

The logo for URBIS, featuring the word "URBIS" in a bold, white, sans-serif font. The text is positioned to the left of a white square frame that is partially open on the right side. A white vertical line extends from the top of the frame, and a white horizontal line extends from the right side of the frame, intersecting at the top-right corner of the square.

URBIS

ABORIGINAL OBJECTS DUE DILIGENCE ASSESSMENT

345 Appin Road
Appin, Tharawal Country, NSW

Prepared for
INGHAM PROPERTY GROUP
June 2023

URBIS STAFF RESPONSIBLE FOR THIS REPORT WERE:

Director	Balazs Hansel, MA Archaeology, MA History, M. ICOMOS
Senior Consultant	Meggan Walker, BA Archaeology (Hons) and ancient history.
Consultant	Ginger-Rose Harrington, BArchHist (Archaeology)
Project Code	P0043207
Report Number	D01- 13/12/2022 D02- 21/12/2022 FNL – 28/06/2023

Urbis acknowledges the important contribution that Aboriginal and Torres Strait Islander people make in creating a strong and vibrant Australian society.

We acknowledge, in each of our offices the Traditional Owners on whose land we stand.

All information supplied to Urbis in order to conduct this research has been treated in the strictest confidence. It shall only be used in this context and shall not be made available to third parties without client authorisation. Confidential information has been stored securely and data provided by respondents, as well as their identity, has been treated in the strictest confidence and all assurance given to respondents have been and shall be fulfilled.

© Urbis Pty Ltd
50 105 256 228

All Rights Reserved. No material may be reproduced without prior permission.

You must read the important disclaimer appearing within the body of this report.

urbis.com.au

CONTENTS

1.	Glossary	i
2.	Executive Summary	4
3.	Introduction	6
3.1.	Subject Area	6
3.2.	Proposed Development	10
3.3.	Authorship	10
3.4.	Limitations	11
4.	Statutory Context	12
4.1.	Heritage Controls	12
4.1.1.	The National Parks and Wildlife Act 1974	12
4.1.2.	Environment Protection and Biodiversity Conservation Act 1999	13
4.1.3.	Wollondilly Local Environmental Plan 2011	13
4.1.4.	Campbelltown Local Environmental Plan 2015	14
4.2.	Non-Statutory Implements	15
4.2.1.	Wollondilly Development Control Plan 2016	15
4.2.2.	Greater Macarthur 2040 Structure Plan and Accompanying Guide, 2022	16
4.2.3.	Greater Macarthur 2040: An Interim Plan for the Greater Macarthur Growth Area 2018	18
4.3.	Heritage Lists & Registers	19
4.3.1.	NSW State Heritage Inventory	19
4.3.2.	Australian Heritage Database	19
4.4.	Summary: Statutory Context	20
4.5.	Ethnographic Context	22
4.6.	Environmental Context	23
4.6.1.	Topography	23
4.6.2.	Hydrology	23
4.6.3.	Soil Landscape and Geology	24
4.6.4.	Vegetation	27
4.6.5.	Historical Ground Disturbance	27
4.7.	Summary	28
5.	Archaeological Context	29
5.1.	Previous Archaeological Investigations	29
5.1.1.	Archaeological Investigations of the subject area	29
	AHMS, 2017. Greater Macarthur Investigation Area (GMIA): Archaeological Research Design and Management Strategy	29
5.1.2.	Archaeological Investigation of the Local area	31
	Niche Environment and Heritage Pty Ltd, 2022, Appin (Part) Precinct Plan: Aboriginal Objects Due Diligence Assessment.	31
	GML Heritage, 2022. Mt Gilead Stage 2: First Nations Cultural Heritage Summary Report.	32
5.2.	Registered Aboriginal Sites	32
5.2.1.	The AHIMS Database	32
5.2.1.1.	AHIMS Search	33
5.3.	Site Visit	36
5.4.	Summary	37
6.	Due Diligence Assessment	39
6.1.	Overview of Due Diligence Process	39
6.2.	Assessment of Subject Area	39
6.2.1.	Is the activity a low impact activity for which there is a defence in the regulations?	39
6.2.2.	Step 1 – Will the activity disturb the ground surface?	40

6.2.3.	Step 2a – Are there any relevant confirmed site records or other associated landscape feature information on AHIMS?	40
6.2.4.	Step 2b – Are there any other sources of information of which a person is aware?	40
6.2.5.	Step 2c – Are there any landscape features that are likely to indicate the presence of Aboriginal objects?	40
6.2.6.	Step 3 – Can Harm to Aboriginal Objects Listed on AHIMS or Identified by other sources of information and/or can the carrying out of the activity at the relevant landscape features be avoided?	41
6.2.7.	Step 4 – Does the Desktop Assessment and Visual Inspection Confirm that there are Aboriginal Objects or that they are Likely?	41
6.3.	Outcome of Due Diligence Assessment	41
7.	Conclusions and Recommendations	42
8.	References	44
9.	Disclaimer	46

Appendix A AHIMS Results

FIGURES

Figure 1 – Regional location	7
Figure 2 – Location of the subject area	8
Figure 3 – Flowchart illustrating the generic Due Diligence Assessment process	9
Figure 4 – Draft Structure Plan	10
Figure 5 – Guide to the Greater Macarthur Growth Area, cultural sensitivity map, approximate location of the subject site in red	17
Figure 6 – Heritage items near subject area	21
Figure 7 – Topography	25
Figure 8 – Soil Landscapes and Hydrology	26
Figure 9 – Undated parish map of the County of Cumberland, Parish of Appin, showing the subject area to be comprised of two land grants owned by A. Riley (to the north) and J. Oxley (to the south). Approximate location of the subject area indicated in red	28
Figure 10 – GMIA Aboriginal Heritage Predictive Model, approximate location of the subject site indicated in pink	30
Figure 11 – Site types	33
Figure 12 – Map of AHIMS sites in extensive search area	35
Figure 13 – View north, typical view of the subject area with rolling hills covered in pasture	36
Figure 14 – View north-west, typical view of disturbance within subject area	36
Figure 15 – View west, area of terracing/earthworks	36
Figure 16 – View east, steep sandstone embankments of drainage lines	36
Figure 17 – Sandstone outcrops near drainage lines	37
Figure 18 – Stands of natural mature vegetation near creek lines, view west	37

TABLES

Table 1 - Heritage items located within proximity of the subject area – <i>Australian Heritage Database</i>	19
Table 2 Potential archaeological resources within Blacktown residual, Luddenham erosional and Hawkesbury colluvial soil landscapes	31
Table 3 – Site types identified in AHIMS search	34

1. GLOSSARY

Term	Definition
Aboriginal ceremony and dreaming site	Aboriginal site feature recordable on AHIMS. Previously referred to as mythological sites these are spiritual/story places where no physical evidence of previous use of the place may occur, e.g. natural unmodified landscape features, ceremonial or spiritual areas, men's/women's sites, dreaming (creation) tracks, marriage places etc. This is not an 'Aboriginal object' under the NPW Act.
Aboriginal cultural heritage	The tangible (objects) and intangible (dreaming stories, legends and places) cultural practices and traditions associated with past and present-day Aboriginal communities.
Aboriginal object	As defined in the NPW Act, any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises NSW, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains.
Aboriginal place	As defined in the NPW Act, any place declared to be an Aboriginal place (under s.84 of the NPW Act) by the Minister administering the NPW Act, by order published in the NSW Government Gazette, because the Minister is of the opinion that the place is or was of special significance with respect to Aboriginal culture. It may or may not contain Aboriginal objects.
Aboriginal resource and gathering sites	Aboriginal site feature recordable on AHIMS. Related to everyday activities such as food gathering, hunting, or collection and manufacture of materials and goods for use or trade. This is not an 'Aboriginal object' under the NPW Act.
AHIMS	Aboriginal Heritage Information Management System: a register of previously reported Aboriginal objects and places managed by the DPC
AHIP	Aboriginal Heritage Impact Permit. A permit issued under Section 90, Division 2 of Part 6 of the <i>NPW Act</i> .
Archaeology	The scientific study of human history, particularly the relics and cultural remains of the distant past.
Art	Aboriginal site feature recordable on AHIMS. Art is found in shelters, overhangs and across rock formations. Techniques include painting, drawing, scratching, carving engraving, pitting, conjoining, abrading and the use of a range of binding agents and the use of natural pigments obtained from clays, charcoal and plants.
Artefact	Aboriginal site feature recordable on AHIMS. Objects such as stone tools, and associated flaked material, spears, manuports, grindstones, discarded stone flakes, modified glass or shell demonstrating evidence of use of the area by Aboriginal people.
Burial	Aboriginal site feature recordable on AHIMS. A traditional or contemporary (post-contact) burial of an Aboriginal person, which may occur outside designated cemeteries and may not be marked, e.g. in caves, marked by stone cairns, in sand areas, along creek banks etc.

Term	Definition
Ceremonial Ring	Aboriginal site feature recordable on AHIMS. A Raised earth ring associated with ceremony
Code of Practice	<i>Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales</i> (DECCW, 2010).
Conflict Site	Aboriginal site feature recordable on AHIMS. Previously referred to as massacre sites where confrontations occurred between Aboriginal and non-Aboriginal people, or between different Aboriginal groups. This is not an 'Aboriginal object' under the NPW Act.
DCP	Development Control Plan
DECCW	Department of Environment, Climate Change and Water NSW.
DPC	Department of Premier and Cabinet
Earth mound	Aboriginal site feature recordable on AHIMS. A mounded deposit of round to oval shape containing baked clay lumps, ash, charcoal and, usually, black or dark grey sediment. The deposit may be compacted or loose and ashy. Mounds may contain various economic remains such as mussel shell and bone as well as stone artefacts. Occasionally they contain burials.
EP&A Act	<i>NSW Environmental Planning and Assessment Act 1979.</i>
Fish trap	Aboriginal site feature recordable on AHIMS. A modified area on watercourses where fish were trapped for short-term storage and gathering
Grinding grooves	Aboriginal site feature recordable on AHIMS. A groove in a rock surface resulting from manufacture of stone tools such as ground edge hatchets and spears, or rounded depressions resulting from grinding of seeds and grains.
Harm	As defined in the NPW Act, to destroy, deface, damage or move an Aboriginal object or destroy, deface or damage a declared Aboriginal place. Harm may be direct or indirect (e.g. through increased visitation or erosion). Harm does not include something that is trivial or negligible.
Habitation structure	Aboriginal site feature recordable on AHIMS. Structures constructed by Aboriginal people for short- or long-term shelter. Temporary structures are commonly preserved away from the coastline and may include historic camps of contemporary significance. Smaller structures may make use of natural materials such as branches, logs and bark sheets or manufactured materials such as corrugated iron to form shelters. Archaeological remains of a former structure such as chimney/fireplace, raised earth building platform, excavated pits, rubble mounds etc.
Hearth	Aboriginal site feature recordable on AHIMS. Cultural deposit sometimes marked by hearth stones, usually also contains charcoal and may also contain heat treated stone fragments.
Isolated find	A single artefact found in an isolated context.
LALC	Local Aboriginal Land Council: corporate body constituted under the <i>Aboriginal Land Rights Act 1983</i> , having a defined boundary within which it operates.

Term	Definition
LEP	Local Environment Plan.
Modified Trees	Aboriginal site feature recordable on AHIMS. Trees which show the marks of modification as a result of cutting of bark from the trunk for use in the production of shields, canoes, boomerangs, burials shrouds, for medicinal purposes, foot holds etc, or alternately intentional carving of the heartwood of the tree to form a permanent marker to indicate ceremonial use/significance of a nearby area, again these carvings may also act as territorial or burial markers.
Non-human bone and organic material	Aboriginal site feature recordable on AHIMS. Objects which can be found within cultural deposits as components of an Aboriginal site such as fish or mammal bones, ochres, cached objects which may otherwise have broken down such as resin, twine, dilly bags, nets etc.
NPW Act	<i>National Parks and Wildlife Act 1974</i>
NPW Regulation	<i>National Parks and Wildlife Regulation 2019</i>
Ochre quarry	Aboriginal site feature recordable on AHIMS. A source of ochre used for ceremonial occasions, burials, trade and artwork.
PAD	Aboriginal site feature recordable on AHIMS. A 'potential archaeological deposit'. An area where Aboriginal objects may occur below the ground surface. This is not an 'Aboriginal object' under the NPW Act.
Shell	Aboriginal site feature recordable on AHIMS. An accumulation or deposit of shellfish from beach, estuarine, lacustrine or riverine species resulting from Aboriginal gathering and consumption. Usually found in deposits previously referred to as 'shell middens'.
Stone arrangement	Aboriginal site feature recordable on AHIMS. Human produced arrangements of stone usually associated with ceremonial activities, or used as markers for territorial limits or to mark/protect burials
Stone quarry	Aboriginal site feature recordable on AHIMS. A source of stone which was quarried and used for the production of stone tools by Aboriginal people.
Waterhole	Aboriginal site feature recordable on AHIMS. A source of fresh water for Aboriginal groups which may have traditional ceremonial or dreaming significance and/or may also be used to the present day as a rich resource gathering area (e.g. waterbirds, eels, clays, reeds etc). This is not an 'Aboriginal object' under the NPW Act.

2. EXECUTIVE SUMMARY

Urbis has been engaged by Ingham Property Group ('the Proponent') to conduct an Aboriginal Objects Due Diligence Assessment (ADD) to support a Planning Proposal for the North Appin (part) Precinct, at 345 Appin Road, Appin, NSW on Tharawal Land ('the subject area'). Legally, the subject area is defined as Lot 105 Deposited Plan (DP) 1188670. The ADD was undertaken in accordance with the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (DECCW, 2010) ('Due Diligence Code'), and included the following:

- Search of the Aboriginal Heritage Information Management System (AHIMS) register.
- Searches of statutory and non-statutory heritage listings.
- Analysis of previously conducted archaeological assessments in the vicinity of the subject area.
- Landscape analysis.
- Analysis of historical land use and its impact on the subject area.
- Visual inspection.

The assessment concluded that:

The present ADD was undertaken to investigate whether development of the subject area has the potential to harm Aboriginal objects and/or places. The following conclusions have been drawn from the ADD:

- No Aboriginal objects and/or Places were identified within the subject area, although four (4) sites were registered on the boundary of the subject area, to the north, south and west. It is likely that the absence of registered sites within the subject area is the result of lack of detailed archaeological investigation, as opposed to the absence of evidence.
- Of the 30 Aboriginal sites identified in the broader search area, the majority were located along creek lines. This is likely related to Hawkesbury sandstone outcropping in these areas, which is a typical environment for shelters and grinding grooves.
- Of the 30 Aboriginal sites identified in the broader search area, 10 site types were identified. These include artefact scatter, grinding grooves, shelter with art, shelter with artefact, shelter with art and artefact, shelter with potential archaeological deposits (PADs), shelter with art and PAD, isolated find and modified tree.
- No previous archaeological studies directly addressing the subject area have been identified, outside of the overarching Greater Macarthur Investigation Area (GMIA) study which identified low-moderate potential in the subject area.
- The subject area contains environmental factors indicative of archaeological potential include proximity to waterways, topography and geology, with sandstone outcrops common across the subject area:
 - The subject area includes floodplains associated with the Nepean Rivers and its tributaries, with a series of slopes and peaks, interspersed with deep drainage lines with steep embankments. There is significant sandstone outcropping towards the west and south-west of the site. This varied landscape would have likely provided past Aboriginal people with a diverse range of land use opportunities, rendering it generally sensitive for Aboriginal objects and places.
 - The subject area is situated between the Georges and Nepean Rivers – two significant waterways in the region. The subject area also includes a converging point between Mallaty Creek and Ousdale Creek to the western boundary, with tributaries of these creeks disbursed throughout the site. Lily Ponds Gully is also located within the subject area's south-west. This proximity to numerous waterways likely increases the sensitivity of the subject area for Aboriginal objects and places.
 - Three soil landscapes dominate the subject area: the Blacktown, Hawkesbury and Luddenham soil landscapes. Previous studies within proximity of the subject area have identified archaeological potential associated with each. This may be summarised as follows:
 - Blacktown Soil Landscape: isolated artefacts, open camp sites, axe grinding grooves, rock engravings and shelters with art, artefacts and/or deposits.

- Luddenham Soil Landscape: isolated stone artefacts.
- Hawkesbury Soil Landscape: sandstone shelters with art, artefacts and/or deposits.
- The subject area has experienced minimal disturbance associated with ongoing and historic agricultural use.

Based on the above conclusions, Urbis recommends the following:

- This ADD report should be kept as evidence of the Due Diligence Process having been applied to the subject area.
- Further assessment of the subject area is required to accompany a development application for future stages of work.

Aboriginal Cultural Heritage Assessment

- An Aboriginal Cultural Heritage Assessment (ACHA) should be prepared for the subject area, to investigate the potential tangible and intangible cultural heritage values which have potential to occur.
- The ACHA should be undertaken in accordance with the *National Parks and Wildlife Regulation 2019* (NPW Reg) and guided by the following:
 - Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (DECCW, 2010).
 - *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW, 2010).
 - *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (Office of Environment and Heritage 201).
 - The Australia ICOMOS Charter for Places of Cultural Significance, The Burra Charter, 2013.

3. INTRODUCTION

Urbis has been engaged by Inghams Property Group ('the Proponent') to conduct an Aboriginal Objects Due Diligence Assessment (ADD) to support a Planning Proposal for the North Appin Precinct, at 345 Appin Road, Appin, NSW on Tharawal Land ('the subject area'). Legally, the subject area is defined as Lot 105 Deposited Plan (DP) 1188670 (Figure 1 and Figure 2).

The Proponent seeks approval to rezone the subject area in a manner that reflects the Greater Macarthur 2040 Interim Plan (2018) and Greater Macarthur 2040 Structure Plan (2022). The proposal has a target to deliver approximately 3,000 new dwellings, a local centre and to allow for the provision of a north-south transport connection. The ADD was undertaken to investigate whether development of the subject area will harm Aboriginal objects or places that may exist within the subject area and determine whether the subject area presents any Aboriginal archaeological constraints. The current report presents the results of the ADD.

The ADD followed the generic steps of the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (DECCW, 2010) ('Due Diligence Code') shown in Figure 3 below. The ADD included the following:

- Search of the Aboriginal Heritage Information Management System (AHIMS) register.
- Searches of statutory and non-statutory heritage listings.
- Analysis of previously conducted archaeological assessments in the vicinity of the subject area.
- Landscape analysis.
- Analysis of historical land use and its impact on the subject area.
- Visual inspection.

3.1. SUBJECT AREA

The subject area is located at 345 Appin Road, Appin, NSW on Tharawal Land ('the subject area'). Legally, the subject area is defined as Lot 105 Deposited Plan (DP) 1188670. The subject area is located within the Greater Macarthur Growth Area, approximately 35km north of Wollongong and 15km south of Campbelltown. The southern portion of the site is located within the Wollondilly LGA, and the north western corner of the site is located within Campbelltown LGA. The entire site is located within the administrative catchment of the Tharawal Local Aboriginal Land Council (LALC).

The subject area is an irregular-shaped lot that measures approximately 301ha in area. Currently, the area is occupied as pastoral land with significant natural assets and corridors. The topography is variable across the holding, ranging from a large level area along the eastern edge and then sloping down towards the Nepean River as the site extends west.

The subject area is located adjacent to the existing Appin township and forms a natural extension of the town to the north. The subject area is bounded by:

- Appin Road to the east: main road connector that follows the ridge line used over millennia by Aboriginal people as a main path of travel.
- Maltby Creek to the north west and rural lands to the north: tributary of the Nepean River and the site of Cumberland plain woodlands that support native fauna including koala habitat areas.
- Ousedale Creek to the south: tributary of the Nepean River and the site of Cumberland plain woodlands that support native fauna including koala habitat areas
- Heritage Canal to the west: heritage listed water supply infrastructure that is one of the earliest examples of major infrastructure built in the formative years of the Australian colony.

The periphery of the subject area is heavily vegetated with the exception of rural lands to the north, with the west of the site particularly dense. The subject area is bordered by numerous streams and creeks that converge with the Nepean River.

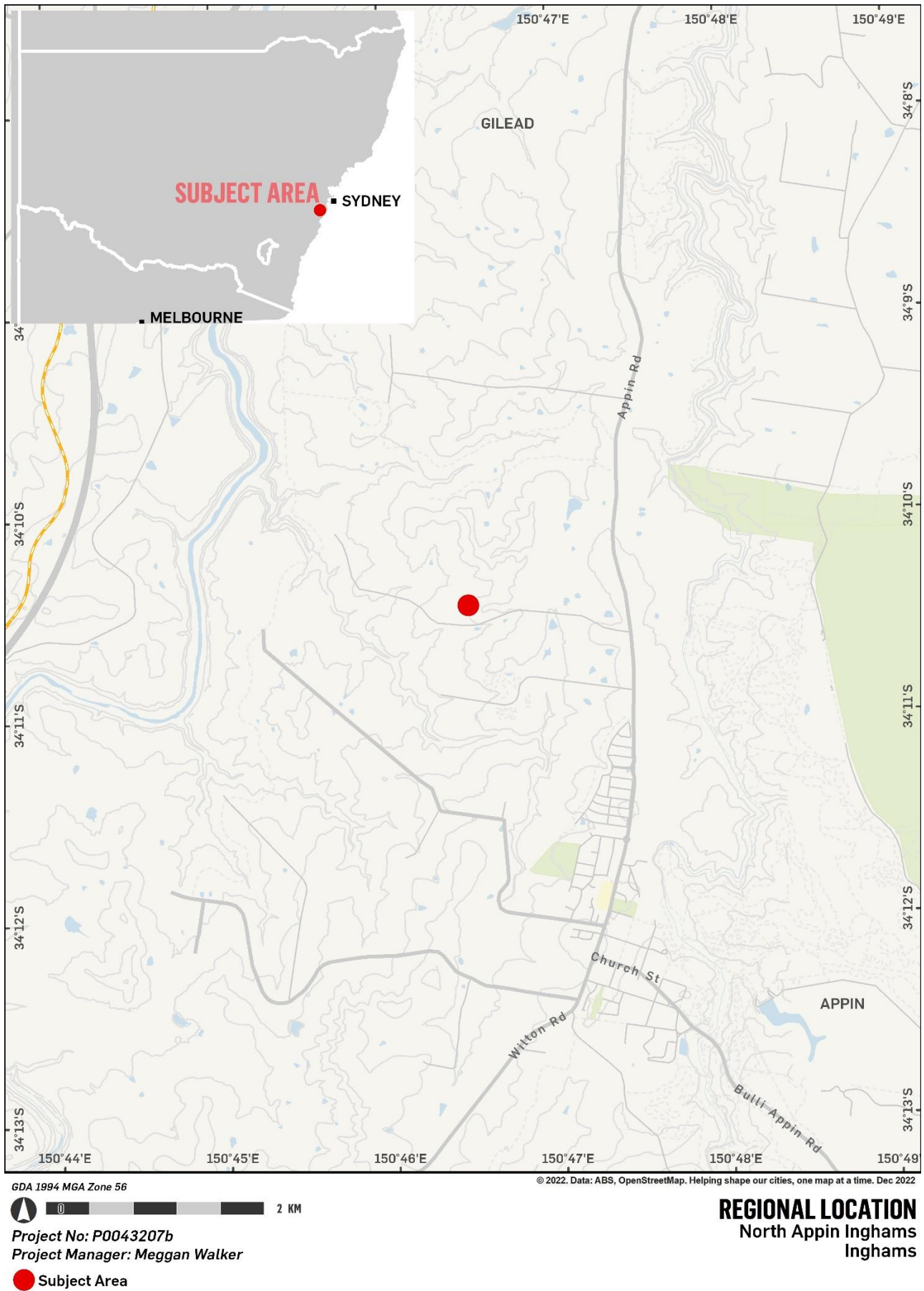
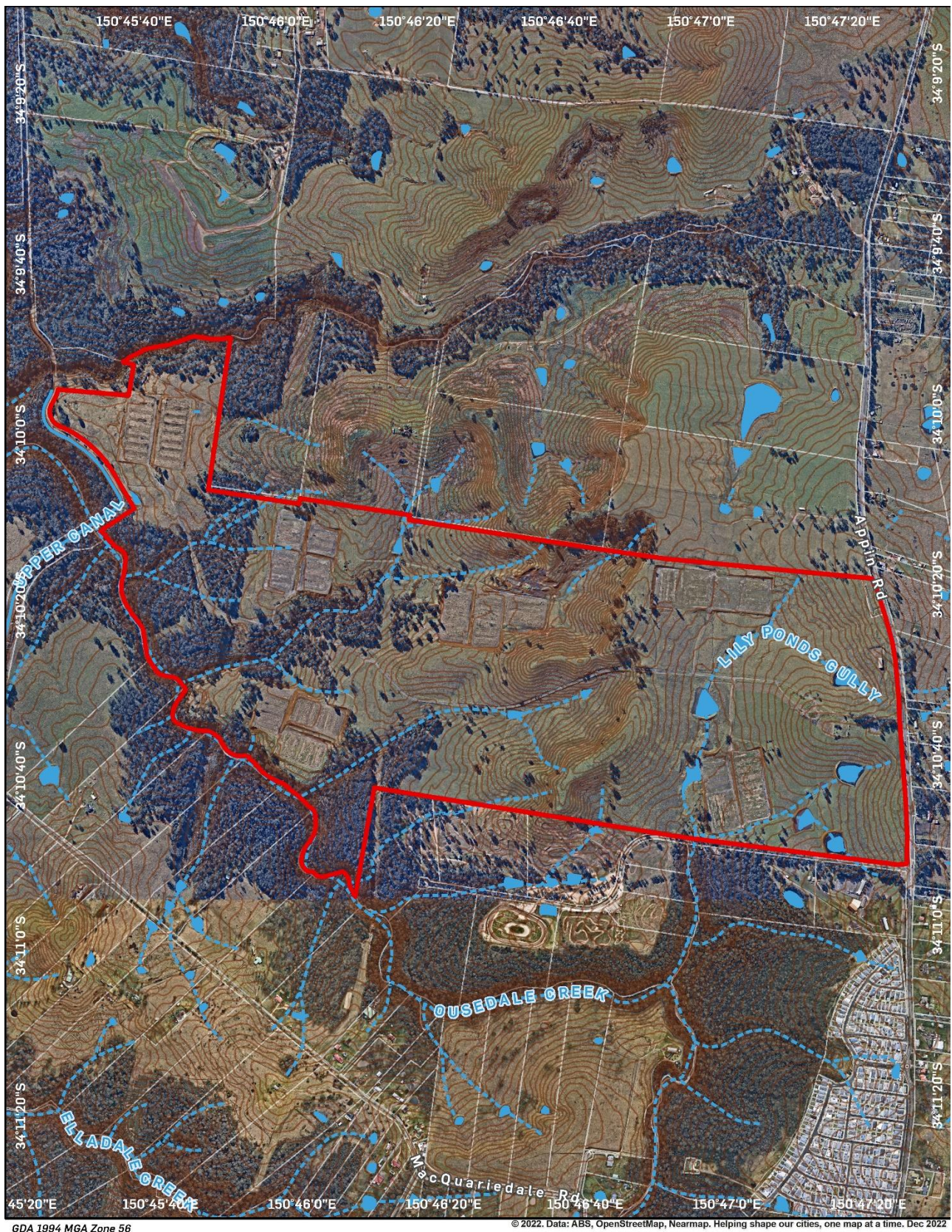


Figure 1 – Regional location



0 1 KM

Project No: P0043207b

Project Manager: Meggan Walker

 Subject Area
 — Contours
 ■ Hydrology
 — Permanent
 - - Ephemeral

Location of the Subject Area
 North Appin Inghams
 Inghams

Figure 2 – Location of the subject area

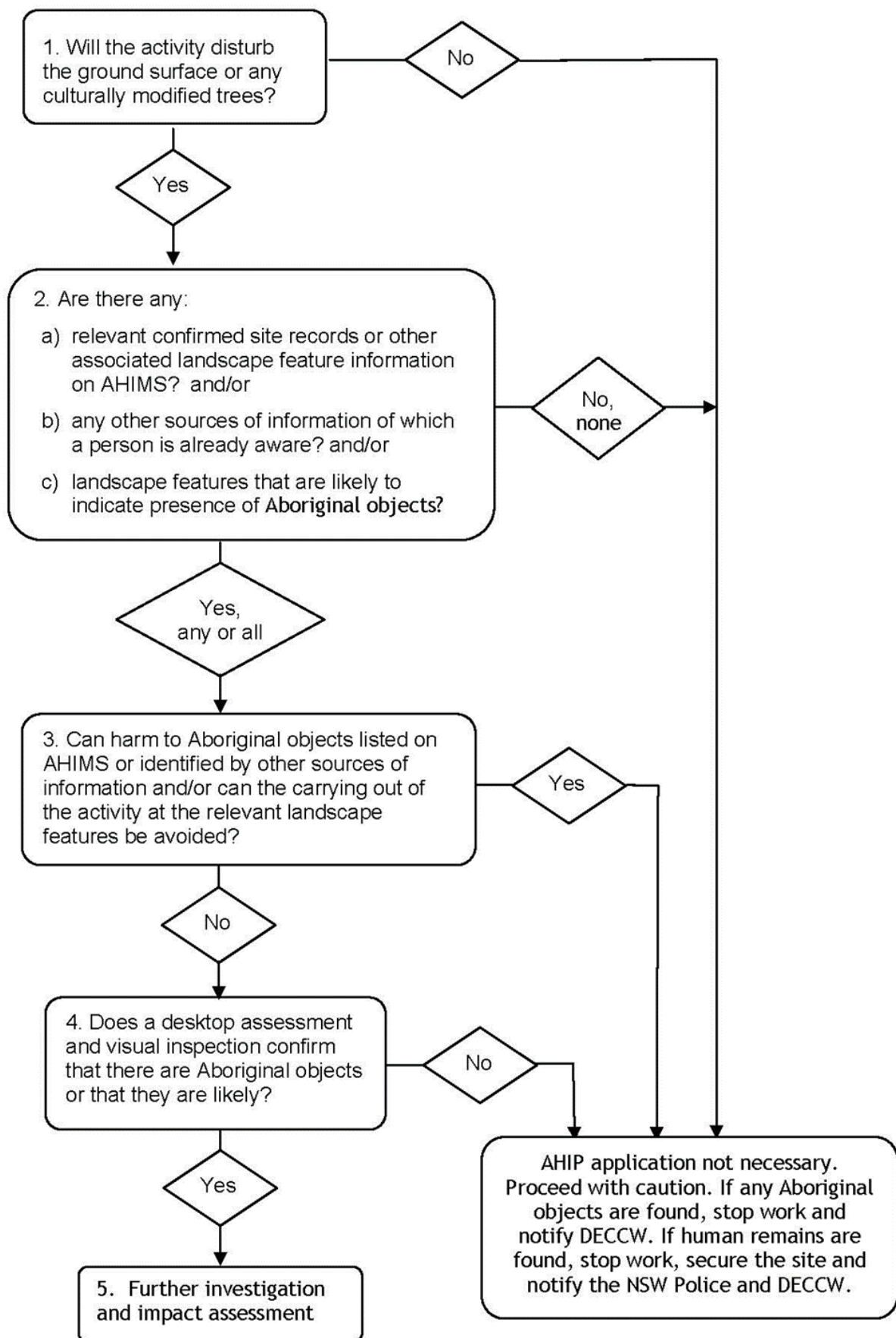


Figure 3 – Flowchart illustrating the generic Due Diligence Assessment process
Source: DECCW, 2010

3.2. PROPOSED DEVELOPMENT

As the majority landowner within the North Appin precinct, the Proponent seeks a planning pathway to establish a new community of circa 9,000 people within the Greater Macarthur Growth Area. Through a cultural landscape-led approach, the proposed rezoning seeks to deliver high-quality housing with a genuine connection to the region's cultural history, natural assets and the existing Appin township. Altogether, the draft structure plan for the site proposes the following:

- Delivery of approximately 3,000 new dwellings by 2045.
- Accommodate a new community of circa. 9,000 people.
- Delivery of key community infrastructure that provides learnings through the traditional custodians to existing and future community members about country.
- Development that will foster the connection to country through initiatives that strengthen the connection between people and the land, flora and fauna.
- Development that reinforces and compliments the character of Appin as a rural village that is a unique and desirable place to live.

The current proposal is in Planning Proposal stage and, as such, no direct impacts are understood to exist as a result of this. However, future development works under a Development Application would involve impacts to the ground surface and any associated Aboriginal objects.



Figure 4 – Draft Structure Plan.
 Source: Ingham Property Group 2022.

3.3. AUTHORSHIP

The present report has been prepared by Ginger-Rose Harrington (Urbis Consultant Archaeologist) and Meggan Walker (Urbis Senior Archaeologist) with review and quality control undertaken by Balazs Hansel (Urbis Director, Archaeology).

Ginger-Rose Harrington holds a Bachelor of Ancient History (Archaeology) from Macquarie University.

Meggan Walker holds a Bachelor of Arts (Honours - First Class in Archaeology) from the University of Sydney.

Balazs Hansel holds a Masters (History) and Masters (Archaeology and Museum Studies) from the University of Szeged (Hungary) and is currently completing a PhD (Archaeology) at the University of Sydney.

3.4. LIMITATIONS

The ADD was undertaken to investigate the potential for Aboriginal objects to be retained within the subject area and to ascertain whether further investigation is required under the Due Diligence Code. Aboriginal community consultation was not undertaken as part of the ADD in accordance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents, although there was consultation with local Elder Aunty Glenda Chalker. No assessment of intangible cultural heritage or the significance of the subject area undertaken.

The ADD was limited to Aboriginal archaeological resources and does not consider historical archaeological remains or built heritage items.

4. STATUTORY CONTEXT

4.1. HERITAGE CONTROLS

The protection and management of Aboriginal cultural heritage items, places and archaeological sites within New South Wales is governed by the relevant Commonwealth, State or local government legislation. These are discussed below in relation to the present subject area.

4.1.1. The National Parks and Wildlife Act 1974

Management of Aboriginal objects and places in NSW falls under the statutory control of the *National Parks and Wildlife Act 1974* (NPW Act). Application of the NPW Act is in accordance with the *National Parks and Wildlife Regulation 2019* (NPW Reg).

The NPW Act defines Aboriginal objects and places as follows:

- **Aboriginal object** means any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains.
- **Aboriginal place** means any place, which may or may not contain Aboriginal objects, that is declared to be an Aboriginal place under section 84 of the NPW Act because it is or was of special significance with respect to Aboriginal culture.

The NPW Act provides statutory protection for Aboriginal objects and places, defining two tiers of offence against which individuals or corporations who harm Aboriginal objects or places can be prosecuted. The highest tier offences are reserved for knowledgeable harm of Aboriginal objects or knowledgeable desecration of Aboriginal places. Second tier offences are strict liability offences - that is, offences regardless of whether or not the offender knows they are harming an Aboriginal object or desecrating an Aboriginal place - against which defences may be established under the *National Parks and Wildlife Regulation 2009* (NSW) (the NPW Regulation).

Section 86 of the NPW Act identifies rules and penalties surrounding harming or desecrating Aboriginal objects and Aboriginal places. These are identified as follows:

- (1) *A person must not harm or desecrate an object that the person knows is an Aboriginal object*

Maximum penalty:

- (a) *in the case of an individual—2,500 penalty units or imprisonment for 1 year, or both, or (in circumstances of aggravation) 5,000 penalty units or imprisonment for 2 years, or both, or*

- (b) *in the case of a corporation—10,000 penalty units.*

- (2) *A person must not harm an Aboriginal object.*

Maximum penalty:

- (a) *in the case of an individual—500 penalty units or (in circumstances of aggravation) 1,000 penalty units, or*

- (b) *in the case of a corporation—2,000 penalty units.*

- (4) *A person must not harm or desecrate an Aboriginal place.*

Maximum penalty:

- (a) *in the case of an individual—5,000 penalty units or imprisonment for 2 years, or both, or*

- (b) *in the case of a corporation—10,000 penalty units.*

- (5) *The offences under subsections (2) and (4) are offences of strict liability and the defence of honest and reasonable mistake of fact applies.*
- (6) *Subsections (1) and (2) do not apply with respect to an Aboriginal object that is dealt with in accordance with section 85A.*
- (7) *A single prosecution for an offence under subsection (1) or (2) may relate to a single Aboriginal object or a group of Aboriginal objects.*
- (8) *If, in proceedings for an offence under subsection (1), the court is satisfied that, at the time the accused harmed the Aboriginal object concerned, the accused did not know that the object was an Aboriginal object, the court may find an offence proved under subsection (2).*

Section 87 (1), (2) and (4) of the NPW Act establishes defences against prosecution under s.86. The defences are as follows:

- The harm was authorised by an Aboriginal Heritage Impact Permit (AHIP) (s.87(1)).
- Due diligence was exercised to establish Aboriginal objects will not be harmed (s.87(2)).

Due diligence may be achieved by compliance with requirements set out in the NPW Regulation or a code of practice adopted or prescribed by the NPW Regulation (s.87(3)).

The present ADD follows the Due Diligence Code and aims to establish whether any Aboriginal objects would be harmed by the proposed redevelopment of the subject area, which is consistent with s.87(2) of the NPW Act.

4.1.2. Environment Protection and Biodiversity Conservation Act 1999

In 2004, a new Commonwealth heritage management system was introduced under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The EPBC Act protects any items listed in the National Heritage List (NHL) and the Commonwealth Heritage List (CHL).

The National Heritage List (NHL) is a list of natural, historic and Indigenous places of outstanding significance to the nation. It was established to protect places that have outstanding value to the nation.

The Commonwealth Heritage List (CHL) was established to protect items and places owned or managed by Commonwealth agencies. The Australian Government Department of Sustainability, Environment, Water, Population and Communities (DSEWPC) is responsible for the implementation of national policy, programs and legislation to protect and conserve Australia's environment and heritage and to promote Australian arts and culture. Approval from the Minister is required for controlled actions which will have a significant impact on items and places included on the NHL or CHL.

The listings under the NHL and CHL are considered in the below sections.

4.1.3. Wollondilly Local Environmental Plan 2011

The subject area also falls within the Wollondilly LGA and is subject to the *Wollondilly Local Environmental Plan 2011* ('Wollondilly LEP'). Under Section 5.10(2) of the Wollondilly LEP, development consent is required for:

- (a) demolishing or moving any of the following or altering the exterior of any of the following (including, in the case of a building, making changes to its detail, fabric, finish or appearance)—*
 - (i) a heritage item,*
 - (ii) an Aboriginal object,*
 - (iii) a building, work, relic or tree within a heritage conservation area,*
- (b) altering a heritage item that is a building by making structural changes to its interior or by making changes to anything inside the item that is specified in Schedule 5 in relation to the item,*
- (c) disturbing or excavating an archaeological site while 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,*

- (d) *disturbing or excavating an Aboriginal place of heritage significance,*
- (e) *erecting a building on land—*
 - (i) *on which a heritage item is located or that is within a heritage conservation area, or*
 - (ii) *on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance,*
- (f) *subdividing land—*
 - (i) *on which a heritage item is located or that is within a heritage conservation area, or*
 - (ii) *on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance.*

The ADD was undertaken to determine whether or not any Aboriginal objects or places are present within the subject area, which would be subject to Section 5.10(2) of the Wollondilly LEP.

4.1.4. Campbelltown Local Environmental Plan 2015

The *Environmental Planning and Assessment Act 1979* (EP&A Act) requires each LGA to produce a Local Environment Plan (LEP) that identifies items and areas of local heritage significance and outlines development consent requirements.

The subject area falls within the Campbelltown LGA and is subject to the *Campbelltown Local Environmental Plan 2015* ('Campbelltown LEP'). Under Section 5.10(2) of the Campbelltown LEP, development consent is required for:

- (a) *demolishing or moving any of the following or altering the exterior of any of the following (including, in the case of a building, making changes to its detail, fabric, finish or appearance)—*
 - (i) *a heritage item,*
 - (ii) *an Aboriginal object,*
 - (iii) *a building, work, relic or tree within a heritage conservation area,*
- (b) *altering a heritage item that is a building by making structural changes to its interior or by making changes to anything inside the item that is specified in Schedule 5 in relation to the item,*
- (c) *disturbing or excavating an archaeological site while 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,*
- (d) *disturbing or excavating an Aboriginal place of heritage significance,*
- (e) *erecting a building on land—*
 - (i) *on which a heritage item is located or that is within a heritage conservation area, or*
 - (ii) *on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance,*
- (f) *subdividing land—*
 - (i) *on which a heritage item is located or that is within a heritage conservation area, or*
 - (ii) *on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance.*

The ADD was undertaken to determine whether or not any Aboriginal objects or places are present within the subject area, which would be subject to Section 5.10(2) of the Campbelltown LEP.

4.2. NON-STATUTORY IMPLEMENTS

4.2.1. Wollondilly Development Control Plan 2016

The EP&A Act requires each LGA to produce a Development Control Plan (DCP). The subject area is subject to the *Wollondilly Development Control Plan 2016* ('Wollondilly DCP'). Section 7 of the Wollondilly DCP pertains to Aboriginal heritage. Under Section 7.2 Aboriginal Heritage Controls, it states that:

An indigenous heritage and archaeological report must be prepared for any development application on land which contains a known Aboriginal object or Aboriginal place of heritage significance. The report must be prepared by a suitably qualified archaeologist. The report must be prepared in accordance with the Code of Practice for Archaeological Investigation of Aboriginal objects in NSW. A report may also be required at the discretion of the assessing officer where:

1. *There is impact or disturbance to the content, or within the immediate vicinity (100 metres) of a known Aboriginal object or Aboriginal place of heritage significance;*
2. *There is impact or disturbance to, or within the immediate vicinity (100 metres) of a previously recorded or known Aboriginal object or Aboriginal place of heritage significance and can include a cultural landscape, an existing or former ceremonial ground, a burial ground or cemetery, a story place or mythological site, a former Aboriginal reserve or historic encampment, or an archaeological site of high significance;*
3. *A proposal (including subdivision) which affects primarily undeveloped land (irrespective of land size) and has the following site features: river frontage creek line; sandstone exposures at ground level larger than 5m²; sandstone cliff line or isolated boulder higher than 2m; disturbance to the roots, trunk, branches, of old growth trees, which are native to the Wollondilly Shire and greater than 150 years of age.*
4. *Ensure that all works cease in the vicinity of any previously unidentified Aboriginal objects or places identified during excavation and construction and that the following be notified: The Office of Environment and Heritage NSW (OEH), A qualified archaeologist, and Aboriginal stakeholders.*
5. *Ensure that should human skeletal remains be discovered that the following process will be undertaken:*
 - a. *The remains will be reported to the police and the state coroner.*
 - b. *Wollondilly Shire Council and the land owner will be notified of the find.*
 - c. *Aboriginal stakeholders will be notified of the find.*
 - d. *OEH NSW will be notified.*
6. *If the skeletal remains are of Aboriginal ancestral origin an appropriate management strategy will be developed in consultation with the Aboriginal stakeholders.*
7. *The find will be recorded in accordance with the National Parks and Wildlife Act 1974 (NSW) and the NSW NPWS Aboriginal Cultural Heritage Standards and Guidelines Kit.*
8. *The findings will be incorporated into any proposed Aboriginal Heritage Plan's management regime.*

The ADD was undertaken to determine whether or not Aboriginal archaeological sites and places of Aboriginal heritage significance are present within the subject area, which would be subject to Section 7.2 of the Wollondilly DCP. Notably, the subject area requires assessment under point 3, being a proposal which affects primarily undeveloped land with sandstone exposures and contains creek lines.

4.2.2. Greater Macarthur 2040 Structure Plan and Accompanying Guide, 2022.

The Guide to the Greater Macarthur Growth Area (GGMGA), while a strategic planning document, does provide information regarding cultural significance. This includes mapping of culturally sensitive values within the Greater Macarthur region. Mallaty Creek is identified as an area of cultural sensitivity on this map, however this is mapped as to the north-east of the subject area, where Mallaty Creek meets Appin Road (see Figure 4). The map does, however, identify a culturally sensitive movement corridor to the east of the subject site, which follows the approximate alignment of Appin Road. This is noted as culturally significant within the current assessment.

This document also provides principles for the engagement with community throughout the planning proposal and master planning process, including consideration of favourable design outcomes from a cultural heritage perspective.

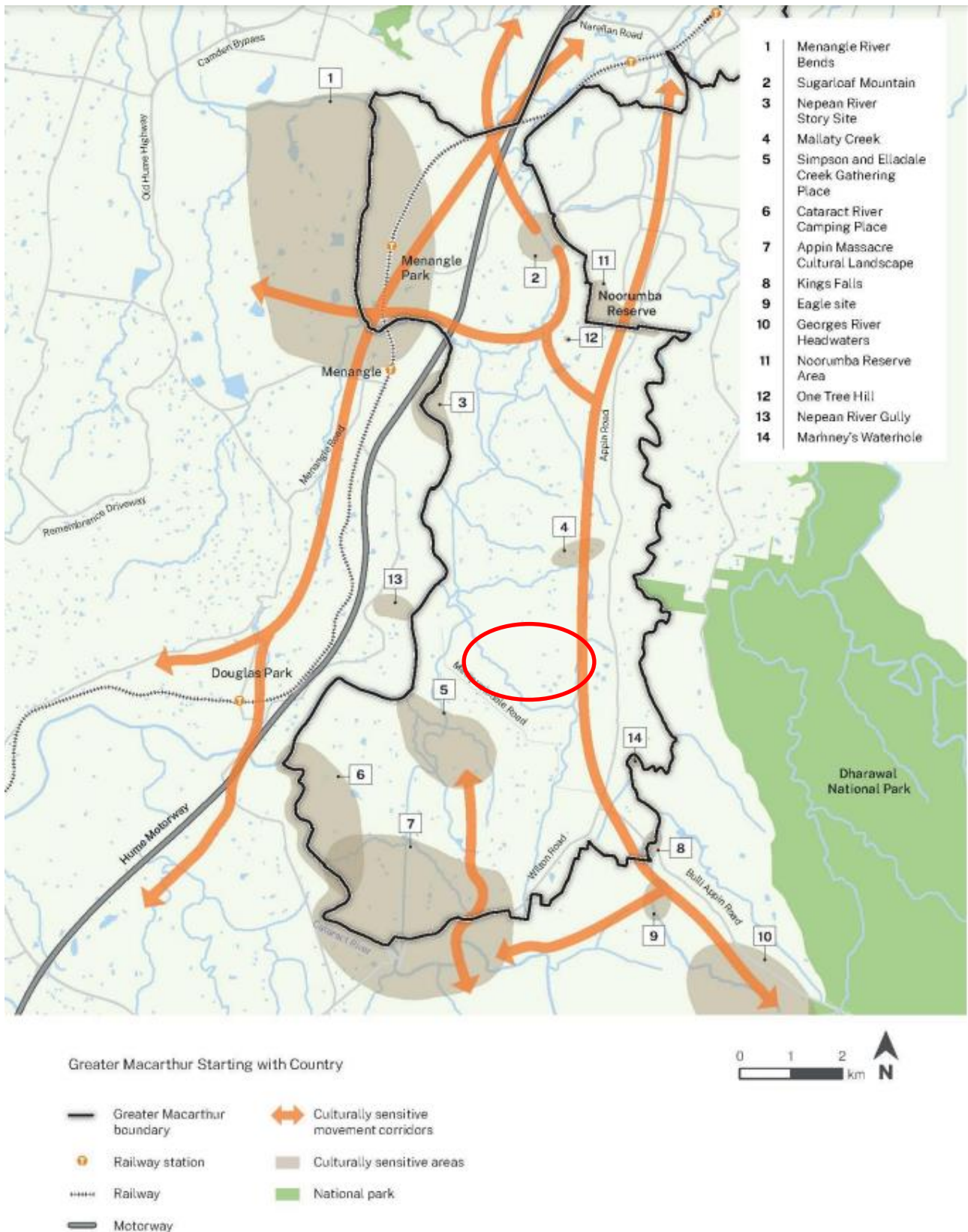


Figure 5 – Guide to the Greater Macarthur Growth Area, cultural sensitivity map, approximate location of the subject site in red.

Source: *Starting With Country, Guide to the Greater Macarthur Growth Area, 2022*

4.2.3. Greater Macarthur 2040: An Interim Plan for the Greater Macarthur Growth Area 2018

The subject area is encompassed by *Greater Macarthur 2040: An Interim Plan for the Greater Macarthur Growth Area 2018* (the 'Greater Macarthur Plan'). The Greater Macarthur Plan is a land use and infrastructure implementation plan for the Growth Area that seeks to enhance its liveability, productivity and sustainability. It is supported by a strategy for major items of State and local infrastructure, including public transport, roads, schools, green infrastructure and open space and medical and community facilities.

One of the planning priorities set by the Greater Macarthur Plan is the identification, conservation and enhancement of the District's heritage. In general, the following provisions are recommended for planning authorities:

- (a) *Engage with the community early in the planning process to understand heritage values and how they contribute to the significance of the place.*
- (b) *Apply adaptive re-use and interpreting of heritage to foster distinctive local places.*
- (c) *Manage and monitor the cumulative impact of development on the heritage values and character of places.¹*

With regards to Aboriginal heritage and archaeology, the Greater Macarthur Plan acknowledges that the growth area is situated at the interface between land originally inhabited by the Darug, Dharawal and Gandangara people. It notes presence of Aboriginal objects/sites of significance and areas of cultural value along the Nepean River and its tributaries. These sites include important places for subsistence activities, particularly along the lagoons and creeks, a traditional story place, and a massacre and burial site. These sites, it concludes, are unsuitable for development.²

Archaeological research is identified as a precursor to any development that holds heritage implications. The following is said with regards to the role of archaeology in the emergence of this new Growth Area:

To better inform future planning, rezoning and development processes in the Growth Area, the Department prepared archaeological studies to:

- (a) *Provide a framework for the research, assessment and management of heritage items and archaeological sites that require further investigation to support detailed precinct planning.*
- (b) *Identify areas of high, medium and low heritage sensitivity based on predictive modelling^o ensure consistency in Aboriginal and non-Aboriginal assessments.*
- (c) *Facilitate the development of a regional archaeological zoning plan.*
- (d) *Identify, in accordance with the Office of Environment and Heritage guidelines, the appropriate Aboriginal representatives to be involved in further studies.*

Areas set aside for long-term protection from development will need to preclude any activities and require active management within the protection curtilage. Mechanisms to ensure this will be determined at precinct planning stage and will include:

- (a) *Public or trustee ownership and funding for conservation of significant sites.*

¹ NSW Department of Planning and Environment, 2018. *Greater Macarthur 2040: An Interim Plan for the Greater Macarthur Growth Area*, page 20.

² NSW Department of Planning and Environment, 2018. *Greater Macarthur 2040: An Interim Plan for the Greater Macarthur Growth Area*, page 21.

- (b) *Agreements for the adaptive re-use and management of sites by the private sector including commitments to funding for ongoing conservation.*³

The following provisions are, therefore, recommended for future developments with heritage significance in the Greater Macarthur precinct:

- (a) *Be informed by Aboriginal Cultural Heritage Assessments, including consultation with the Aboriginal community.*
- (b) *Include further investigation to define appropriate design of precincts to protect heritage significance.*
- (c) *Address sympathetic adaptive re-use of heritage items consistent with their significance opportunities for using heritage item curtilages for open space or environmental conservation and where appropriate, to preserve the character of the area and identified cultural values.*
- (d) *Protect all heritage items from development.*⁴

The ADD was undertaken to determine whether or not Aboriginal archaeological sites and places of Aboriginal heritage significance are present within the subject area, which would be subject to this section of the Greater Macarthur Plan. Future recommended assessment of the subject area will involve consultation with community, however preliminary consultation has been undertaken including initial site meeting with local Elder, Glenda Chalker.

4.3. HERITAGE LISTS & REGISTERS

A review of relevant heritage lists and registers was undertaken to determine whether any Aboriginal cultural heritage items are located within the curtilage of, or in proximity to, the subject area.

4.3.1. NSW State Heritage Inventory

The State Heritage Inventory (SHI) is a database of heritage items in NSW which includes declared Aboriginal Places, items listed on the SHR, listed Interim Heritage Orders (IHOs) and items listed of local heritage significance on a local council's LEP.

A search of the SHI was undertaken on 6th December 2022. The search did not identify any heritage items within the curtilage of the subject area. Two items were, however, registered on the western boundary. These included one SHR item (Listing No. 01373) and LEP item (LEP No. 116), both of which pertain to the Upper Nepean Canal System

4.3.2. Australian Heritage Database

The Australian Heritage Database is a database of heritage items included in the World Heritage List, the National Heritage List (NHL), the Commonwealth Heritage list (CHL) and places in the Register of the National Estate. The list also includes places under consideration, or that may have been considered, for any one of these lists.

A search of the Australian Heritage Database was undertaken on 6th December 2022. Several items of heritage significance were identified within the proximity of the subject area. These are identified in Table 1 below.

Table 1 - Heritage items located within proximity of the subject area – *Australian Heritage Database*

³ NSW Department of Planning and Environment, 2018. *Greater Macarthur 2040: An Interim Plan for the Greater Macarthur Growth Area*, page 23.

⁴ NSW Department of Planning and Environment, 2018. *Greater Macarthur 2040: An Interim Plan for the Greater Macarthur Growth Area*, page 23.

Item Name	Place ID.	Location
Westcliff Colliery Area 5, Appin Rd, Appin, NSW, Australia	105906	About 315ha, 2km north of Appin, comprising Westcliff Colliery Area 5 both above and below ground (longwall mining blocks 31, 32 and 33), plus a 1km buffer.
Upper Nepean Water Catchment, Mount Keira Rd, Mount Keira, NSW, Australia	14746	Approximately 90,000ha, located 2km east of Mittagong. Extending from opposite Clifton on the north-east to Robertson on the south-eastern corner, thence across to Mittagong at the south-western Corner to near Appin on the north-west, and comprising the Metropolitan Water supply Catchment.
Cataract Dam & Reservoir, Appin Rd, Appin, NSW, Australia	101629	About 850ha, comprising dam wall and reservoir, 7km south-south-east of Appin.

4.4. SUMMARY: STATUTORY CONTEXT

The statutory context of the subject area is summarised as follows:

- The present ADD follows the Due Diligence Code and aims to establish whether any Aboriginal objects or places would be harmed by the current rezoning and future proposed development of the subject area, thus addressing s.87(2) of the NPW Act, Section 5.10(2) of the Wollondilly and Campbelltown LEPs and Section 3.9.3 of the Wollondilly DCP.
- No registered or listed archaeological heritage items have been identified within the curtilage of the subject area. However, several items which are listed on the SHI and NHR were identified within the proximity of the site. These included, on the SHI, one SHR item (Listing No. 01373) and LEP item (LEP No. I16), both of which pertain to the Upper Nepean Canal System. On the NHR, listings included the Westcliff Colliery Area 5 (Place ID. 105906), Upper Nepean Water Catchment (Place ID. 14746) and Cataract Dam & Reservoir (Place ID. 101629). Aboriginal Heritage Background

An assessment of Aboriginal cultural heritage within a particular subject area requires an understanding of the archaeological and environmental contexts in which the area is situated. The following is a review and analysis of those contexts for the present subject area.

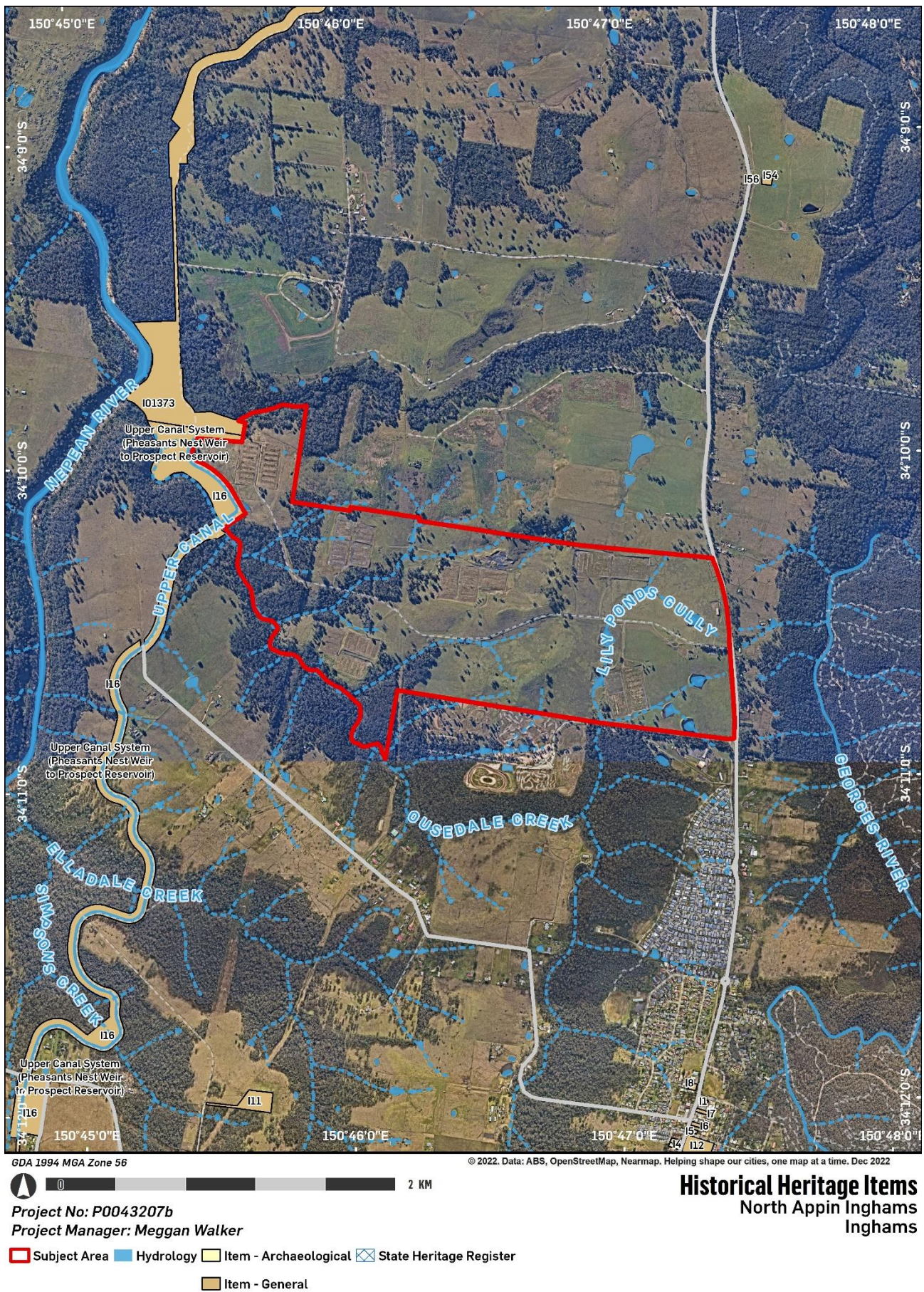


Figure 6 – Heritage items near subject area

4.5. ETHNOGRAPHIC CONTEXT

Due to the absence of written records prior to the arrival of Europeans, much of our understanding of Aboriginal life is informed by the histories documented in the late 18th and early 19th century by European observers. These histories provide an inherently biased interpretation of Aboriginal life both from the perspective of the observer but also through the act of observation. The social functions, activities and rituals recorded by Europeans may have been impacted by the Observer Effect (or Hawthorne Effect), which predicts that individuals will modify their behaviour in response to their awareness of being observed. With this in mind, by comparing/contrasting these early observations with archaeological evidence, it is possible to establish a general understanding of the customs, social structure, languages and beliefs of Aboriginal people (Attenbrow 2010).

The archaeological record provides evidence of the long occupation of Aboriginal people in Australia. Current archaeological record establishes occupation of the Australian mainland by as early as 65,000 years before present (BP) (Clarkson et al. 2017). The oldest date for a site in the Sydney region is at Pitt Town on the Hawkesbury River, approximately 83 km north of the subject area, which is dated to around 36,000 BP (Williams et al. 2014).

The subject area is situated on the traditional lands of the Tharawal people and is located within the administrative catchment of the Tharawal Local Aboriginal Land Council. The Tharawal people occupied the coastal land between La Perouse and Jervis Bay, bordered, on the east, by the coastline and, on the west, by the Nepean River. Neighbouring groups included the Gandangara, Ngunawal, Dharug and Wiradjuri people. The Tharawal people was also divided between two groups: the 'Salt Water People', who inhabited coastline, and the "Sweet (or Fresh) Water People", who lived inland towards Camden. Contemporary colonial accounts identify that Gandangara and Dharug groups could converse with relative ease due to similarities in the language, with the Tharawal language similar in structure although different in vocabulary (Attenbrow, 2010).

Although the subject area is partially situated within the Campbelltown LGA, the majority of the site is considered part of the Wollondilly LGA. Following European settlement, the area was described as dense vine forests and scrub in places, forming impenetrable corridors along creeks and rivers (SMH, 1865; cited in Advitech, 2017). In fact, the word 'Wollondilly' is attributed several different definitions, including "*A place where spirits dwell*" and "*Water trickling over rocks*". It is also connected to a story about the burning black coal carried in the skull of a bunyip (Wollondilly Shire Council, accessed 2020). In reflection, the subject area includes a mixture of forested and grazing lands, perforated by several waterways. These include the Georges and Nepean Rivers and a number of their tributaries – namely, the Mallaty Creek, Ousdale Creek and Lily Pond Gully.

The subject area would have been abundant in resources, providing past Aboriginal people with water, food and shelter. In 1791, Watkin Tench described the subsistence habits of Aboriginal groups along the Hawkesbury-Nepean river systems thus

"They depend but little on fish, as he reiver yields only mullets [sic], and that their principle support is derived from small animals which h they kill, and some roots (a species of wild yams chiefly) which they dig out of the earth". (Tench, 1791; cited in Attenbrow, 2010).

The streams and swamplands would have provided a variety of subsistence – such as roots, berries and seeds to gather. This is also true for the forested portions of the site, which would have sheltered lizards, kangaroos, birds and wallabies. The sandstone outcrops associated with the creek lines and river banks – especially, throughout the west of the subject area – could have formed rock overhangs that may have been used for shelter and/or rock art.⁵ There are, in fact, several known Aboriginal sites located to the west and south of the subject area, which are each indicative of Aboriginal habitation around Ousdale Creek.

The Appin region is significant historically for Aboriginal people, with the Appin Massacre occurring in 1816 at the Nepean River. This event was arguably the most significant massacre event in the history of colonial Sydney and, indeed, a turning point in the Cumberland Plain's occupation. Forming part of a military campaign ordered by Governor Macquarie, it is also the most documented massacre in Sydney's history,

⁵ Campbelltown City Council, 2020. *Campbelltown Aboriginal History Booklet*, page 3.

resulting in the death of 14 Aboriginal people.⁶ In recent history, the Wunga Myamly Reconciliation Group and local Aboriginal community have gathered every April to remember the Appin Massacre.⁷ The site of the Appin Massacre has recently been recommended for listing on the State Heritage Register for its exceptional social and cultural value, being the Appin Massacre Cultural Landscape.

While European settlement did considerably impact the Traditional Owners of the Wollondilly region, it did not decimate populations as popular narrative would suggest. Aboriginal people continued to live in the area, adapting to the changes brought by settlement. The fight for recognition was a political one. On 26th January 1938, a “Day of Mourning” protest was held, following campaigns by Aboriginal individuals including Jack Patten, William Cooper and Pearl Gibbs who fought for civil rights including the right to vote and representation in Parliament. This struggle was long fought, and Aboriginal and Torres Strait Islanders were granted the right to vote Australia wide by 1965. Aboriginal people were recognised in the census and subject to Commonwealth laws following the referendum for Indigenous Rights in 1967. Aboriginal people across Australia continue to fight for recognition. In February 2008, then Prime Minister Kevin Rudd delivered an address apologising for the mistreatment of Aboriginal people throughout history and committing to closing the gap, recognising Aboriginal cultures as “the oldest continuing cultures in human history” (Rudd, 2008). In contemporary times, respect for Aboriginal people and connection to Country continues to grow. Despite attempts to eradicate Aboriginal people throughout the 19th and 20th centuries, Aboriginal communities continue to thrive across Australia, and Aboriginal individuals play a vital role in all levels of society.

4.6. ENVIRONMENTAL CONTEXT

The environmental context of a subject area is relevant to its potential for Aboriginal objects and places. Aboriginal objects may be associated with certain landscape features that played a part in the everyday lives and traditional cultural activities of Aboriginal people. Landscape features that are considered indicative of archaeological potential include rock shelters, sand dunes, waterways, waterholes and wetlands. Conversely, disturbance to the landscape after Aboriginal use may reduce the potential for Aboriginal objects and places. An analysis of the landscape within and near to the subject area is provided below.

4.6.1. Topography

Certain landform elements are associated with greater archaeological potential for Aboriginal objects and places. Areas that are located on a ridge top, ridge line or headland, located within 200m below or above a cliff face or within 20m of or in a cave, rock shelter or cave mouth are considered sensitive areas for Aboriginal objects and places.

The subject area is a vast expanse of land perforated by numerous creek line flats and associated spurs. Generally, the site is occupied by expansive floodplains associated with the Nepean River as well as with the Mallaty Creek, Ousdale Creek and Lily Ponds Gully. Due to this complex system of waterways, the areas surrounding the floodplains include a series of slopes with peaks, interspersed with deep drainage lines with steep embankments. There is significant sandstone outcropping towards the west and south-west of the site, along the Nepean Riverbed and Ousdale Creekline.

This varied landscape would have likely provided past Aboriginal people with a diverse range of land use opportunities. The streams and swamplands would have provided a variety of subsistence – such as roots, berries and seeds to gather. This is also true for the forested portions of the site, which would have sheltered lizards, kangaroos, birds and wallabies. The sandstone outcrops associated with the creek lines and river banks would have formed rock overhangs that may have been used for shelter and/or rock art.⁸

4.6.2. Hydrology

Proximity to a body of water is a factor in determining archaeological potential. Areas within 200m of the whole or any part of a river, stream, lake, lagoon, swamp, wetlands, natural watercourse or the high-tide mark of shorelines (including the sea) are considered sensitive areas for Aboriginal objects and places.

The subject area is situated approximately 470m west of the Georges River and 580m east of the Nepean River – two major and significant waterways. The subject area is also immediately to the east of a

⁶ Campbelltown City Council, 2020. *Campbelltown Aboriginal History Booklet*, page 6.

⁷ Campbelltown City Council, 2020. *Campbelltown Aboriginal History Booklet*, page 6.

⁸ Campbelltown City Council, 2020. *Campbelltown Aboriginal History Booklet*, page 3.

converging point between Mallaty Creek, which partially runs alongside the north-western boundary of the area, with Ousdale Creek, which demarcates its western and southern bounds. Lily Ponds Gully is also located within the subject area's south-west.

This proximity to waterways (and associated resources) was likely a contributing factor in the subject area's occupation by the Tharawal people. The subject area is also in close proximity to a number of Aboriginal sites known to be associated with waterways – for example, the Minerva Pools are located approximately 3.24km north-east of the site.

4.6.3. Soil Landscape and Geology

Certain soil landscapes and geological features are associated with greater archaeological potential for Aboriginal objects and places. For example, sand dune systems are associated with the potential presence of burials and sandstone outcrops are associated with the potential presence of grinding grooves and rock art. The depth of natural soils is also relevant to the potential for archaeological materials to be present, especially in areas where disturbance is high. In general, as disturbance level increases, the integrity of any potential archaeological resource decreases. However, disturbance might not remove the archaeological potential even if it decreases integrity of the resources substantially.

The NSW Soil and Land Information System (SALIS) provides information on expected soil landscapes within NSW. The SALIS identifies three shallow-moderately deep soil landscapes across the subject area. These include the Blacktown, Luddenham and Hawkesbury soil landscapes – each of which retain potential for archaeology.

The Blacktown soil landscape occupies the majority of the study area. It is described as occurring in two locations: (1) on crests, upper slopes and well-drained areas; and (2) on lower slopes and in drainage depressions and localised areas of poor drainage. Blacktown soils vary considerably between these two locations. In the first place, soils are shallow to moderately deep (<150 cm) Red Podzolic Soils and Brown Podzolic Soils; whereas, in the second, they are deep (150–300 cm) Yellow Podzolic Soils and Soloths. Dominant soil materials include friable greyish brown loam; hardsetting brown clay loam; strongly pedal, mottled brown, light clay; and light grey plastic mottled clay. All soil types within the Blacktown soil landscape are moderately susceptible to sheet erosion following vegetation clearance. Sheet erosion is likely to impact the retention of Aboriginal objects within natural soil deposits. The higher the sheet erosion the less likely there is to be Aboriginal objects *in situ*.

The Hawkesbury soil landscape occurs along the Ousedale Creekline, throughout the south-western extent of the site. Typically, Hawkesbury soils are located on the slopes and ridges of the Woronora Plateau – particularly, along narrow crests and ridges, narrow incised valleys, steep sideslopes with narrow rocky benches, broken scarps and boulders. The soil differs considerably, depending on its location; for instance, shale lenses are associated with localised Yellow Podzolic Soils and Red Podzolic Soils. Dominant soil materials include loose, coarse quartz sand; earthy, yellowish brown sandy clay loam; and pale, strongly pedal light clay. The Hawkesbury soil landscape spans much of area within the south-west portion of the site. Its erosion hazard is generally very high and ranges from moderate to extreme. Nonetheless, the outcrops of sandstone associated with Ousedale Creek are likely to be archaeologically sensitive, with potential for shelters, engravings and art.

The Luddenham soil landscape occupies a portion of the site to the north east. It is described as occurring on the Cumberland Plain of the Campbelltown area in three locations: narrow ridges, hillcrests and valleys. The soil differs considerably, based on the local topography. This includes shallow Brown Podzolic Soils (<100 cm) and massive earthy clays on crests, moderately deep Red Podzolic Soils (70–150 cm) on upper slopes, and moderately deep Yellow Podzolic Soils and Prairie Soils (<150 cm) on lower slopes and near drainage lines. Dominant soil materials include loose, dark brown loam; hardsetting brown clay loam; whole-coloured, strongly pedal clay; mottled bright brown plastic clay; and apedal brown sandy clay. All soil types within the Luddenham soil landscape are moderately erodible. Aboriginal objects retained in natural soil deposits within this landscape are likely to be impacted.

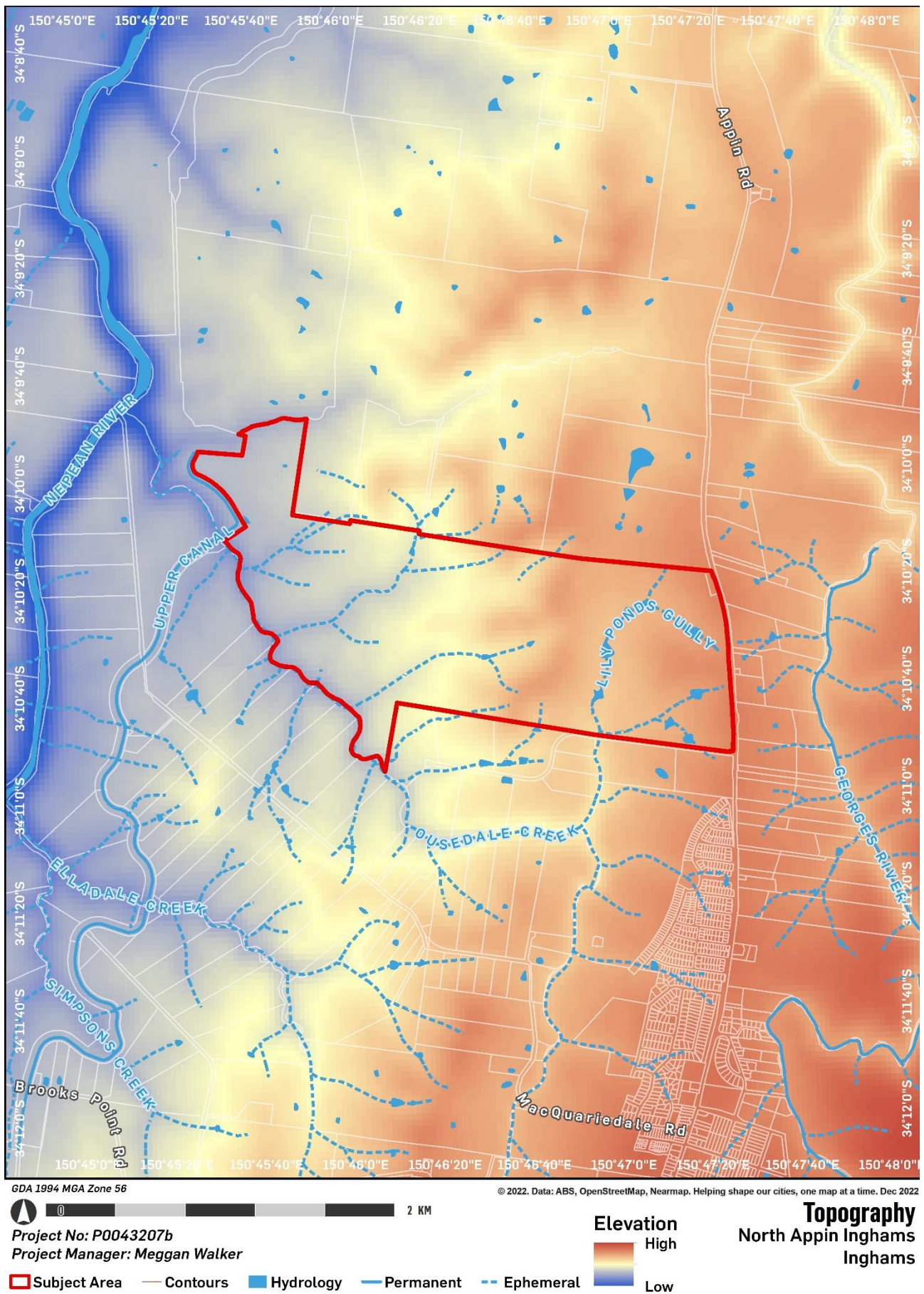


Figure 7 – Topography

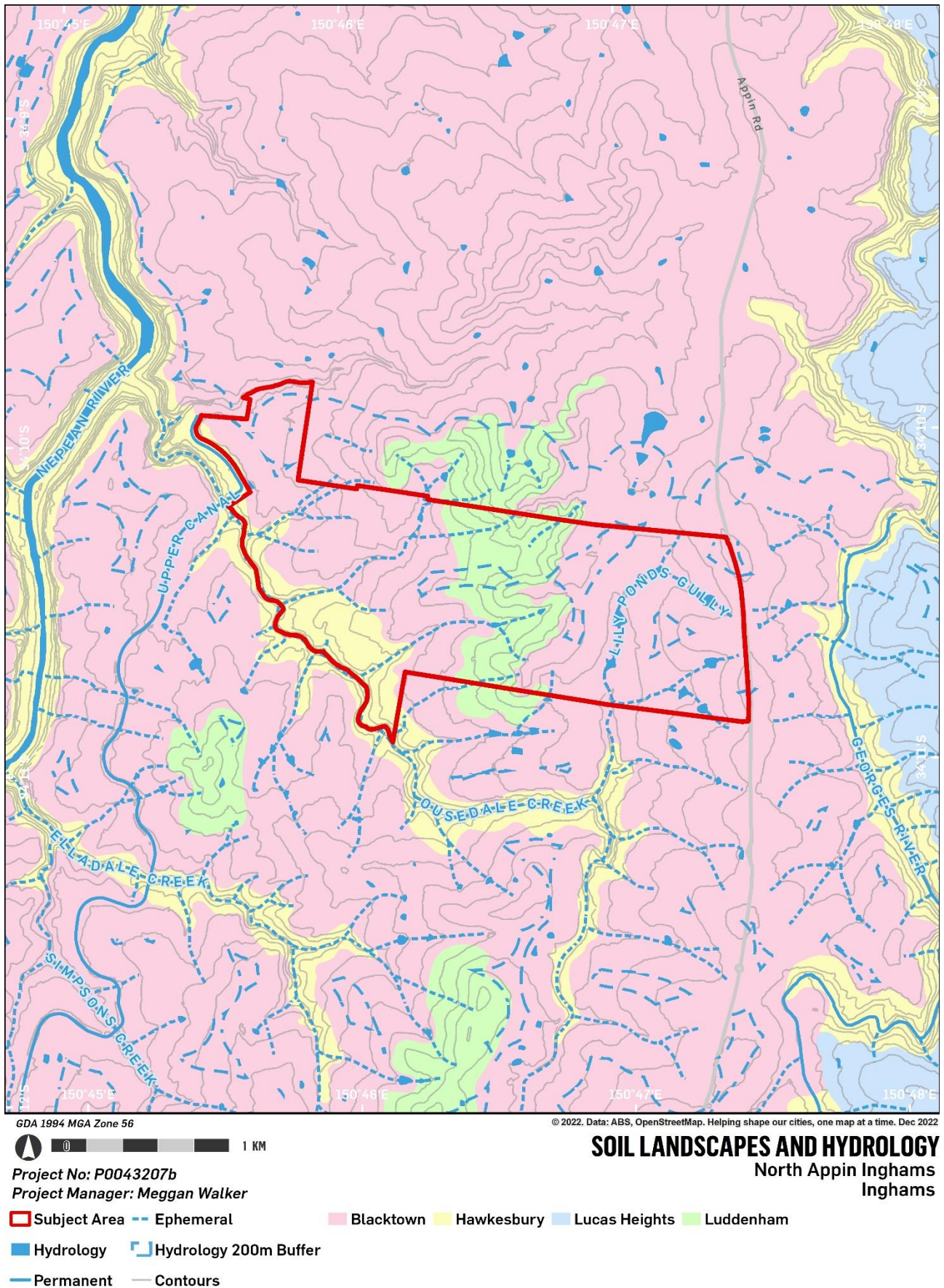


Figure 8 – Soil Landscapes and Hydrology

4.6.4. Vegetation

The presence of certain types of vegetation within an area may be indicative of archaeological potential for certain site types, such as modified trees, or more generally of the habitability of an area for Aboriginal people.

Native remnant vegetation is present throughout the subject area. The occurrence of different plant species may be predicted, based on the soil landscapes which constitute the site.

Soils within the Blacktown soil landscape are generally moderately fertile. They are relatively deep and well-structured, which is a hospitable environment for moderate volumes for root penetration. The original vegetation of the Blacktown soil landscape includes cleared tall open-forest (wet sclerophyll forest) and open-forest/woodland (dry sclerophyll forest). The former often includes remnant Sydney blue gum and blackbutt, which grow in higher rainfall areas. The latter often includes forest red gum, narrow-leaved ironbark and grey box, which grow in more arid environments.

Soils within the Hawkesbury soil landscape are not very fertile, except where fractures allow deep root penetration and debris dams to form, which allow pockets of organic material to collect. They are highly acidic with a low nutrient status and are generally shallow with low available waterholding capacities. The original vegetation of the Hawkesbury soil landscape is typified by uncleared woodlands and open-forests (dry sclerophyll forest), tall open forests (wet sclerophyll forest) and closed-forests (rainforest) in sheltered gullies. Common species within exposed areas include red bloodwood, narrow-leaved stringybark, snappy gum, hard-leaved scribbly gum, blue mountains mallee ash and old man banksia. Whereas, silvertop ash, Sydney peppermint, smooth-barked apple and black she-oak predominates in sheltered sideslopes. Emergent trees include blackbutt and Sydney blue gum, with water gum, coach-wood, black wattle, native myrtle and bracken often constituting understorey vegetation.

Soils within the Luddenham soil landscape are somewhat fertile. They are fairly deep and well-structured, which allows for deep root penetration and low-moderate soil fertility. The original vegetation of the Luddenham soil landscape is typically extensively cleared open-forest (dry sclerophyll forest). Common species include spotted gum, forest red gum and grey box. Although less common, this soil landscape often also includes broad-leaved ironbark, narrow-leaved ironbark, woollybutt, and forest oak. Understorey vegetation typically includes blackthorn, coffee bush, hickory and hairy clerodendrum, with grasses such as wire grass, bordered panic grass, paddock lovegrass and kangaroo grass

The variety of floral species in the subject area could have been utilised by Aboriginal people for medicinal, ceremonial, subsistence purposes as well as for cultural modification.

4.6.5. Historical Ground Disturbance

The archaeological potential of a subject area may be reduced through ground disturbance that occurred after deposition of archaeological remains. Ground disturbance, either through human activity (e.g. clearing of vegetation, ploughing and construction of buildings) or natural processes (e.g. erosion), can reduce the spatial and vertical integrity of archaeological resources or result in their complete removal or destruction.

The subject area has sustained minimal historic ground disturbance associated with discrete areas of the site, service installation, dams, and minor construction. Significant events with associated ground disturbance include:

- The subject area comprises two historical land grants (Figure 9). The first was granted to Alexander Riley, a merchant and pastoralist, in 1817. His parcel spanned 750 acres of land (partially including the subject area).⁹ The second was granted in 1844 to John Oxley, a surveyor and explorer, receiving 630 acres (partially including the subject area).¹⁰
- The subject area has been historically utilised for agricultural pursuits through to the present day, with minor alterations and earthworks to support the agricultural uses, including creating levelled areas for animal containment areas.

⁹ HLRV, 1817. *Book 6, No. 126.*

¹⁰ HLRV, 1844. *Book 6, No. 125.*

- To the western boundary of the site is a State Heritage Register (SHR) item: Listing No. 01373 (LEP No. I16), being the Upper Canal System. This item is of historic significance, due to its association with Edward Moriarty and the 1880s Sydney Water Supply and Upper Nepean Scheme.

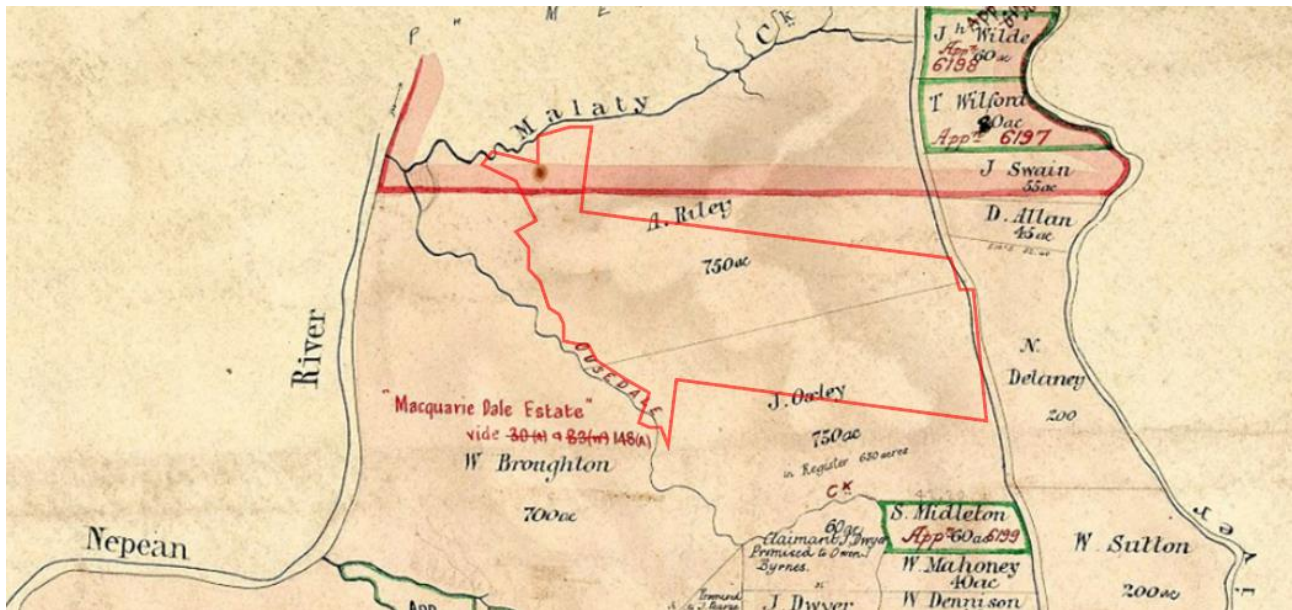


Figure 9 – Undated parish map of the County of Cumberland, Parish of Appin, showing the subject area to be comprised of two land grants owned by A. Riley (to the north) and J. Oxley (to the south). Approximate location of the subject area indicated in red.

Source: HLRV, ID: PMAPMN02

4.7. SUMMARY

- The subject area includes floodplains associated with the Nepean Rivers and its tributaries, with a series of slopes and peaks, interspersed with deep drainage lines with steep embankments. There is significant sandstone outcropping towards the west and south-west of the site. This varied landscape would have likely provided past Aboriginal people with a diverse range of land use opportunities, rendering it generally sensitive for Aboriginal objects and places.
- The subject area is situated between the Georges and Nepean Rivers – two major and significant waterways. The subject area also includes a converging point between Mallaty Creek and Ousedale Creek, with other tributaries disbursed throughout the site. Lily Ponds Gully is also located within the subject area's south-west. This proximity to numerous waterways likely increases the sensitivity of the subject area for Aboriginal objects and places.
- Three soil landscapes occur within the subject area, including:
 - The Blacktown soil landscape occupies the majority of the study area. All soil types within the Blacktown soil landscape are moderately susceptible to sheet erosion following vegetation clearance. Nonetheless, this soil landscape is generally considered sensitive for isolated artefacts, open camp sites, axe grinding grooves, rock engravings and shelters with art, artefacts and/or deposits.
 - The Hawkesbury soil landscape occurs along the Ousedale Creekline, throughout the south-western extent of the site. Its erosion hazard is generally very high and ranges from moderate to extreme. Nonetheless, the outcrops of sandstone associated this soil landscape are considered archaeologically sensitive for sandstone shelters with art, artefacts and/or deposits.
 - The Luddenham soil landscape occupies a portion of the site to the north east. All soil types within the Luddenham soil landscape are moderately erodible. Aboriginal objects retained in natural soil deposits are, therefore, likely to be impacted. Nonetheless, this soil landscape is considered sensitive for isolated stone artefacts.
- Native remnant vegetation is present throughout the subject area.

5. ARCHAEOLOGICAL CONTEXT

A summary of background research for Aboriginal cultural heritage resources within and around the subject area is provided below, including search results from the Aboriginal Heritage Information Management System (AHIMS) and consideration of previous archaeological investigations pertinent to the subject area.

5.1. PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

Previous archaeological investigations may provide invaluable information on the spatial distribution, nature and extent of archaeological resources in a given area. Reports from previous investigations of relevance to the present subject area are discussed below.

5.1.1. Archaeological Investigations of the subject area

AHMS, 2017. Greater Macarthur Investigation Area (GMIA): Archaeological Research Design and Management Strategy.

This assessment included the subject area, which falls within the Greater Macarthur Investigation Area, being the 'Urban Capable' area within the Greater Macarthur Priority Area. This assessment was prepared by AHMS to understand and manage the known and unknown archaeological resources across the Greater Macarthur area, including identifying known Aboriginal objects or sites of cultural significance and preparing a predictive model for the region. The report was prepared through literature review and consultation with local Aboriginal Traditional Elders and Knowledge Holders, with targeted survey of listed items across the area.

This study acknowledged the broad cultural significance of Appin associated with the Appin Massacre and the known Aboriginal sites within the broader area which indicate the ongoing use and habitation within the area. No specific comments were made regarding the significance of the subject area within this report. However, the report did provide a broad predictive model for the region which can be surmised as follows:

- Distribution of known sites within the area are biased towards areas which have been subject to greater investigation due to development and resource extraction activities.
- Post-contact use of the GMIA has primarily consisted of agricultural practices which may have impacted resources such as modified trees, stone arrangements, habitation structures, and ceremonial rings.
- Sites of both tangible and intangible value are underrepresented in records due to accessibility for survey and the flaws in recording systems incapable of recording intangible cultural sites, as well as the incomplete and biased historic record.

On mapping of the GMIA, the subject area is within an area mapped as containing Low-Moderate sensitivity (see Figure 10). This Research Design recommended test excavation in areas requiring it follow a standardised system to ensure a comparison between sites could be made. A detailed methodology is provided by AHMS, consideration to which should be given in future assessments of the subject site.

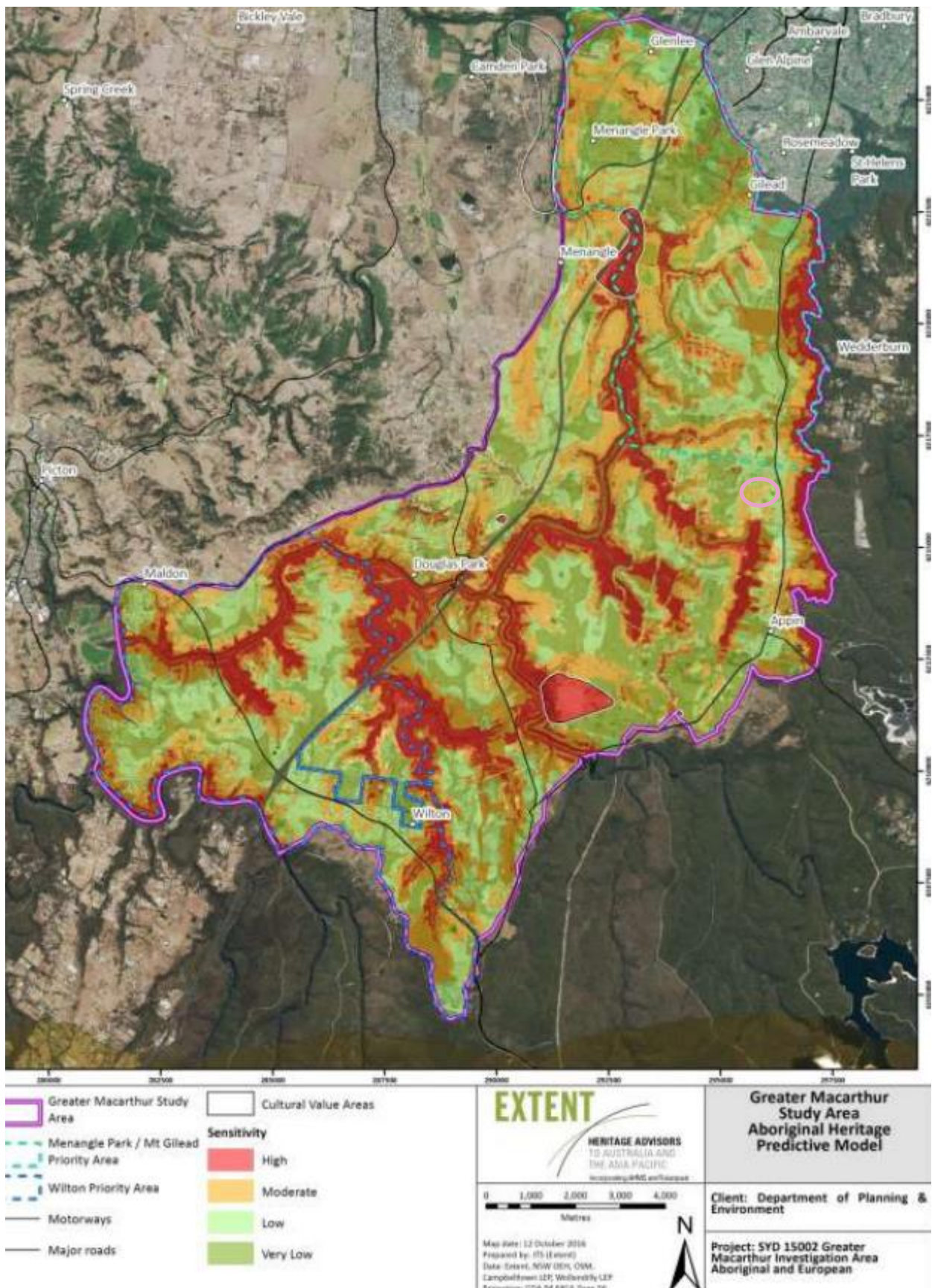


Figure 10 – GMIA Aboriginal Heritage Predictive Model, approximate location of the subject site indicated in pink.
Source: AHMS, 2017.

5.1.2. Archaeological Investigation of the Local area

Summaries of the most pertinent reports for the present subject area, which were undertaken in similar environmental contexts, are provided below.

Niche Environment and Heritage Pty Ltd, 2022, Appin (Part) Precinct Plan: Aboriginal Objects Due Diligence Assessment.

Niche Environment and Heritage Pty Ltd (Niche) were engaged by Walker Corporation in October 2022 to prepare an Aboriginal Objects Due Diligence Assessment for the Appin (Part) Precinct Plan. The Appin (Part) Precinct Plan concerns a portion of land comprising 1,378ha, approximately 2.5km south of the subject area. It is bounded by the Nepean and Cataract rivers to the west, farmland to the south, Appin Road and Elladale Creek to the east, and Ousedale Creek to the north.

The site was found to be located within 200 m of waters, near to ridge lines and associated with outcropping sandstone. This sandstone outcropping was identified within the Hawkesbury colluvial soils along the tributaries of the Nepean River. On this basis, it was considered an archaeologically sensitive landscape feature within the activity area, with some existing AHIMS registered shelter sites. A number of non-perennial order drainage lines were also identified within the study area, which was interpreted as having a high potential to retain Aboriginal objects.

Four physiographic soil landscapes were identified within the study area, including Blacktown residual, Luddenham erosional and Hawkesbury colluvial. Table 2 below notes the archaeological resources identified by Niche as potentially occurring within each soil landscape:

Table 2 Potential archaeological resources within Blacktown residual, Luddenham erosional and Hawkesbury colluvial soil landscapes

Soil Landscape	Potential Resources
Blacktown Residual	Site types would likely include isolated artefacts, open camp sites and where suitable geology occurs, axe grinding grooves, rock engravings and shelters with art, artefacts and/or deposit.
Luddenham Erosional	This soil landscape is known to preserve Aboriginal objects in association with hill crests, lower slopes and flats associated with good outlook and/or drainage lines. These site types are more likely to comprise isolated stone artefacts rather than more significant concentrations. This landscape is prone to localised erosion, which may impact the integrity of archaeological deposits
Hawkesbury Colluvial	The most common site types associated with the Hawkesbury soil landscape type comprise of sandstone Shelters.

Source: Niche 2022, pages 14-15.

The geology of the wider Wollondilly area was also identified as a potential reservoir for Aboriginal people, providing silcrete, silicified wood, tuff, mudstone, quartz, quartzite and basalt. Silcrete is commonly used for stone tool making and has been recovered from archaeological sites across the Cumberland Plain (Niche 2022, 15).

Numerous disturbances were identified throughout the site. These included widespread vegetation clearances; pastoral and agricultural impacts; road, track and easement construction; and some development including houses and farming infrastructure. Works on the Upper Canal of the Nepean River were also identified likely to cause ground disturbances in adjacent portions of the site. Likewise, the construction of a gas pipeline was identified as likely to have disturbed the potential locations of graves associated with the Appin Massacre. Nonetheless, the gorges and gullies were considered to be minimally disturbed, with no infiltration of weeds or evidence of cattle damage.

Altogether, the report identified that the site included numerous landscape features likely to indicate the presence of Aboriginal objects, as identified by the Due Diligence Code. Therefore, the following recommendations were made (Niche 2022, 37):

- Aboriginal community consultation is to be carried out in accordance with the (DECCW 2010) Aboriginal Cultural Heritage Consultation Guidelines for Proponents 2010.
- An Aboriginal Cultural Heritage Assessment (ACHA) will be required to fully assess the impact of the proposed works on Aboriginal objects and cultural heritage resources within the activity area. The ACHA is required to be completed in accordance with the Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH 2011).
- All new Aboriginal cultural heritage sites identified during the site inspection be registered through Australian Heritage Information Management System (AHIMS).
- An Aboriginal Heritage Impact Permit (AHIP) under Section 90 of the National Parks and Wildlife Act 1974 will be required for the identified Aboriginal objects if the proposed harm cannot be avoided.
- All subsequent Aboriginal cultural heritage assessments should be undertaken in accordance with the Greater Macarthur Investigation Area: Archaeological Research Design and Management Strategy prepared by AHMS (2017).

GML Heritage, 2022. Mt Gilead Stage 2: First Nations Cultural Heritage Summary Report.

GML Heritage were engaged by Lendlease Communities Pty Ltd in July 2022 to prepare a First Nations heritage and culture interviews report for the Mount Gilead Stage 2 (MGS2) area. The MGS2 area is 495ha in area, encompassing the land from the Nepean River to Appin Road, and is located approximately 2.8km north-west of the subject area.

The site was found to be located between the Nepean and Georges Rivers, with a complex network of high order creeks and springs disbursed throughout the area. Remnant native vegetation was generally constrained along the creek lines – especially, along the Menangle Creek, Nepean Creek and Woodhouse Creek and along the Nepean River. The entire area is located across Hawkesbury sandstones with some Wianamatta group shales (GML 2022, 14-15).

Three soil landscapes were identified within the study area. The Blacktown soil unit dominates the site, found across 80% of the landforms, away from all the major waterways. Rather, a thick colluvial Hawkesbury unit was identified along the lower reaches of Woodhouse, Nepean and Menangle Creek. These locations all were associated with steep open gorges and sandstone bedrock exposures. One fluvial landscape, Theresa Park, was found in parts of Menangle Creek (GML 2022, 14-15).

In the course of 10 visual inspections of the site, including one formal archaeological survey, numerous items of significance were identified. These included 7 shelters with rock art, 45 cultural trees, 7 grinding groove sites, 34 separate stone artefact sites (lithics), 16 unenclosed zones with potential archaeological deposits (PAD), 36 PADs in shelters, 14 waterholes, 1 spring 3 other cultural items/places (GML 2022, 52-64). On this basis, the following heritage management and planning considerations were recommended for the site:

- Future engagement with First Nations people.
- Conservation of Aboriginal cultural heritage values.
- Biobanking.
- Urban development.
- Future heritage investigations.
- Place specific heritage management.

5.2. REGISTERED ABORIGINAL SITES

5.2.1. The AHIMS Database

The Aboriginal Heritage Information Management System (AHIMS) is a database of registered Aboriginal archaeological objects and places in NSW. Each registered Aboriginal site includes one or more site 'features', which may be an Aboriginal object or place under the NPW Act.

The *Guide to completing the AHIMS Site Recording Form* (OEH 2012) lists 20 different features that may be recorded on AHIMS. The most common site features registered in NSW are artefacts, modified trees, art, grinding grooves and shell deposits (see Glossary for definitions). However, the likelihood of any particular

site feature being found will vary according to region and environment. Less common site features that are encountered are burials, ceremonial rings, earth mounds, fish traps, habitation structures, hearths, non-human bone and organic material, ochre quarries, stone arrangements and stone quarries (see Glossary for definitions).

Other Aboriginal site features that are recorded on AHIMS but are not ‘Aboriginal objects’ within the meaning of that term as it is defined in the NPW Act (i.e. are not a ‘deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation’) are potential archaeological deposits (PADs), Aboriginal ceremony and dreaming sites, Aboriginal resource and gathering sites, conflict sites and waterholes (see Glossary for definitions). These features are only considered to be ‘Aboriginal objects’ for the purpose of the NPW Act if accompanied by at least one of the other site types defined above.

It should be noted that the AHIMS register does not represent a comprehensive list of all Aboriginal objects or places as it is limited to sites that have been previously identified and registered. Registration is typically the result of previous archaeological investigation, so the number of registered Aboriginal sites in area is dependent on the amount of such research previously undertaken.

5.2.1.1. AHIMS Search

A search of the Aboriginal Heritage Information Management System (AHIMS) was carried out on 6th April 2022 (AHIMS Client Service ID: 673430). The parameters of the search followed the area at Lot 105/DP1188670 with a Buffer of 1000 meters on all sides. A summary of all previously registered Aboriginal sites within the extensive search area is provided in Table 3 and their spatial distribution is shown in Figure 12. The Basic and Extensive AHIMS search results are included in the appendix.

The AHIMS search identified 4 Aboriginal sites in proximity to the subject area; although, no Aboriginal objects or Aboriginal places were registered within the curtilage of the subject area. In the broader search area, a total of 36 Aboriginal sites are registered. Six of the recorded Aboriginal sites were identified as ‘not a site’ in the search results, reducing the total number of identified Aboriginal sites to 30. The locations of the 30 identified Aboriginal sites are shown in Figure 12.

Among the 30 identified Aboriginal sites, a total of 10 distinct site types were identified. These include artefact scatter, grinding groove, shelter with art, shelter with artefact, shelter with art and artefact, shelter with potential archaeological deposit (PAD), shelter with art and PAD, isolated find and modified tree. The number and types of sites are presented in Figure 11 and Table 3.

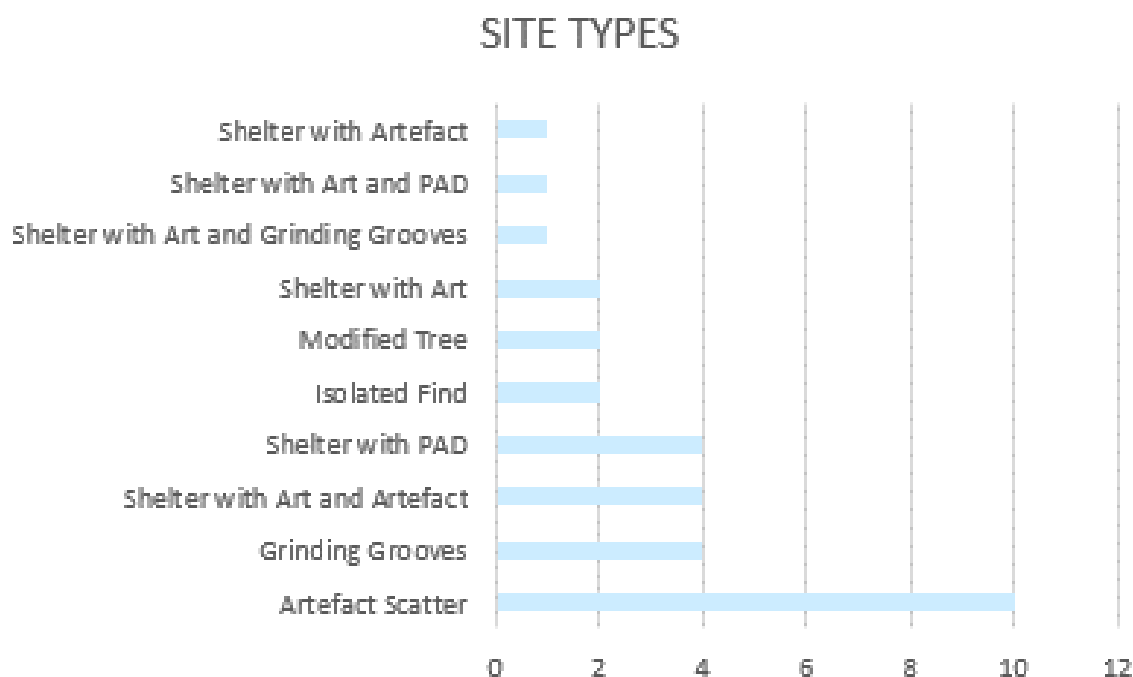


Figure 11 – Site types

Table 3 – Site types identified in AHIMS search

Site Type	Site Context	# of Registered Sites	% of Registered Sites
Artefact Scatter	Open	9	30.0%
Grinding Grooves	Open	4	13.3%
Shelter with Art and Artefact	Closed	4	13.3%
Shelter with PAD	Closed	4	13.3%
Isolated Find	Open	2	6.7%
Modified Tree	Open	2	6.7%
Shelter with Art	Closed	2	6.7%
Shelter with Art and Grinding Grooves	Closed	1	3.3%
Shelter with Art and PAD	Closed	1	3.3%
Shelter with Artefact	Closed	1	3.3%
TOTAL	N/A	30	100%

The distribution of sites in a landscape may be representative of the interaction between Aboriginal people and their environment. The majority of registered Aboriginal sites within the search area are focused along riverbanks and creek lines. This scatter of sites may reflect a reliance of local Aboriginal people on marine and terrestrial resources. The streams and swamplands would have provided a variety of subsistence – such as roots, berries and seeds to gather; whereas, the forested land adjacent to these waterways would have sheltered lizards, kangaroos, birds and wallabies.

It is equally likely that this distribution of sites throughout the broader AHIMS search area is informed by the underlying geology of the region. The majority of the sites identified within the search area, 57% (n=17), are associated with sandstone geology. Relevant site types include grinding grooves, shelter with art, shelter with artefact, shelter with art and artefact, shelter with potential archaeological deposits (PADs), and shelter with art and PAD. Within the broader search radius (and, indeed, within the subject area), sandstone typically occurs alongside waterways. The Nepean, for instance, is associated with large sandstone outcrops that extend throughout the Appin region (including the subject area). Due to sandstone's high erosion hazard, there is a high likelihood of shelters occurring along these creek lines.

The topography of the site is such that there is potential for open context and closed context sites to occur throughout the subject area. Registered sites within the broader search radius are marginally more commonly open, 57% (n=17), than closed, 43% (n=13). Figure 12 Below demonstrates this distinction. To a great extent, this may also be attributed to the prominence of sandstone outcropping throughout the area, which is a typical environment in which shelters and grinding grooves occur.

The majority of the sites identified within the search area, 30% (n=9) comprised of artefact scatter. These were AHIMS registered sites in which archaeological excavations had recovered Aboriginal objects. All were recovered from highly disturbed contexts. These excavations reveal that Aboriginal objects can remain within the disturbed environments despite modern disturbance.

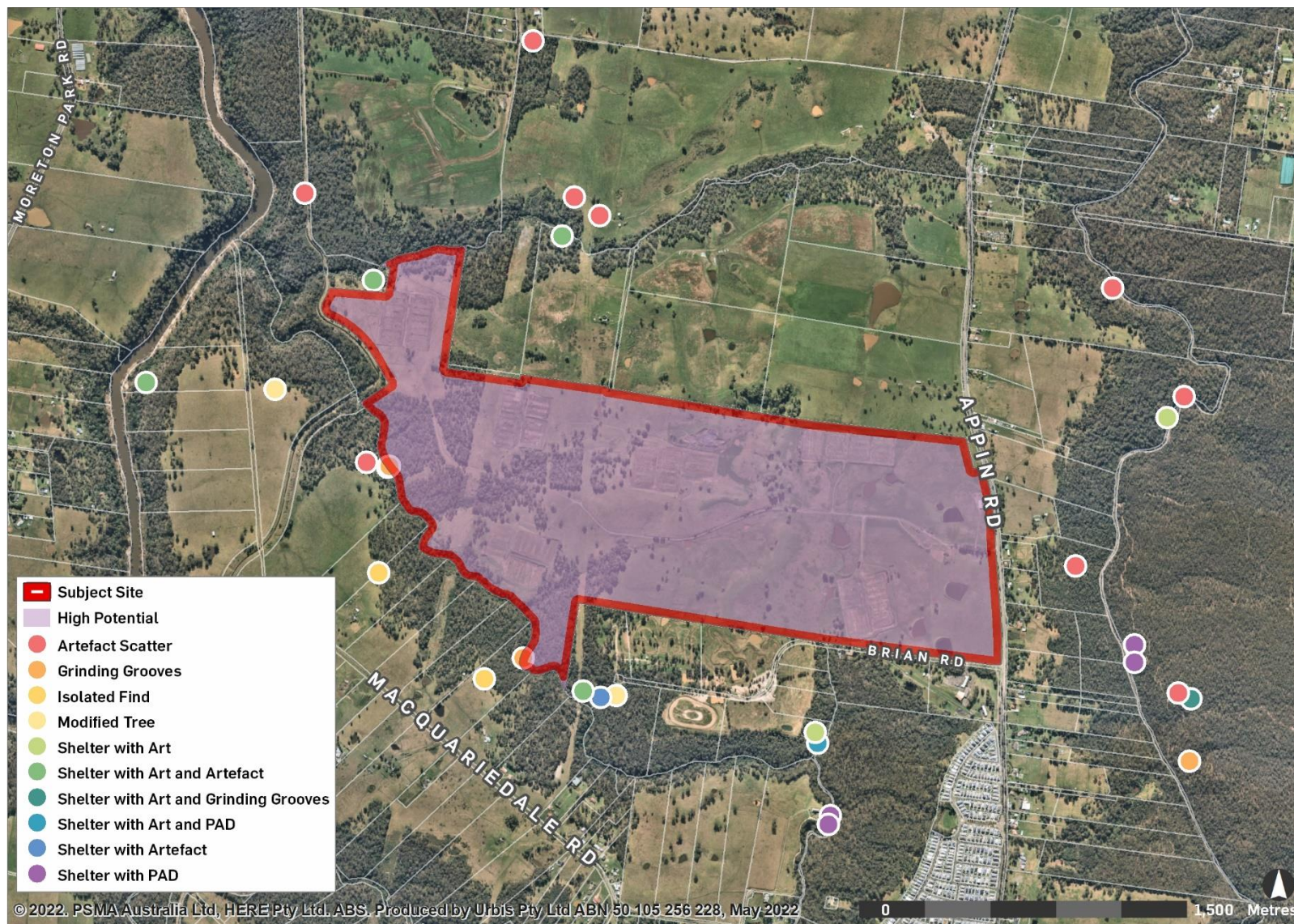


Figure 12 – Map of AHIMS sites in extensive search area

5.3. SITE VISIT

While no formal site inspection or survey was undertaken to directly inform this assessment, two on-site meetings have been held which have involved investigation of the ground conditions by Urbis Senior Archaeologist Meggan Walker in April 2022. On one occasion, local Elder Aunty Glenda Chalker was invited to attend site to discuss the project. The site visits identified that the subject area is largely undisturbed, with only minor disturbances associated with the construction of dams and tracks across the majority of the subject area (see Figure 13-Figure 14). In some discrete areas, disturbance was increased associated with the levelling and terracing of portions of the site (see Figure 15). During the site meeting it was also observed that sandstone outcrops occur in high concentration surrounding drainage lines, which generally contain steep embankments with sandstone outcrops throughout (see Figure 16-Figure 17). The site was also noted to contain stands of mature native vegetation which holds the potential to be remnant native vegetation, and therefore could hold cultural markings (see Figure 18).

Generally, the site meetings confirmed that the archaeological potential of the subject site is high, with potential for both tangible and intangible cultural value across the whole area.



Figure 13 – View north, typical view of the subject area with rolling hills covered in pasture.



Figure 14 – View north-west, typical view of disturbance within subject area.



Figure 15 – View west, area of terracing/earthworks



Figure 16 – View east, steep sandstone embankments of drainage lines.



Figure 17 – Sandstone outcrops near drainage lines



Figure 18 –Stands of natural mature vegetation near creek lines, view west.

5.4. SUMMARY

The assessments of the archaeological and environmental contexts of the subject area are summarised as follows:

- No Aboriginal objects and/or Places were identified within the subject area, although four (4) sites were registered on the boundary of the subject area, to the north, south and west.
- Of the 30 Aboriginal sites identified in the broader search area, 17 were registered as being in an open site context and 13 were in a closed site context (shelter). Therefore, the majority of the registered sites were open, comprising 57% of the search results, relative to 43% for closed site contexts.
- Of the 30 Aboriginal sites identified in the broader search area, the majority were located along creek lines. This is likely related to Hawkesbury sandstone outcropping in these areas, which is a typical environment for shelters and grinding grooves. It is unlikely coincidental that of the 30 Aboriginal sites identified in the broader search area, the most commonly occurring was artefact scatters, grinding grooves and shelters.
- Of the 30 Aboriginal sites identified in the broader search area, 10 site types were identified. These include artefact scatter, grinding grooves, shelter with art, shelter with artefact, shelter with art and artefact, shelter with potential archaeological deposits (PADs), shelter with art and PAD, isolated find and modified tree.
- It is likely that the absence of registered sites within the subject area is the result of lack of detailed archaeological investigation, as opposed to the absence of evidence.
- The subject area is not zoned in an area of cultural sensitivity on the 'Starting with Country' Map as provided in the Guide to the Greater Macarthur Growth Area study.
- No previous archaeological studies directly addressing the subject area have been identified, outside of the overarching GMIA study which identified low-moderate potential in the subject area.
- Several studies within proximity of the area have been assessed as part of this ADD, situating it within the broader archaeological context.
- Previous studies within proximity of the subject area have identified archaeological potential associated with each of the major soil landscapes constituting the site. This may be summarised as follows:
 - Blacktown Soil Landscape: isolated artefacts, open camp sites, axe grinding grooves, rock engravings and shelters with art, artefacts and/or deposits.
 - Luddenham Soil Landscape: isolated stone artefacts.
 - Hawkesbury Soil Landscape: sandstone shelters with art, artefacts and/or deposits.

- Site visits within the subject area have identified relatively low disturbance and associated high potential for Aboriginal objects and/or sites to occur, with sensitive features including sandstone outcrops and mature trees present across the subject area.

6. DUE DILIGENCE ASSESSMENT

6.1. OVERVIEW OF DUE DILIGENCE PROCESS

The NPW Act provides statutory protection for Aboriginal objects and places in NSW. Section 87 (2), Part 6 of the NPW Act ensures that a person who exercises 'due diligence' in determining that their actions will not harm Aboriginal objects has a defence against prosecution for the strict liability offence, outlined by Section 86 of Part 6 of the NPW Act, if they later unknowingly harm an object without an Aboriginal Heritage Impact Permit (AHIP).

The Due Diligence Code (DECCW, 2010) was developed to help individuals and/or organisations to establish whether certain activities have the potential to harm Aboriginal objects within a given proposed activity footprint. Following the generic due diligence process (Figure 3), which is adopted by the NPW Regulation, would be regarded as 'due diligence' and consequently would provide a defence under the NPW Act.

The due diligence process outlines a set of practicable steps for individuals and organisations to:

1. Identify whether or not Aboriginal objects are, or likely to be, present in an area.
2. Determine whether or not their activities are likely to harm Aboriginal objects (if present).
3. Determine whether an AHIP application is required to carry out the harm.

The present assessment follows the steps of the due diligence process and provides clear and concise answers. Where necessary the present assessment provides detailed description to every aspect of the due diligence code to ensure the compliance of the proposed development and assessment of any Aboriginal heritage constraints.

6.2. ASSESSMENT OF SUBJECT AREA

6.2.1. Is the activity a low impact activity for which there is a defence in the regulations?

YES

The NPW Regulation removes the need to follow the due diligence process if the proposed activity is a low impact activity which is prescribed as a defence against prosecution for an offence under section 86(2) of the NPW Act. The following low impact activities are prescribed in the NPW Regulation:

- Certain maintenance work on land that has been disturbed.
- Certain farming and land management work on land that has been disturbed.
- Farming and land management work that involved the maintenance of certain existing infrastructure.
- The grazing of animals.
- An activity on land that has been disturbed that comprises exempt development or was the subject of a complying development certificate issued under the *Environmental Planning and Assessment Act 1979*.
- Certain mining exploration work on land that has been disturbed.
- Certain geophysical work.
- The removal of isolated, dead or dying vegetation, but only if there is minimal disturbance to the surrounding ground surface.
- Seismic surveying on land that has been disturbed,
- The construction and maintenance of ground water monitoring bores on land that has been disturbed.
- Environmental rehabilitation work including temporary silt fencing, tree planting, bush regeneration and weed removal, but not including erosion control or soil conservation works (such as contour banks).

It is important to note that this defence does not apply to situations where you already know there is an Aboriginal object and does not authorise harm to known Aboriginal objects.

This assessment has been prepared to support the Planning Proposal for the rezoning of the subject area, which does not involve ground surface impacts. However, it is understood that future works at the subject area will be undertaken which do involve impact to the ground in subsequent stages of development. As such, while the current activity is low impact, future activities will not be.

6.2.2. Step 1 – Will the activity disturb the ground surface?

NO.

This assessment has been prepared to support the Planning Proposal for the rezoning of the subject area, which does not involve ground surface impacts. However, it is understood that future works at the subject area will be undertaken which do involve impact to the ground in subsequent stages of development. As such, while the current activity does not involve impact, future stages of this project will. As such, further assessment is recommended for these stages.

6.2.3. Step 2a – Are there any relevant confirmed site records or other associated landscape feature information on AHIMS?

NO.

There are no Aboriginal objects or Aboriginal places registered within the subject area (see Section 5.1 above). There is no information recorded in the AHIMS databased about landscape features of relevance to the determining the presence of Aboriginal objects or Aboriginal places within the subject area (see Section 5.1 above).

There are four (4) sites recorded to the immediate north, west and south of the subject area on AHIMS, on the boundary of the subject area. The absence of site records within the subject area is likely the result of lack of assessment to date.

6.2.4. Step 2b – Are there any other sources of information of which a person is aware?

YES.

While no previous assessments directly addressing the subject area have been identified, a series of assessments for nearby developments have been identified. These assessments have concluded that areas in the region with the same hydrological, geological and topographical features retain potential for surface and subsurface Aboriginal objects. As such it can be extrapolated that the same is true for the subject area.

6.2.5. Step 2c – Are there any landscape features that are likely to indicate the presence of Aboriginal objects?

YES.

The Due Diligence Code specifies the following landscape features are indicative of the likely presence of Aboriginal objects: areas within 200 m of waters including freshwater and the high tide mark of shorelines; areas located within a sand dune system; areas located on a ridge top, ridge line or headland; areas located within 200m below or above a cliff face; and areas within 20m of or in a cave, rock shelter, or a cave mouth.

The Due Diligence Code further specifies that the above landscape features are of relevance only if the subject area has not been subjected to ground disturbance. According to the Due Diligence Code, land is disturbed if it has been the subject of a human activity that has changed the land's surface, being changes that remain clear and observable. Examples of disturbance include ploughing, construction of rural infrastructure (such as dams and fences), construction of roads, trails and tracks (including fire trails and tracks and walking tracks), clearing vegetation, construction of buildings and the erection of other structures, construction or installation of utilities and other similar services (such as above or below ground electrical infrastructure, water or sewerage pipelines, stormwater drainage and other similar infrastructure) and construction of earthworks.

The subject area contains a series of drainage lines and is bounded by Mallaty and Ousdale Creeks. The subject area also contains sandstone outcrops associated with steep drainage line embankments, and a

series of spurs and floodplains. This assessment has determined that the subject area has not experience high levels of ground disturbance, with generally minimal disturbance associated with agricultural use of the land, and some areas of higher disturbance for terracing and levelling.

The landscape features of the subject area therefore indicate the likely presence of Aboriginal objects.

6.2.6. Step 3 – Can Harm to Aboriginal Objects Listed on AHIMS or Identified by other sources of information and/or can the carrying out of the activity at the relevant landscape features be avoided?

Further information is required.

The current assessment is prepared to support a planning proposal, which will not involve impact to areas where Aboriginal archaeological potential is identified. However, future stages of this project will involve ground surface impacts across the site. Further assessment and information are required to inform an understanding of the ability to avoid harm.

6.2.7. Step 4 – Does the Desktop Assessment and Visual Inspection Confirm that there are Aboriginal Objects or that they are Likely?

YES.

The desktop assessment has identified that it is likely that Aboriginal objects would occur at the subject area in a surface and/or subsurface capacity. As such, further investigation including consultation with community is required prior to the submission of future Development Applications at the subject area.

6.3. OUTCOME OF DUE DILIGENCE ASSESSMENT

In accordance with the due diligence process described in the Due Diligence Code and outlined in Figure 3, the above assessment has determined that further investigation is required for the subject area. Urbis recommends that the following be undertaken:

Aboriginal Cultural Heritage Assessment

- An Aboriginal Cultural Heritage Assessment (ACHA) should be prepared for the subject area, to investigate the potential tangible and intangible cultural heritage values which have potential to occur.
- The ACHA should be undertaken in accordance with the *National Parks and Wildlife Regulation 2019* (NPW Reg) and guided by the following:
 - *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW, 2010).
 - *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW, 2010).
 - *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (Office of Environment and Heritage 201).
 - *The Australia ICOMOS Charter for Places of Cultural Significance, The Burra Charter*, 2013.

7. CONCLUSIONS AND RECOMMENDATIONS

The present ADD was undertaken to investigate whether development of the subject area has the potential to harm Aboriginal objects and/or places. The following conclusions have been drawn from the ADD:

- No Aboriginal objects and/or Places were identified within the subject area, although four (4) sites were registered on the boundary of the subject area, to the north, south and west. It is likely that the absence of registered sites within the subject area is the result of lack of detailed archaeological investigation, as opposed to the absence of evidence.
- Of the 30 Aboriginal sites identified in the broader search area, the majority were located along creek lines. This is likely related to Hawkesbury sandstone outcropping in these areas, which is a typical environment for shelters and grinding grooves.
- Of the 30 Aboriginal sites identified in the broader search area, 10 site types were identified. These include artefact scatter, grinding grooves, shelter with art, shelter with artefact, shelter with art and artefact, shelter with potential archaeological deposits (PADs), shelter with art and PAD, isolated find and modified tree.
- No previous archaeological studies directly addressing the subject area have been identified, outside of the overarching GMIA study which identified low-moderate potential in the subject area.
- The subject area contains environmental factors indicative of archaeological potential include proximity to waterways, topography and geology, with sandstone outcrops common across the subject area:
 - The subject area includes floodplains associated with the Nepean Rivers and its tributaries, with a series of slopes and peaks, interspersed with deep drainage lines with steep embankments. There is significant sandstone outcropping towards the west and south-west of the site. This varied landscape would have likely provided past Aboriginal people with a diverse range of land use opportunities, rendering it generally sensitive for Aboriginal objects and places.
 - The subject area is situated between the Georges and Nepean Rivers – two major and significant waterways. The subject area also includes a converging point between Mallaty Creek and Ousdale Creek, with other tributaries disbursed throughout the site. Lily Ponds Gully is also located within the subject area's south-west. This proximity to numerous waterways likely increases the sensitivity of the subject area for Aboriginal objects and places.
 - Three soil landscapes dominate the subject area: the Blacktown, Hawkesbury and Luddenham soil landscapes. Previous studies within proximity of the subject area have identified archaeological potential associated with each. This may be summarised as follows:
 - Blacktown Soil Landscape: isolated artefacts, open camp sites, axe grinding grooves, rock engravings and shelters with art, artefacts and/or deposits.
 - Luddenham Soil Landscape: isolated stone artefacts.
 - Hawkesbury Soil Landscape: sandstone shelters with art, artefacts and/or deposits.
- The subject area has experienced minimal disturbance associated with ongoing and historic agricultural use.

Based on the above conclusions, Urbis recommends the following:

- This ADD report should be kept as evidence of the Due Diligence Process having been applied to the subject area.
- Further assessment of the subject area is required to accompany a development application for future stages of work.

Aboriginal Cultural Heritage Assessment

- An Aboriginal Cultural Heritage Assessment (ACHA) should be prepared for the subject area, to investigate the potential tangible and intangible cultural heritage values which have potential to occur.
- The ACHA should be undertaken in accordance with the *National Parks and Wildlife Regulation 2019* (NPW Reg) and guided by the following:

- Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (DECCW, 2010).
- *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW, 2010).
- *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (Office of Environment and Heritage 201).
- The Australia ICOMOS Charter for Places of Cultural Significance, The Burra Charter, 2013.

8. REFERENCES

Ashfield & District Historical Society, 1996. 'A Short Walk Through Ashfield's Past', booklet

Attenbrow, V. 2010, *Sydney's Aboriginal Past, 2nd Edition*, University of New South Wales Press, Sydney: Australia

City of Sydney, 2013. *Prince Alfred Park (Cleveland Paddocks)*. Retrieved 19 October 2022 at

23:20

Chat

People

View

Apps

More

<https://www.sydneybarani.com.au/sites/prince-alfred-park-cleveland-paddocks/>

Clarkson, C., Jacobs, Z., Marwick, B., Fullagar, R., Wallis, L., Smith, M., Roberts, R.G., Hayes, E., Lowe, K., Carah, X., Florin, S.A., McNeil, J., Cox, D., Arnold, L.J., Hua, Q., Huntley, J., Brand, H.E.A., Manne, T., Fairbairn, A., Shulmeister, J., Lyle, L., Salinas, M., Page, M., Connell, K., Park, G., Norman, K., Murphy, T. and Pardoe, C. 2017, Human occupation of northern Australia by 65,000 years ago, *Nature*, vol. 547, pp. 306-310

Collins, D 1798, *An Account of the English Colony in New South Wales, Volume 1*

Department of Environment Climate Change and Water, 2010a, *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales*

Department of Environment, Climate Change and Water, 2010b, *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW, Hurstville, NSW*

Dominic Steele Consulting Archaeology, 2002. *Salvage Excavation of a Potential Aboriginal Site, 589-593 George Street, Sydney*

Environmental Planning and Assessment Act 1979

Environment Protection and Biodiversity Conservation Act 1999

Howitt, A. W., 1996. *The Native Tribes of South-East Australia*. Aboriginal Studies Press, Canberra: Australia

Jo McDonald Cultural Heritage Management, 2005. *Archaeological testing and salvage excavation at Discovery Point, Site #45-5-2737, in the former grounds of Tempe House*

National Parks and Wildlife Act 1974

National Parks and Wildlife Regulations 2009

Sydney Development Control Plan 2012

Sydney Local Environmental Plan 2012

Office of Environment & Heritage (OEH), 2012. *Guide to completing the AHIMS Site Recording Form*

Tench, W 1793. *A Complete Account of the Settlement at Port Jackson*

Urbis, 2022. *271-279 Elizabeth Street & 262-266 Castlereagh Street, Sydney: Aboriginal Objects Due Diligence Assessment*

Urbis, 2022. *355-357 Sussex Street, Sydney: Aboriginal Objects Due Diligence Assessment*

Williams, A.N., Atkinson, F., Lau, M., Toms, P., 2014. A Glacial cryptic refuge in southeast Australia: Human occupation and mobility from 36,000 years ago in the Sydney Basin, New South Wales. *Journal of Quaternary Science*, 29(8): 735-748

9. DISCLAIMER

This report is dated 21 December 2022 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Pty Ltd (**Urbis**) opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, of Ingham Property Group (**Instructing Party**) for the purpose of a Due Diligence Assessment (**Purpose**) and not for any other purpose or use. To the extent permitted by applicable law, Urbis expressly disclaims all liability, whether direct or indirect, to the Instructing Party which relies or purports to rely on this report for any purpose other than the Purpose, and to any other person which relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

In preparing this report, Urbis was required to make judgements which may be affected by unforeseen future events, the likelihood and effects of which are not capable of precise assessment.

All surveys, forecasts, projections and recommendations contained in or associated with this report are made in good faith and on the basis of information supplied to Urbis at the date of this report, and upon which Urbis relied. Achievement of the projections and budgets set out in this report will depend, among other things, on the actions of others over which Urbis has no control.

In preparing this report, Urbis may rely on or refer to documents in a language other than English, which Urbis may arrange to be translated. Urbis is not responsible for the accuracy or completeness of such translations and disclaims any liability for any statement or opinion made in this report being inaccurate or incomplete arising from such translations.

Whilst Urbis has made all reasonable inquiries it believes necessary in preparing this report, it is not responsible for determining the completeness or accuracy of information provided to it. Urbis (including its officers and personnel) is not liable for any errors or omissions, including in information provided by the Instructing Party or another person or upon which Urbis relies, provided that such errors or omissions are not made by Urbis recklessly or in bad faith.

This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the reasonable belief that they are correct and not misleading, subject to the limitations above.

APPENDIX A

AHIMS RESULTS

