

Lot 23 DP1256090 & Lot 2 DP1136538
Marulan- Stage 3

Aboriginal Cultural Heritage and Archaeological Report



Report Prepared for Darraby Pty Ltd.

By Past Traces Pty Ltd

LGA: Goulburn Mulwaree Council

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Document Control

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V1	22/8/2022	E. Scorsini / N. Cracknell	L. O'Brien
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ACKNOWLEDGEMENTS

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

- ❖ Didge Ngunawal Aboriginal Corporation
- ❖ Corroboree Aboriginal Corporation
- ❖ Muragadi
- ❖ Yurwang Gundana
- ❖ Freeman & Marx
- ❖ Konanggo
- ❖ Corroboree Aboriginal Corporation
- ❖ Ginninderra Aboriginal corporation
- ❖ Merrigarn
- ❖ Thunderstone Aboriginal Corporation
- ❖ Mulwaree Aboriginal Corporation
- ❖ Gunjeewong
- ❖ Guntawang

ABBREVIATIONS

ACHAR	Cultural Heritage Assessment Report
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit
AR	Archaeological Report
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 Darraby Pty Ltd to undertake an Aboriginal Cultural Heritage Assessment for the proposed Marulan Stage 3 residential development of Lot 23 DP1256090 and Lot 2 DP 1136538, Marulan. The proposed area covers approximately 13.5ha of the Northeast corner of the Lot, and is located within a gently undulating to level landscape. A Due Diligence assessment for the project area was completed in 2022 with two previously recorded heritage sites, MW1 and Telstra Marulan 3/A (51-6-0412 & 51-6-0697), located within the proposed project area. The areas of the housing lots are considered to hold low potential for unrecorded heritage sites or subsurface deposits.

The project area is shown in a regional context in Figure 1 and in detail in Figures 2 and 3. The project area is located within the Goulburn-Mulwaree Council. The project is being undertaken to allow for the subdivision of the blocks for residential housing. The project will consist of the following:

- ❖ Construction of roads and stormwater infrastructure
- ❖ Subdivision of land
- ❖ Installation of infrastructure (including water, sewer, power, gas & NBN)
- ❖ Installation of perimeter fencing and landscape

To determine the impacts of the development a Due Diligence assessment has been undertaken in accordance with the *Due Diligence Code of Practice* (OEH 2010) by Past Traces in 2022 to determine the extent of possible impacts. The 2022 assessment identified two previously recorded heritage sites (51-6-0412 & 51-6-0697) located within the proposed project area. As a result of the potential impacts to these heritage sites, an Aboriginal Cultural heritage Assessment has been completed to determine the extent and significance of impacts.

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.

As a result of the assessment, the two heritage sites are located within close proximity to the proposed works. These sites are of moderate significance and do not preclude development of the project area on condition that the following heritage recommendations are implemented.

- ❖ Two heritage sites are present within the project area, MW1 and Telstra Marulan 3/A (51-6-0412 & 51-6-0697). An Aboriginal heritage Impact Permit (AHIP) will be required to allow works to proceed. No impacts can occur to the heritage sites prior to the approval of an AHIP by NSW Heritage. The area of the AHIP will cover the entire area of the project area, as construction impacts will be widespread and extensive. The area of the proposed AHIP area is shown in Figure 8.
- ❖ Surface Collection of the impacted sites within the project area will be required. This applies to sites MW1 and Telstra Marulan 3/A (51-6-0412 & 51-6-0697). The surface collection will consist of returning to both site locations, marking GPS locations of

artefacts, labelling, and bagging each artefact for analysis. The surface collection will follow the methodology set out in Section 9.

- ❖ An AHIP Compliance works report submitted to NSW Heritage including the results of the surface collection and return to country at completion of works. Site Impact cards 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.

1 INTRODUCTION

1.1 PROJECT BRIEF

Past Traces has been engaged by Darraby Pty Ltd to undertake an Aboriginal Cultural Heritage Assessment for the proposed Marulan Stage 3 residential development of Lot 23 DP1256090 and Lot 2 DP 1136538, Marulan. The proposed area covers approximately 13.5ha of the Northeast corner of the Lot, and is located within a gently undulating to level landscape. A Due Diligence assessment for the project area was completed in 2022 with two previously recorded heritage sites, MW1 and Telstra Marulan 3/A (51-6-0412 & 51-6-0697), located within the proposed project area. The areas of the housing lots are considered to hold low potential for unrecorded heritage sites or subsurface deposits.

The project area is shown in a regional context in Figure 1 and in detail in Figures 2 and 3. The project area is located within the Goulburn-Mulwaree Council. The project is being undertaken to allow for the subdivision of the blocks for residential housing. The project will consist of the following:

- ❖ Construction of roads and stormwater infrastructure
- ❖ Subdivision of land
- ❖ Installation of infrastructure (including water, sewer, power, gas & NBN)
- ❖ Installation of perimeter fencing and landscape

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 and proposed short access road. 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 AHIP if impacts are unavoidable.

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

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

1.2 RESTRICTED AND CONFIDENTIAL INFORMATION

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

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

1.3 ASSESSMENT OBJECTIVES

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

- ❖ Identify and consult with Registered Aboriginal Parties (RAPs).
- ❖ Review previous heritage reports to identify patterns in Aboriginal site distribution.
- ❖ Search AHIMS 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 field survey across the project area.
- ❖ Through consultation with the Aboriginal community assess the significance of identified heritage sites.
- ❖ Identify the impacts of the proposed development on heritage sites within the project area.
- ❖ Develop management strategies for the identified heritage sites within the project area

1.4 INVESTIGATORS AND CONTRIBUTORS

1.4.1 *Lyn O'Brien*

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

1.4.2 *Nathaniel Cracknell*

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

1.4.3 *Elisa Scorsini*

Elisa is currently undertaking a MA in Archaeological and Evolutionary Science building on her knowledge of geomorphology and environmental archaeology. She has experience in field survey, mapping, test excavations and impact assessments.

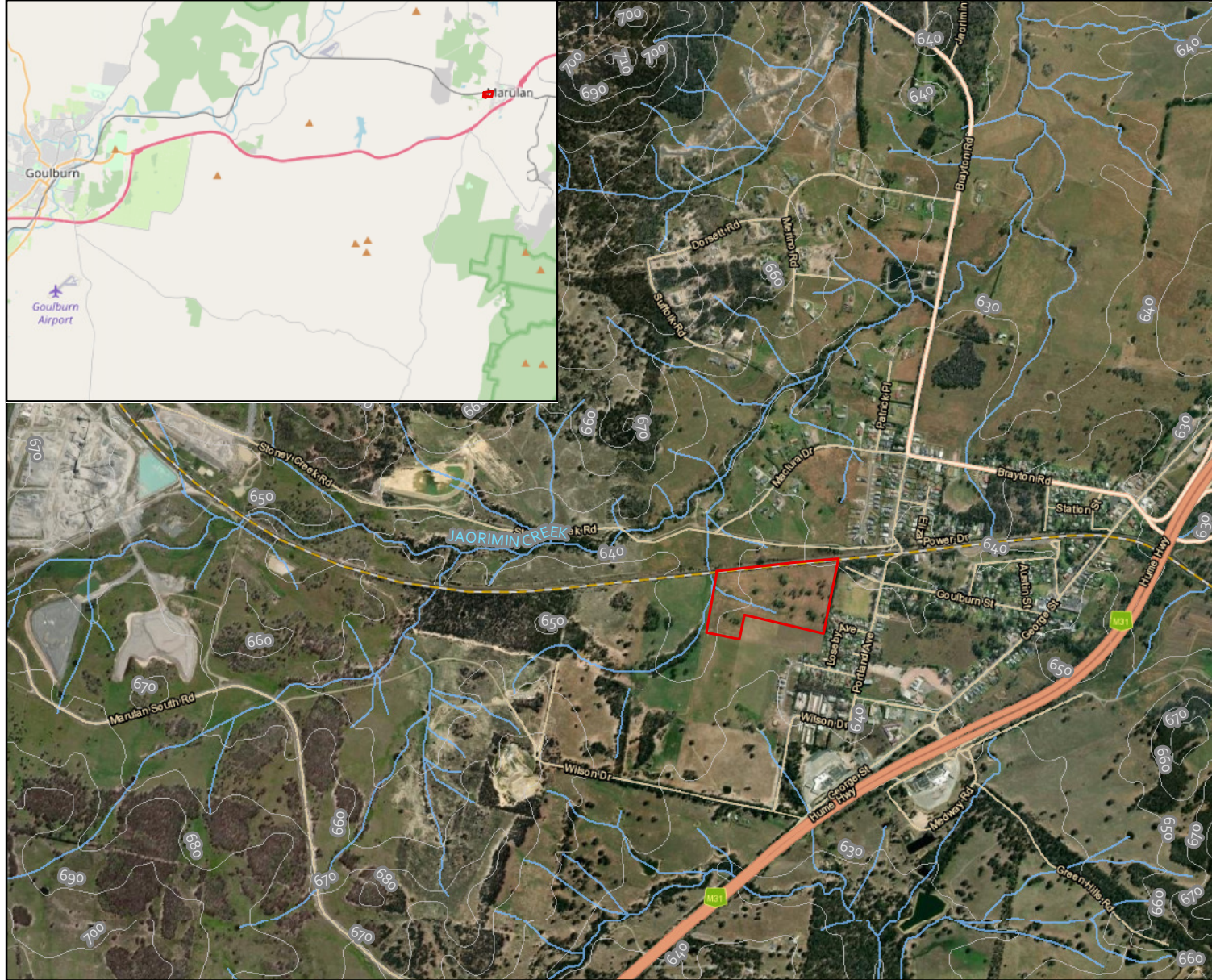


Figure 1: Regional Context

Legend

- Project Area
- Contour - 10m
- ~ Watercourse

N

 1:24,000







 0 250 500
 Meters
 Coordinate System:
 GDA 1994 MGA Zone 55

Imagery: © NSW Spatial Services



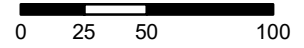
Figure 2: Project Area

Legend

-  Contour -10m
-  Railway
-  Watercourse
-  Project Area
-  Property Boundary
-  Cadastre



1:3,000



Meters
Coordinate System:
GDA 1994 MGA Zone 55

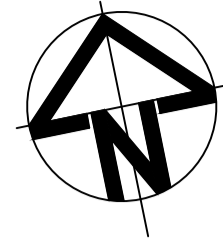
Imagery: © NSW Spatial Services

LEGEND:

EXISTING	
	EXISTING BOUNDARY
	EXISTING CONTOUR
PROPOSED	
	PROPOSED BOUNDARY

EARTHWORKS VOLUMES

A	B	C	D = A+B+C
EXISTING TOPSOIL STRIPPING VOLUME (cu.m) REFER NOTE No.1	NET CUT (cu.m)	NET FILL (cu.m)	BALANCE (cu.m)
-20,600	-37,430	36,270	-1,160

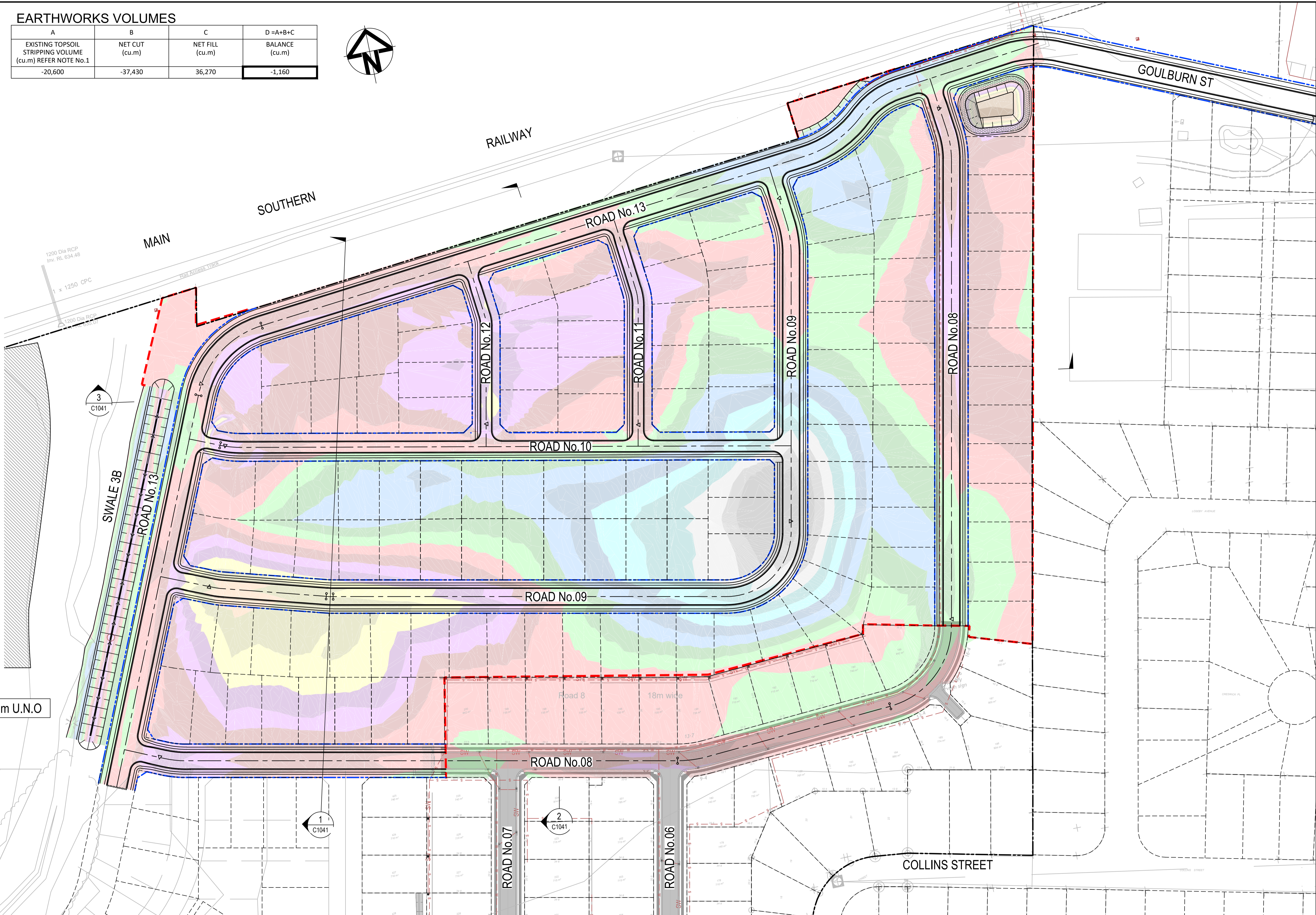


CUT/FILL DEPTH RANGE LEGEND

Lower_value	Upper_value	Colour
-1.00	to -2.00	Dark Brown
-2.00	to -1.75	Light Brown
-1.75	to -1.50	Orange
-1.50	to -1.25	Yellow-Orange
-1.25	to -1.00	Yellow
-1.00	to -0.75	Light Green
-0.75	to -0.50	Light Purple
-0.50	to -0.25	Light Red
-0.25	to 0.00	Light Orange
0.00	to 0.25	Light Green
0.25	to 0.50	Light Blue
0.50	to 0.75	Light Green
0.75	to 1.00	Light Blue
1.00	to 1.25	Light Green
1.25	to 1.50	Light Blue
1.50	to 1.75	Light Green
1.75	to 2.00	Light Blue
2.00	to 1000	Dark Blue

- NOTES:**
- EXISTING TOPSOIL STRIPPED 150mm
 - ADDITIONAL EXCAVATION OF EXISTING DAMS WITHIN SITE AREA TO A DEPTH OF 1m BELOW EXISTING INVERT AND WIDTH OF EXISTING DAM EXTENT. VOLUMES ARE APPROXIMATE. EXCAVATED MATERIAL TO BE FARMED AND USED AS GENERAL FILL WITHIN FILL ZONES 2m BELOW FINAL SURFACE.
 - NEGATIVE BALANCE VOLUMES INDICATE EXCESS OF MATERIAL (EXPORT).
 - ROAD PAVEMENT DEPTH ASSUMED 350mm.
 - THE VOLUMES DO NOT TAKE INTO ACCOUNT THE FOLLOWING:
 - BULKING FACTORS OF REMOVED CUT
 - REMOVAL OF EXISTING BUILDING SLABS AND PAVEMENTS
 - REMOVAL AND/OR REMEDIATION OF ANY EXISTING UNCONTROLLED FILL
 - PROPOSED LANDSCAPING
 - STORMWATER AND UTILITY TRENCHING
 - EROSION AND SEDIMENTATION CONTROL SWALES AND BASINS.
 - ENGINEERING FILL BEHIND RETAINING WALLS.

ALL LEVELS SHOWN ± 1000mm U.N.O



P1	DRAFT ISSUE	09-06-23
Issue	Description	Date

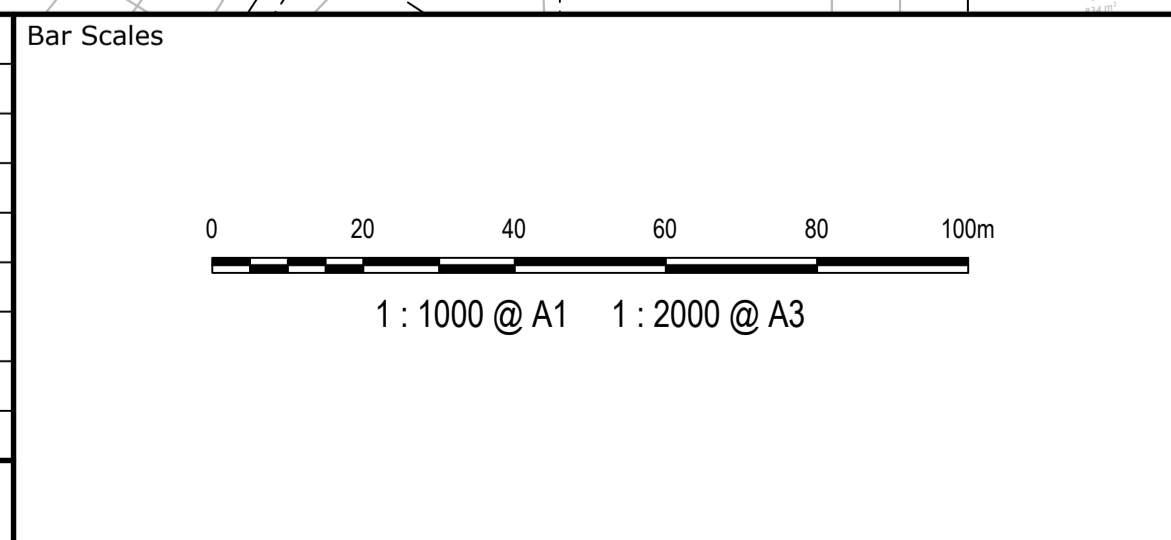


Figure 3: Lot Layout



Client	Drawn	NT
	Designed	BKJC
	Checked	AMc
	Approved	
Scales	1:1000	
Grid	GDA2020	
Height Datum	AHD	
THIS DRAWING CANNOT BE COPIED OR REPRODUCED IN ANY FORM OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY INTENDED WITHOUT THE WRITTEN PERMISSION OF AT&I		

Project **EQUINOX - STAGE 3 WILSON DRIVE, MARULAN**

Title **BULK EARTHWORKS CUT/FILL PLAN**

Civil Engineers and Project Managers

at&i

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Status	PRELIMINARY ONLY NOT TO BE USED FOR CONSTRUCTION	A1
Project - Drawing No.	23-1098-C1040	Issue
		P1

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 were requested to provide 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 and agency responses are also provided in Appendix 2. 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 Ngambri Local Aboriginal Land Council (LALC), and statutory authorities including NSW Heritage, on the 11/7/2022 as identified under the consultation guidelines (DECCW 2010). Notification letters were then sent on the 13/7/2022 to the stakeholders identified by the NSW Heritage.

As a result of this process, eleven (11) groups contacted the consultant to register their interest in the proposal. The Registered Aboriginal Groups (RAPs) who registered interest were:

- ❖ Didge Ngunawal Aboriginal Corporation (11/7/2022)
- ❖ Corroboree Aboriginal Corporation (11/7/2022)
- ❖ Muragadi (11/7/2022)
- ❖ Yurwang Gundana (11/7/2022)
- ❖ Freeman & Marx (11/7/2022)
- ❖ Konanggo (11/7/2022)
- ❖ Corroboree Aboriginal Corporation (11/7/2022)
- ❖ Ginninderra Aboriginal corporation (12/7/2022)
- ❖ Merrigarn (12/7/2022)
- ❖ Thunderstone Aboriginal Corporation (12/7/2022)
- ❖ Mulwaree Aboriginal Corporation (15/7/2022)
- ❖ Gunjeewong (15/7/2022)

❖ Guntawang (19/7/2022)

Step 2. A Project Pack document was sent to the RAPs (1/8/2022) providing details of the project with the registration letter. This project pack is attached at Appendix 2 of the ACHAR.

Step 3. A Methodology Pack with the proposed heritage assessment methodology for the proposal was sent to all RAPs (21/7/2022). 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 xx and a timeframe of 28 days has been provided to allow for responses to the document.

2.1 ABORIGINAL COMMUNITY FEEDBACK

Aboriginal consultation has been ongoing through the project with feedback requested during the design of methodology and the cultural assessment. No information in respect of the project area holding specific cultural values or known heritage sites being located within the project area boundaries has been provided.

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

3 LANDSCAPE CONTEXT

3.1 GEOLOGY

The geology of the project area consists of igneous rock substrate, with occasional outcroppings of stone at the surface, particularly at the break of slope. In formal terms it is at the eastern edge of Lachlan Fold Belt, a feature that contains much older Ordovician and Silurian sediments than the Permian-Triassic age sediments that form the Sydney Basin.

The project area is underlain by Upper Devonian undifferentiated Bindock Porphyry and Comerong Volcanics consisting of porphyry, dacite, tuff, basalt and siltstone to the west, with the majority of the area being underlain by Devonian undifferentiated granite, tonalite and granodiorite.

The Geology of the project area is shown on Figure 4.

3.2 SOILS

Soils throughout the project area consist of the Jaqua and Marulan Creek soil landscapes. This distribution of soils is shown on Figure 5 and the soil compositions are described as follows:

- ❖ Jaqua - Found along Jaorimin and Marulan Creeks. Elevated areas are characterised by yellow podsols, with foot slopes of yellow and brown sodosols. They generally contain A1, A2, and B2 horizons. The A1 and A2 horizons are usually poorly structured loamy sand to sandy clay loam, with a bleached silty clay loam. It is very weakly pedal, with a very variable pH range of 4.5-10. These topsoils lie over well-structured medium clay subsoil with pH range of 6-9 (Umwelt, 2007)
- ❖ Marulan Creek – This soil only occurs around the village site within the Lynwood Quarry project area. Upper slopes contain lithosols with shallow red earths. Mid slope contain red podzolic soils, grading to brown sodosols in the lower areas. Typically, an A1 horizon contains brown coarse sandy loam- sandy clay loam. This varies from weakly to massively pedal. The A2 horizon is a reddish-brown Massive sandy clay loam with a bleached sandy loam/ clay loam. The A2 has a restricted pH range of 5-6.5. B and B2 horizon subsoils are typically present. The B1 is an earthy sandy loam and the B2 is red or yellow blocky sub-angular clay. The red clay has a pH range of 4-6.5 and the yellow clay pH range of 5.5-7 (Umwelt, 2007).

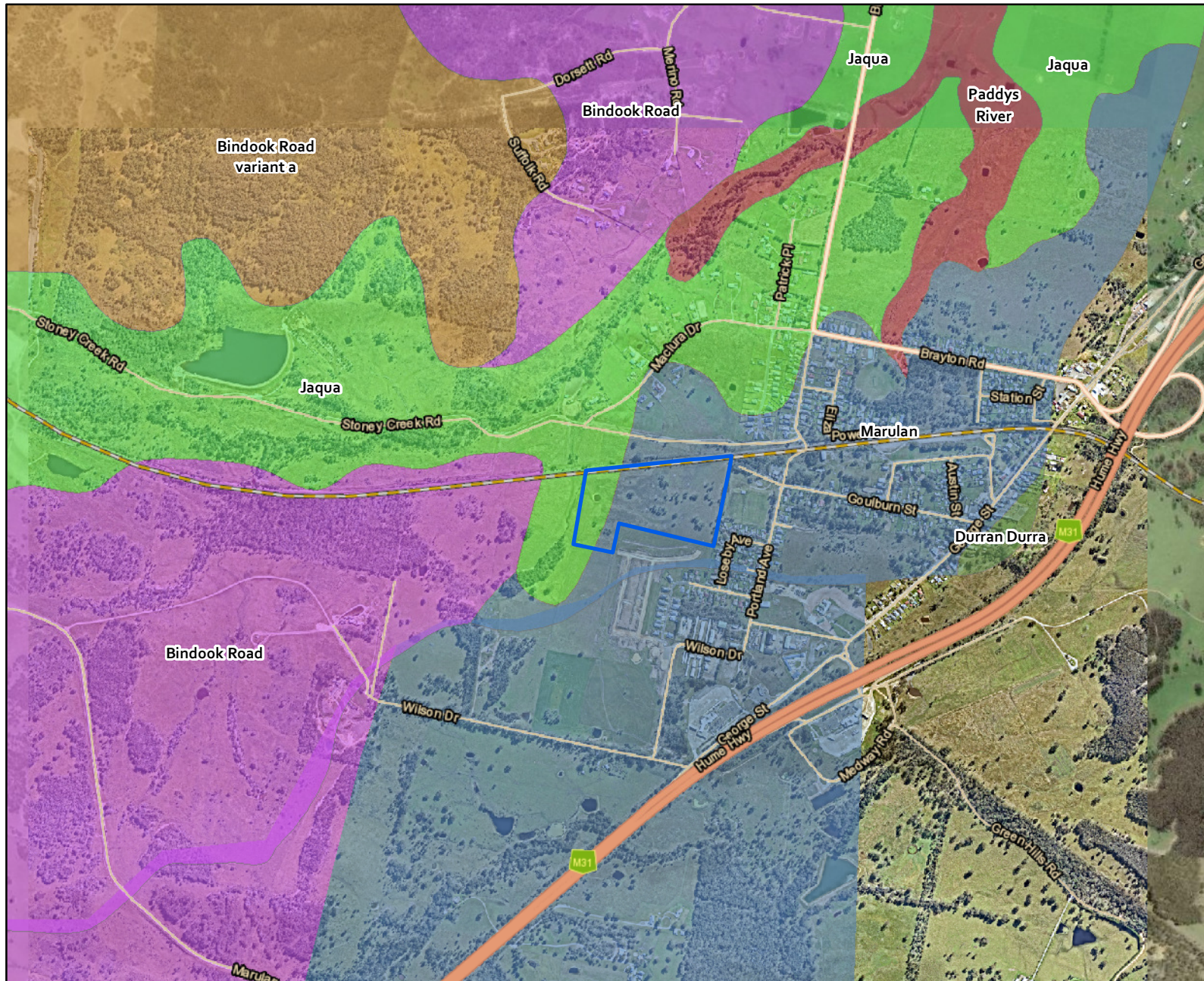


Figure 5: Soils

Legend

 Project Area

Soils

-  Bindook Road
-  Bindook Road variant a
-  Durrans Durra
-  Jaqua
-  Marulan
-  Paddys River



1:20,000



Meters

Coordinate System:
GDA 1994 MGA Zone 55

Imagery: © Nearmap

3.3 FLORA AND FAUNA

The natural vegetation across the project area has been cleared and is now considered as a modified environment. Grass coverage appears to have been subject to pasture improvement and thick *phalaris sp.* dominates with a high proportion of weed species. Yellow Box Woodlands are present on high slopes to the west and east indicating that the natural vegetation of the lower areas 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 grassy and creek line environment supported 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 1997).

3.4 LANDSCAPE CONTEXT

The landscape elements within the project area affect the findings of archaeological potential, based on the conditions for use and occupation of the landscape and the availability of resources present in the region. The presence or absence of landscape features, degree of slope and exposure to wind or cold drainage all affect the assessment of potential and influence predictive modelling for the presence of Aboriginal sites. In this instance, the project area is confined to undulating side slopes and mid slope crest features with creek flats located to the north of the project area.

The mapping of previous sites in the region suggests that the area of the river frontage and creek lines would be a focus of activity as water is a main resource. Being prone to flooding this landform may have held banks of rushes and may have been water laden during periods of rainfall resulting in 'boggy' ground. Preferred resting or camping locations would then be located on small rises of dry ground probably situated on alluvial terraces or lower slopes. These areas (generally classified as PADs) have been investigated in previous studies within the region, consistently returning low to medium density presence of Aboriginal artefacts.

The landscape of the project area suggests that Aboriginal groups would have travelled across and utilised the area. The presence of the Wollondilly and Shoalhaven catchments provided year-round resources and it is highly probable that sites will be found along its length. A known highly significant cultural feature (Lake George) is located approximately 60km to the southwest, which was regularly visited by Aboriginal people and large campsites are common along its length. The environment of Lake George would have provided 'refugia' during periods of climatic variation and drought, and groups travelling to Lake George may have passed through the project area as part of this cycle of visits.

4 ABORIGINAL ARCHAEOLOGICAL CONTEXT

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

4.1.1 *Aboriginal Groups within the Project Areas*

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

One of the best sources for observations of the Indigenous inhabitants of the Goulburn region is Charles MacAlister, who lived in the district from the 1830s and noted many features and traditions of Aboriginal life. His observations must be viewed as from a white perspective and filtered through his cultural traditions as with all cross-cultural ethnography but despite these limitations his work is a valuable reference for the region. MacAlister notes that the impact of white settlement was a general adoption of words and phrases to enable increased communication between the groups (MacAlister 1907:89). He records that three tribes resided in the district, the Cookmai or Mulwarrie (Mulwaree), the Tarlo, and the Burra Burra (MacAlister 1907:82). MacAlister notes that Aboriginal people travelled from the Lachlan River to visit Goulburn (1907:82).

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

Smith (1992) states that Goulburn was an Aboriginal crossroads with six or more different bands within a days travel from the town site. Some of these bands included the Cookmai, Parramarragoo, Tarlo, Burra Burra, Pajong and Wollondilly.

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

4.2 ABORIGINAL CUSTOMS

The earliest documented evidence of the lifestyles of the County of Argyle (Goulburn) Aboriginals comes from William Govett who in 1836 published a series of articles in *The Saturday Magazine*. According to Govett the Wollondilly River was a focus of activity with eels, swans, ducks and other water birds being staples along with kangaroos, wallabies, possums, bandicoots, and emus (Govett 1977:29,32,34-35,37). Govett also described the practice of fire stick farming to herd the kangaroos for hunting – this also has the benefit of encouraging new growth and attracting kangaroos to specific areas. (Govett 1977:23). These observations on Aboriginal life are consistent with the later rememberings of MacAlister (1907:88).

Govett recalls the impact of white settlement on the traditional hunting and gathering of the Aboriginal people:

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

Govett, Bennett (1834) and Boswell (1890) also describe the clothing of the Mulwaree tribe which consisted of long possum cloaks, worn with the fur turned in for warmth and the tanned skins on the outside for waterproofing, string belts made from possum or kangaroo hair (Govett 1977:8, Bennett 1834:175, Boswell 1890:9). The process of making possum cloaks is described in detail by Boswell with the interesting note that aboriginal people, being highly adaptive had changed their traditional tool kit to incorporate glass for scraping the skins and iron needles and thread rather than the traditional bone needles and kangaroo hair thread. (Boswell 1890:9).

Personal adornment in the manner of head dresses consisting of kangaroo incisors and possum tails, head bands and necklaces were noted along with the use of white and red ochre to decorate the upper body and face (Bennett 1834:323-326).

Weapons consisted of spears, fashioned from reeds or hard wood between 2-4m long (Govett 1977:36, MacAlister 1907:87,) and were used as weapons as well as part of the traditional hunting kit (Flood 1980:50-51). Specialised fishing spears and boomerangs were present. Woomerahs (spear throwers) approximately 1m long had a flat handle and a hook at the end. Boys practiced throwing reed spears and blocking them from an early age (Govett 1977:11,36). Hatchets or axes had a ground stone head fastened to a wooden shaft by fibre binding. Iron axes replaced stone ground axe head as their greater efficiency was recognised and valued by the Aboriginal community (Govett 1977:11).

Women traditionally 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 practice of 'slinging' babies behind a mother's 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 who gathered as they passed through country storing their cache in nets about them till the meal (Govett 1977:23, Lhotsky 1979:41).

4.3 PREVIOUS ARCHAEOLOGICAL WORK

A large number of cultural heritage surface surveys and sub-surface excavations have been conducted throughout the Goulburn/Marulan region of New South Wales in the past 30 years. There has been an increasing focus on cultural heritage assessments in NSW due to ever increasing development, along with the legislative requirements for this work and greater cultural awareness of Aboriginal cultural heritage. 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 Goulburn/Marulan Region.

4.3.1 *Goulburn Regional Overview*

The Project Area is located in the Goulburn Plains within the Southern Tablelands. Regional models of aboriginal landscape and resource use, along with models of intensity of utilization and number of Aboriginal occupants have been developed for the Goulburn region (Koettig and Lance 1986, Fuller 1989). Wider models of the larger region (Southern Tablelands) or adjoining regions (Southern Alps, South coast) of NSW have also been formulated. The large number of completed surveys cannot be listed but the most relevant of these studies for the wider Goulburn region including Marulan are summarized below.

Koettig and Lance in 1986 undertook the Aboriginal Resources Planning Study for the City of Goulburn. Based on all available data they developed an Aboriginal site location model for Goulburn. Four landscape zones based on topography (major watercourse, undulating hills and plains, hills and residential areas) were assigned archaeological sensitivity ratings. A review of previously identified sites within the Goulburn region found artefact scatters were the predominant site class within the undulating hills and plains zones.

Fuller in 1989 was engaged by Goulburn City Council to test Lance and Koettig's 1986 model by undertaking sub surface testing at areas designated high sensitivity by the model. The results of this large excavation program, although supporting the overall model, concluded that all areas apart from major watercourses were of low potential and that further subdivisions were necessary in the undulating hills category if it was to be useful for predicting site locations. AMBS in 2012 undertook an Aboriginal Heritage Study for the entire Goulburn Mulwaree LGA for the Goulburn Mulwaree Council. This study followed on from the work of Lance and Koettig (1986) and Fuller (1989) and assessed the general importance of different landforms to the Aboriginal community and their sensitivity for archaeological potential. Previous work undertaken within the Goulburn region was concluded to support the predictive model of Fuller, finding that the model was still applicable. The findings of Fuller were used as the basis for classification of landform potential for predictive archaeological sensitivity mapping within the boundaries of the LGA.

Numerous other development-based assessments have been completed for the Goulburn area. These numerous studies have over the years provided a body of work supporting the broadscale predictive model ground tested and refined by Fuller (1989) for the Goulburn Plains.

4.3.2 *Marulan Local Overview*

The Marulan area has been subject to a number of heritage studies, mainly for small scale developments. A number of recent studies have been undertaken for the adjacent Lynwood Quarry or residential subdivisions in the immediate vicinity. Overall, the wider regional models formulated for the Goulburn region apply to Marulan. These local studies which are relevant to the project area are summarised below.

Sefton in 1995 and 1996 undertook work for the proposed sewerage augmentation project for Marulan which included linear pipelines of 3km in length. The study area covered approximately 41 ha on gently undulating terrain. The assessment resulted in the identification of seven artefact scatters and three isolated finds. All of the sites were located adjacent to a major local water source all within 36m. It was concluded that water resources were a focus for camping locations.

Navin Officer Heritage Consultants (2002) completed a survey for the proposed quarry services depot near Marulan covering an area of approximately 40ha. Three surface scatters and four isolated finds were located within the undulating landscape. The sites were located adjacent to creek line features and gentle slopes.

ERM (2004) completed a Due Diligence Archaeological Assessment over the project area. They identified 5 small Aboriginal sites consisting of low density scatters or isolated finds. These sites were considered to hold low cultural and scientific significance and the landscape was categorized as holding low potential for further unidentified sites, which included site MW1.

Umwelt (2005) undertook an Aboriginal archaeological survey and assessment for the proposed Lynwood Quarry to the west of Marulan, some 27 km north-east of Goulburn. Total area surveyed was 350.91 ha, with 52 new Aboriginal sites being identified. The majority of these sites were artefacts scatters followed by isolated finds and scarred trees. Site distribution pattern conformed with the predictive model that the majority of sites were located along watercourses, with 50% within 30m of a watercourse; crests or saddles contained 30% of the sites. Management options for those sites were various and included conservation, salvaging, collection only, destruction or monitoring, which was dependent upon their significance and levels of proposed impacts.

In 2010 Umwelt undertook Aboriginal cultural and archaeological assessment for minor modifications to Lynwood Quarry. Total of five PADs were identified during the survey. One of the PADs was deemed as holding higher archaeological potential; it was located between the footslope and a creekline, was better drained and not affected by cattle trampling (Umwelt 2010: 11). It was recommended that the existing AHIP be varied in order to include conditions for further archaeological testing of this PAD (ATU R6BP) and monitoring of excavations in other areas that are not covered by the AHIP. Extensive sub surface testing has been completed for the project confirming the model of site location.

While no report is available, in 2011 Peter Kuskie of South East Archaeology recorded site Telstra Marulan 3/A (51-6-0697). This site is detailed as a low-density artefact scatter on a spur crest along the south side of the Main Southern Railway. It was noted that this area features shallow soils with moderate disturbance from vegetation removal, erosion, and an old Telstra cable.

Navin Officer (2012) completed a field survey and assessment for the Kerraway Power Station recording 25 Aboriginal heritage sites mainly consisting of small surface scatters with associated areas of PAD. The sites were located mainly along ridgelines, creek terraces and simple slopes.

Ozark (2013) completed an assessment for the upgrade to the transmission line from the Taralga Wind Farm to Marulan. The survey covered approximately 36km of electricity easement and access tracks. Stone artefact scatters and isolated artefacts and one scarred tree are recorded along the easement.

Kayandel Archaeological Services (2013) completed a due diligence assessment at Lot 13 DP700290 – 15213 Hume Highway Marulan. The survey resulted in the identification of three previously unrecorded Aboriginal sites (MC-IF-OO1, MC-IF-OO2, MC-IF-OO3), which consist of a chert core fragment, a bipolar quartz core and a chert flake. A subsequent pedestrian survey was undertaken on May 2013, resulting in the location of a fourth Aboriginal artefact described as an isolated find (MC-IF-OO4).

Bowen Heritage Management completed a field survey for a rural subdivision on Canyonleigh Road in 2016, locating a number of small surface sites, mainly on creek terraces within 100m of water sources. The detailed field survey sampled all landforms across the large study area and supported the site location model developed for the project followed Lance and Koettig and Fullers regional model.

In 2016, Past Traces completed a survey for the proposed subdivision of Lot 1 DP 221236, south of the current project area. This survey revisited previously recorded sites including MW1, however, the isolated find could not be relocated despite high GSV around the area of the site. This survey identified one new site MW6, identified as an isolated find. In 2022, Past Traces completed an updated Due Diligence assessment of this area. Two previously recorded sites, Telstra Marulan 3/A (Site ID 51-6-0697) and MW1 (51-6-0412) were revisited but no artefacts were identified. No areas of PAD have been identified and the project area was considered to hold low potential.

4.4 AHIMS SEARCH AND SITE ANALYSIS

A search of the NSW Heritage AHIMS database was undertaken on the 10th June 2022 covering the 1km surrounding area centred on the project area. The extensive search revealed seventy-two previously recorded heritage sites within the wider search area. The recorded sites consisted of isolated artefacts, open sites, an area of Potential Archaeological Deposit (PAD) and a grinding groove location recorded within the 1km search area. Two of these sites are located within the Project Area consisting of MW1, an isolated find, and Telstra Marulan 3/A, a scatter of 11 stone artefacts.

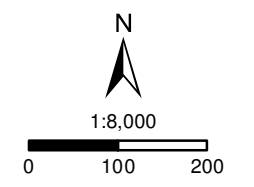
The recorded sites on AHIMS for the area divided into site types are listed in Table 1 and shown on Figure 6 in relation to the project area. This table clearly shows that the majority of all recorded sites and thus potential sites consist of surface artefacts (scatters and isolated finds).



Figure 6: Previously Recorded Sites

Legend

- Project Area
- Contour - 10m
- ~ Watercourse
- ▲ AHIMS



Coordinate System:
GDA 1994 MGA Zone 55

Imagery: © Nearmap

Table 1. AHIMS Site Details

Site Type	Number	Percentage
Open site (artefact scatter)	47	63.5 %
Isolated Find	24	32.4 %
PAD	2	2.7 %
Grinding Groove	1	1.4 %

4.5 PREDICTIVE MODEL

Within the wider Goulburn/Marulan area several studies have been undertaken (Lance & Koettig 1986, Fuller 1989, Past Traces 2016) which have resulted in the identification of a number of Aboriginal sites, mainly consisting of artefact scatters, isolated finds and areas of PAD. 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 applicable to the project area.

This site prediction model is based on:

- ❖ Site distribution in relation to landscape features within the project area
- ❖ Consideration of site type and densities likely to be present within the project area
- ❖ Potential Aboriginal use of natural resources present or once present within the project area

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

Table 2 Site Prediction Model

Probability	Site Type	Definition	Landform
Low	Isolated finds and surface scatters of stone artefacts	Stone artefacts ranging from single artefact to high numbers	Creek lines and spur crests. No such features are present within the study area, with Jaorimin Creek 400m to the north
Low	Potential Archaeological Deposits (PADS)	Area considered on landform to hold higher potential for unidentified subsurface deposits	Varies, but most frequent on elevated terraces along creek lines and spur lines, no such features 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 remain

Probability	Site Type	Definition	Landform
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 creek flats, - not present
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 holds spiritual, traditional or historical significance to Aboriginal people	Any landform, identified through consultation with RAPs and historical sources

5 ARCHAEOLOGICAL FIELD SURVEY

A field survey of the project area was undertaken on the 15th June 2022 by Past Traces as a component of the Due Diligence Assessment to verify the findings of the previous assessments, desktop review of landforms and investigation of degree of previous disturbance through the area. The field survey was undertaken in accordance with the Code of Practice (DECCW 2010).

. The results of this survey were described in the 2022 Due Diligence report. Additional details are provided in the following sections.

5.1 ARCHAEOLOGICAL SURVEY AIMS

The principle aims of the survey were to:

- ❖ Provide the heritage team an opportunity to view the project area and to identify landforms and levels of previous disturbance.
- ❖ Complete pedestrian survey of the project area focused on areas of construction impacts and visually inspecting areas and landforms with the potential for Aboriginal heritage.
- ❖ Identify and record any heritage sites visible on the ground surface.
- ❖ Identify and record areas of potential archaeological deposits (PADs).

5.2 FIELD SURVEY METHODS

The archaeological survey was conducted on foot and consisted of pedestrian transects across the project area. The survey was conducted in accordance with the archaeological survey requirements of the Code of Practice (DECCW 2010). Information that was recorded during the survey included:

- ❖ Any Aboriginal sites identified during the survey.
- ❖ Natural resources utilised by Aboriginal people.
- ❖ Landforms present
- ❖ Photographs of the project area
- ❖ Ground surface visibility (GSV) and areas of exposure.
- ❖ Levels of disturbance

5.3 ARCHAEOLOGICAL SURVEY RESULTS

Field survey was conducted on the 15th June 2022 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 13.5ha area of Marulan Stage 3 was surveyed in pedestrian transects.

All surveyed areas and items of interest were recorded on a topographic map of the study area (using a GPS and GDA 94 coordinates), along with levels of visibility, erosion, soil conditions, and evidence of land disturbance.

The conditions across the project area at the time of field survey are shown in the following plates.

Transects were positioned to cover all landforms present within the project area. The locations of the survey transects are shown in Figure 7.



Plate 1: Northeast corner of Project Area, with cleared and disturbed soils (Facing South)



Plate 2: Gently undulating landscape with rock outcrop at survey pole (West)



Plate 3: Northwest corner overlooking dam and construction of Marulan Stage 2 (Southeast)



Plate 4: Western side of Project Area with low GSV and increased rocky material and outcrops (Southwest)



Plate 5: Example of heavy vehicle impact (East)

Plate 6: Disturbance along South boundary (East)

5.3.1 Ground Surface Visibility (GSV) and Levels of Disturbance

Ground Surface Visibility (GSV) is the percentage of ground that can be visibly assessed. GSV varies by the degree of grass coverage across the ground surface, presence of leaf litter, branches and the presence of natural gravels. Exposures are areas that provide high levels of GSV and usually result from erosion, stock impacts, clearing, previous construction or vehicle trails. The higher the rate of exposures and the background GSV of a survey unit (SU) the higher the effectiveness of the field survey.

GSV over most of the study area was moderate due to vegetation coverage across the Project Area. Bare earth was visible in large exposures and across the project area, on the lower slopes the average GSV was estimated at 50%. Due to the short but prevailing vegetation, large areas of exposed ground were present under trees, along fence lines, and the high frequency of vehicle and stock impacts.

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

Table 3. Ground Surface Visibility Rating

Landform	GSV	Degree of Disturbance	Mechanism of disturbance
Creek flat	40%	moderate	Vegetation clearing, animal trail impacts. vehicle trails at crossing points, erosion on bank edge. Weed and frequent exposures.
Lower slopes	50%	Low	Vegetation clearing in past. Grass coverage with several erosion exposures. GSV within exposures 90%.

The degree of disturbance across the study area was moderate to high across the entire Project Area. The area has been impacted by heavy vehicle access and stock, with heavy vehicle tracks leading from the Northeast corner of the Project area to an entrance gate for Marulan Stage 2 to the South. The area was recently very waterlogged and boggy, with heavy vehicles and stock use heavily disturbing and churning up the mud.

The gentle rise along the North boundary of the Project Area features an increased frequency of rocky outcrops and loose natural rocks and gravels. The thinness of the soils with shale and quartzite gravels exposed, indicates that no subsurface deposits are present. Exposures were common at moderate frequency across the project areas with large areas of bare mixed soils and clay with natural quartz gravels and shales visibly present.

Disturbance across the remainder of the project area is moderate with disturbance present in the form of prior vegetation and tree removal, stock impacts fence lines and dam construction. The Project Area is not located on high potential landforms and these areas are considered to hold low potential for heritage sites.

5.3.2 Survey Coverage

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

Nathaniel Cracknell (Past Traces) completed the field survey, inspecting an area of 2m on each side during the pedestrian walkover, considered to be the maximum distance of effective coverage (Burke and Smith 2004). The physical area inspected with the GSV and exposure rate for each Landform taken into account provides the survey coverage. At the levels recorded for the field survey, the effectiveness of the field survey is considered to be fair and has acted to confirm the previous field survey results and landform assessment. The landforms are shown on Figure 7.

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

Table 4. Survey Coverage

Landform	SU Area (m2)	GSV %	Exposure %	Effective Coverage Area m2 (SU area x GSV% x Exp%)	Effective coverage (Eff coverage area/SU Area x 100)
Creek Flats/ Drainage Line	12,159	40%	35%	1702.26	14%
Lower Slopes	118,701	50%	40%	23740.2	20%
Total	130,860				

Table 5.Landform Summary

Landform	Area (m ²)	Effective coverage area (m ²)	% of landform surveyed	no of sites	No of PAD
Creek Flats/ Drainage Line	12,159	1702.26	14%	0	0
Lower slopes	118,701	23740.2	20%	2	0
Total	130,860	25442.46	34%	2	0

5.4 FIELD SURVEY RESULTS

No new Aboriginal heritage sites were identified during the field survey despite moderate rate of exposures and moderate GSV. High GSV (estimated at 90%) was present in areas of large exposures created by vehicle impacts. These GSV conditions are high for the identification of heritage sites.

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 on level ground in association with waterways (1st or 2nd order streams) or along spur crest and ridge lines.

As a result of the site visit, field survey of impact areas and background research, it is considered that the project has low potential to impact on unrecorded Aboriginal or Historical heritage sites or areas of PAD. Two previously recorded Aboriginal heritage sites, MW1 and Telstra Marulan 3/A (51-6-0412 & 51-6-0697), are present within the project area.

No additional historical heritage sites or areas of PAD were recorded or identified as a result of the assessment and no areas of high or moderate sensitivity are present in the development area based on previous research and modelling.

The previously recorded sites are described in the following sections and shown in Plates 7 to 9.

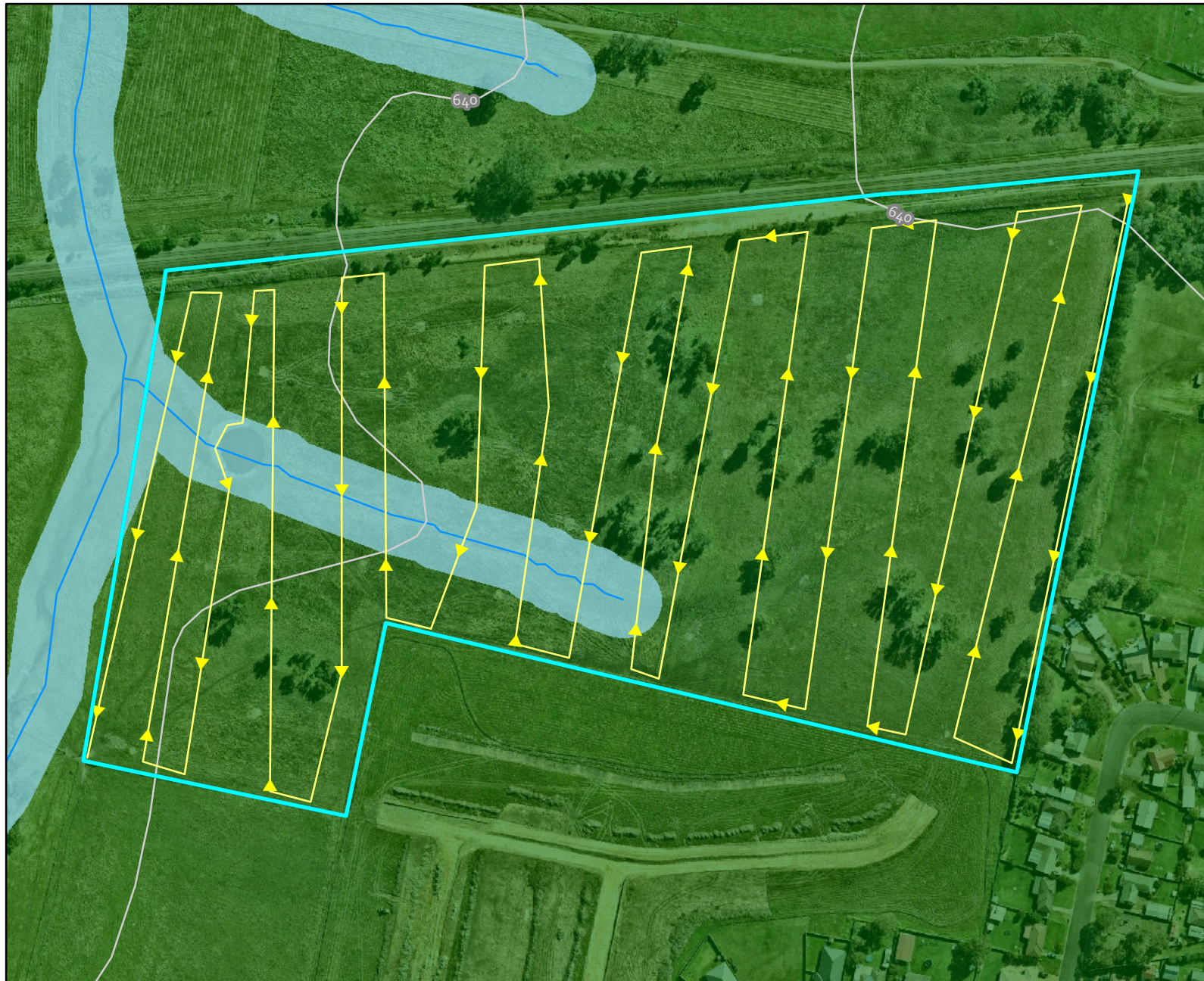





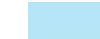


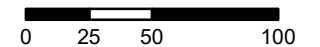
Figure 7: Landforms and Survey Transect

Legend

-  Transect Survey
 -  Contour -10m
 -  Watercourse
 -  Project Area
- Landform**
-  Lower Slopes
 -  Drainage



1:3,000



Meters
 Coordinate System:
 GDA 1994 MGA Zone 55

Imagery: © Nearmap

5.4.1 *Previously Recorded Site: MW1 MGA55 774132.6154811*

Previously recorded site MW1 (Site ID 51-6-0412) is recorded as an isolated find of a light grey silcrete flake located in an erosion exposure at the base of a Eucalypt tree. The base of the tree and the surrounding area were examined with no indications of the recorded site. GSV was high at the tree base due to stock impacts, but no artefacts were located.



Plate 7: Location of site MW1
(Facing West)

5.4.2 *Previously Recorded Site: Telstra Marulan 3/A MGA55 774156.6154913*

Previously recorded site Telstra Marulan 3/a (Site ID 51-6-0697) is recorded in 2011 as an artefact scatter of 11 artefacts. The site's coordinate is approximately 7m from the Northern boundary fence line. The area is scattered with natural gravels, small rocky outcrops and loose quartzite rocks. The surrounding area were examined but no artefacts were identified.



Plate 8: Location of Site Telstra Marulan 3/A
(Facing South)



Plate 9: Northern boundary fence line adjacent to
the railway easement (East)

5.5 SUMMARY OF ARCHAEOLOGICAL SURVEY RESULTS

Archaeological survey was undertaken across the project area with the following findings:

- ❖ Two previously recorded Aboriginal heritage sites, MW1 and Telstra Marulan 3/A (51-6-0412 & 51-6-0697), are present within the project area. No artefacts were present at either location at the time of field survey.
- ❖ No areas of PAD were identified within the Project Area.
- ❖ Soils appeared to be erosional in nature dependant on landform. Area had been subject to ploughing and cropping in the past, as well as more recent heavy tracked vehicle impacts.
- ❖ GSV was generally moderate to fair across the project area due to levels of grass coverage with areas of erosion and stock impacts present.

The project area has a moderate degree of disturbance and soils appear to be thin and overlaying base clays and shale. Due to the lack of topsoils, this area is considered to hold low potential for unrecorded sites or subsurface deposits. The gently undulating slopes across the Project Area are considered to hold low potential for unrecorded heritage sites or subsurface deposits.

These landforms (lower slopes and creek flats) and soil types have been shown by previous heritage studies to contain potential for Aboriginal sites on raised features. These Aboriginal sites are likely to be small to moderate in size with larger sites potentially located on level areas near river frontage. No such landforms are present along the 1st order creek lines and no permanent water source is present within the project area. This predictive model has been confirmed by the findings of the field survey and number of identified sites.

The location of the two previously recorded Aboriginal heritage sites, MW1 and Telstra Marulan 3/A (51-6-0412 & 51-6-0697), are shown on Figure 6.

6 ARCHAEOLOGICAL SIGNIFICANCE ASSESSMENT

6.1 INTRODUCTION TO THE ASSESSMENT PROCESS

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

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

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

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

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

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

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

6.2 SCIENTIFIC SIGNIFICANCE ASSESSMENT

The following archaeological significance assessment is based on Requirement 11 of the *Code of practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010). Using the Burra Charter assessment criteria of representativeness, condition and research potential, a rating of scientific significance was determined for the identified heritage sites. Scientific significance can be summarised as the potential of the site to provide important information on the past use of the area, Aboriginal technology, trade or movement. Table 6 provides the results of the

archaeological significance assessment when applied to the previously identified sites MW1 and Telstra Marulan 3/A (51-6-0412 & 51-6-0697).

Based on these criteria, as the site consists of artefacts common to the region and are low in density across the two sites, they hold low scientific significance.

Table 6. Scientific significance assessment of archaeological sites recorded within the project area.

AHIMS	Site name	Research Potential	Representativeness	Condition	Scientific Significance
51-6-0412	MW1	Low	Common	Poor - disturbed	Low
51-6-0697	Telstra Marulan 3/A	Low	Common	Poor - disturbed	Low

6.3 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.

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

Appropriate management that is suggested for the two sites consists of minimisation of impacts whenever possible, and the salvage (surface collection) of sites prior to impacts, where following their detailed recording they will be returned to country in an area that will remain undisturbed. This management recommendation has been incorporated into the management recommendation for the project, provided in Section 7.

This recommendation of salvage was provided to each of the RAPs in the form of the draft report. No comments in regards to cultural significance or appropriate management has been provided by the Aboriginal stakeholders to date. All comments will be incorporated into the management recommendations.

The finding of cultural significance can only be assessed by the Aboriginal community. The RAPs who were present for the surveys when these sites were originally recorded assessed them as holding low significance.

6.4 STATEMENT OF SIGNIFICANCE

The Project Area contains two Aboriginal heritage sites (51-6-0412 & 51-6-0697), consisting of an isolated find and an artefact scatter of stone artefacts, both located on the lower slopes of the project area.

The stone artefacts from the previously identified sites (51-6-0412 & 51-6-0697) represent common site types found throughout New South Wales and consist of common materials and artefact types for the region. The recorded sites are considered to hold a low level of cultural and scientific values. Recording of these sites will assist in regional studies aimed at assessing Aboriginal usage of the landscape, technology and raw material trade and sourcing. Due to the nature of the sites, they are considered to hold a low level of significance not warranting conservation within the disturbed areas, following their salvage.

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

Table 7. Table of assessed values

Value	Assessed Level
Social	The sites are assessed to hold low levels of cultural value
Aesthetic	The sites hold no aesthetic significance.
Historical	There are no known historical records or associations which apply to the site or immediate surrounds.
Scientific	The sites hold low scientific values based on the low number of artefacts, their partially disturbed contexts, as well as their composition of common materials and common artefact types for the region is prevalent, providing little new or significant information.

7 IMPACT ASSESSMENT

7.1 DEVELOPMENT IMPACTS

The proposed subdivision and development requires a high level of disturbance within the project area. The proposed rural subdivision will cause high 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 confined to the area of the building envelope, access roads and associated infrastructure.

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

- ❖ Construction of roads and stormwater infrastructure
- ❖ Subdivision of land
- ❖ Installation of infrastructure (including water, sewer, power, gas & NBN)
- ❖ Installation of perimeter fencing and landscape

As required by the Code of Practice, the assessed statement of impact for the Aboriginal archaeological sites in the project area has been summarised in Table 8.

Table 1: Summary of potential archaeological impact

AHIMS	Site name	Type of Harm	Degree of Harm	Impact of Harm
51-6-0412	MW1	Direct	Total	Removal of values
51-6-0697	Telstra Marulan 3/A	Direct	Total	Removal of values

7.2 SUSTAINABLE DEVELOPMENT PRINCIPLES

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

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

7.2.1 Intergenerational Equity

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

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).

As low-density surface sites, the sites do not play any role in ongoing cultural traditions, transmission of knowledge or learning for the next generation. 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.

The information that can be retrieved through surface collection (salvage), may assist the future generations to understand the complexity of Aboriginal use of the Marulan region.

7.2.2 *Cumulative Impacts*

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

The cumulative impact of future developments at Marulan would appear to be limited, due to the predictive model which indicates that impacts would most likely be confined to a few small surface sites. However, the findings of the subsurface testing program indicates that the predictive model may be simplistic and further refinements as data accumulates will be required.

Any future housing 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.

8 MANAGEMENT AND MITIGATION STRATEGY

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

For this project, the low significance of the sites do not warrant protection from the area of impact in the form of a conservation area. The nature of the sites, consisting of common artefact types and materials do not warrant this class of treatment to ensure their preservation. A mitigation strategy of salvage, analysis and reburial (return to country) should be undertaken for these sites.

Further details of the proposed measures are provided within section 8.1.

8.1 MITIGATION MEASURES

For the two sites that are to be impacted under an AHIP (Table 8), mitigation measures should be applied to retain the maximum amount of archaeological and cultural information possible. The mitigation measures were provided to each of the RAPs for their comments in the form of the draft report.

RAPS should be provided with an opportunity to participate in each of the below listed mitigation measures which will be undertaken under the guidance of a qualified heritage consultant. An Aboriginal Heritage Impact Permit will be required for these mitigation measures to be undertaken.

The following mitigation measures have been developed for the impacted sites:

8.1.1 *Surface Collection (Salvage)*

Surface collection of all surface sites, MW1 and Telstra Marulan 3/A (51-6-0412 & 51-6-0697), to be impacted should be undertaken. The methodology to be followed would consist of:

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

The recovered artefacts from the surface collection and the test pitting program will be returned to country in a conserved location. A return to country protocol is under discussion with the proponents and RAPs and is the preferred option of the majority of the RAPs. The outcome for these artefacts will be decided by the RAPs and updated with the AHIP application.

8.2 MANAGEMENT RECOMMENDATIONS

The following recommendations have been developed in regards to Aboriginal Cultural Heritage values and heritage sites located within the project area. Following the implementation of these heritage recommendations development of the area should be able to proceed.

The management recommendations for the project are:

- ❖ Two heritage sites are present within the project area, MW1 and Telstra Marulan 3/A (51-6-0412 & 51-6-0697). An Aboriginal heritage Impact Permit (AHIP) will be required to allow works to proceed. No impacts can occur to the heritage sites prior to the approval of an AHIP by NSW Heritage. The area of the AHIP will cover the entire area of the project area, as construction impacts will be widespread and extensive. The area of the proposed AHIP area is shown in Figure 8.
- ❖ Surface Collection of the impacted sites within the project area will be required. This applies to sites MW1 and Telstra Marulan 3/A (51-6-0412 & 51-6-0697). The surface collection will consist of returning to both site locations, marking GPS locations of artefacts, labelling, and bagging each artefact for analysis. The surface collection will follow the methodology set out in Section 9.
- ❖ An AHIP Compliance works report submitted to NSW Heritage including the results of the surface collection and return to country at completion of works. Site Impact cards 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.

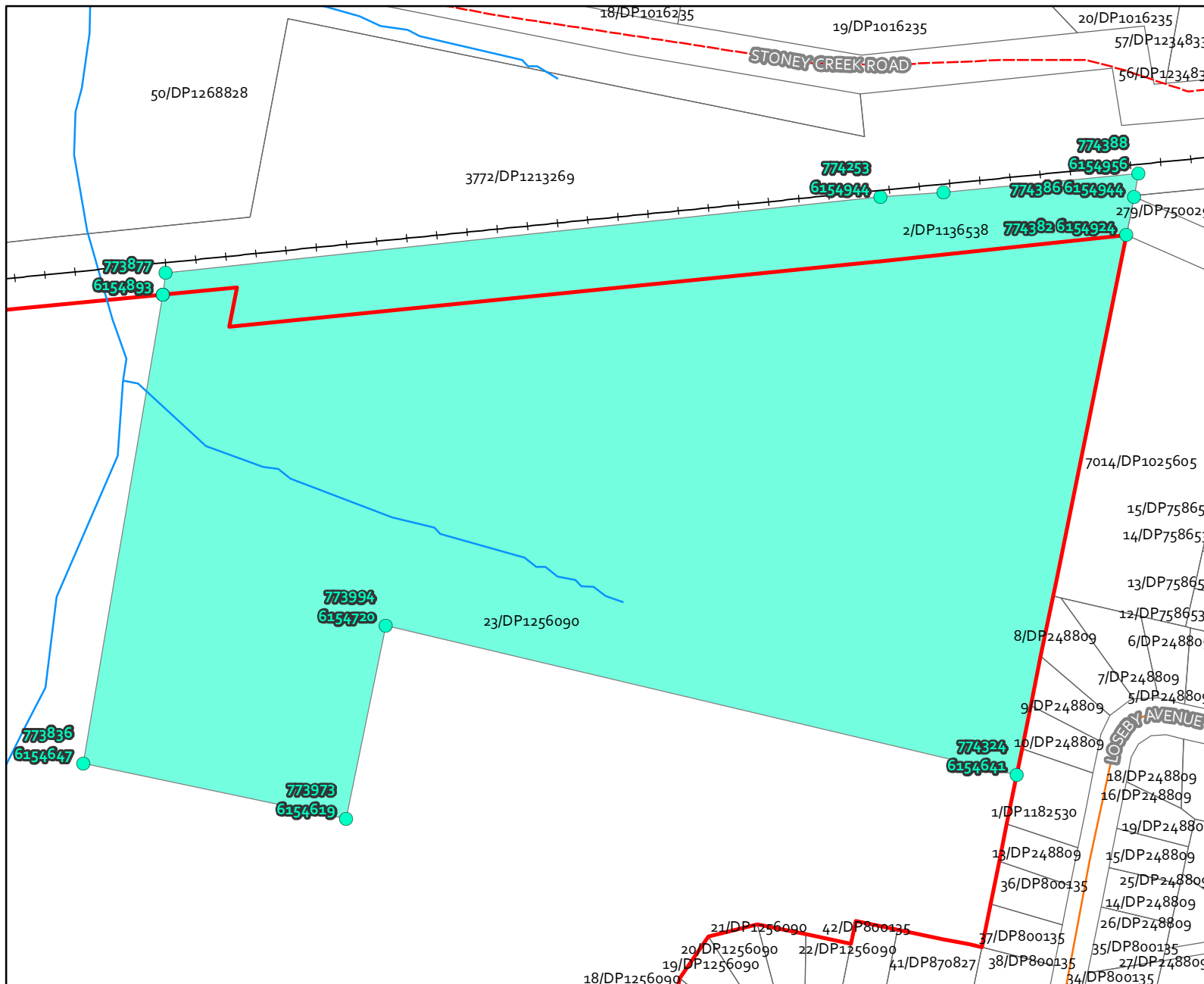






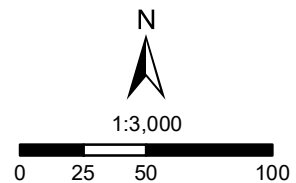


Figure 8: AHIP

Legend

-  Railway
-  Watercourse
-  Minor Road
-  Track-Vehicular
-  Property Boundary
-  Cadastre



Coordinate System:
GDA 1994 MGA Zone 55

Imagery: © NSW Spatial Services

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A.1 AHIMS SITE SEARCH

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
51-6-0087	Marulan 2	AGD	55	774530	6153100	Open site	Valid	Artefact : -	Open Camp Site	99404
	Contact	Recorders								Permits
51-6-0533	MRN 59	AGD	55	771915	6154303	Open site	Valid	Artefact : 1		100779
	Contact	Recorders							2760,2963	Permits
51-6-0460	Marulan T1 S5	AGD	55	773044	6154674	Open site	Valid	Artefact : 6		100614
	Contact Searle	Recorders								Permits
51-6-0534	Marulan T1 S1a	AGD	55	772277	6154747	Open site	Valid	Artefact : -		
	Contact	Recorders								Permits
51-6-0257	MRN16	AGD	55	772268	6154312	Open site	Valid	Artefact : 1		
	Contact Searle	Recorders								Permits
51-6-0861	WD-AS-04	GDA	55	773941	6153762	Open site	Valid	Artefact : -		
	Contact	Recorders								Permits
51-6-0459	Marulan T1 S4	AGD	55	772938	6154692	Open site	Valid	Artefact : 1		100614
	Contact Searle	Recorders								Permits
51-6-0275	MRN34	AGD	55	772295	6155142	Open site	Valid	Artefact : 30		
	Contact Searle	Recorders								Permits
51-6-0258	MRN17	AGD	55	772419	6154447	Open site	Valid	Artefact : 4		
	Contact Searle	Recorders								Permits
51-6-0647	MRN78	AGD	55	772650	6154940	Open site	Valid	Artefact : 7		100403,10164 5
	Contact	Recorders							3116	Permits
51-6-0465	Marulan T5 S1	AGD	55	772250	6154716	Open site	Valid	Artefact : 1		100614
	Contact Searle	Recorders								Permits
51-6-0286	MRN45	AGD	55	772982	6154825	Open site	Valid	Artefact : 3		
	Contact Searle	Recorders								Permits
51-6-0699	Telstra Marulan 9/A	AGD	55	773130	6154458	Open site	Valid	Artefact : 8		
	Contact	Recorders								Permits
51-6-0463	Marulan T1 S8	AGD	55	773240	6154960	Open site	Valid	Artefact : 3		100614
	Contact Searle	Recorders								Permits
51-6-0805	WM6	GDA	55	773414	6154847	Open site	Valid	Artefact : 1		
	Contact	Recorders								Permits
51-6-0464	Marulan T1 S9	AGD	55	773312	6154703	Open site	Valid	Artefact : 1		100614
	Contact Searle	Recorders								Permits
51-6-0863	WD-AS-02	GDA	55	773461	6153620	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) :-		
	Contact	Recorders								Permits
		Recorders								Apex Archaeology,Ms.Jenni Bate

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
51-6-0293	MRN52	AGD	55	772516	6155170	Open site	Valid	Artefact : 1		100613,100615,101034,101183
	Contact Searle	Recorders Mr.Graham Houghton						Permits 2760,2761		
51-6-0840	WD-IF-02	GDA	55	773737	6153626	Open site	Valid	Artefact : -		
	Contact	Recorders Apex Archaeology,Ms.Jenni Bate						Permits		
51-6-0092	Marulan 7	AGD	55	774220	6153450	Open site	Valid	Artefact : -	Open Camp Site	99404
	Contact	Recorders Mrs.Caryll Sefton						Permits		
51-6-0105	Marulan ER Site 1	AGD	55	774500	6153220	Open site	Valid	Artefact : -	Open Camp Site	99404
	Contact	Recorders Miss.Jackie Taylor						Permits		
51-6-0458	Marulan T1 S3	AGD	55	772940	6154663	Open site	Valid	Artefact : 2		100614
	Contact Searle	Recorders Umwelt (Australia) Pty Limited - Individual users						Permits		
51-6-0700	Telstra Marulan 10/A	AGD	55	773105	6154377	Open site	Valid	Artefact : 6		
	Contact	Recorders Mr.Peter Kuskie,South East Archaeology						Permits		
51-6-0259	MRN18	AGD	55	772327	6153801	Open site	Valid	Artefact : 1		
	Contact Searle	Recorders Mr.Graham Houghton						Permits		
51-6-0283	MRN42	AGD	55	772598	6154873	Open site	Valid	Artefact : 10		
	Contact Searle	Recorders Mr.Graham Houghton						Permits		
51-6-0285	MRN44	AGD	55	772901	6154842	Open site	Valid	Artefact : 6		
	Contact Searle	Recorders Mr.Graham Houghton						Permits		
51-6-0839	WD-IF-01	GDA	55	773642	6153606	Open site	Valid	Artefact : -		
	Contact	Recorders Apex Archaeology,Ms.Jenni Bate						Permits		
51-6-0086	Marulan 1	AGD	55	774500	6153130	Open site	Valid	Artefact : -	Open Camp Site	99404
	Contact	Recorders Mrs.Caryll Sefton						Permits		
51-6-0466	T5S2	AGD	55	772238	6154707	Open site	Valid	Artefact : 1		100614
	Contact T Russell	Recorders Umwelt (Australia) Pty Limited - Individual users						Permits		
51-6-0244	MRN3	AGD	55	773043	6152939	Open site	Valid	Artefact : 8		
	Contact Searle	Recorders Mr.Graham Houghton						Permits		
51-6-0288	MRN47	AGD	55	773860	6155644	Open site	Valid	Artefact : 11		
	Contact Searle	Recorders Mr.Graham Houghton						Permits		
51-6-0412	MW1	AGD	55	774019	6154627	Open site	Valid	Artefact : 1		102089
	Contact T Russell	Recorders Doctor.Tim Owen						Permits		
51-6-0243	MRN2	AGD	55	773077	6153038	Open site	Valid	Artefact : 6		
	Contact Searle	Recorders Mr.Graham Houghton						Permits		
51-6-0461	Marulan T1 S6	AGD	55	773166	6154689	Open site	Valid	Artefact : 1		100614
	Contact T Russell	Recorders Umwelt (Australia) Pty Limited - Individual users						Permits		
51-6-0409	MW 2	AGD	55	773191	6154544	Open site	Valid	Artefact : 1		102089

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SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
	Contact T Russell	Recorders Doctor.Tim Owen						Permits		
51-6-0462	Marulan T1 S7	AGD	55	773226	6154711	Open site	Valid	Grinding Groove : 1		100614
	Contact T Russell	Recorders Umwelt (Australia) Pty Limited - Individual users						Permits		
51-6-0287	MRN46	AGD	55	773309	6154841	Open site	Valid	Artefact : 2		
	Contact Searle	Recorders Mr.Graham Houghton						Permits		
51-6-0456	Marulan T1 S1	AGD	55	772277	6154747	Open site	Valid	Artefact : 1		100614
	Contact Searle	Recorders Umwelt (Australia) Pty Limited - Individual users						Permits		
51-6-0531	MRN 57	AGD	55	772277	6154604	Open site	Valid	Artefact : 2		100779
	Contact	Recorders Umwelt (Australia) Pty Limited - Individual users						Permits	2760,2963	
51-6-0280	MRN39	AGD	55	772446	6154865	Open site	Valid	Artefact : 3		
	Contact Searle	Recorders Mr.Graham Houghton						Permits		
51-6-0630	MRN69	AGD	55	772511	6154929	Open site	Valid	Artefact : -		
	Contact	Recorders Umwelt (Australia) Pty Limited - Individual users						Permits		
51-6-0260	MRN19	AGD	55	772518	6153894	Open site	Valid	Artefact : 1		
	Contact Searle	Recorders Mr.Graham Houghton						Permits		
51-6-0535	Marulan T1 S2a	AGD	55	772737	6154670	Open site	Valid	Artefact : 20		
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51-6-0410	MW 3	AGD	55	772787	6154421	Open site	Valid	Artefact : 1		102089
	Contact T Russell	Recorders Doctor.Tim Owen						Permits		
51-6-0697	Telstra Marulan 3/A	AGD	55	774043	6154729	Open site	Valid	Artefact : 11		
	Contact	Recorders Mr.Peter Kuskie,South East Archaeology						Permits		
51-6-0091	Marulan 6	AGD	55	774310	6153270	Open site	Valid	Artefact : -	Open Camp Site	3605,99404
	Contact	Recorders Mrs.Caryll Sefton						Permits		
51-6-0090	Marulan 5	AGD	55	774380	6153800	Open site	Valid	Artefact : -	Open Camp Site	99404
	Contact	Recorders Mrs.Caryll Sefton						Permits		
51-6-0101	Isolated Find 2	AGD	55	774550	6152900	Open site	Valid	Artefact : -	Isolated Find	99404
	Contact	Recorders Mrs.Caryll Sefton						Permits		
51-6-0088	Marulan 3	AGD	55	774630	6153170	Open site	Valid	Artefact : -	Open Camp Site	99404
	Contact	Recorders Mrs.Caryll Sefton						Permits		
51-6-0469	Marulan T6 S4	AGD	55	772089	6153660	Open site	Valid	Artefact : 1		100614
	Contact T Russell	Recorders Umwelt (Australia) Pty Limited - Individual users						Permits		
51-6-0242	MRN1	AGD	55	773179	6153116	Open site	Valid	Artefact : 3		
	Contact Searle	Recorders Mr.Graham Houghton						Permits		
51-6-0278	MRN37	AGD	55	773251	6155251	Open site	Valid	Artefact : 1		100613,10061 5,100637,1010 34,101183
	Contact Searle	Recorders Mr.Graham Houghton						Permits	2760,2761	

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SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
51-6-0277	MRN36	AGD	55	773255	6155299	Open site	Valid	Artefact : 3		100613,10061 5,100637,1010 34
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51-6-0698	Telstra Marulan 7/A	AGD	55	773447	6154672	Open site	Valid	Artefact : -		
	Contact	Recorders Mr.Peter Kuskie,South East Archaeology						Permits		
51-6-0909	WD-AS-03	GDA	55	773577	6153812	Open site	Valid	Artefact : -		
	Contact	Recorders Apex Archaeology,Ms.Jenni Bate						Permits		
51-6-0532	MRN 58	AGD	55	772245	6154419	Open site	Valid	Artefact : 7		100779
	Contact	Recorders Umwelt (Australia) Pty Limited - Individual users						Permits 2760,2963		
51-6-0279	MRN38	AGD	55	772284	6154878	Open site	Valid	Artefact : 1		
	Contact Searle	Recorders Mr.Graham Houghton						Permits		
51-6-0529	MRN 55	AGD	55	772562	6154395	Open site	Valid	Artefact : 6		100779
	Contact	Recorders Umwelt (Australia) Pty Limited - Individual users						Permits 2760,2963		
51-6-0862	WD-AS-01	GDA	55	773675	6153610	Open site	Valid	Artefact : -		
	Contact	Recorders Apex Archaeology,Ms.Jenni Bate						Permits		
51-6-0103	Isolated Find 1	AGD	55	774500	6153170	Open site	Valid	Artefact : -	Isolated Find	99404
	Contact	Recorders Mrs.Caryll Sefton						Permits		
51-6-0104	Isolated Find 4	AGD	55	774550	6152900	Open site	Valid	Artefact : -	Isolated Find	
	Contact	Recorders Mrs.Caryll Sefton						Permits		
51-6-0256	MRN15	AGD	55	771943	6154215	Open site	Valid	Artefact : 32		100779
	Contact Searle	Recorders Mr.Graham Houghton						Permits 2760,2963		
51-6-0701	Telstra Marulan 12/A	AGD	55	772905	6154385	Open site	Valid	Artefact : 3		
	Contact	Recorders Mr.Peter Kuskie,South East Archaeology						Permits		
51-6-0537	Marulan T1 S4a	AGD	55	772938	6154692	Open site	Valid	Artefact : 1		
	Contact	Recorders Umwelt (Australia) Pty Limited - Individual users						Permits		
51-6-0536	Marulan T1 S3a	AGD	55	772940	6154663	Open site	Valid	Artefact : 2		
	Contact	Recorders Umwelt (Australia) Pty Limited - Individual users						Permits		
51-6-0526	Joarimin Creek South	AGD	55	773000	6154740	Open site	Valid	Artefact : 415, Potential Archaeological Deposit (PAD) : 1		100779
	Contact	Recorders Umwelt (Australia) Pty Limited - Individual users						Permits 2760,2963		
51-6-0276	MRN35	AGD	55	773340	6155286	Open site	Valid	Artefact : 1		100613,10061 5,100637,1010 34,101183
	Contact Searle	Recorders Mr.Graham Houghton						Permits 2760,2761		
51-6-0530	MRN 56	AGD	55	772276	6154249	Open site	Valid	Artefact : 10		100779

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
	<u>Contact</u>									
51-6-0282	MRN41	AGD	55	772484	6154904	Open site	Valid	Artefact : 23	2760,2963	
	<u>Contact</u> Searle									
51-6-0281	MRN40	AGD	55	772486	6154771	Open site	Valid	Artefact : 25		
	<u>Contact</u> Searle									
51-6-0284	MRN43	AGD	55	772719	6154744	Open site	Valid	Artefact : 10		
	<u>Contact</u> Searle									
51-6-0457	Marulan T1 S2	AGD	55	772737	6154670	Open site	Valid	Artefact : 20		100614
	<u>Contact</u> Searle									
51-6-0411	MW 4	AGD	55	772877	6154401	Open site	Valid	Artefact : 1		102089
	<u>Contact</u> T Russell									
51-6-0089	Marulan 4	AGD	55	774510	6153000	Open site	Valid	Artefact : -	Open Camp Site	99404
	<u>Contact</u>									
	<u>Recorders</u> Mrs.Caryll Sefton									
	<u>Permits</u>									

**** Site Status**

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

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

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

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

Report generated by AHIMS Web Service on 10/06/2022 for Elisa Scorsini for the following area at Lot : 23, DP:DP1256090, Section : - with a Buffer of 1000 meters.. Number of Aboriginal sites and Aboriginal objects found is 74

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

A.2 ABORIGINAL CONSULATION LOG.

Stage 3 Marulan – FDC Construction

Date/Time	Type of Consultation	Organisation	Response
	Step 1 – Public Notice (insert name of paper) and end of review period date	Goulburn Post 29/6/2022 end 13/7	
	Step 2 – Notice to Regulators		
23/6		NNTT	Online search – no registrations
23/6		NTSCorp	
23/6		NSW Heritage	responded
23/6		Goulburn- Mulwaree Local Council	
23/6		Registrar ALR	
23/6		Pejar LALC	
23/6		SELS	Not contacted as requested not to previously
	Step 3 – letter/email to identified stakeholders from Above end 25/7		
11/7	Emails to NSW Heritage Stakeholders		
13/7	Hard Copy to NSW Heritage Stakeholders		
	Step 4 – List of Registrations		
11/7	Corroboree		
11/7	Konanngo		
11/7	Didge Ngunnawal		
11/7	Muragadi		
11/7	Yurwang Gundana		
11/7	Freeman & Marx		
12/7	Ginninderra Aboriginal corporation		
12/7	Merrigarn		
12/7	Thunderstone		
15/7	Mulwaree Aboriginal Corporation		
15/7	Gunjeewong		
19/7	Guntawang		
	Step 5 – Project Pack		
13/7	To all parties		DNAC Email supportive
19/7	To Guntawang, Mulwaree and Gunjeewong		
	Step 6 – Methodology pack (sent 21/7 as no further registrations, end review period 18/8)		No Responses
21/7/2022	Emailed to all RAPS		
	Step 6 - List of RAPS to NSW Heritage and LALC (by 28 days from Step 4)	04/08/2022	
	Draft Report		Muragadi – supportive email Guntawang – email.

Stage 3 Marulan – FDC Construction

Date/Time	Type of Consultation	Organisation	Response
	Emailed to all RAPs on 16/09/22		
	Final report		