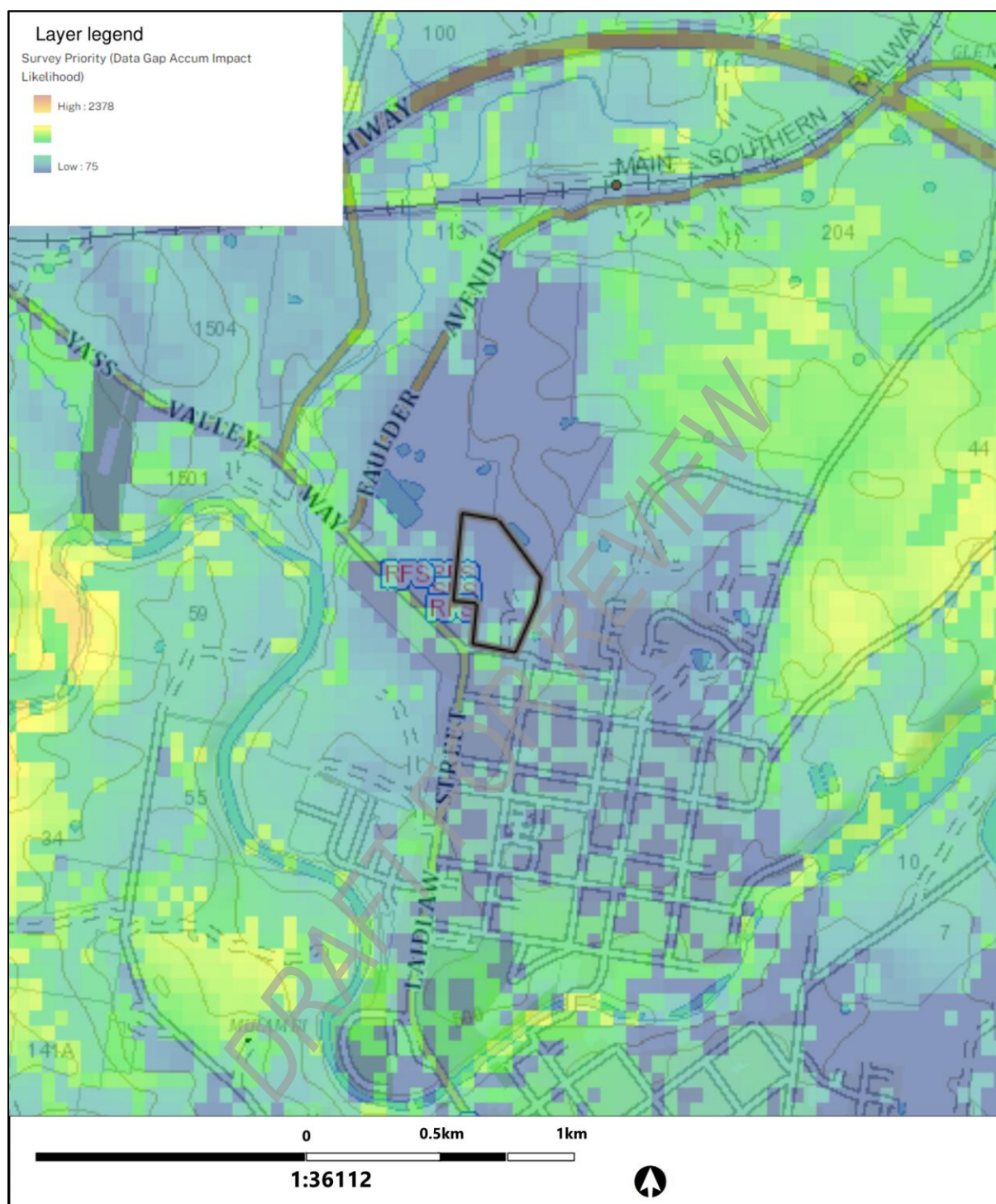


Figure 8. ASDST map of the survey priority across the project area.

5 ARCHAEOLOGICAL FIELD SURVEY

Field survey of the project area was undertaken on the 8th October 2024 with the participation of the Onerwal Local Aboriginal Land Council (OLALC) to verify the findings of the desktop review of landforms and disturbance. 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 project area was inspected.

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.

5.1 GROUND SURFACE VISIBILITY

GSV over most of the study area was low to moderate due to extensive grass coverage across the majority of the property. Bare earth was visible in large exposures and across the project area the average GSV was estimated at 40%. Due to the prevailing vegetation, large areas of exposed ground were present under trees, along fence lines, along vehicle tracks, areas of mechanical landscaping, dam walls and at gate or building entrances.

Exposures were common at moderate frequency across the project areas with large areas of bare soils with natural gravels and shales visibly present. The conditions at the time of the field survey are shown in plates 1 to 6.



Plate 1. View of northeast boundary fence



Plate 2. GSV in the northeast boundary area



Plate 3. View across the side slopes in the northern section (north)



Plate 4. View from south corner overlooking hill crest and house site (north)



Plate 5. Levelled area north of current dwelling on upper and mid slopes (northeast)



Plate 6. Dam cutting exposure with yellow clay and shale bedrock (east)

5.2 DISTURBANCE AND SURVEY COVERAGE

Disturbance across the project area is estimated as moderate and is further detailed within the four Survey Units in Table 4. Survey Units were defined by fence lines. The landforms are shown in Figure 9.

The degree of disturbance across the study area was overall moderate, with high disturbance in the area of the current dwelling and rear where removal of buildings is ongoing. The ground is shale covered with a thin clay soil and natural gravels are present.



Figure 9: Landforms

Legend

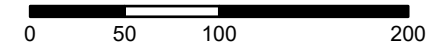
-  Watercourse
-  Study Area
-  Cadastre
-  Major Road
-  Minor Road
-  Track-Vehicular

Landform

-  Crest
-  Upper Slopes
-  Middle Slopes
-  Lower Slopes
-  Watercourses



1:4,000



Meters

Coordinate System:
GDA 1994 MGA Zone 55

Imagery: © NSW Spatial Services

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The area of the current dwelling has been heavily impacted by the heavy landscaping of the landforms and construction of the house and several large sheds. Eroded vehicle trails and transmission poles were also present. The area behind the house has been mechanically levelled by tracked vehicles with piles of introduced topsoil dumped within this area.

Disturbance across grassed paddocks (the remainder of the project area), is moderate with disturbance present in the form of prior vegetation and tree removal, windbreak plantings, stock impacts, fence lines and dam construction. Grass coverage was low and cropped by stock, allowing for clear inspection of bare soils. GSV in the paddocks was estimated at 60% with exposures over 30%. These impacted areas are considered to hold low potential for heritage sites.

Within these disturbed areas, the GSV remained high. Soils were displaced in areas and erosion appears active within the large exposures. Sections of the project area had been ploughed for pasture improvement with clear delineations evident between the southern paddocks and the northern, more natural areas.

Areas of erosion exposure, disturbed soils, stock impacts and long areas of linear vehicle tracks were also present through much of the project area. Although GSV and exposures varied throughout the different landforms overall the field survey is considered to have held a high degree of survey coverage and effectiveness, due to the large amounts of exposure and low grass coverage across the project area.

The project area was divided into Survey Units (SU), which were based on fence lines divisions, similar landscapes and changes in landform. The commencement point of each SU was accessed by pedestrian transects completed (walked) across the SU. As a result, the project area was divided into four main survey units. The distribution of Survey Units, landforms and pedestrian transects are shown in Figure 9. The description of each survey unit is provided in Table 3.

Table 3. Survey Unit assessments

Unit	Description	GSV	Exposure Rate	Degree of Disturbance	Mechanism of disturbance
SU1	South east Paddock)	40%	40%	Low to Moderate	This paddock is used for grazing, but has a graded access road from the southern boundary to the house area. Fence lines present with stock erosion areas, also erosion from vehicles and some degree of soil movement and grading. Short grass due to stock.
SU2	House paddock)	80%	75%	High	The area to the rear of the house is under demolition with piles of construction materials, and large areas of exposed soils. No construction was occurring on day and able to survey across piles of displaced soils and around the house. .
SU3	Northern Paddock	60	30	Moderate	The crest area and surrounding slopes were short cropped with areas of erosion from

Unit	Description	GSV	Exposure Rate	Degree of Disturbance	Mechanism of disturbance
					stock and linear vehicle tracks. Planted windbreak pines on the east boundary. The crest contained feeding troughs which has resulted in large area of exposure. Whilst no artefacts identified, hill has views and connection to Oak Hill.
SU4	Southwest Paddock	40%	20%	Moderate	This paddock was also short cropped but had been pasture improved with a missing fence line between SU3 clearly evident. Grass, lusher and denser with reduced visibility.

5.3 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.

A single team member with a representative from the Onerwal Local Aboriginal Land Council completed the 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 desktop review and landform assessment. The pedestrian transects with landforms are shown Figure 9.

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

SU	Landform	SU Area (m ²)	GSV %	Exposure %	Effective Coverage Area m ² (SU area x GSV% x Exp%)	Effective coverage (Eff coverage area ÷ SU Area x 100)
SU1	Lower Slopes	538.55	40%	20%	43.05	8%
	Mid Slope	4893.05	40%	40%	782.85	16%
	Upper Slopes	2062.00	70%	50%	721.7	35%
SU2	Crest	4236.50	80%	75%	2541.9	60%
	Middle Slopes	188.55	40%	40%	30.16	16%
	Upper slopes	7345.75	70%	50%	2571.00	35%

SU	Landform	SU Area (m ²)	GSV %	Exposure %	Effective Coverage Area m ² (SU area x GSV% x Exp%)	Effective coverage (Eff coverage area ÷ SU Area x 100)
SU3	Lower slopes	15747.85	40%	40%	2519.65	16%
	Middle slopes	46352.35	40%	40%	7416.35	16%
	Upper slopes	2099.05	55%	20%	230.90	11%
	Crest	6307.00	55%	35%	1214.10	19.25%
SU4	Middle Slopes	17314.85	40%	40%	2770.35	16%
	Upper Slopes	2144.85	55%	40%	471.85	22%
	Total	109231.05			21313.9	20%

Table 5. Landform Summary

Landform	Area (m ²)	effective coverage area (m ²)	% of landform surveyed	no of sites	No of PAD
Low Slopes	16286.4	2562.7	16%	0	0
Middle Slopes	68748.8	10999.71	16%	0	0
Upper Slopes	13651.7	3995.45	29%	0	0
Crest	10543.5	3756	36%	0	1
Total	109230	21313.9			

5.4 RESULTS - ABORIGINAL HERITAGE SITES

No Aboriginal heritage sites were identified during the field survey despite constant rate of exposures and low vegetation coverage. No known heritage sites will be affected by the proposed development.

5.5 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.

As a result, of the landforms and prior impacts, one area of PAD (RS Yass PAD1) has been identified on the hill crest with the remaining project area considered to hold low overall potential. This area of PAD is described in the following section.

5.5.1 RS Yass PAD1

As a result of the field survey, one area with a moderate to high potential for subsurface deposits was identified within the project area (RS Yass PAD1). This area of PAD measures an approximate area of 120x60m centred on GDA94 MGA55 674684.6145151 and runs roughly northwest/southeast across the gentle hill crest in the northern section of the project area. The area of PAD is situated between two dams which in the past may have formed 1st order drains or soaks, with water draining 600m west to the Yass River. This area of PAD is depicted in Plates 7 and 8, and shown in Figure 4.



Plate 7. PAD area on hill crest in the northern section (Facing north)



Plate 8. View of RS Yass PAD1 area (west)

5.6 SURVEY SUMMARY

As a result of the field survey, it is considered that the project has low potential to impact on unrecorded Aboriginal or Historical heritage sites or areas of PAD.

One area of subsurface potential is present within the project area, and recorded as RSYASSPAD1. This area of PAD will be impacted unavoidably, and to determine the impacts on any heritage values, progression to subsurface testing is required.

Based on the assessment the findings from the project are as follows:

- ❖ No Aboriginal heritage sites were recorded during the field survey of the Project Area.

One area of moderate potential (NNC PAD1) to contain unrecorded Aboriginal objects is present in the project area, previously identified by NGH in 2020, which will require subsurface testing to determine presence, extent and significance of deposits

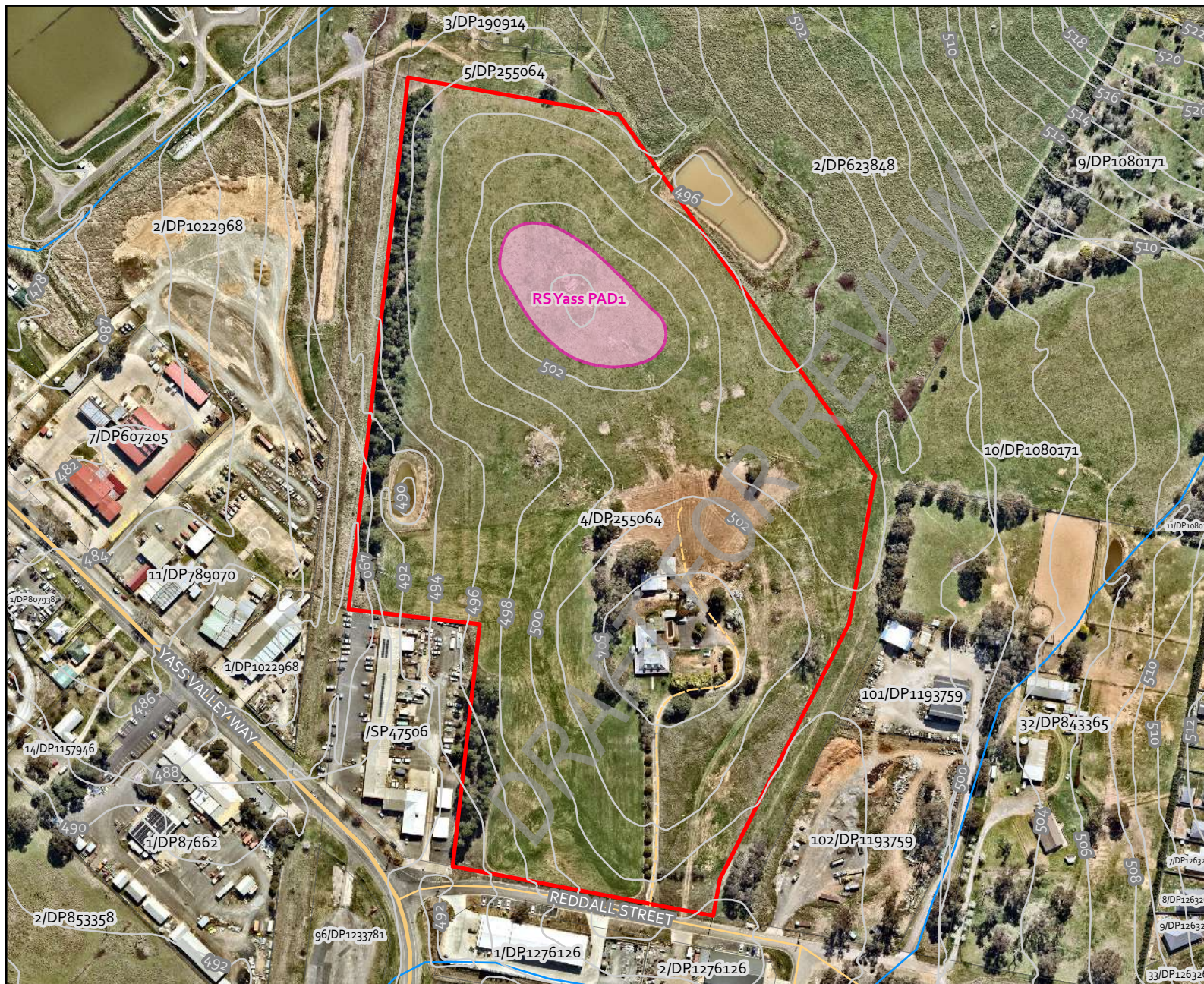


Figure 10: 2024 Survey Results

Legend

-  Contour -2m
-  Contour -10m
-  Watercourse
-  Major Road
-  Minor Road
-  Track-Vehicular
-  Project Area
-  Cadastre
-  Area of PAD



1:3,500

0 50 100 200

Meters

Coordinate System:
GDA 1994 MGA Zone 55

Imagery: © Nearmap

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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).

One area of PAD (NNC PAD1) is present within the project area, requiring subsurface testing to determine the presence, extent and significance of subsurface deposits. This testing was completed in January 2025, 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 area 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 RESEARCH QUESTIONS

To guide the test excavations the following research questions will be asked:

- ❖ Are archaeological deposits present?
- ❖ If so, classify the range of materials and artefact types present, if faunal material is recovered identify species and potential use.
- ❖ What does the deposit tell us of Aboriginal usage of the area?
- ❖ Is the deposit and recovered artefacts regionally significant?
- ❖ What significance do the recovered deposit hold for the Aboriginal community?

6.3 EXCAVATION METHODOLOGY

The following excavation methodology was developed in consultation with RAPs. 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 applied:

- ❖ Undertake excavation of 50 x 50cm test pits by hand excavation using mattocks, shovels and trowels to determine the presence of deposits.
 - Hand excavation using shovels and trowels, pits to be a minimum of 50cm x 50cm in area.
 - Removal of initial deposit in 5cm levels or 'spits' with subsequent spits at 10cm unless features found requiring a different strategy.
 - Excavate to the basal clay levels or if cultural material is located, then to the culturally sterile layers. Excavation would cease when basal clay levels are reached. In the event of basal clay not being reached by 60cm, excavation would cease if no artefacts have been recovered as based on previous excavations in area, artefacts should be located in the upper levels, and it would be low potential for any unrecovered artefacts to be present in the bottom levels if not present in upper soils
 - 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 lithic artefacts will be undertaken off site, under low power magnification and kept in interim storage in a fire proof site at the Canberra offices of Past Traces. Material, technological attributes, measurements, will be recorded for each lithic artefact and provided in an artefact database. If faunal material is recovered, then identification to species, any modification or burning will be recorded along with MNI and NISP counts
- ❖ At completion of excavation, backfill test pits (with sieved material if possible or clean fill if required)
- ❖ Following completion of reporting, reburial would occur either on site in test pits in accordance with Code of Practice Requirements, or if an AHIP is granted to an agreed Return to Country location.
- ❖ The Return to country location would be decided based on RAP recommendations in a conservation area, where no future impacts will occur and documented in the AHIP process. If this is not possible a care and control permit will be discussed in consultation with RAPs.

The test pit spacing is at 10m intervals on transect spaced at 10m (10m grid). This provides coverage over the areas of PADs (Way 2017).

To test the PAD boundaries, in the event of revealing of artefacts or deposits within a test pit, 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.

Should a test pit reveal high density artefact concentrations (i.e. greater than 40 artefacts per square metre) or archaeological features such as hearths, a recommendation of salvage under the future AHIP will be made in the report.

6.4 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 following Holdaway and Stern (2004).

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.
- ❖ 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.

6.5 RESULTS OF SUBSURFACE TESTING PROGRAMME

The subsurface testing program was completed on the 7th March 2025. The subsurface testing was completed with a team of two Past traces member and two RAP representatives, for the area of PAD (RSYASS PAD1). The locations of test pits across the area of PAD are shown in Figure 11.

For RSYASSPAD1 a minimum of ten (10) test pits were planned in order to cover the area of potential, placed across the area of the hillcrest. In accordance with the methodology where a test pit held artefacts, an additional test pit was placed at 10m distance to determine extent. This continued until nil artefacts were recovered, or the edge of the impact area was reached. This resulted in a final total of 13 testpits excavated, recovering two artefacts.

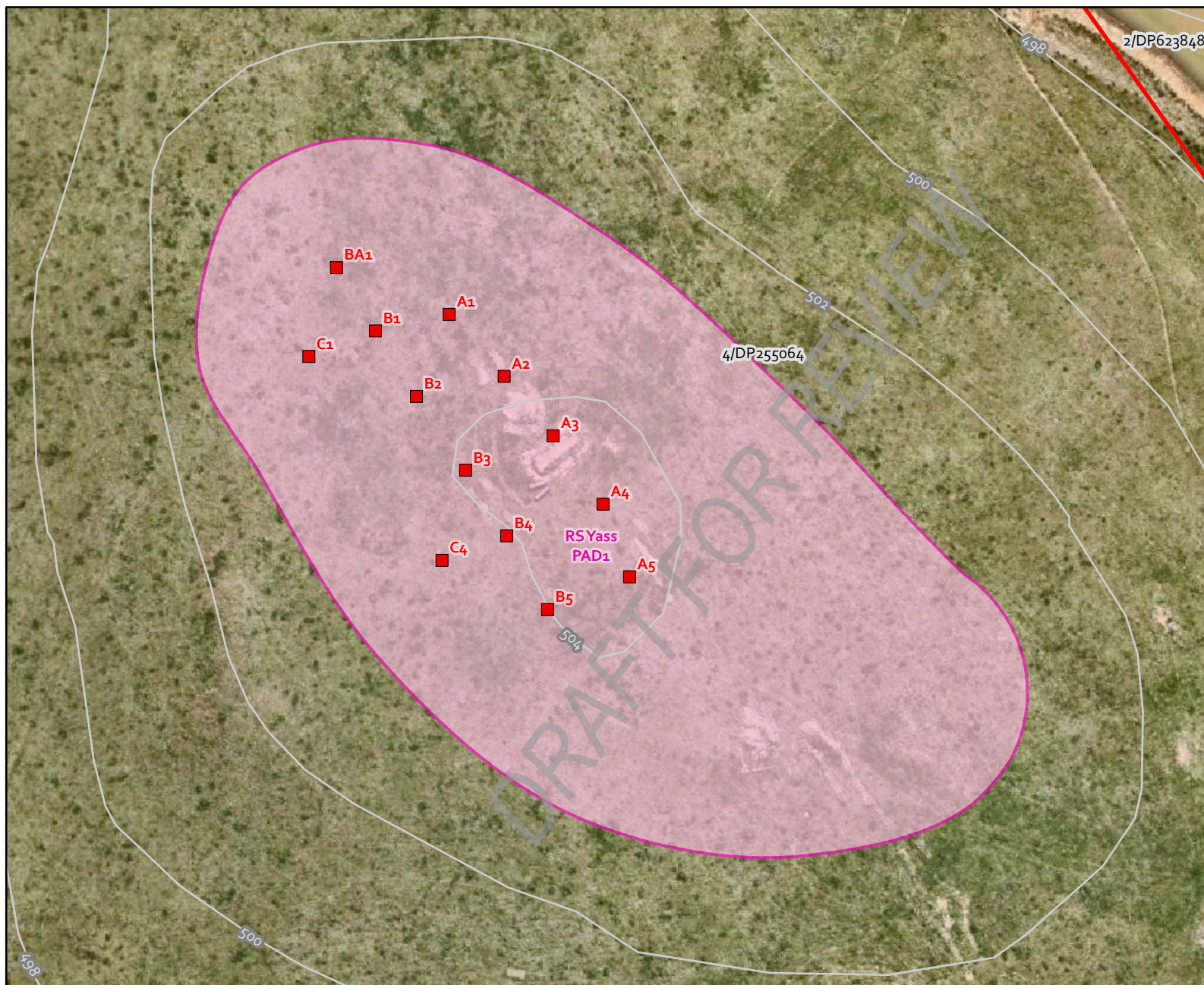


Figure 11: Test Pits

Legend

-  Contour -2m
-  Test Pit
-  Project Area
-  Cadastre
-  Area of PAD



1:700

0 10 20 40

Meters

Coordinate System:
GDA 1994 MGA Zone 55

Imagery: © Nearmap

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Results of the test pitting programme are detailed in the following sections. Appendix 3 contains test pit photos for each test pit.

A site card for site RSYASSPAD1 has been submitted to AHIMS to reflect the results of the test pitting program. AHIMS site cards are attached at Appendix 5. The location of the area of PAD is shown in the following plates.



Plate 9. View across PAD area from south extent
(Facing north west)



Plate 10. PAD GSV

The test pits were excavated to the underlying clay strata in each of the 50cm x 50cm test pits. 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. The representative stratigraphy is shown in TPB1. The soil section is provided in Table 6. The soils within the test pit consisted of highly mixed orange/brown-coloured silty loam overlain on a compacted orange clay base. Test pit photos are provided in Appendix 3 for all excavated test pits within the area of PAD.

Table 1. Testpit Section

Spit	Description	Photo
1a: 0-5cm	Orange/Brown silty loam with rootlets and small angular gravel. Soil is powdery when dry and highly friable.	
1b: 5-10cm	Orange/Brown silty loam continued – higher frequency of larger shale gravels.	
2: 10-20cm	Orange/Brown silty loam. Abrupt change at 15cm to red clay loam, and shales.	
3: 20-30cm	Continued clayey loam with clay content increasing with depth. At approximately 26cm depth, orange clay base appearing End of Excavation at 30cm	

Single broken artefacts were recovered from Testpits B1 and B4. Details of the recovered artefacts are provided in Table 7. These two artefacts are common materials and types and represent at these low density of occurrence as background scattter, discarded as groups moved across or intermittently camped on the hill crest. The significance of the artefacts is further discussed in the next section.

Table 7. Recovered Artefacts

Test pit No	Artefact Details	Photo
B1	Quartz flake – Flaked platform, feather termination, 2 negative scars, usewear left lateral margin 16.25mm (lgth) x 14.13mm (wdth) x 7.38mm (breadth)	
B4	Red silcrete flake – Flat platform step termination, 2 negative scars. 7.87 mm (lgth) x 8.11mm (wdth) x 4.72mm (bdth)	

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 DPI 2025) 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 DPI 2025):

- ❖ 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 site NCCPAD1. 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

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 8 provides the results of the archaeological significance assessment when applied to the newly identified site.

Table 8: Scientific significance assessment of archaeological sites recorded within the project area.

AHIMS	Site name	Research Potential	Representativeness	Condition	Scientific Significance
Pending	RSYASSPAD1	Low	Common in region	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 Yass region are generally small and common in their nature, with larger sites conform to the model of waterway focus on elevated ground. The information that recording of sites provides will further support existing information and through analysis of larger lithic assemblages may 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 site RSYASSPAD1. This level of significance is due to the site's role as a marker in the landscape of Aboriginal occupation and the very low number of artefacts present.

The disturbed nature of the site RSYASSPAD1 lowers this feeling of connection but does not remove it. Appropriate management consists of minimisation of impacts whenever possible, through containment of the project footprint and conservation of areas where possible.

All recovered artefacts should be returned to country which is preferred by the RAPs or placed in the care of the Aboriginal community under a Care and Control permit with the Onerwal LALC.

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 outcomes of these discussions have been incorporated into the management recommendation for the project, provided in Section 8.

7.4 STATEMENT OF SIGNIFICANCE

The Project Area contains one Aboriginal heritage site (RSYASSPAD1), consisting of a low-density lithic deposit. The site is located on gentle broad crest amidst rolling hills.

The site RSYASSPAD1 is considered to hold a low level of cultural and scientific values due to the common nature of the recovered artefacts. Recording of the site will assist in regional studies aimed at assessing Aboriginal usage of the landscape, technology and raw material trade and sourcing, but will not provide any significant new information.

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. An alternative proposal of deposition under a care and control agreement with the Onerwal LALC is also being pursued.

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) for the only site within the project area boundary RSYASSPAD1.

Table 2 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. The composition of the artefact assemblage, with two recovered artefacts does not hold the potential to provide new information on the utilisation of lithics within the region.

8 IMPACT ASSESSMENT

8.1 DEVELOPMENT IMPACTS

The proposed industrial development of Lot 4 SP255064 at 2 Redall Street Yass will result in impacts across the lot. The proposed future 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:

- ❖ Construction of industrial lots,
- ❖ Construction of internal access roads,
- ❖ Installation of infrastructure and services such as water, 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 RSYASSPAD1 (AHIMS: Pending)

The testing at RSYASSPAD1 recovered two artefacts from two test pits on the broad hill crest in the northern section of the project area.

The site has been allocated low cultural and scientific significance based on the artefact assemblage composition and the following mitigation measures are required:

- An Aboriginal Heritage Impact Permit (AHIP) will be required for the unavoidably impacted site. Due to the presence of single artefacts, and the resulting low density of artefacts, no additional mitigation measures are required following granting of the AHIP.
- If works commence prior to the granting of the AHIP in the remainder of the project area, barrier fencing consisting of minimal star pickets with hi visibility fencing should be installed with a buffer of 10m around the site boundary to prevent accidental impacts.
- If the above barrier fencing is required, the fencing can be removed on the granting of the AHIP.

8.2 HERITAGE IMPACTS

The assessed impacts from the project have been summarised in Table 10, along with recommended mitigation measures for the recorded site within the project area.

Table 3: Summary of potential archaeological impact

AHIMS	Site name	Type of Harm	Degree of Harm	Impact of Harm	Mitigation Measures
Pending	RSYASSPAD1	Direct	Total	Removal of values	Application for AHIP If works commence prior to granting of AHIP in other portions of project area, barrier fencing will be required to prevent accidental impacts.

8.3 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.

8.3.1 *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 site at Yass, and the effects of 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 the site on the regional archaeological record

Site RSYASSPAD1 consists of a low-density lithic deposit with two recovered artefacts. Based on the assessment criteria in Section 7.2, the deposit consists of artefacts and materials common to the region, with their low rate of occurrence resulting in a finding of low scientific significance.

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 site (TSYASSPAD1) is 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 and the high number of artefacts recovered from the test excavations.

The site at 2 Redall St Yass, is not currently playing any role in ongoing cultural traditions, transmission of knowledge or learning for the next generation. The site type of subsurface lithic deposits 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 often the main focus.

The small subsurface site has not played any role in ongoing cultural traditions, transmission of knowledge or learning for the next generation. 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 the site 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 11.

Table 4. 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 wider area	Common
Site occurrence in protected areas	Common

8.3.2 Cumulative Impacts

Developments in the Yass area are common, and mainly consist of required infrastructure upgrades and residential developments. Due to the high level of potential development, cumulative impacts must be considered. 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 the current development at Redall Street will be minimal, with the areas of impact occurring within an already impacted area, with only one site impacted. Within the wider Yass region, there are numerous sites that are protected within nature reserves and parklands. The AHIMS search completed for the project highlights the frequency of sites in the region.

Any future 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 RECOMMENDATIONS

Based on results of the desktop research, field survey, subsurface testing and consultation with the Registered Aboriginal Parties, the following recommendations have been developed in regards to Aboriginal Cultural Heritage values 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 one heritage site (RSYASSPAD1) is present. No impacts can occur to the heritage site prior to the approval of an AHIP by NSW Heritage.
- ❖ As site RSYASSPAD1 (*AHIMS Pending*) cannot be reasonably avoided and works will impact this site, then an Aboriginal heritage Impact Permit (AHIP) is required to allow works to proceed. No impacts can occur to the heritage sites prior to the approval of an AHIP by NSW Heritage, and if any works are to occur in the vicinity, then barrier fencing will be required to be installed at the site boundary with a buffer of 10m to prevent impacts, prior to any works commencing. On granting of an AHIP this fencing may be removed and the site impacted. The AHIP area is shown on Figure 12.
- ❖ The recovered artefacts from the test pitting program will be returned to country or curated by the Onerwal LALC under a care and control permit.
- ❖ Following granting of AHIP and completion of mitigation works, an AHIP Compliance works report will be submitted to NSW Heritage at completion of works.
 - Site Impact card with updated details 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
- ❖ 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.
- ❖ No further heritage investigations are required, other than those listed, should the AHIP be approved, except in the event that unanticipated Aboriginal Objects and/or human remains are unearthed during any phase of the Project.

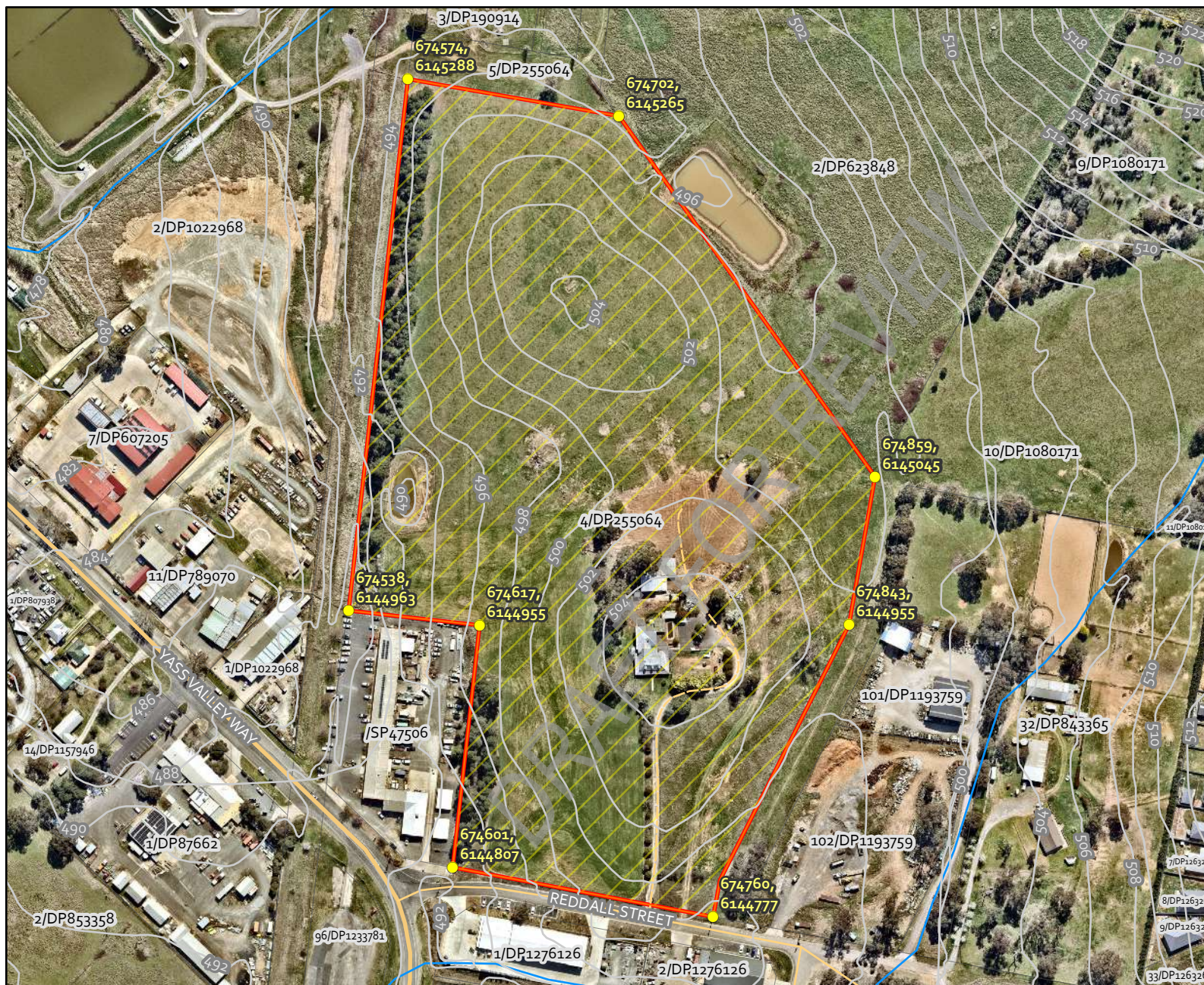


Figure 12: AHIP Area

Legend

- Contour -2m
- Contour -10m
- Watercourse
- Major Road
- Minor Road
- Track-Vehicular
- AHIP Area
- Project Area
- Cadastre



1:3,500

0 50 100 200

Meters

Coordinate System:
GDA 1994 MGA Zone 55

Imagery: © Nearmap

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APPENDIX A AHIMS SITE SEARCH

DRAFT FOR REVIEW

APPENDIX B CONSULTATION LOG

DRAFT FOR REVIEW

APPENDIX C TESTPIT PHOTOS

DRAFT FOR REVIEW