

**“Rosalind Park” Planning Proposal,
33 Medhurst Road,
101 & 111 Menangle Road, Menangle Park,
City of Campbelltown, NSW**
Aboriginal Heritage Due Diligence Assessment

Prepared for Leda Holdings

August 2022

KAYANDEL
ARCHAEOLOGICAL SERVICES



☎ 02 4627 8622

📠 02 4605 0815

✉ Info@kayandel.com.au

Document Status

Version No.	Purpose of Document	Orig	Review	Review Date	Approval for Issue	Date Issued
1.0	Internal Review	BA	NS	05/05/2022	NS	06/05/2022
1.1	Client Review	BA	Leda	06/05/2022	Leda	21/06/2022
2.0	Final Report	NS	LS	21/06/2022	LS	21/06/2022
3.0	Revision to Planning Proposal Plan	BA	NS	19/07/2022	NS	19/07/2022
4.0	Revision – Comments received from Client	NS	LS	15/08/2022	LS	15/08/2022

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1 INTRODUCTION

Kayandel has been commissioned by Leda Holdings (the Proponent) to undertake an Aboriginal Heritage Due Diligence Assessment in relation to the potential for Aboriginal objects to be present within "Rosalind Park", 33 Medhurst Road, 101 and 111 Menangle Road, Menangle Park.

This report outlines the results of an Aboriginal Heritage Due Diligence Assessment which meets the requirements of Heritage NSW's *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW 2010 (Due Diligence Code of Practice)* (DECCW, 2010c) and includes recommendations regarding Aboriginal heritage constraints for the proposed works.

Please note that this report is an initial investigation of constraints and opportunities pertaining to identified Aboriginal heritage sites and places on and/or in the immediate vicinity of the proposed development site. It is not an Aboriginal Cultural Heritage Assessment Report (ACHAR) prepared in accordance with the guidelines issued by Heritage NSW. As such, it would not be sufficient to support an application for an Aboriginal Heritage Impact Permit (AHIP), in accordance with Section 90 of the *National Parks and Wildlife Act 1974*.

Similarly, the report does not consider historical heritage, and would not be sufficient to support an application for a permit under Section 60 or Section 140 of the *Heritage Act 1977*.

1.1 Location of the Subject Area

The Subject Area is located within the City of Campbelltown Local Government Area (LGA) and the Tharawal Local Aboriginal Land Council (TLALC). The Subject Area is located within the Menangle Parish, Cumberland County.

The Subject Area is located on the eastern side of the Nepean River and the Hume Highway, approximately 7km southwest of Campbelltown (refer to Figure 1).

The Subject Area is 264ha and is defined as (refer to Figure 2):

- 33 Medhurst Road;
 - Lots 2 & 3 DP622362;
 - Lot 35 DP230946;
 - Lot 58 DP632328;
- 101 Menangle Road;
 - Lot 1 DP589241;
- 111 Menangle Road;
 - Lot 1 DP622362.

1.2 Proposal

The Proponent is proposing to lodge a Planning Proposal with the City of Campbelltown for approval by Department of Planning and Environment (DPE) for the rezoning of the Subject lands from RU2 to a mix of Residential, Retail, and Community uses, presented in Figure 3.

It is proposed that a Development Application will be made for each Stages of the development.

The future subdivision will provide a range of lot sizes for residential housing, as well as parkland and recreation areas (refer to Figure 3).

The future works will include, but are not limited to:

- Tree removal;

- Site remediation;
- Filling and remediating the sandstone quarry;
- Creation of residential lots, Retail, and parkland/recreational areas;
- Road construction;
- Servicing;
- Civil construction; and
- Associated site works.

The current proposal also includes the retention of the existing Federation-era house, removal of its modern extensions, and adaptive reuse as a café/restaurant/bar, or community centre. The house's ancillary buildings are in various states of disrepair, and subject to further design investigation, may be removed, with material reused where possible.

1.3 Study Limitations

This assessment is limited to Aboriginal heritage.

Menangle Creek was subjected to limited inspection.

This report is based on a review of available Aboriginal archaeological assessments (sourced from the Heritage Branch library, grey literature and Kayandel's report library). It is possible that further Aboriginal archaeological assessments or the emergence of new analysis of the Aboriginal archaeological landscape within the area may support different interpretations of the evidence in this report.

A summary of the statutory requirements regarding heritage is provided in Section 2. This is made based on our experience of working with the NSW Aboriginal heritage and European heritage systems and does not purport to be legal advice. It should be noted that legislation, regulations, and guidelines change over time and users of this report should satisfy themselves that the statutory requirements have not changed since the report was written.

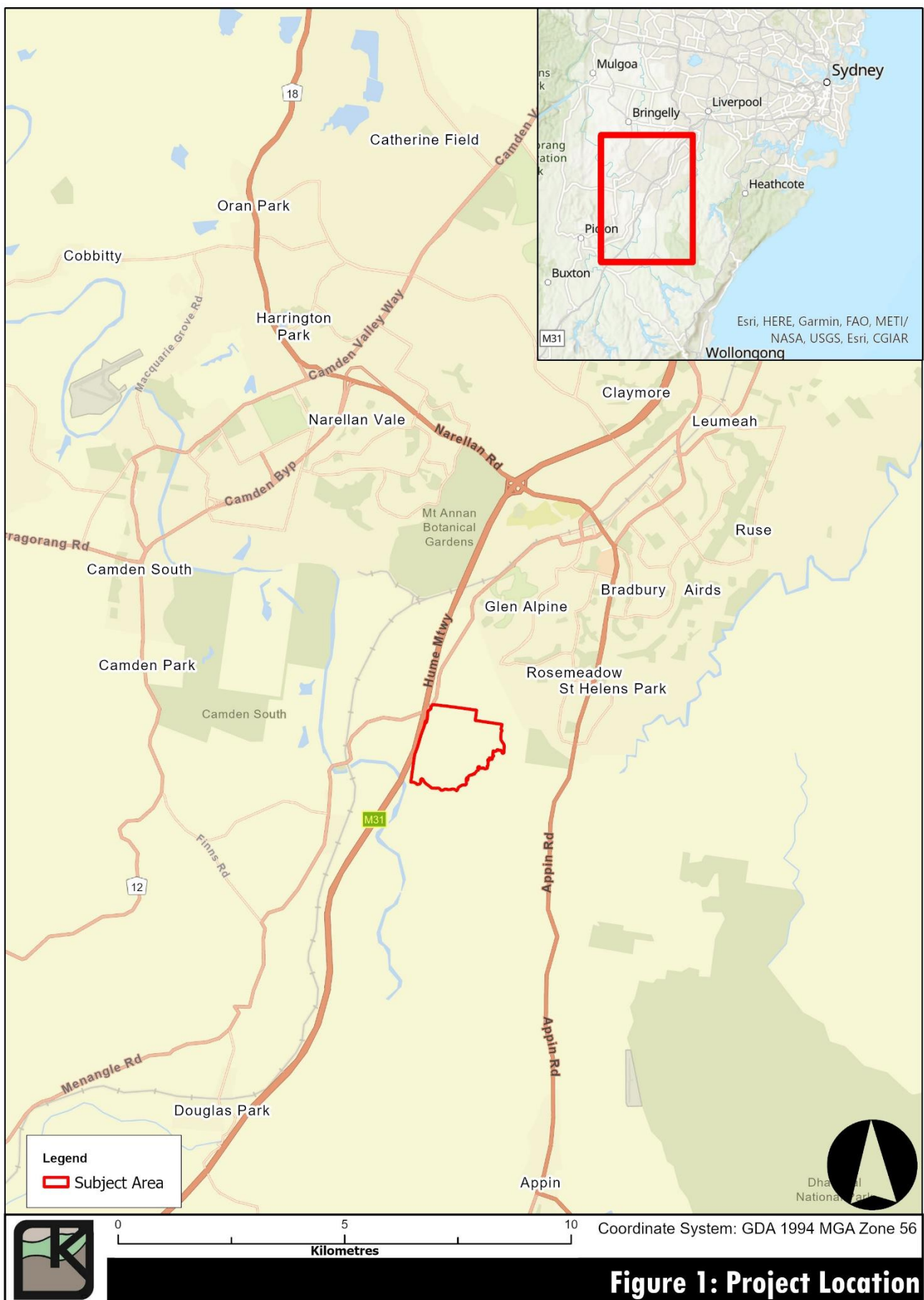
The results from the 'AHIMS Database Search' (Section 4.2) are valid for 12 months from the date of the search. If this report has not been finalised and/or if it is necessary to update this report, and the previous AHIMS search is over 12 months old, it will be necessary to undertake another search of the AHIMS to ensure information is current.

1.4 Personnel

This study has been carried out by Kayandel (refer to Table 1).

Person	Qualifications	Experience	Tasks
Britt Andrews	B. Arts (His. and Anc. His. and Arch.) - B. Com. and Media Studies (Digital Media and Com.)	>1 year	Background research, report drafting
Natalie Stiles	B. Arts (Arch/Palaeo), Grad Cert. Arts (Arch), MGIS&RemoteSens	10 years	Mapping, field survey, report review
Lance Syme	B. Arts (Arch/Palaeo), Grad. Dip. (Heritage Cons.), M. ICOMOS	>20 years	Project supervision

Table 1: Kayandel personnel involved in the preparation of this report





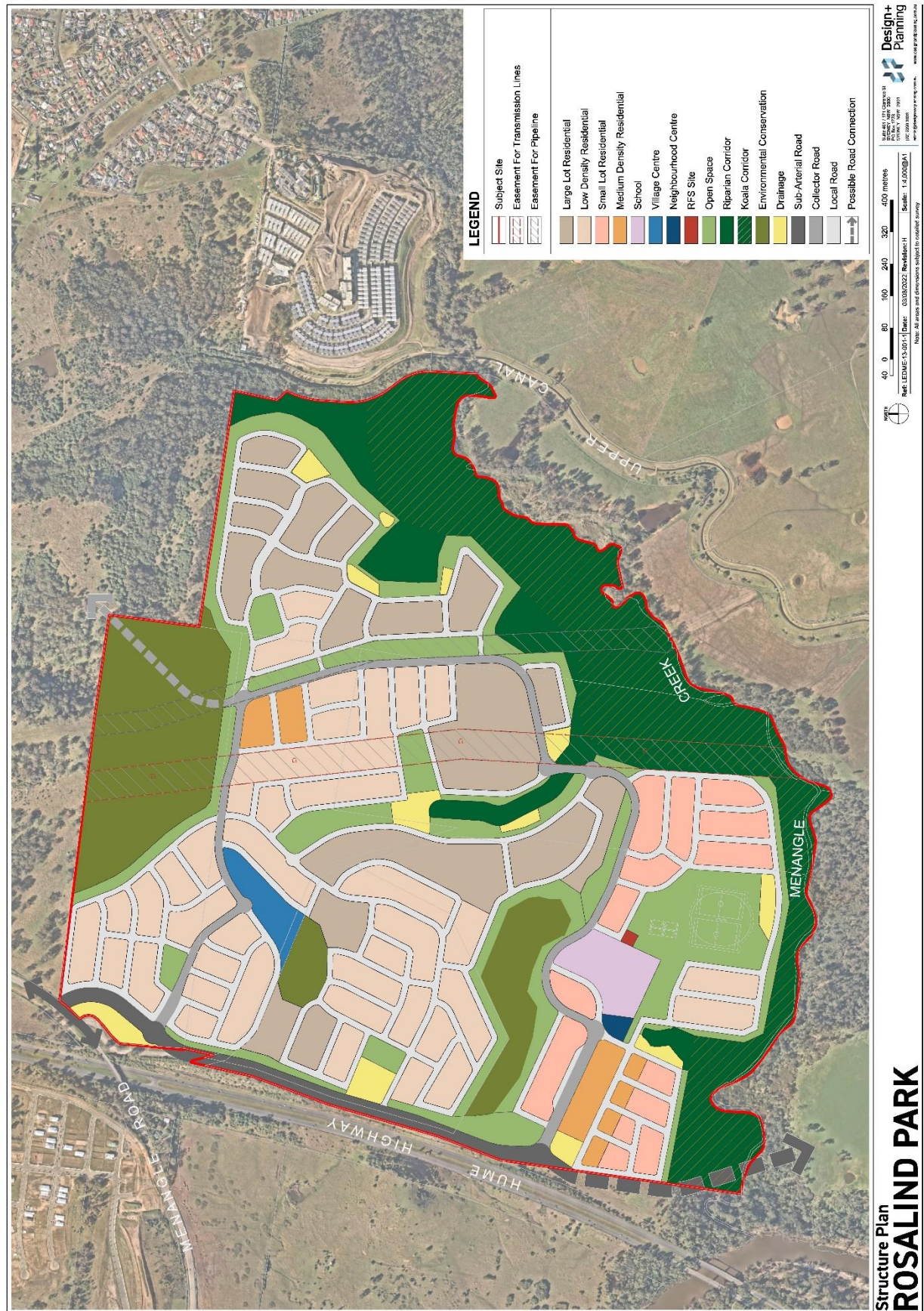


Figure 3: Proposed Structure Plan

2 LEGISLATIVE CONTEXT

The *National Parks & Wildlife Act 1974* provides statutory protection for all Aboriginal 'objects' (consisting of any material evidence of the Aboriginal occupation of NSW) and for 'Aboriginal Places' (areas of cultural significance to the Aboriginal community). Under Section 86 of the *National Parks and Wildlife Act, 1974*, Aboriginal objects are afforded automatic statutory protection in NSW whereby it is an offence to:

Damage, deface or destroy Aboriginal sites without the prior consent of the Director-General of the National Parks and Wildlife Service (now referred to as Heritage NSW).

The Act defines an Aboriginal 'Object' as:

Any deposit, object or material evidence (not being a handicraft for sale) relating to indigenous and non-European habitation of the area that comprises New South Wales, being habitation before or concurrent with the occupation of that area by persons of non-Aboriginal European extraction and includes Aboriginal remains.

The *Due Diligence Code of Practice* was introduced in October 2010 by Heritage NSW (formerly the Department of Environment, Climate Change and Water (DECCW)). The aim of the guidelines is to assist individuals and organisations to exercise due diligence when carrying out activities that may harm Aboriginal objects and to determine whether they should apply for consent in the form of an AHIP.

A due diligence assessment should take reasonable and practicable steps to ascertain whether there is a likelihood that Aboriginal sites will be disturbed or impacted during the proposed works. If it is assessed that sites exist or have a likelihood of existing within the development area and may be impacted by the proposed development, further archaeological investigations may be required. If it is found that Aboriginal sites were to exist within the Subject Area, an AHIP would be required if the proposed impacts cannot be avoided. If it is found to be unlikely that Aboriginal sites were to exist within the Subject Area and the due diligence assessment has been conducted in accordance with the *Due Diligence Code of Practice*, then the proposed works could proceed without an AHIP.

The *Native Title Act 1994* was introduced to work in conjunction with the *Commonwealth Native Title Act 1993*. Native Title claims, registers and Indigenous Land Use Agreements are administered under the Act. The objective of a search of the NNTT registers is to identify possible Aboriginal Stakeholders that would not perhaps receive representation as part of the Local Aboriginal Land council or Elders groups. A search of the National Native Title Tribunal register of Native Title applications did not identify any claims in the areas surrounding the Subject Area.

Searches have been carried out for the Subject Area on various heritage databases, including the:

- State Heritage Inventory;
- *Campbelltown Local Environmental Plan (LEP) 2015*; and,
- Register of the National Estate.

The results of the searches of the heritage databases is presented below (see Table 2).

Item	Address	Heritage ID	Significance	Relation to the Subject Area
Mount Gilead Estate	901 Appin Road, Gilead	5052615	State	Abutting the Subject Area
Sugarloaf Farm	Menangle Road, Gilead	5045759	State	Abutting the Subject Area
Upper Canal System (Pheasants Nest Weir to Prospect Reservoir)	Prospect NSW 2148	01373	State	Abutting the Subject Area

Table 2: Identified Heritage Items

3 LANDSCAPE CONTEXT

Menangle Park is located in the Sydney Basin Bioregion. The larger scale geology of the Sydney Basin Bioregion is characterised by marine deposition events from the Carboniferous to the early Permian. Numerous coal deposits accumulated before large river systems covered the region in quartz sandstone, known as the Hawkesbury sandstone. The Hawkesbury sandstone, which forms the bedrock for all of the Sydney Basin, dates to the mid Triassic. This bedrock of sandstone is then capped by a thin layer of shale (Branagan & Packham, 2000; NSW National Parks and Wildlife Service, 2003).

The Subject Area is located within the Cumberland Plain, which is typified by an undulating landscape of rolling hills and prominent rises. The underlying geology of the southern section of the Subject Area consists of Ashfield shale of the Triassic Wianamatta Group. In the northern section of the Subject Area, the underlying geology consists of Bringelly shale of the Triassic Wianamatta Group, and there is a small section in the centre of the Subject Area consisting of sediments from the Jurassic period – basalt, dolerite, and volcanic breccia (Stroud, Sherwin, Roy, & Baker, 1985).

The *Soil landscapes of the Wollongong-Port Hacking 1:100 000 Sheets* identify the following five soil landscapes within the Subject Area (Hazelton & Tille, 1990). These are the:

- Luddenham soil landscape
- Blacktown soil landscape
- Theresa Park soil landscape
- Volcanic soil landscape
- Disturbed terrain

The majority of the Subject Area, particularly in the north, is dominated by the Luddenham soil landscape. The Luddenham is an erosional soil landscape, mainly occurring on undulating to rolling low hills on Wianamatta Group shales, and it is often associated with Minchinbury Sandstone. It has a local relief of 50-80m, and slopes of 5-20%. It features narrow ridges, hillcrests and valleys, and occurs in areas of extensively cleared dry sclerophyll forest. On crests, soils are shallow (<100cm) Brown Podzolic Soils and Massive earthy clays. On upper slopes, soils are moderately deep (70-150cm) Red Podzolic Soils. On lower slopes and near drainage lines, soils are moderately deep (<150cm) Yellow Podzolic Soils and Prairie Soils. This soil landscape has a high soil erosion hazard, localised impermeably high plasticity, moderately reactive subsoils, and a potential mass movement hazard (Hazelton & Tille, 1990).

The south-western corner of the Subject Area features the Blacktown soil landscape. The Blacktown soil landscape is residual, mainly occurring on gently undulating rises on Wianamatta Group shale. It has a local relief up to 30m, and slopes are usually <5%. It features broad rounded crests, and ridges with gently inclined slopes, in areas of almost completely cleared eucalypt woodland, open forest, and tall open wet sclerophyll forest. On crests, upper slopes and well-drained areas, soils are shallow to moderately deep (<150cm) Red Podzolic Soils and Brown Podzolic Soils. On lower slopes, in drainage depressions, and in localised areas of poor drainage, soils are deep (150-300cm) Yellow Podzolic Soils and Soloths. This soil landscape is moderately reactive, with low soil fertility and highly plastic subsoils (Hazelton & Tille, 1990).

In the eastern portion of the Subject Area, adjacent to Menangle Creek, is the Theresa Park soil landscape. This fluvial soil landscape occurs on Tertiary and Quaternary floodplains and terraces of the Nepean River, south of Cobbitty Creek. It features gentle undulating rises, with slopes mostly <5%,

but ranging up to 10% on high level terraces. It occurs in areas of almost completely cleared, low open-woodland made up of dry sclerophyll woodland with grass understory. Soils on terraces are Red Earths and Red Podzolic Soils, with minimal Prairie Soils on the current floodplain. This soil landscape is prone to localised flooding, seasonal waterlogging, and has a very high soil erosion hazard for concentrated flows (Hazelton & Tille, 1990).

The Volcanic soil landscape is a residual landscape, occurring on gently inclined valley floors surrounded by steep colluvial sideslopes formed on volcanic intrusions within the Hawkesbury Sandstone and Wianamatta Group shales. There are only isolated occurrences of this soil landscape throughout the Cumberland Plain. Soils are deep >150cm Red Podzolic Soils, or Yellow Podzolic Soils. This landscape has moderately reactive subsoils, and low wet bearing strength, with erosion and mass movement hazards on steep slopes (Hazelton & Tille, 1990).

The section of the Subject Area used as a quarry is categorised as Disturbed Terrain. This is categorised as areas where the original soils have been greatly disturbed, moved, or buried by human activity to a depth of at least 100cm, and replaced with artificial fill, made up of soil, rock, building and waste material, etc. (Hazelton & Tille, 1990).

Menangle Creek, a 3rd order watercourse, runs southwest along the eastern and southern boundary of the Subject Area. The confluence of Menangle Creek and the Nepean River is located 133m southwest of the south-western corner of the Subject Area.

3.1 Historical Land-Use Disturbance

The earliest European activity within the vicinity of Menangle Park occurred almost immediately following settlement at Sydney Cove, when two bulls and five cows which had escaped from the Sydney Cove colony were found in 1795, thriving on grasslands along the Nepean River near Camden.

The initial land grants at Menangle Park comprised of two 200-acre land parcels made to James Harrex and Henry Kable in December 1809. The majority of Menangle Park was then divided into small 30-60-acre land grants from August 1812, with larger land parcels provided to prominent individuals. Additional grants were made in 1816, 1821, 1831, and 1835. Overall, most land holders within Menangle Park are known to have undertaken land clearances and fencing, attempting agricultural activities on their properties (Casey & Lowe, 2010). This is supported by Governor Lachlan Macquarie's writings, where he stated the following regarding his October 1815 tour of the area:

"where we crossed the River Nepean into the District of Airds, first passing through Harrex's and then afterwards thro' several other smaller farms, some few of which were tolerably well improved, and the crops in the ground looking well and healthy" (Evans, 2013).

Parish maps would indicate that the Subject Area falls within original land grants made to James Harrex (60 acres), John William Lewin (200-acres), Charles Gray (104 acres) and George Marriott Woodhouse (200 acres) at the turn of the nineteenth century. Initial disturbance activities within the Subject Area would likely have comprised land clearances and fencing, whilst crops were grown up until the collapse of the wheat industry during the 1860s, at which point dairying redefined the region.

There is a Federation-era house in the northwest portion of the Subject Area, located within an area of an original 60-acre land grant made to convict James Harrex in 1812. The property has operated in a pastoral and dairying capacity from the 1860s and comprises a brick Federation era house (1890-1915), which has been extensively modified, and timber and brick ancillary buildings.

A review of historical aerial imagery indicates that the Subject Area continued to be utilised for agricultural purposes into the twentieth century. Evidence of development appears to be limited to fence lines, cropland, and grazing paddocks, whilst modifications were made to the federation-era house and associated gardens and outbuildings (see Plate 1 to Plate 3).

The historical aerial imagery also shows that the sandstone quarry located within the southern portion of the Subject Area was developed between 1969 and 1975 (see Plate 4). Aerial imagery suggests the Subject Area has remained in its present configuration since the development of the sandstone quarry (see Plate 5 and Plate 6).

Summarily, the level of disturbance in the Subject Area is varying. The sandstone quarry in the southern portion is categorised as having gross levels of disturbance. Conversely, the vast majority of the northern portion of the Subject Area has remained in use for agricultural purposes only and would be categorised as having low-to-moderate levels of disturbance.



Plate 1: 1947 aerial photograph of the Subject Area



Plate 2: 1956 aerial photograph of the Subject Area



Plate 3: 1969 aerial photograph of the Subject Area



Plate 4: 1975 aerial photograph of the Subject Area



Plate 5: 1980 aerial photograph of the Subject Area



Plate 6: 2004 aerial photograph of the Subject Area

4 ARCHAEOLOGICAL CONTEXT

4.1 Ethnohistory

Early historical observations described the Cumberland Plain as a mosaic of Aboriginal groups associated with particular areas of land. These groups were described as 'tribes' in many historical observations, when in fact they were more likely small territorial clans or local clans consisting of extended family groups, forming larger land-using bands linked through marriage and communal participation in subsistence gathering activities (Attenbrow, 2010, p. 22; Brook & Kohen, 1991).

The Sydney Basin was occupied and used by Aboriginal people for thousands of years before European settlement. Within the Sydney Basin, creeks, floodplains, swamps, and woodlands provided Aboriginal peoples with rich and varied resource zones and occupation areas. Aboriginal sites across the Sydney Basin provide tangible evidence and an ongoing link with the long history of Aboriginal use and occupation of this area.

Despite conflicting views between historical sources of the exact boundaries of tribal groups in the region, the linguistic evidence does identify distinct language groups at the time of European contact. According to (Tindale, 1974b), the Menangle Park area falls within the Aboriginal tribal boundary of the Tharawal. Tindale (1974a, p. 198) describes their boundaries as from the south side of Botany Bay and Port Hacking to the north of the Shoalhaven River, and inland to Campbelltown and Camden. Tindale (1974a, p. 198) also states that Howitt mistakenly applied the name Tharawal to people of the Thaua tribe who live 280km farther south.

Tindale placed the Gandangara tribe to the west of his Tharawal boundary and the Daruk tribe to the north of his Tharawal boundary (Tindale, 1974a, p. 193). Tindale (1974a, p. 193) lists the Eora tribe, which was closely linked to the Tharawal tribe, extending from the northern shores of Port Jackson to the edge of the plateau overlooking the Hawkesbury River and south to Botany Bay and the Georges River.

It should be noted, however, that Tindale's descriptions of tribal boundaries were based on linguistic evidence that was gathered between 1884 and 1969 CE, and on a conception of bounded territories that has since been questioned. Further research has indicated that traditional Tharawal land spanned from the south side of Botany Bay along the coast as far as the Shoalhaven River and Jervis Bay, from the coast to the Georges River and inland as possibly far west as Appin, Moss Vale and Camden (Attenbrow, 2010).

Tharawal people were distinguished as 'fresh water', 'bitter water' or 'salt water' people depending on whether they inhabited the coastal regions, swamps or plateaus and inland river valleys of the broader Sydney region. According to the anthropologist and linguist RH Mathews (1901), the Tharawal language had grammatical similarities with the neighbouring Darug, Gundungarra and Ngunnawal tribes, but differed slightly in vocabulary. Evidently, a shared language enabled the transmission of knowledge, customs, and lore as well as items and resources; and the Tharawal people travelled widely, visiting other clans at Prospect, Parramatta and Windsor, Botany Bay and Broken Bay, Bathurst, and Lake Bathurst (Liston, 1988).

It is likely that small mobile Aboriginal groups inhabited the Campbelltown area however, with a resource base spread across the flood prone plain, it is unlikely that populations concentrated in any one area. It is probable that people utilised the study area as they passed through enroute to more productive areas such as permanent water sources or quarries along the Nepean.

The British noted a difference between the dialects of the Aboriginal people along the coast compared with those further in-land on the Cumberland Plain. Captain Tench observed when two Aboriginal men from the coast conversed with an Aboriginal man further inland "they conversed on a par and understood each other perfectly, yet they spoke different dialects of the same language; many of the most common and necessary words used in life bearing no similitude, and others being slightly different" (Tench, 1793, p. 122).

It is considered likely that groups in different resource areas would have had regular contact. Barrallier (1802) describes a kangaroo hunt near Menangle [Manhangle] Swamp where a large group used fire, spears and 'tomahawks'. The participants were at the space of '30 paces... [and] formed a circle [covering] an area of 1 to 2 miles. J. McDonald (2008) notes that in order to be able to this, there would need to be in the order of 100 people involved in this hunt, suggesting that co-operation between several bands.

During Barrallier's (1897) journey through the Menangle area, he meet a local Aboriginal:

I learnt from this native that Kelly has passed at Manhangle in the morning....and that they had shot at them several times...one bullet passed very near his shoulders. Having seen my camp, he had come to make his complaint to me.

The arrival of European settlers the region and new competition for resources began to restrict the freedom of movement of Aboriginal hunter-gatherer inhabitants from the early 1800s. European expansion along the Cumberland Plain was swift and soon there was considerable loss of traditional lands to agriculture. This led to violence and conflict between Europeans and Aboriginal people as both groups sought to compete for the same resources. In the Cowpastures region, it began following the murder of an Aboriginal woman and her children, which resulted in violent clashes between several Aboriginal men and European settlers between 1814 and 1816 (Liston, 1988, p. 50). In response to settlers being reportedly killed on their properties in other areas, Governor Macquarie agreed to allow pre-emptive strikes to be carried out against Aboriginal people, however specified that the local Tharawal were not attacked (Goodall & Cadzow, 2009; Liston, 1988). However, among these attacks was the Appin massacre, where Aboriginal people were pursued by a detachment led by Captain James Wallis. The soldiers moved through the night, surprising a camp of families near Appin and shooting them down as they fled. In total, fourteen people were reported killed, including women and children, while others fell down nearby cliffs, their bodies unrecovered and uncounted. The bodies of two of the men killed were hung up at the site of the massacre (Goodall & Cadzow, 2009; Liston, 1988).

In 1817, Macquarie ordered the construction of a road from Sydney to Liverpool and its extension to Campbelltown. The construction of roads through the 'Cowpastures' region was in motion and on the 25 June 1829, W. Lockyer, the surveyor of roads wrote to the Colonial Secretary requesting that a road be surveyed from Campbelltown and Menangle. This road, Menangle Road would run through a portion of John Macarthur's property. Menangle was originally located on the northern banks of the Nepean River; however, in the 1860s Menangle moved south of the river to the area previously known as Riversford (Smart, 1865).

The numbers of Aboriginal people who stayed on country decreased as settlers and farmers moved into Tharawal country, however, communities remained living along the Georges River near Ingleburn. Aboriginal people who stayed in the area in the mid to late-1800s tended to live on the

fringes of white society, seeking employment on local farms in order to supplement their Government welfare allocations (Liston, 1988).

The continued presence of Aboriginal people in the district in the nineteenth century is indicated by records of corroborees held at Camden Park and at Denham Court, until at least the 1850s, usually when other Aboriginal people were passing through the district (Liston, 1988, p. 57). There are also records of ceremony being held on the Denbigh property in ~1830 CE, and Aboriginal people were also employed on the property.

From the late nineteenth century, efforts by the government to control Aboriginal people were substantially increased, and it became correspondingly difficult for local Aboriginal people to maintain a physical connection to their country. However, recent research has allowed an increased understanding of how Aboriginal people were able to maintain connections to country and varying degrees of social and economic independence from European society, even in the broader Sydney region (Goodall & Cadzow, 2009).

4.2 AHIMS Database Search

The locations and details of Aboriginal sites are considered culturally sensitive information. It is recommended that this information, including the AHIMS data and GIS imagery, is removed from this report if it is to enter the public domain.

Kayandel carried out a search of the AHIMS database on the 8th of February 2022 using the Client Service ID 657734, with the coordinates set out in Table 3 below.

	Easting	Northing
Minimum	292273	6220923
Maximum	296273	6224923

Table 3: AHIMS Database Search Criteria

(Zone 56)

The search area was a 4km square centred upon the Subject Area (see Figure 4). The results of the AHIMS search are presented in Figure 4 and Table 4. A total of one-hundred and one (101) Aboriginal sites have been registered within the search area.

It should be noted that the distribution of sites in the AHIMS database reflects where site surveys have been conducted, where exposure and visibility conditions have enabled the detection of sites, and where sites have survived modern land disturbance. The distribution of sites from AHIMS may not be a true reflection of the existing Aboriginal sites in an area.

Site types	Total	%
Open Camp Site	26	25.74%
Shelter with PAD	26	25.74%
Isolated Find	25	24.75%
Potential Archaeological Deposit (PAD)	9	8.91%
Aboriginal Ceremony and Dreaming Site with Artefact	5	4.95%
Open Camp Site with Art and Stone Arrangement	4	3.96%
Isolated Find and PAD	2	1.98%
Scarred Tree	1	0.99%
Shelter with Art and Deposit	1	0.99%
Shelter with Art	1	0.99%
Open Camp Site with PAD	1	0.99%
Total	101	100.00%

Table 4: Site types from AHIMS search (Client Service ID 657734)

The AHIMS search indicates that twenty-six (26) of the one-hundred and one (101) identified sites were open camp sites, or shelters with potential archaeological deposits (PADs) (refer to Table 4). The results are indicative of the number of archaeological assessments that have occurred within the local region, as well as the nature of the landscape, with the Hawkesbury sandstone providing ample shelters for inhabitation.

4.2.1 Aboriginal sites within the Subject Area

Figure 5 to Figure 8 shows the Aboriginal sites that have been recorded within and in proximity to the Subject Area. The following Aboriginal sites have been recorded within the Subject Area:

- AHIMS #52-2-2273, RP2 – open camp site;
- AHIMS #52-2-2278, RP1 – open camp site;
- AHIMS #52-2-4288, MG PAD30 – PAD; and,
- AHIMS #52-2-4331, MGA14 – PAD – art (pigment/engraved), artefact and stone arrangement.

AHIMS #52-2-2278, RP1

AHIMS #52-2-2278, RP1 is an open camp site consisting of two stone artefacts present on an erosion scour adjacent to Menangle Creek. The site is located on the north bank of Menangle Creek, and the artefacts were identified in an area of exposure, approximately 60m long by 2m wide. The artefacts were located within 3m of each other, on a slightly elevated creek terrace. The artefacts consist of a red silcrete flake, and a volcanic lithic fragment (New South Wales Archaeology, 2003, p. 45).

It was noted by New South Wales Archaeology (2003, p. 45) that the site has high potential of being larger than recorded. New South Wales Archaeology (2003, p. 45) predicted the site as extending to the northwest for a distance of up to 30-40m, within the elevated terrace. New South Wales Archaeology (2003) identified this site as being of moderate archaeological significance, and moderate local cultural significance.

AHIMS #52-2-2273, RP2

AHIMS #52-2-2273, RP2 is an open camp site consisting of up to thirty stone artefacts in an area of exposure adjacent to Menangle Creek, on a basal spur slope. The site is located on the north bank,

approximately 20m north of Menangle Creek. The artefacts were located in an area of exposure associated with an old road, which measured approximately 60m long by 5m wide. The artefacts were located over an area which measured 30m long by 5m wide. The artefacts included red, pink, and grey silcrete, quartz, and tuff flakes, flaked pieces, and core fragments representative of flaking debitage (New South Wales Archaeology, 2003, pp. 45-46).

New South Wales Archaeology (2003, p. 46) noted that the site had high potential to be larger than recorded, predicting that the site extended 30-40m northwest. New South Wales Archaeology (2003) identified this site as being of moderate archaeological significance, and moderate local cultural significance.

AHIMS #52-2-4288, MG PAD30 – PAD – Rock Shelter with Deposit

Recorded by Navin Officer Heritage Consultants, AHIMS #52-2-4288, is a rock shelter containing PAD that is located on the southern boundary of the Subject Area.

AHIMS #52-2-4331, MGA14 – PAD – art (pigment/engraved), artefact and stone arrangement

Recorded by Navin Officer Heritage Consultants, AHIMS #52-2-4331 is an open site consisting of art, a stone arrangement, and surface artefacts, as well as an area of PAD.

4.2.2 Aboriginal sites in proximity to the Subject Area

The following Aboriginal sites were recorded within 100m of the Subject Area (refer to Figure 5 to Figure 8):

- AHIMS #52-2-4313, MGA22 – isolated artefact;
- AHIMS #52-2-4286, MG PAD31 – PAD;
- AHIMS #52-2-4326, MG PAD32 – PAD;
- AHIMS #52-2-4317, MG PAD33 – PAD;
- AHIMS #52-2-4318, MG PAD34 – PAD;
- AHIMS #52-2-4324, MG PAD35 – PAD;
- AHIMS #52-2-4328, MGA14 EXP.1 - art (pigment/engraved), artefact and stone arrangement;
- AHIMS #52-2-4329, MGA14 EXP.2 – art (pigment/engraved), artefact and stone arrangement; and,
- AHIMS #52-2-4330, MGA14 EXP.3 – art (pigment/engraved), artefact and stone arrangement.

4.3 Regional Archaeological Context

Archaeological investigations generally fall into three categories - large projects that have been carried out within a research-orientated academic framework and broad management context; archaeological surveys carried out by interested amateurs; and archaeological investigations which have been carried out within a commercial contracting framework and deal with specific localities subject to development or redevelopment.

The spread of urban development across the Cumberland Plain, particularly over the last few decades, has meant that archaeological investigations have intensified as a result for the need of Environmental Impact Assessments. Most archaeological investigations conducted within the Cumberland Plain have been restricted to small study areas, defined by individual developments, and with limited project briefs. As a result, the understanding of Aboriginal utilisation and occupation of the Cumberland Plain is constantly being revised and refined as archaeological data becomes available for the area (AMBS, 2012; Kayandel, 2018; NOHC, 2003).

Regional trends within the Cumberland Plain indicate that Aboriginal sites are likely to be located in close proximity to permanent watercourses, on creek banks and alluvial flats, or on high ground, and within range of food resources and the raw materials for tool making. However, some exception to the regional model have been demonstrated in excavations at Mungerie Park and Parklea Leisure Centre, where large artefact scatters were identified up to 200-250m from major watercourses. McDonald suggested that this site distribution pattern may be due to surface visibility and site formation processes, rather than a true depiction of the cultural distribution of artefacts across the landscape (AMBS, 2012).

Extensive excavation across the Cumberland Plain has shown that areas with no surface evidence often contain sub-surface deposits buried beneath current ground surfaces, and particularly so in aggrading soil landscapes. In a 1997 study by Jo McDonald CHM (1997) found that:

- 17 out of 61 excavated sites had no surface artefacts before excavation; and,
- The ratio of surface material to excavated material was 1:25.

The character and composition of the excavated sites in McDonald's study could not be properly predicted on the basis of the surface evidence. It seems that surface evidence (or even the absence of surface evidence) does not necessarily indicate the potential, nature or density of sub-surface material.

McDonald's results clearly highlight the limitations of surface survey in identifying archaeological deposits in this landscape. The study also shows the importance of test excavation in establishing the nature and density of archaeological material on the Cumberland Plain.

A later study by White and McDonald (2010) developed a predictive model for the distribution of Aboriginal objects across the Cumberland Plain. This is summarised as follows:

Topographic and stream order variables correlate with artefact density and distribution. High artefact density concentrations may have resulted from large number of artefact discard activities and/or from intensive stone flaking. Highest artefact densities occur on terraces and lower slopes associated with 4th and 2nd order streams, especially 50–100 metres from 4th order streams. Upper slopes have sparse discontinuous artefact distributions, but artefacts are still found in these landscape settings. (White & McDonald, 2010, p. 29)

In terms of the wider Sydney region, the radiocarbon date obtained from the RTA site in George Street, Parramatta indicates that the Sydney region has been inhabited by Aboriginal people for at least 30,000 years, and possibly longer (J. J. McDonald et al., 2007). Archaeological sites from the Blue Mountains and Hawkesbury/Nepean River System have provided other evidence of early occupation within the region. Stockton and Holland (1974) produced a radiocarbon date of c.22,000 years BP from a site at Kings Tableland in the Blue Mountains. Excavation of the Greaves Creek rock shelter site of Walls Cave near Medlow Bath has produced a date of c.12,000 years BP. At Shaws Creek Kill - a rock shelter on the west bank of the Nepean north of Penrith - a date of c.13,000 years BP is recorded (Kohen, Stockton, & Williams, 1984).

4.4 Previous Archaeological Assessments of the Subject Area

New South Wales Archaeology (2003)

New South Wales Archaeology (2003) was commissioned by Sydney Gas Operations Pty Ltd (Sydney Gas) in October 2002 to undertake a cultural heritage assessment of the Camden Gas Project, which

was proposed to be developed at Glenlee, Menangle Park, and Menangle. The Subject Area was included in the southern portion of their study area.

During the New South Wales Archaeology (2003) site survey, twenty (20) new Aboriginal sites were identified, in addition to another twenty (20) previously recorded sites present within their project area. Two (2) of the newly sites identified by New South Wales Archaeology (2003) are located within the Subject Area:

- AHIMS #52-2-2273, RP2 – open camp site; and,
- AHIMS #52-2-2278, RP1 – open camp site.

Refer to Section 4.2.1 for a description of these sites.

New South Wales Archaeology (2003) identified both above AHIMS sites as being of moderate archaeological significance, and moderate local cultural significance.

Dominic Steele Consulting Archaeology (2007)

Dominic Steele Consulting Archaeology (2007) was engaged by AGL Gas Production (Camden) Pty Limited and Sydney Gas (Camden) Operations Pty Limited to prepare an Aboriginal Cultural Heritage Survey and Assessment Report for the Camden Gas Project Joint Venture - Stage II (CGPJV - Stage II).

The Development Proponents were seeking approval to establish two new gas production wells, access roads and gas gathering systems at Menangle Park (coded MP24 and MP34/33), along with two new wells, gathering lines and access routes at Spring Farm (coded SF04 and SF04A) delivery of additional gas to the Rosalind Park Gas Plant, which is within the Subject Area to the east of the quarry.

As part of the investigation, a representative of Dominic Steel Consulting Archaeology, Tharawal LALC and Cubbitch Barta Native Title Claimants Aboriginal Corporation (CBNTCAC) undertook a series of targeted field surveys of the proposed activity locations at Menangle Park (MP24 and MP33/34) and Spring Farm (SF04 and SF04A).

The Subject Area was not inspected as part of the investigation undertaken by Dominic Steele Consulting Archaeology (2007).

AHMS (2017)

AHMS was engaged by the Department of Planning & Environment (DPE) to undertake an Aboriginal and Historic Heritage Gap Analysis of the Greater Macarthur Investigation Area. DPE's overarching objective of the project was to investigate the potential for greenfield development south and south-west of Campbelltown-Macarthur region. The Subject Area was included in the northern portion of the investigation area.

AHMS (2017, p. 5) noted in their key findings that their ethnographic database includes several instances of early Aboriginal interactions with Europeans, which occurred around Menangle and Menangle Park. No further details regarding the locations of these early interactions were detailed in the AHMS report.

It was considered likely that the area, especially close to waterways, would have formed a focus for Aboriginal occupation and activity. AHMS (2017, pp. 5-6) also noted that there was potential for significant cultural sites along key waterways – including the Nepean – stating that "it is likely that

extensive and/or significant Aboriginal sites would be prevalent along the large river systems and their riparian corridors."

Despite the fact that the northern portion of their investigation area was generally more swampy and low-lying than other areas, it was noted that the Menangle area was used and occupied by Aboriginal people – as observed by explorers at European contact – and Aboriginal activity continues through particular families as indicated in the cultural values workshop (AHMS, 2017, p. 7).

As part of the preliminary cultural values mapping that was done for the project (AHMS, 2017, pp. 26-28), two areas of cultural significance in close proximity to the current Subject Area were identified - "Fishing and story place", and an area of undefined cultural value (refer to Figure 9).

The "Fishing and story place" was recommended for consideration for long term protection (AHMS, 2017, p. 5). According to AHMS (2017) the "Fishing and story place" refers to a stretch of the Nepean River, east of Menangle near Birdseye corner, which was known to have good fish and eels. It has been used extensively by Aboriginal people in the recent past and continues to be used today. Within this stretch of river is an important Story Place, which AHMS (2017) notes that the knowledge holder did not want more precisely identified within a public document.

AHMS's Aboriginal Heritage Prediction Model mapping, which was a high-level landform based desktop assessment, identified the Subject Area as being primarily of low archaeological sensitivity, with areas of moderate sensitivity along Menangle Creek (refer to Figure 10).

AHMS did not undertake an inspection of the Subject Area as part of preparing their assessment.

Eco Logical (2022)

Eco Logical (2022) prepared a historic heritage report regarding the Subject Area, however this report made no comment regarding potential contact and/or contact archaeology.

4.5 Previous Predictive Models

Most archaeological investigations in the Menangle Park area have been conducted to assess the impact of a specific development on Aboriginal heritage. These investigations often relied on surface survey, which is usually not representative of the site as a whole. Large-scale salvage projects are rare, with most projects comprising small test excavations to obtain representative samples of sub-surface archaeological deposits.

A select number of recently produced comprehensive predictive models relevant and that share similar significant features with the Subject Area are discussed below.

Kohen (1986)

It was also hypothesised by Kohen (1986) that availability to water sources was the most important factor influencing the distribution of sites across the landscape.

New South Wales Archaeology (2003)

New South Wales Archaeology (2003) put forward the following predictions in their study for the Camden Gas Project, which considered the Subject Area:

- The size of sites present will vary according to their relationship to the permanence of water, landscape unit, and proximity to lithic resources in the following ways:
 - At the headwaters of first order creeks, archaeological evidence will be sparse;

- At the middle reaches of second order creeks, archaeological evidence will be sparse but indicate focused activity;
- At the lower reaches of third order creeks, archaeological evidence will indicate more frequent occupation and evidence of more concentrated activities;
- At fourth order creeks and rivers, archaeological evidence will indicate more permanent occupation of greater complexity;
- Creek junctions may provide foci for site activity;
- Within the study area, stone artefacts will be widely distributed across the landscape in a virtual continuum, but with significant variations in density in relation to different environmental factors;
- Artefact density and site complexity will be greater near water (~100m of the higher order streams);
- The detection of artefact scatters depends on ground surface factors and whether or not the potential archaeological bearing soil profile is visible;
- Prior ground disturbance, vegetation cover, and sediment/gravel deposition can obscure the identification of artefact scatters;
- Isolated finds will be located within the project area, and will be representative of background scatter;
- Areas of PAD are usually associated with actively aggrading landform features, or the floors of rock shelters;
- PAD sites may occur in association with a surface artefact scatter, or may exhibit no archaeological surface material;
- PAD sites are usually identified by their context within, or associated with, a landscape feature that was likely to have been occupied;
- PAD sites are likely to be present on flat or low gradient sedimentary features associated with drainage lines, and low simple slopes, close to permanent water;
- The location of grinding grooves is dependent on the presence of a suitable rock surface, (usually fine-grained homogenous sandstone) and a water source;
- Grinding grooves commonly occur in an open context, however, are sometimes found in shelters;
- Grinding grooves are unlikely to be present within the project area given the absence of sandstone exposures;
- Burials have been recorded within the wider region, and are generally only visible in areas where the deposit has been disturbed, either by natural erosion, or human activity;
- The potential for burials to be present in deep sedimentary features adjacent to the Nepean River, in Tertiary sand bodies, or other alluvium contexts, cannot be discounted;
- Rock shelters are unlikely to be present within the project area;
- Scarred and carved trees associated with burial grounds and other ceremonial places have been recorded in the wider region, and can occur anywhere that trees of sufficient age are present (although usually on flat or low gradient landform units, in areas suitable for either habitation and/or ceremonial purposes);
- The study area has been extensively cleared, and presumably subjected to bushfires, thus making the survival of any scarred/carved trees unlikely;
- Stone quarry sites are rare in this region, and unlikely to be recorded;

- The most likely location for contact sites would be camp sites adjacent to permanent water, within a relatively close proximity to European occupation centres such as towns and homesteads; and,
- Given the location of the study area close to large, old farms, contact sites are likely to be present.

HLA-Envirosciences (2004)

HLA-Envirosciences (2004, p. 16) suggested that:

- Where artefact scatters are encountered, they will likely be restricted to areas of erosion on the Blacktown soil landscape;
- Artefacts that are found in the Blacktown soil landscape, they will occur on a wide range of landforms (i.e. ridges, hills, mid and lower slopes, open depressions, and drainage lines);
- Artefact scatters are not likely to be identified in areas of erosion on the Theresa Park soil landscape; and,
- Where artefact scatters are identified on the Theresa Park soil landscape, they will contain relatively large numbers of artefacts (i.e. AHIMS #52-2-2280 which has 9 artefacts, and #52-2-2251 which has 50 artefacts).

HLA-Envirosciences (2004) noted that Barton (1996) predicted that the undisturbed portions of the Theresa Park soil landscape had a high archaeological potential; while the disturbed portions as having moderate archaeological potential. Barton's (1996) model assessed the undulating terrain of the Blacktown soil landscape, and the steep hills and slopes of the Luddenham formation as having moderate archaeological potential.

White and McDonald (2010)

White and McDonald (2010) analysed artefact distribution on the north of the Cumberland Plain by examining the results from a number of archaeological investigations in the Rouse Hill area. This research found that artefact distribution varies significantly with stream order, with higher densities of artefacts located next to larger streams. First order streams had a mean density of 0.7 artefacts/m², while for 2nd order streams this was 6.5 artefacts/m² and 4th order streams this increased in 13.9 artefacts/m². There was not enough data on 3rd order streams to make a comparison (White & McDonald, 2010, p. 32).

Distance from water was also tested, as this was believed to be a primary determinant of where people camped and hence where artefact density would be represented in the archaeological record. For 1st order streams, distance from water was not a statistically important, with this just being a background scatter. For 2nd order streams, artefact density is highest within 50m of water and declines with increasing distance from water. For 4th order streams, artefact density was found to be highest 51-100m from the stream and lower closer to the stream (<50m) and declining densities greater than 100m from the stream. White and McDonald propose that lower densities within 50m of larger streams may be reflective of a range of factors including erosion and sheet wash adjacent to major streams. Behaviour may also be a factor such as people conducting knapping, artefact discard and hunting activities slightly further away (White & McDonald, 2010, p. 33).

In terms of landforms, terraces yielded the highest densities. Terraces had a mean density of 20.8 artefacts/m². Mean densities for other landforms are as follows: creek flat 3.8 artefacts/m², lower slope 8.4 artefacts/m², mid slope 3.8 artefacts/m² and upper slope and ridge top 0.4 artefacts/m² (White & McDonald, 2010, p. 33).

Mary Dallas Consulting Archaeologists (2014)

Mary Dallas Consulting Archaeologists (2014) based their predictive model off contextual information, specifically in relation to the landforms present within a portion of the former Camden Pak estate.

- Stone Artefacts are anticipated to exist, either in isolation or as part of larger open camp sites and may or may not be associated with subsurface archaeological deposits. These are predicted to occur most likely in association with relatively flat areas above creeks and the Nepean River;
- Subsurface artefacts will likely be restricted to the A₁ or A₂ horizons, which is estimated at between 20-50cm in depth;
- Aboriginal archaeological material is unlikely to be preserved *in-situ* in areas where historical land use has significantly impacted the soils;
- Rock Shelters with art and/or archaeological deposit may occur where sandstone outcrops of sufficient slope and size to form such shelters are present;
- Axe grinding groove may also occur where sandstone outcrops close to a flowing or pooling water source, such as along the eastern creek line;
- Trees of mature enough age to contain Aboriginal scars or modification are unlikely to have survived within the study area; and,
- Artefacts relating to the historical use of the area by Aboriginal people are also possible and may include items such as flaked glass.

EMM (2016)

EMM (2016) made the following predictions in their ACHA prepared regarding the expansion of the Menangle Sand and Soil Quarry:

- Generally speaking, modified trees are located in areas containing trees over 100 years old;
- Although relatively uncommon, modified trees have been identified in the region, particularly in close proximity to waterways;
- The riparian vegetation along waterways associated with the Nepean River may contain trees old enough for Aboriginal scarring or carving, particularly Bangalay x Sydney Blue Gum;
- The geology of the area indicates that rock shelters (which may contain archaeological deposits, art, or engravings) are likely to be present in areas along rocky scarps and cliff lines along waterways;
- Grinding grooves are most likely to occur in areas with rock outcropping, usually near running water;
- Grinding grooves could be present anywhere where suitable rock outcrops exist near stream beds or on expanses of outcropping sandstone;
- Open camp sites and subsurface deposits are distributed across the landscape in low densities, particularly on flatter landforms, with higher concentrations close to reliable water sources;
- Artefact scatters are often buried through soil formation processes, or in alluvial or colluvial deposits, becoming visible after erosion or disturbance;
- Artefact scatters are unlikely to be on slopes;
- Areas along the elevated flat terraces beside the Nepean River may have provided ideal camping grounds for Aboriginal people with access to water, food, and tool making resources;

- The potential for subsurface artefact deposits is dependent on geomorphological factors, such as under what conditions and when the landforms were created, and the extent of post-depositional disturbance;
- While open camp sites are highly unlikely to occur in the escarpment, as the slope is precipitous and would have been unsuitable for occupation, rock shelters along the escarpment may have archaeological deposits within their shelter floors;
- Isolated finds are indicative of the random loss, deliberate discard, or abandonment of artefacts, and are found in all landform types throughout the region;
- Isolated finds can represent the remains of dispersed and disturbed artefact scatters;
- Hearths have not been found in the region, and given the geomorphology and disturbance of the project area, it is unlikely hearths will be identified;
- Burials can occur anywhere in the landscape but their identification is very rare;
- Burials are possible in the soft sandy soil beside the Nepean River; and,
- The potential for freshwater shell middens is dependent on geomorphological factors, as while freshwater mussels would have been available in the area, the presence of shell middens would be dependent on when and how the landforms were created, and if the project area was preferable for collecting, cooking, eating, and discarding shellfish.

4.6 Aboriginal Heritage Predictions for the Subject Area

The following predictions for Aboriginal sites to be present within the Subject Area are based on the landforms present, as well as from previous archaeological research undertaken in the Menangle Park area:

- Stone Artefacts are anticipated to exist, either in isolation or as part of larger open camp sites and may or may not be associated with subsurface archaeological deposits. These are predicted to occur most likely on flat or low gradient sedimentary features associated with drainage lines, and low simple slopes;
- Within the Subject Area, stone artefacts will be widely distributed across the landscape in a virtual continuum, but with significant variations in density in relation to different environmental factors;
- The size of sites present will vary according to their relationship to the permanence of water, landscape unit, and proximity to lithic resources. Artefact density and site complexity will be greater near water (~100m of the higher order streams);
- Artefacts that are found in the Blacktown soil landscape, they will occur on a wide range of landforms (i.e., ridges, hills, mid and lower slopes, open depressions, and drainage lines);
- Aboriginal archaeological material is unlikely to be preserved *in-situ* in areas where historical land use has significantly impacted the soils;
- The detection of artefact scatters depends on ground surface factors and whether or not the potential archaeological bearing soil profile is visible. PAD sites are usually identified by their context within, or associated with, a landscape feature that was likely to have been occupied;
- The location of grinding grooves is dependent on the presence of a suitable rock surface, (usually fine-grained homogenous sandstone) and a water source. Grinding grooves may be present on sandstone platforms in proximity to Menangle Creek;
- Hearths have not been found in the region, and given the historic disturbance to the Subject Area, it is unlikely hearths will be identified;

- While there is potential for burials to be present in deep sedimentary features adjacent to the Nepean River, in Tertiary sand bodies, or other alluvium contexts, the Subject Area does not contain sand soil landscapes (refer to Section 3);
- Rock shelters may be present within the Subject Area where it is dissected by Menangle Creek;
- Scarred and carved trees associated with burial grounds and other ceremonial places have been recorded in the wider region and can occur anywhere that trees of sufficient age are present (although usually on flat or low gradient landform units, in areas suitable for either habitation and/or ceremonial purposes). However, the Subject Area has been extensively cleared, thus making the survival of any scarred/carved trees unlikely; and,
- Given the location of the Subject Area, background research has indicated that the presence of artefacts representing contact between the local Aboriginal people and Europeans may be possible.

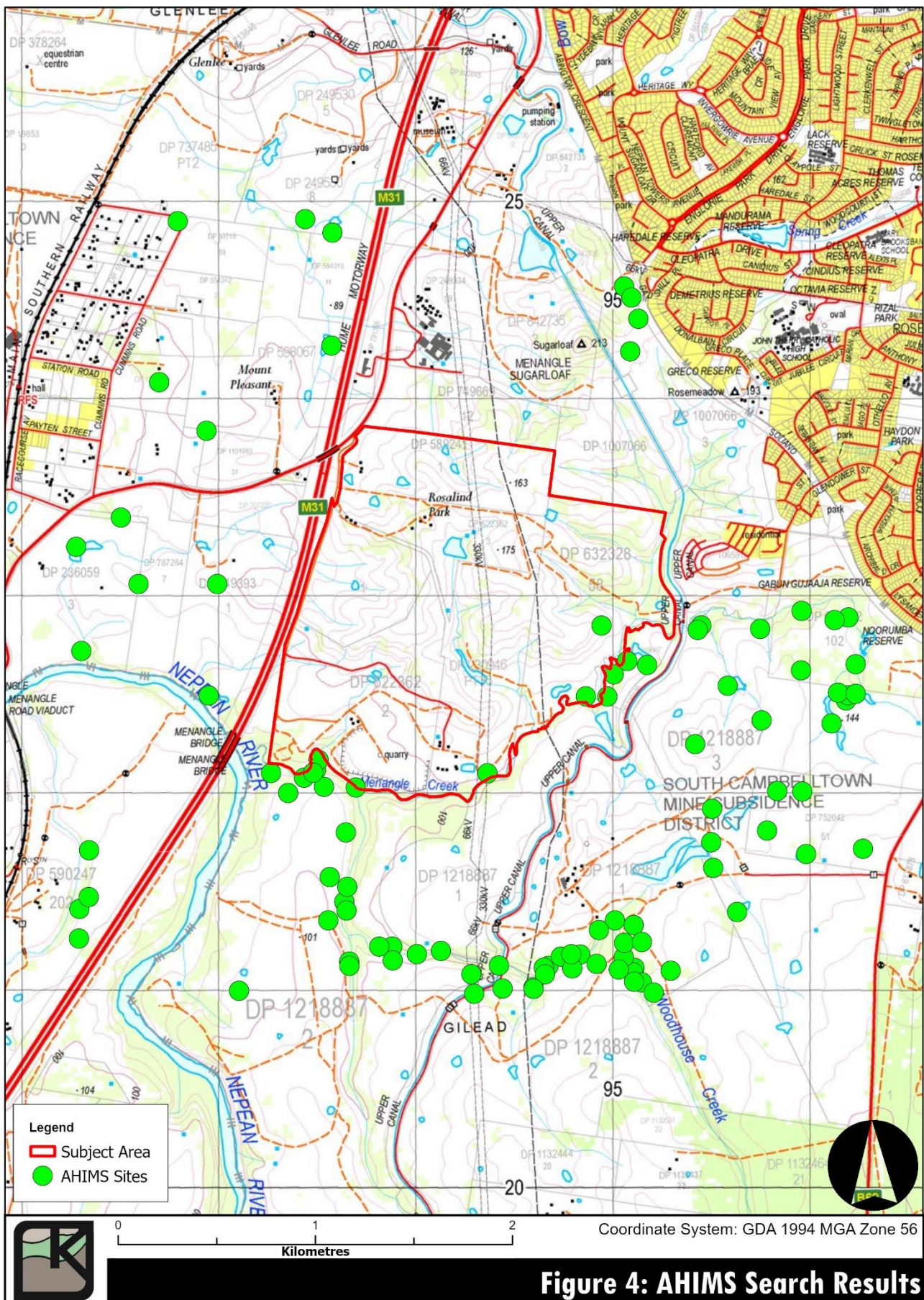
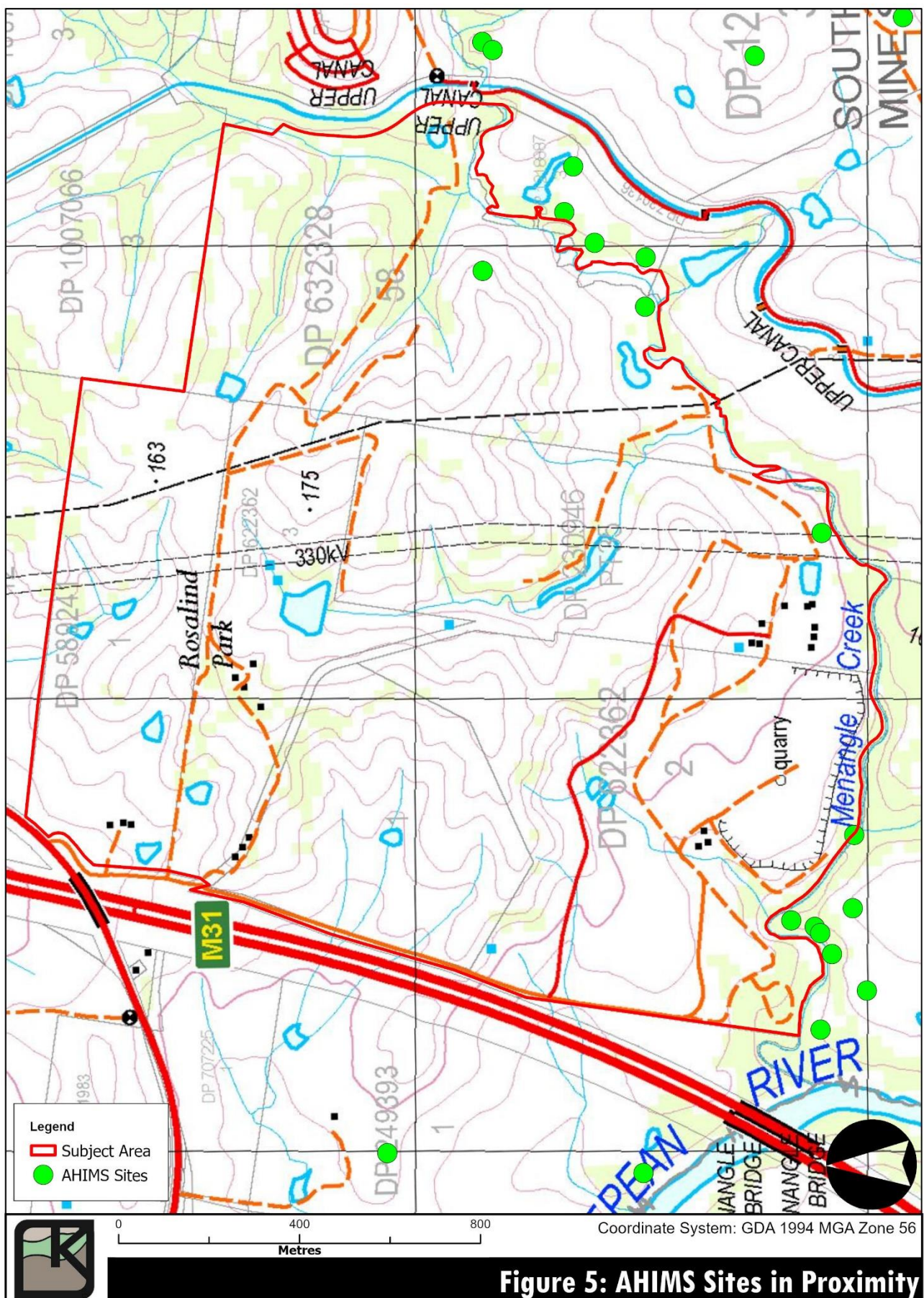
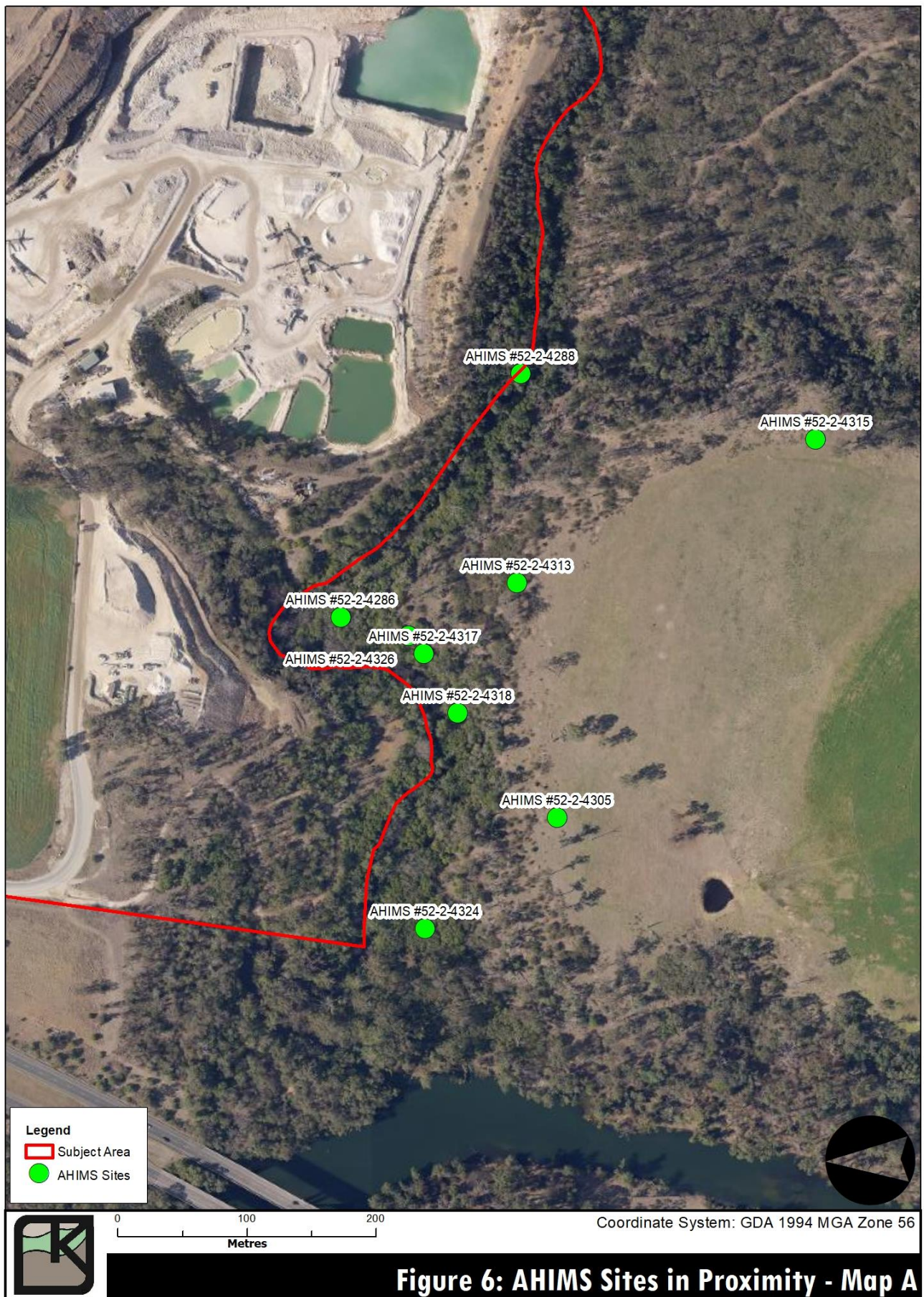
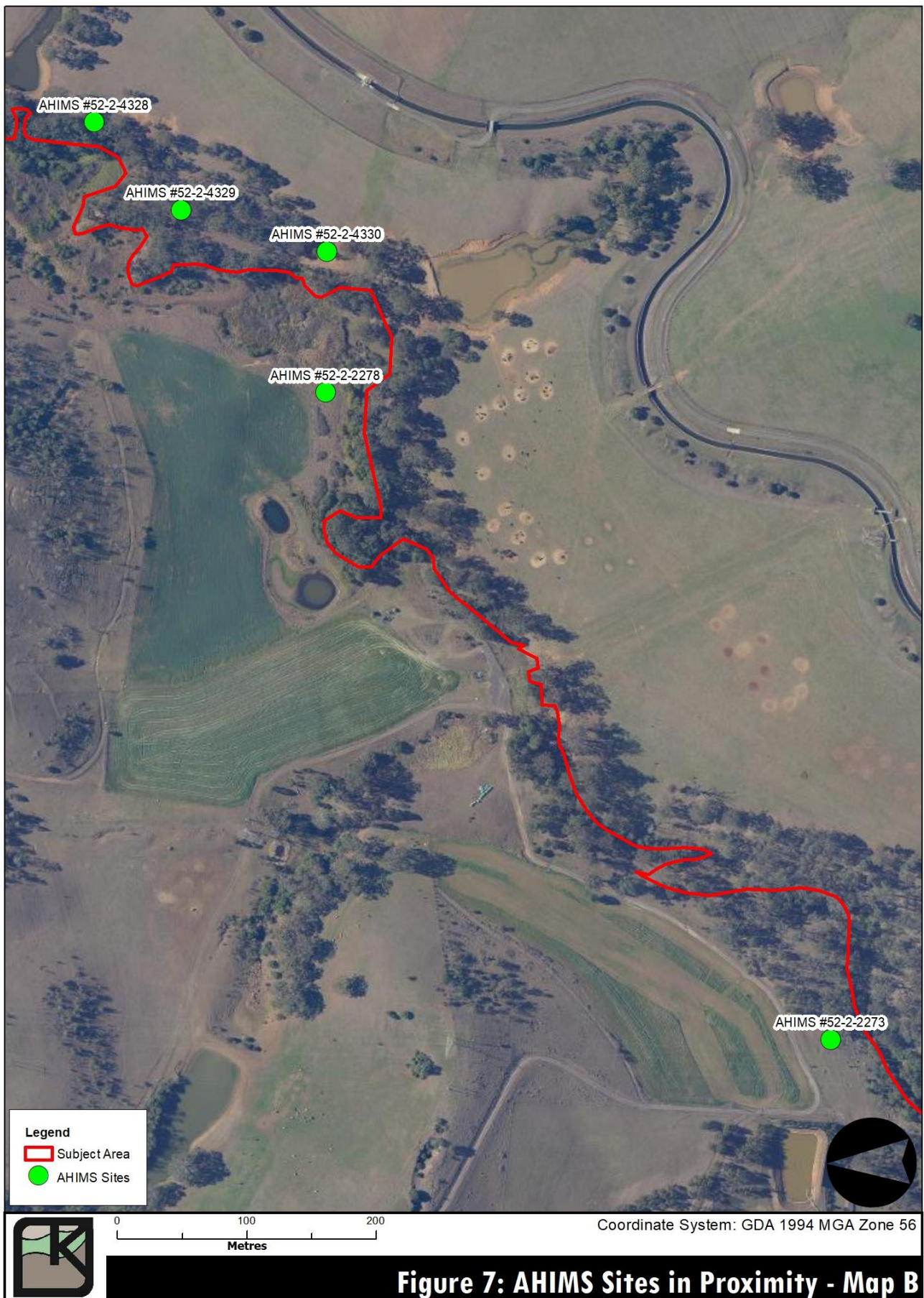
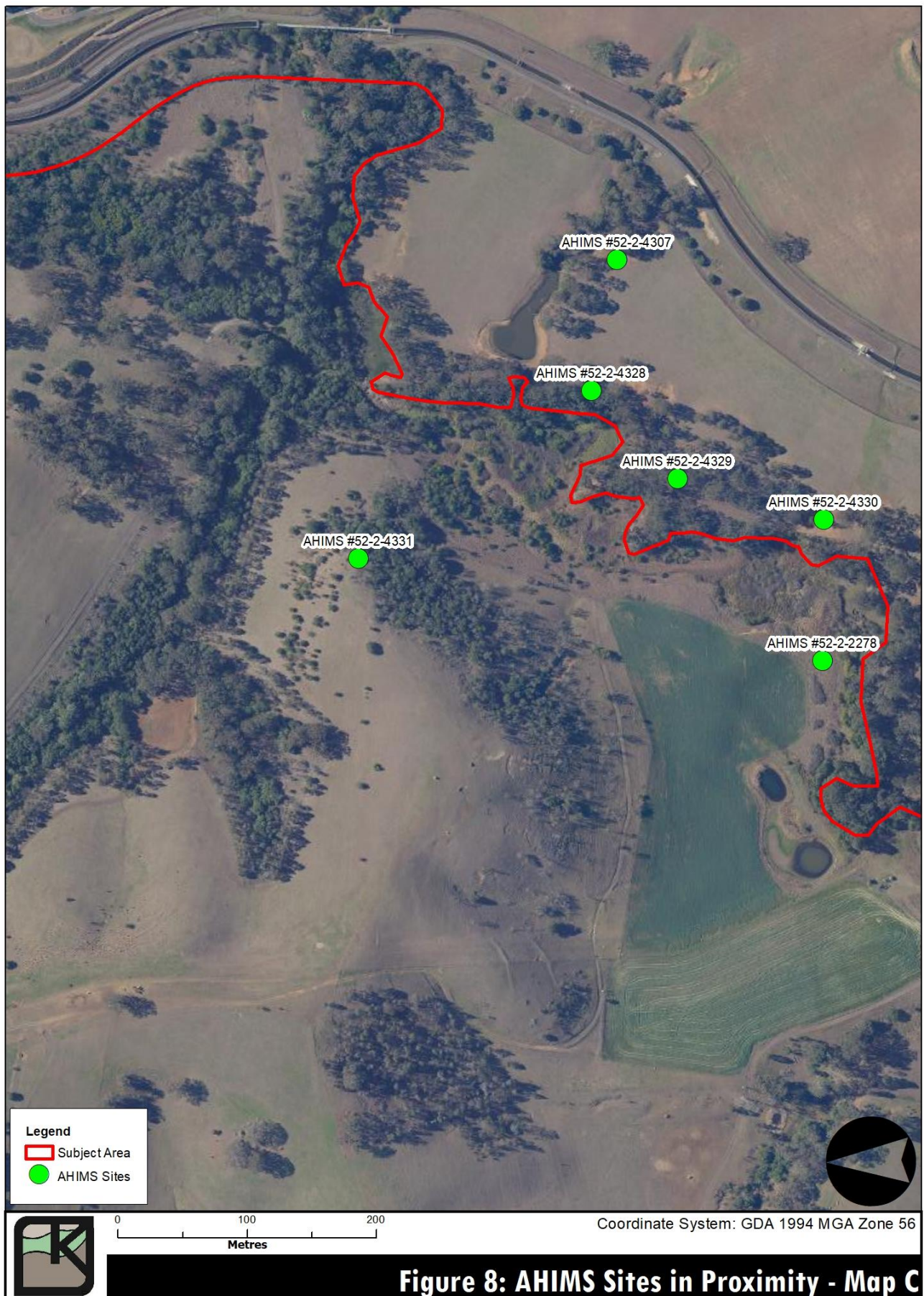


Figure 4: AHIMS Search Results









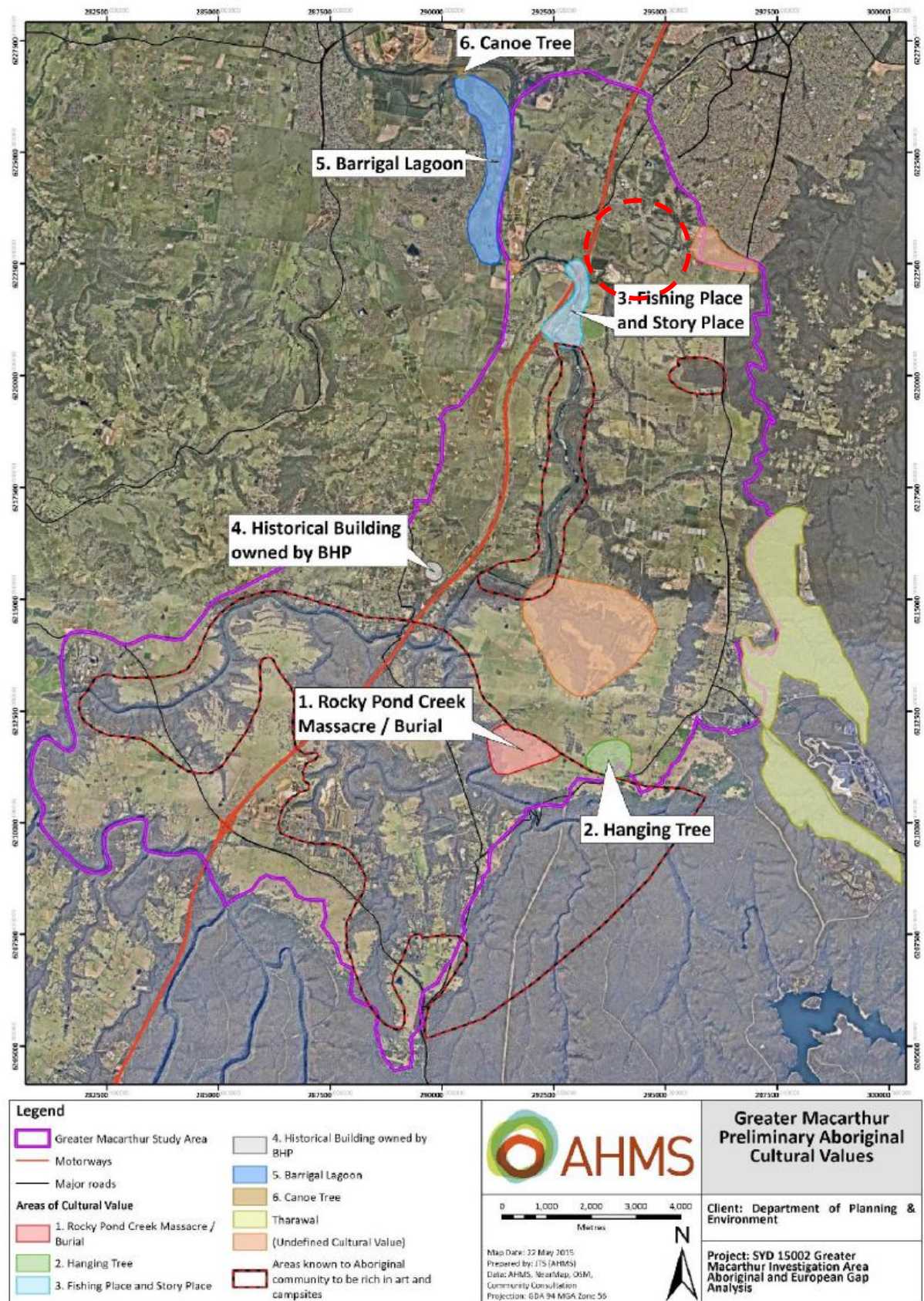


Figure 9: Map of cultural values including sites and places identified by Aboriginal community (source: AHMS (2017)). The Subject Area is circled red

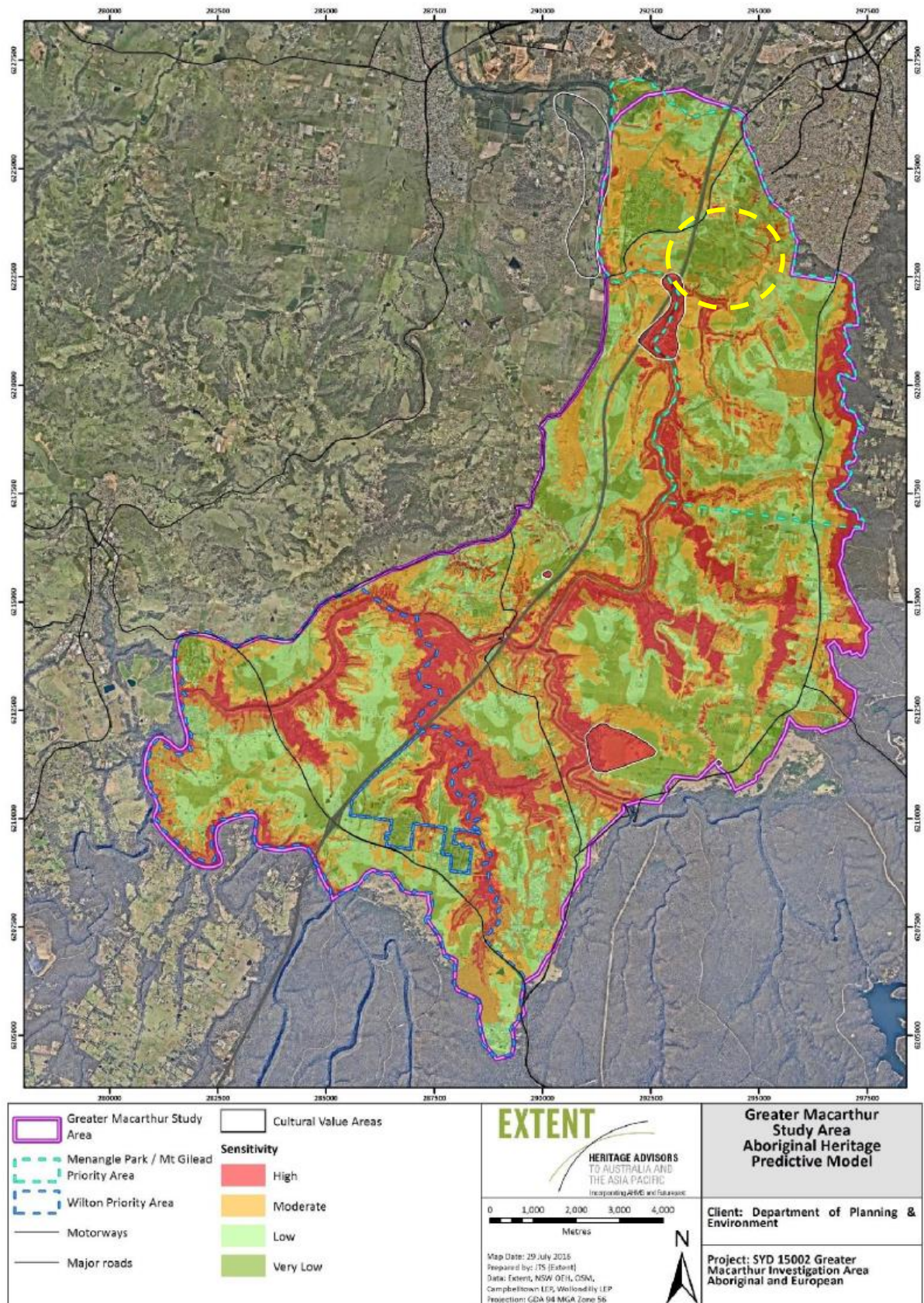


Figure 10: Composite predictive model of Aboriginal archaeological sensitivity for the GMIA places (source: AHMS (2017)). The Subject Area is circled in yellow

5 RESULTS OF THE ARCHAEOLOGICAL SURVEY

Pedestrian survey was undertaken at the Subject Area on the 23rd of February and 18th of May 2022 by Natalie Stiles, accompanied by Kirsty-Lee Chalker of Cubbitch Barta Native Title Claimants, and a representative of the Proponent.

The main aims of the field assessment were to identify Aboriginal objects, identify areas with potential to retain intact subsurface archaeological deposits, and to assess the overall intactness of the Subject Area.

The field assessment included the completion of visual inspections throughout all readily accessible portions of the Subject Area. Detailed inspections were carried out at the location of ground surface exposures, which may contain stone artefacts.

During the field survey, Kirsty-Lee identified that the ridge line could contain unidentified Aboriginal sites.

Additionally, the three AHIMS sites registered within the Subject Area were relocated and photographed (see Section 4.2.1, and Plate 17 to Plate 20).

Ground Surface Visibility (GSV) was low (5-15%) across the majority of the Subject Area, owing to long grass and crawling vegetation (refer to Plate 7 to Plate 20).

Within the Subject Area the areas of ground exposure were typically small, and associated with recent ground disturbance (i.e. scraping and removal of the topsoil), mainly as a result of informal paths and vehicle tracks. These areas of exposures were sparse, typically less than 100cm in width and with a visibility of 50-60%.

Menangle Creek was subjected to limited inspection because of rain events prior to the site inspections.



Plate 7: General view of the Subject Area



Plate 8: General view of the Subject Area



Plate 9: Looking northwest across the Subject Area



Plate 10: Looking west across the Subject Area



Plate 11: Looking north along the power easement with the Subject Area



Plate 12: Looking northwest across the Subject Area



Plate 13: Looking northwest along the gas easement with the Subject Area



Plate 14: Looking southeast along the gas easement with the Subject Area



Plate 15: Looking west across the Subject Area



Plate 16: Looking north across the Subject Area



Plate 17: Relocation of AHIMS #52-2-2273, RP2



Plate 18: Relocation of AHIMS #52-2-2273, RP2



Plate 19: Relocation of AHIMS #52-2-2278, RP1



Plate 20: Relocation of AHIMS #52-5-4331, MGA14

5.1 Summary of Results

No previous unrecorded Aboriginal objects were identified during the survey.

Refer to Section 6 for a discussion of the archaeological sensitivity within the Subject Area.

6 PRELIMINARY ASSESSMENT OF ARCHAEOLOGICALLY SENSITIVE LANDFORMS

This due diligence assessment provides a preliminary assessment of archaeological sensitivity of the within the Subject Area. A more comprehensive and detailed investigation of the archaeologically sensitive nature of the landforms identified below (see Figure 11) would be completed during an Archaeological Technical Report (ATR), where required.

Large and broad-area assessments often necessitate the identification of the archaeological resource at a broader level such as landform type or a combination of topographic variables. To define these as potential archaeological deposits would be inaccurate. This is because of the expected discontinuous distribution of archaeological material across the defined zone and the very low incidence within some included small-scale landforms. The terminology 'archaeologically sensitive' landscape is used to indicate an area in which sites and/or PADs are known or predicted to occur at a scale or frequency which necessitates management action in the future.

The basis for the identification of the archaeologically sensitive landforms in this assessment is the previous archaeological investigations of the Subject Area, and other archaeological assessments in similar landforms of Menangle and Mount Gilead.

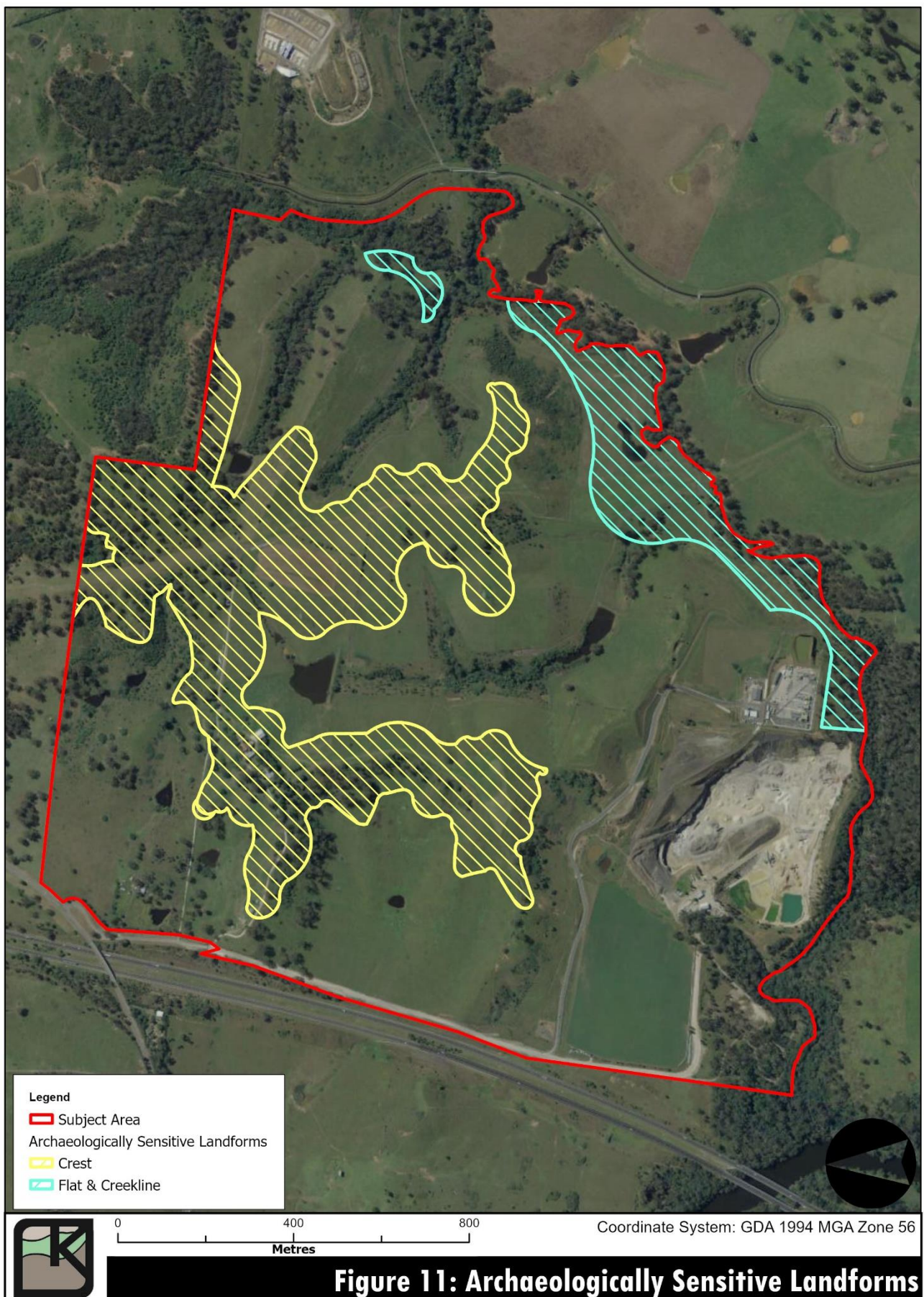
AHMS (2017) produced an Aboriginal Heritage Prediction Model mapping as part of their project Aboriginal and Historic Heritage Gap Analysis of GIMA. This prediction model was a high-level landform based desktop model, and made the following landform sensitivity assessments:

- Crests and slopes – very low to low;
- Flats associated with Menangle Creek – moderate; and
- Menangle Creek – high.

However, previous investigations throughout the Cumberland sub-bioregion have shown that crests are a landform with moderate archaeological sensitivity particularly when they are also located in close proximity to water sources. The crests would have provided a dry place to camp during periods of intense rain, as well as providing good views across the region, the local Aboriginal people would have been travelled along the tops the crests as they moved across the landscape. AHIMS #52-2-4331 (MGA14) is located on the interface of the crest and the simple east facing slope.

Previous archaeological investigations of the Subject Area and the adjoining properties have identified Aboriginal sites on the flats associated with Menangle Creek, and the creek line itself as being a landform with high archaeological sensitivity (see Figure 4 to Figure 8).

As a result of Kayandel's background research for this assessment, the crests, and the flats and the Menangle Creek have been assessed as being archaeologically sensitive landforms (refer to Figure 11). The steep slopes across the Subject Area are assessed to have low archaeological sensitivity.



7 DUE DILIGENCE ASSESSMENT

Kayandel was asked to conduct an Aboriginal archaeological assessment of the Subject Area in accordance with Heritage NSW's *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (DECCW, 2010c). This Due Diligence Code sets out the matters which are to be addressed when assessing whether or not an activity may harm Aboriginal Objects.

The *Due Diligence Code*, with reference to the DECCW process (refer to Appendix II), outlines in regard to the proposed project within the Subject Area, the following:

1. It is not an activity under Part 3 under s.75B of the *EP&A Act*;
2. The proposed activity is not exempt under the *National Parks and Wildlife Act, 1974* or *National Parks and Wildlife Regulation, 2009*;
3. The proposed activity will not involve harm that is trivial or negligible;
4. The activity is not within an Aboriginal place and no previous investigations meeting the requirements of this code have identified Aboriginal objects;
5. The proposed activity is not a low impact one for which there is a defense in the *National Parks and Wildlife Regulation, 2009*; and,
6. The proponent is not eligible to use an industry specific code of practice.

Consequently, the Generic Due Diligence Code is to be followed. The decision process determining whether further investigation and an impact assessment is required is as follows (refer to Appendix II):

1. The activity will disturb the ground surface, but will not disturb any culturally modified trees;
2.
 - a. the Subject Area does have previously confirmed site records or other associated landscape feature information on AHIMS;
 - b. there are identified sites adjacent to the Subject Area;
 - c. there are landscape features that are likely to indicate the presence of Aboriginal objects;
3. The carrying out of the proposed activity cannot be avoided at the relevant landscape features identified over the Subject Area; and,
4. The desktop assessment and visual inspections completed that the likelihood of Aboriginal objects being present is moderate-to-high.

As such, it is determined that further investigation and impact assessment of the identified areas of archaeological sensitivity (refer to Section 6 and Figure 11) should be undertaken

8 PRINCIPAL FINDINGS

In consideration of the points below, the flowchart in Appendix II requires that the next step be "further investigation and impact assessment":

- The proposed works within the Subject Area (see Section 1.2);
- The past and present predictive models developed for the Subject Area (see Sections 4.5 and 4.6);
- The Aboriginal sites that have been recorded within the Subject Area (refer to Section 4.2.1, and Figure 5 to Figure 8); and,
- The identification of archaeologically sensitive landforms within the Subject Area.

This further investigation should involve the:

- Consultation with Aboriginal stakeholders as per *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW, 2010a); and,
- Preparation of an Aboriginal Cultural Heritage Assessment Report (ACHAR) as per the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (Code of Practice)* (DECCW, 2010b).

As part of this investigation, an Aboriginal archaeological test excavation of the archaeologically sensitive landforms proposed for impact would typically be undertaken (refer to Figure 11). However, ethnohistory and predictive models for previous archaeological investigations of the Subject Area and the wider Menangle Park have indicated there may be potential for contact between local Aboriginal people and Europeans to be present (AHMS, 2017, p. 5 & 7; Mary Dallas Consulting Archaeologists, 2014; New South Wales Archaeology, 2003). A detailed review of ethnohistory and early European records is outside of the scope of this assessment.

In order to determine whether Point 5 of Requirement 14 (Test excavation which is not excluded from the definition of harm) of the *Code of Practice* (DECCW, 2010b) have been met, additional background research into early contact between Aboriginal people and Europeans is necessary.

Acts carried out in the course of sub-surface investigation will not be excluded from harm where they are carried out in the following areas:

5. *in areas known or suspected to be conflict or contact sites.*

In these circumstances it will be necessary to apply for an AHIP.

Where it is necessary to apply for an AHIP to undertake the test excavation, an AHIP application (accompanied by an ACHAR) will need to be lodged with Heritage NSW before the archaeological test excavation can be undertaken.

The results of the Aboriginal archaeological test excavation will be used to inform the decision making process as to whether an AHIP will be necessary to undertake the development works within the archaeologically sensitive landforms, and if so, the extent of the future AHIP.

9 RECOMMENDATIONS

Specific clauses within the *National Parks and Wildlife Act, 1974* (as amended) and the *National Parks and Wildlife Regulations 2009* give rise to certain obligations. Where an activity or task must be undertaken to comply with relevant legislation it will be detailed in Section 9.1. Where a task or activity is recommended to be undertaken it is presented in Section 9.2.

9.1 Obligations

1. If an area proposed for an Aboriginal archaeological excavation meets any of the Points in Requirement 14 (Test excavation which is not excluded from the definition of harm) of the *Code of Practice* (DECCW, 2010b), it will be necessary to seek an Aboriginal Heritage Impact Permit (AHIP) in order to conduct the test excavation;
2. An AHIP under Part 6 of the *National Parks and Wildlife Act, 1974* is required for any impacts to Aboriginal objects; and,
3. Site Cards are to be prepared for all Aboriginal sites identified during the undertaking of the Aboriginal archaeological excavation that are not currently recorded on AHIMS.

9.2 Recommendations

The following recommendations regarding Aboriginal heritage are based on consideration of:

- The legal requirements of the *National Parks and Wildlife Act 1974* (as amended), whereby it is illegal to damage, deface or destroy an Aboriginal relic without first obtaining the written consent of the Director General of National Parks & Wildlife Service;
- The legal requirements of the *Heritage Act 1977*, whereby it is illegal to disturb or excavate any land knowing or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed unless the disturbance or excavation is carried out in accordance with an excavation permit;
- The results of the background research, archaeological survey and assessment;
- The identified areas of archaeological sensitivity (refer to Figure 11); and,
- The likely impacts of the proposed works.

It is therefore recommended that:

1. No further assessment of the Aboriginal heritage within the Subject Area is required to inform the rezoning proposal and concept design;
2. Detailed inspection of Menangle Creek to document any rock shelters with potential evidence of Aboriginal occupation must occur prior to any impacts (direct or indirect) occurring to or within the creek line;
3. Prior to the DA Stage, additional background research should be undertaken to clarify whether contact between Aboriginal people and Europeans has occurred within the Subject Area or its immediate surrounds. This background research will clarify whether Point 5 of Requirement 14 "in areas known or suspected to be conflict or contact sites" has been met";
4. Prior to the DA Stage, further investigations and impact assessment of the archaeologically sensitive landforms (see Figure 11) is necessary, where they are proposed for impact. The further investigation works will include:
 - a. Undertaking consultation with the Aboriginal community in accordance with Heritage NSW's *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW, 2010a);

- b. The preparation of an ACHAR in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW, 2010b), and *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage* (OEH, 2011). This ACHAR will provide recommendations as to whether an AHIP will need to be approved by Heritage NSW prior to the development works commencing;
5. Depending on the results of the further background research (refer to Point 3 of the Recommendations), it may be possible to undertake the Aboriginal archaeological test excavation of the archaeologically sensitive landforms, as part of the further archaeological investigation, in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW, 2010b);
 - o Where the additional background research (Point 3 of the Recommendations) has confirmed that Point 5 of Requirement 14 "in areas known or suspected to be conflict or contact sites" has been met, it will be necessary to lodge an AHIP application with Heritage NSW in order to undertake the test excavation as part of the further archaeological investigation;
6. No actions that will result in the disturbance (including but not limited to geotechnical investigations, soil investigations, contamination investigations, and/or remediation, etc.) of the ground surface within the identified areas of archaeological sensitivity (see Figure 11) are to occur unless the further Aboriginal archaeological investigation has first taken place and provided advice;
7. Should the design and/or extent of the proposed development be altered, further archaeological assessment may be required; and,
8. All relevant staff and contractors should be made aware of their statutory obligations for heritage under the *National Parks and Wildlife Act 1974*, which may be implemented as a heritage induction.

10 REFERENCES

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Appendix I. AHIMS Search Results

The locations and details of Aboriginal sites are considered culturally sensitive information. It is recommended that this information, including the AHIMS data, is removed from this Aboriginal Cultural Heritage Due Diligence Assessment if it is to enter the public domain.



AHIMS Web Services (AWS) Search Result

Your Ref/PO Number : Menangle Park

Client Service ID : 657734

Kayandel Archaeological Services

Date: 08 February 2022

PO Box 440 15 Henry Street

Picton New South Wales 2571

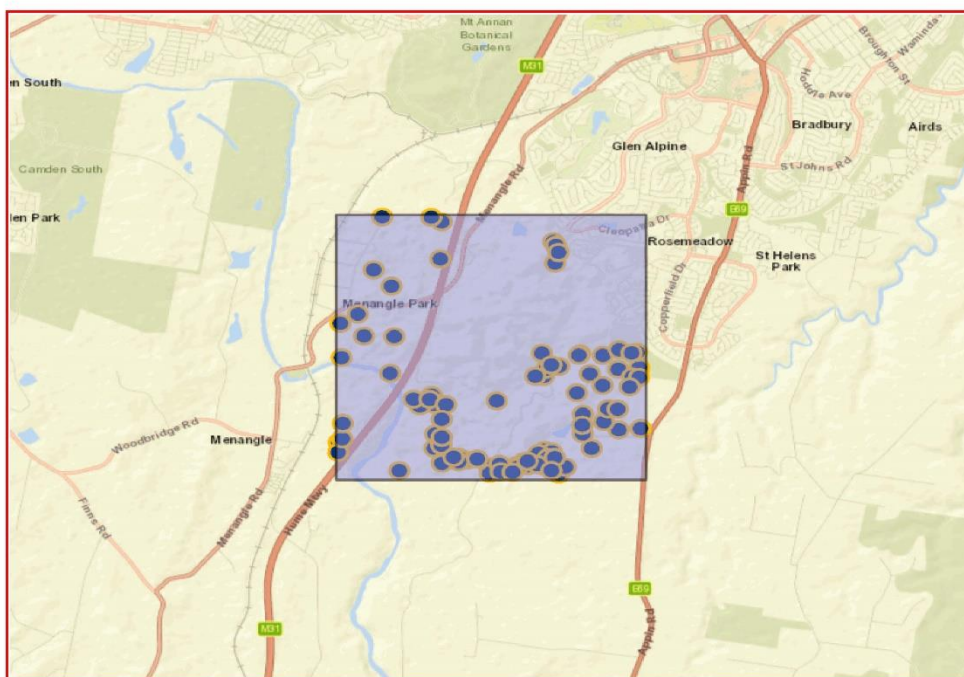
Attention: Lance Syme

Email: lance.syme@kayandel.com.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Datum :GDA, Zone : 56, Eastings : 292273.0 - 296273.0, Northings : 6220923.0 - 6224923.0 with a Buffer of 0 meters, conducted by Lance Syme on 08 February 2022.

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



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

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

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the [NSW Government Gazette](https://www.legislation.nsw.gov.au/gazette) (<https://www.legislation.nsw.gov.au/gazette>) website. Gazettal notices published prior to 2001 can be obtained from Heritage NSW upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not to be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Heritage NSW and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.



AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : Menangle Park

Client Service ID : 657735

SiteID	SiteName	Datum	Zone	Eastings	Northings	Context	Site Status **	SiteFeatures	SiteTypes	Reports
52-2-4512	2016 Mt Gilead Site 6 AFT	GDA	56	294284	6221081	Open site	Valid	Artefact : 1		
	Contact							Permits		
52-2-4294	MG PAD18	GDA	56	294599	6221015	Closed site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact							Permits		
52-2-4283	MG PAD14	GDA	56	294675	6221123	Closed site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact							Permits		
52-2-4284	MG PAD12	GDA	56	294738	6221170	Closed site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact							Permits		
52-2-4517	2019 Mt Gilead Site 17 PAD	GDA	56	295450	6222850	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : 1		
	Contact							Permits		
52-2-4015	MGPAD42	GDA	56	295749	6222832	Open site	Valid	Potential Archaeological Deposit (PAD) : 1		103876
	Contact							Permits	4258,4523	
52-2-3627	NR_OCS3	GDA	56	295956	6222622	Open site	Valid	Artefact : 125		101567,102313
	Contact							Permits		
52-2-0022	Sugarloaf Tunnel	AGD	56	294731	6220991	Closed site	Valid	Art (Pigment or Engraved) : -	Shelter with Art	1976
	Contact							Permits		
52-2-4514	2016 Mt Gilead Site 8 AFT	GDA	56	293558	6221354	Open site	Valid	Artefact : 1		
	Contact							Permits		
52-2-4492	Spring Farm Parkway AFT 2	GDA	56	293579	6224842	Open site	Valid	Artefact : -		
	Contact							Permits		
52-2-4270	MG PAD21	GDA	56	294007	6221183	Closed site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact							Permits		
52-2-4268	MG PAD10	GDA	56	295012	6221354	Closed site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact							Permits		
52-2-4304	MGA9	GDA	56	295111	6221113	Open site	Valid	Artefact : 1		

Report generated by AHIMS Web Service on 08/02/2022 for Lance Syme for the following area at Datum :GDA, Zone : 56, Eastings : 292273.0 - 296273.0, Northings : 6220923.0 - 6224923.0 with a Buffer of 0 meters.. Number of Aboriginal sites and Aboriginal objects found is 101

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Page 1 of 8



AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : Menangle Park

Client Service ID : 657735

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>		
52-2-4303	MGA8	GDA	56	295107	6221330	Open site	Valid	Artefact : 1		
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>		
52-2-4281	MG PAD15	GDA	56	294651	6221114	Closed site	Valid	Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>		
52-2-4307	MGA15	GDA	56	295175	6222649	Open site	Valid	Artefact : 1		
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>		
52-2-4664	MTG SO Area E	GDA	56	296184	6222469	Open site	Valid	Aboriginal Ceremony and Dreaming : -, Artefact : -		
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>		
52-2-3628	NR_OCS4	GDA	56	296233	6222653	Open site	Valid	Artefact : 55		102313
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>		
52-2-4312	MGA21	GDA	56	293105	6220997	Open site	Valid	Artefact : 1		
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>		
52-2-4326	MG PAD32	GDA	56	293495	6222115	Closed site	Valid	Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>		
52-2-4310	MGA18	GDA	56	295104	6221091	Open site	Valid	Artefact : 1		
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>		
52-2-4298	MGA3	GDA	56	294795	6221111	Open site	Valid	Artefact : 1		
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>		
52-2-4561	SSM-AS-001	GDA	56	292296	6221412	Open site	Valid	Artefact : 1		
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>	4856	
52-2-4019	MGPAD46	GDA	56	295511	6221620	Open site	Valid	Potential Archaeological Deposit (PAD) : 1		103876
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>	4258,4523	
52-2-4012	MGA27	GDA	56	295982	6221690	Open site	Valid	Artefact : 1		103876
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>	4258,4523	
52-2-4017	MGPAD44	GDA	56	296195	6222496	Open site	Valid	Potential Archaeological Deposit (PAD) : 1		103876
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>	4258,4523	
52-2-4011	MGA26	GDA	56	296143	6222509	Open site	Valid	Artefact : 1		103876
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>	4258,4523	

Report generated by AHIMS Web Service on 08/02/2022 for Lance Syme for the following area at Datum :GDA, Zone : 56, Eastings : 292273.0 - 296273.0, Northings : 6220923.0 - 6224923.0
with a Buffer of 0 meters.. Number of Aboriginal sites and Aboriginal objects found is 101

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AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : Menangle Park

Client Service ID : 657735

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
52-2-4286	MG PAD31	GDA	56	293509	6222167	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u>							<u>Recorders</u>	Navin Officer Heritage Consultants Pty Ltd,Mrs.Nicola Hayes	<u>Permits</u>
52-2-4313	MGA22	GDA	56	293536	6222031	Open site	Valid	Artefact : 1		
	<u>Contact</u>							<u>Recorders</u>	Navin Officer Heritage Consultants Pty Ltd	<u>Permits</u>
52-2-4320	MG PAD36	GDA	56	293565	6221574	Closed site	Valid	Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u>							<u>Recorders</u>	Navin Officer Heritage Consultants Pty Ltd,Mrs.Nicola Hayes	<u>Permits</u>
52-2-4295	MG PAD29	GDA	56	293664	6221145	Closed site	Valid	Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u>							<u>Recorders</u>	Navin Officer Heritage Consultants Pty Ltd,Mrs.Nicola Hayes	<u>Permits</u>
52-2-4311	MGA19	GDA	56	293883	6221221	Open site	Valid	Artefact : 1		
	<u>Contact</u>							<u>Recorders</u>	Navin Officer Heritage Consultants Pty Ltd	<u>Permits</u>
52-2-4285	MG PAD11	GDA	56	294931	6221305	Closed site	Valid	Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u>							<u>Recorders</u>	Navin Officer Heritage Consultants Pty Ltd,Mrs.Nicola Hayes	<u>Permits</u>
52-2-4330	MGA14 EXP.3	GDA	56	294974	6222489	Open site	Valid	Art (Pigment or Engraved) : 1, Artefact : 1, Stone Arrangement : 1		
	<u>Contact</u>							<u>Recorders</u>	Navin Officer Heritage Consultants Pty Ltd	<u>Permits</u>
52-2-4329	MGA14 EXP.2	GDA	56	295006	6222602	Open site	Valid	Art (Pigment or Engraved) : 1, Artefact : 1, Stone Arrangement : 1		
	<u>Contact</u>							<u>Recorders</u>	Navin Officer Heritage Consultants Pty Ltd	<u>Permits</u>
52-2-4266	MG PAD8	GDA	56	295057	6221167	Closed site	Valid	Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u>							<u>Recorders</u>	Navin Officer Heritage Consultants Pty Ltd,Mrs.Nicola Hayes	<u>Permits</u>
52-2-4272	MG PAD6	GDA	56	295148	6221040	Closed site	Valid	Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u>							<u>Recorders</u>	Navin Officer Heritage Consultants Pty Ltd,Mrs.Nicola Hayes	<u>Permits</u>
52-2-3046	Sugarloaf Farm 1	AGD	56	294984	6224049	Open site	Valid	Artefact : -		
	<u>Contact</u>							<u>Recorders</u>	Doctor,Julie Dibden	<u>Permits</u> 2173

Report generated by AHIMS Web Service on 08/02/2022 for Lance Syme for the following area at Datum :GDA, Zone : 56, Eastings : 292273.0 - 296273.0, Northings : 6220923.0 - 6224923.0
with a Buffer of 0 meters.. Number of Aboriginal sites and Aboriginal objects found is 101

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AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : Menangle Park

Client Service ID : 657735

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
52-2-4293	MG PAD16	GDA	56	294657	6221080	Closed site	Valid	Potential Archaeological Deposit (PAD) :-		
Contact		Recorders		Navin Officer Heritage Consultants Pty Ltd,Mrs.Nicola Hayes				Permits		
52-2-4206	SSM PAD2	GDA	56	292293	6221262	Open site	Valid	Potential Archaeological Deposit (PAD) :- , Artefact :-		
Contact		Recorders		Kayandel Archaeological Services,Ms.Tamika Goward,Ms.Natalie Stiles				Permits	4856	
52-2-3914	MPRP 7 Menangle Park Rezoning Project 7	GDA	56	292940	6223837	Open site	Valid	Artefact : 5		
Contact		Recorders		Kelleher Nightingale Consulting Pty Ltd,AECOM Australia Pty Ltd - Sydney,Ms.Norr				Permits		
52-2-4016	MGPAD43	GDA	56	295784	6221809	Open site	Valid	Potential Archaeological Deposit (PAD) : 1		103876
Contact		Recorders		Navin Officer Heritage Consultants Pty Ltd,Miss.Julie Broszniowski				Permits	4258,4523	
52-2-4013	MGIF3	GDA	56	295835	6222010	Open site	Valid	Artefact : 1		
Contact		Recorders		Navin Officer Heritage Consultants Pty Ltd,Miss.Julie Broszniowski				Permits	4258	
52-2-3624	Res4_OCS1	GDA	56	296196	6222890	Open site	Valid	Artefact : 8		
Contact		Recorders		Jim Wheeler, Miss.Felicity Barry				Permits	3059,3232	
52-2-4661	MTG SO Area J	GDA	56	295962	6222007	Open site	Valid	Aboriginal Ceremony and Dreaming :- , Artefact :-		
Contact		Recorders		GML Heritage Pty Ltd - Surry Hills, Miss.Talei Holm				Permits		
52-2-3912	MPRP 5 Menangle Park Rezoning Project 5	GDA	56	292506	6223397	Open site	Valid	Artefact :-		
Contact		Recorders		Kelleher Nightingale Consulting Pty Ltd,AECOM Australia Pty Ltd - Sydney,Ms.Norr				Permits		
52-2-2278	RP1.	AGD	56	294760	6222300	Open site	Valid	Artefact : 2		
Contact		Recorders		Doctor.Julie Dibden				Permits		
52-2-4528	UC IA 25	GDA	56	294298	6220982	Open site	Valid	Artefact : 1		
Contact		Recorders		Extent Heritage Pty Ltd - Pyrmont - Individual users, Miss.Coral Hardwick				Permits		
52-2-4277	MG PAD19	GDA	56	294424	6221125	Closed site	Valid	Potential Archaeological Deposit (PAD) :-		
Contact		Recorders		Navin Officer Heritage Consultants Pty Ltd,Mrs.Nicola Hayes				Permits	4303	
52-2-4203	SSM3	GDA	56	292343	6221472	Open site	Valid	Artefact :-		
Contact		Recorders		Ms.Tamika Goward				Permits	4856	
52-2-4309	MGA17	GDA	56	295209	6220988	Open site	Valid	Artefact : 1		
Contact		Recorders		Navin Officer Heritage Consultants Pty Ltd				Permits		
52-2-0023	Sugarloaf Tunnel, Mount Gilead 1	AGD	56	295190	6220909	Closed site	Valid	Artefact :- , Art (Pigment or Engraved) :-	Shelter with Art,Shelter with Deposit	1976

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with a Buffer of 0 meters.. Number of Aboriginal sites and Aboriginal objects found is 101

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AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : Menangle Park

Client Service ID : 657735

SiteID	SiteName	Datum	Zone	Eastings	Northings	Context	Site Status **	SiteFeatures	SiteTypes	Reports
	Contact	Recorders	ASRSYS					Permits		
52-2-3629	NR_OC5	GDA	56	296234	6222503	Open site	Valid	Artefact : 11		102313
	Contact	Recorders	Jim Wheeler, Miss. Felicity Barry					Permits		
52-2-4318	MG PAD34	GDA	56	293435	6222077	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Navin Officer Heritage Consultants Pty Ltd, Mrs. Nicola Hayes					Permits		
52-2-4491	Spring Farm Parkway AFT 1	GDA	56	293441	6224910	Open site	Valid	Artefact : -		
	Contact	Recorders	Kelleher Nightingale Consulting Pty Ltd, Miss. Kristen Taylor					Permits		
52-2-4319	MG PAD41	GDA	56	293665	6221123	Closed site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Navin Officer Heritage Consultants Pty Ltd, Mrs. Nicola Hayes					Permits		
52-2-4331	MGA14 - PAD	GDA	56	294944	6222849	Open site	Valid	Art (Pigment or Engraved) : 1, Artefact : 1, Stone Arrangement : 1		
	Contact	Recorders	Navin Officer Heritage Consultants Pty Ltd					Permits		
52-2-4297	MGA2	GDA	56	295032	6221105	Open site	Valid	Artefact : 1		
	Contact	Recorders	Navin Officer Heritage Consultants Pty Ltd					Permits		
52-2-4267	MG PAD9	GDA	56	295059	6221240	Closed site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Navin Officer Heritage Consultants Pty Ltd, Mrs. Nicola Hayes					Permits		
52-2-3048	Sugarloaf Farm 4	AGD	56	294954	6224379	Open site	Valid	Artefact : -		
	Contact	Recorders	Doctor, Julie Dibden					Permits	2173	
52-2-4308	MGA16	GDA	56	295149	6221244	Open site	Valid	Artefact : 1		
	Contact	Recorders	Navin Officer Heritage Consultants Pty Ltd					Permits		
52-2-3913	MPRP 6 Menangle Park Rezoning Project 6	GDA	56	292279	6223248	Open site	Valid	Artefact : 3		
	Contact	Recorders	Kelleher Nightingale Consulting Pty Ltd, AECOM Australia Pty Ltd - Sydney, Ms. Norr					Permits		
52-2-4204	SSM2	GDA	56	292345	6221709	Open site	Valid	Artefact : -		
	Contact	Recorders	Ms. Tamika Goward					Permits		
52-2-4660	MTG SO Area T	GDA	56	295432	6222827	Open site	Valid	Aboriginal Ceremony and Dreaming : -, Artefact : -		
	Contact	Recorders	GML Heritage Pty Ltd - Surry Hills, Miss. Talei Holm					Permits		
52-2-4010	MGA13	GDA	56	295584	6222544	Open site	Valid	Artefact : 1		103876
	Contact	Recorders	Navin Officer Heritage Consultants Pty Ltd, Miss. Julie Broszniowski					Permits	4258,4523	

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AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : Menangle Park

Client Service ID : 657735

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
52-2-4662	MTG SO Area R	GDA	56	295632	6221397	Open site	Valid	Aboriginal Ceremony and Dreaming : -, Artefact : -		
	Contact	Recorders	GML Heritage Pty Ltd - Surry Hills, Miss. Talei Holm							
52-2-1597	Menangle Park 1;	AGD	56	292890	6222870	Open site	Valid	Artefact : -	Open Camp Site	2038,2149
	Contact	Recorders	Doctor. Jo McDonald, Ms. Tessa Corkill							
52-2-3626	NR_OCS2	GDA	56	295959	6222924	Open site	Valid	Artefact : 5		102313
	Contact	Recorders	Jim Wheeler, Miss. Felicity Barry							
52-2-4305	MGA10	GDA	56	293354	6222000	Open site	Valid	Artefact : 1		
	Contact	Recorders	Navin Officer Heritage Consultants Pty Ltd							
52-2-1598	Menangle Park 2	GDA	56	293574	6224269	Open site	Partially Destroyed	Artefact : -	Open Camp Site	2038,2149
	Contact	Recorders	Doctor. Jo McDonald, Kelleher Nightingale Consulting Pty Ltd, Ms. Tessa Corkill, Ms. Cr							
52-2-4292	MG PAD24	GDA	56	293639	6221448	Closed site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Navin Officer Heritage Consultants Pty Ltd, Mrs. Nicola Hayes							
52-2-4291	MG PAD23	GDA	56	293650	6221404	Closed site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Navin Officer Heritage Consultants Pty Ltd, Mrs. Nicola Hayes							
52-2-4523	2016 Mt Gilead Site 5 AFT	GDA	56	293885	6221151	Open site	Valid	Artefact : 1		
	Contact	Recorders	Ms. Vanessa Hardy							
52-2-4663	MTG SO Area V	GDA	56	295419	6222248	Open site	Valid	Aboriginal Ceremony and Dreaming : -, Artefact : -		
	Contact	Recorders	GML Heritage Pty Ltd - Surry Hills, Miss. Talei Holm							
52-2-4314	MGA24	GDA	56	294919	6221133	Open site	Valid	Artefact : 1		
	Contact	Recorders	Navin Officer Heritage Consultants Pty Ltd							
52-2-4328	MGA14 EXP.1	GDA	56	295074	6222669	Open site	Valid	Artefact : 1, Stone Arrangement : 1, Art (Pigment or Engraved) : 1		
	Contact	Recorders	Navin Officer Heritage Consultants Pty Ltd							
52-2-2273	RP2.	AGD	56	294260	6221910	Open site	Valid	Artefact : 30		
	Contact	Recorders	Doctor. Julie Dibden							
52-2-4509	2016 Mt Gilead Site 2 AFT	GDA	56	294442	6221008	Open site	Valid	Artefact : 1		
	Contact	Recorders	Ms. Vanessa Hardy							
52-2-4555	MPURA South IF 1	GDA	56	292305	6222720	Open site	Valid	Artefact : -		
	Contact	Recorders	Mr. Matthew Kelleher, Kelleher Nightingale Consulting Pty Ltd (Generic users)							

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AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : Menangle Park

Client Service ID : 657735

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
52-2-4014	MGMT1	GDA	56	295505	6221920	Open site	Valid	Modified Tree (Carved or Scarred) : 1		103876
	Contact							Permits	4258	
52-2-3916	MPRP 9 Menangle Park Rezoning Project 9	GDA	56	292951	6222494	Open site	Valid	Artefact : 6		
	Contact							Permits		
52-2-4009	MGA12	GDA	56	295756	6222369	Open site	Valid	Artefact : 1		103876
	Contact							Permits	4258,4523	
52-2-4018	MGPAD45	GDA	56	296111	6222353	Open site	Valid	Potential Archaeological Deposit (PAD) : 1		103876
	Contact							Permits	4258,4523	
52-2-3625	NR OCS 1	GDA	56	296126	6222877	Open site	Valid	Artefact : 17		102313
	Contact							Permits		
52-2-4324	MG PAD35	GDA	56	293268	6222102	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact							Permits		
52-2-4317	MG PAD33	GDA	56	293481	6222103	Closed site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact							Permits		
52-2-4288	MG PAD30	GDA	56	293698	6222028	Closed site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact							Permits		
52-2-4265	MG PAD7	GDA	56	295109	6221043	Closed site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact							Permits		
52-2-4279	MG PAD20	GDA	56	294129	6221199	Closed site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact							Permits		
52-2-4280	MG PAD17	GDA	56	294599	6221007	Closed site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact							Permits		
52-2-4282	MG PAD13	GDA	56	294791	6221182	Closed site	Valid	Potential Archaeological Deposit (PAD) : -		

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AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : Menangle Park

Client Service ID : 657735

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
	Contact	Recorders						Permits		
52-2-3050	Sugarloaf Farm 3	AGD	56	294990	6224323	Open site	Valid	Artefact : -		
	Contact	Recorders						Permits	2173	
52-2-3047	Sugarloaf Farm 2	AGD	56	295026	6224214	Open site	Valid	Artefact : -		
	Contact	Recorders						Permits	2173	
52-2-1607	Menangle Park 3;	AGD	56	292490	6222870	Open site	Valid	Artefact : -	Open Camp Site	2149
	Contact	Recorders						Permits		
52-2-4518	2019 Mt Gilead Site 18 PAD	GDA	56	295500	6221750	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : 1		
	Contact	Recorders						Permits		
52-2-4521	Fitzpatrick Site 1	GDA	56	292794	6224900	Open site	Valid	Artefact : -		
	Contact	Recorders						Permits		
52-2-3768	Mount Gilead Property PAD	GDA	56	296270	6221717	Open site	Valid	Potential Archaeological Deposit (PAD) : 1		101830,10387 6
	Contact	Recorders						Permits	4258,4523	
52-2-4495	MPURA#13	GDA	56	292700	6224083	Open site	Valid	Artefact : -		
	Contact	Recorders						Permits		
52-2-4315	MGA23	GDA	56	293647	6221800	Open site	Valid	Artefact : 1		
	Contact	Recorders						Permits		
52-2-4276	MG PAD25	GDA	56	293654	6221524	Closed site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders						Permits		
52-2-4289	MG PAD22	GDA	56	293816	6221221	Closed site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders						Permits		

** Site Status

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

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

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

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

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Appendix II. Due Diligence Decision Process (DECCW, 2010c, p. 1 & 10)

