

Aboriginal Cultural Heritage Assessment Report Oakhampton, Maitland, NSW Planning Proposal City of Maitland LGA Prepared for Bremer Park Pty Ltd

Prepared by Niche Environment and Heritage Pty Ltd | 13 October 2022





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7256	Bremer Park Pty Ltd	Chelsea Freeman	City of Maitland

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Niche Environment and Heritage Pty Ltd (ACN 137 111 721) Enquiries should be addressed to Niche Environment and Heritage PO Box 2443, Parramatta NSW 1750, Australia Email: info@niche-eh.com

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Executive summary

Project outline

Niche Environment and Heritage Pty Ltd (Niche) was commissioned by Bremer Park Pty Ltd (hereafter referred to as 'the Proponent') to prepare an Aboriginal Cultural Heritage Assessment (ACHA) to inform a Planning Proposal application for the proposed Oakhampton project at 42 Kezia Road, Oakhampton NSW and the surrounding properties within the Aberglasslyn Urban Release Area (hereafter referred to as the 'Subject Area'). The Subject Area comprises of the following lots: Lot 1/DP 1012258, Lot 8/DP248331, Lot 7/DP248331, Lot 6/DP248331, Lot 5/DP248331, Lot 4/DP248331, Lot 1/DP562346, Lot 2/DP562346, Lot 3/DP562346, Lot 1/DP1086271, Lot 1/DP826919, Lot 66/DP810466, Lot 7/DP998430 and Lot 8/DP998430. The Planning Proposal of the Subject Area seeks to amend the Maitland Local Environmental Plan 2011 to change the zoning of the Subject Area from Part R1 General Residential, Part C3 Environmental Management, whilst maintaining part of the RU1 Primary Production and all of the C2 Environmental Conservation zoned land.

Aboriginal community consultation was undertaken with fourteen (14) Aboriginal groups who identified themselves as Registered Aboriginal Parties (RAPs) through the consultation process following the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010b).

Objectives

This ACHA has been prepared in accordance with the *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in New South Wales* (OEH 2010). This ACHA report is designed to inform the rezoning process and to manage and mitigate harm to Aboriginal objects and cultural heritage values during any future development within the Subject Area. As part of this ACHA, an Aboriginal cultural heritage site inspection was completed by Niche and representatives of the RAPs in compliance with the requirements of the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010a). The results of the archaeological assessment are presented in an Archaeological Report (AR) provided in Appendix A and have been considered in this ACHA when assessing the likely harm of the proposed activity on the Aboriginal objects present within the Subject Area.

Summary of results

No Aboriginal Objects or PADs were identified during the site inspection. Despite the Subject Area being located adjacent to the Hunter River, limited visibility at the time of the site inspection and the high levels of disturbance evident throughout the Subject Area has resulted in a low likelihood of Aboriginal Objects being present.

The overall scientific (archaeological), educational, representativeness, rarity and aesthetic value of the Aboriginal cultural heritage sites within the Subject Area is considered to be low. No Aboriginal cultural heritage sites were identified within the Subject Area.

Summary of potential impacts

This assessment has determined that the Planning Proposal and future redevelopment of the Subject Area does not have the potential to impact any known Aboriginal objects or deposits likely to contain Aboriginal objects. The Aboriginal cultural heritage sites ABPAD1 (AHIMS ID# 38-4-0865 and AHIMS ID# 38-4-1062) and AB PAD 2 (AHIMS ID# 38-4-0866 and AHIMS ID# 38-4-1063), will not be impacted by the proposed works as the location of the Aboriginal cultural heritage sites are approximately located

respectively.



Regulatory requirements and recommendations

Part 6 of the *National Parks and Wildlife Act* (1974) provides protection for all Aboriginal objects and declared Aboriginal places from harm. Harm is defined as destroying, defacing, damaging or moving an object from the land. An AHIP is a legal document that grants you permission to harm Aboriginal objects or declared Aboriginal places and sets out any conditions you must comply with. An AHIP is required to disturb any Aboriginal objects or places.

In order to fulfil the requirements of the Planning Proposal, Niche has prepared an ACHA. This ACHA presents the results of an Aboriginal cultural heritage site inspection completed by Niche and representatives of the RAPs in compliance with the requirements of the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010a). No Aboriginal cultural heritage sites were identified within the Subject Area.

Based on community consultation with the RAPs for the Project, results of the field assessment and with the completion of this ACHA by Niche, the following recommendations have been made:

Recommend	Recommendations		
	Aboriginal Heritage Impact Permit		
1.	 To ensure that the consultation records remain valid to support any future AHIP/s for the Subject Area, Bremer Park Pty Ltd should continue to consult with the Aboriginal community in accordance with the consultation guidelines and in accordance with any future Aboriginal Heritage Impact Permit (AHIP). To maintain consultation records and contact with stakeholders, the Proponent should send project updates to RAPs at a minimum of every six months for the duration of the Project. Should an Interpretation Plan be required, consultation with the Aboriginal community should be undertaken to inform the Interpretation Plan. This will enable Aboriginal cultural knowledge to be incorporated into the design and development of the Precinct, focusing on open/public spaces. 		
2.	Further assessment of Aboriginal heritage should be undertaken if the scope of works, as specified in the current ACHA/AR, is altered, redesigned or goes beyond the proposed development. If further assessment is required, assessment of Aboriginal heritage should be undertaken in accordance with the <i>National Parks & Wildlife Act 1974</i> (Amended 2010) and <i>National Parks & Wildlife Amendment Regulation 2019</i> . This may take the form of an Aboriginal Objects Due Diligence Assessment in the first instance.		
3.	Survey in the Subject Area of previously unsurveyed properties 29 Kezia Rd, Oakhampton and 487 Oakhampton Rd, Oakhampton is still required. Survey of properties should be undertaken in consultation with Aboriginal community when access is available and can occur as part of the DA.		
	General		
4.	All workers should be inducted into the Subject Area, so they are made aware of their obligations under the <i>National Parks and Wildlife Act 1974</i> and any conditions of any future AHIP prior and during and after construction activities.		
5.	In the event that previously unknown Aboriginal object(s) and/or sites are discovered during the proposed activity, work must stop, and an appropriately qualified archaeologist be contacted to access the nature, extent, and significance of the identified sites and notification is provided to Heritage NSW. Works should not proceed without advice from Heritage NSW or an appropriately qualified archaeologist.		
6.	In the unlikely event that suspected human remains are encountered during construction, all work in the area that may cause further impact, must cease immediately and:		



Recommendations				
	• The location, including a 20 m curtilage, should be secured using barrier fencing to avoid further harm.			
	The NSW Police must be contacted immediately.			
	 No further action is to be undertaken until the NSW Police provide written notification to Bremer Park Pty Ltd. 			
	• If the skeletal remains are identified as Aboriginal, Bremer Park Pty Ltd or their agent must contact:			
	 Heritage NSW's Enviroline on 131 555; and representatives of the RAPs. 			
	 No works are to continue until Heritage NSW provides written notification to the proponent or their Agent. 			



Glossary and list of abbreviations

Term or abbreviation	Definition
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.
ACHA	Aboriginal Cultural Heritage Assessment.
Aboriginal object(s)	The legal definition for material Aboriginal cultural heritage under the NSW National Parks and Wildlife Act 1974.
Aboriginal stakeholders	Members of a local Aboriginal land council, registered holders of Native Title, Aboriginal groups or other Aboriginal people who may have an interest in the Project.
AHIMS	Aboriginal Heritage Information Management System.
AHIP	Aboriginal Heritage Impact Permit.
AR	Archaeological Report.
Archaeology	The scientific study of material traces of human history, particularly the relics and cultural remains of past human activities.
Archaeological deposit	A layer of soil material containing archaeological objects and/or human remains.
Archaeological investigation	The process of assessing the archaeological potential of an impact area by a qualified archaeologist.
Archaeological site	An area that contains surface or sub-surface material evidence of past human activity in which material evidence (artefacts) of past activity is preserved.
Artefact	An object made by human agency (e.g. stone artefacts).
Assemblage	A group of artefacts found in close association with one another Any group of items designated for analysis that exist in spatial and/or vertical context – without any assumptions of chronological or spatial relatedness.
Avoidance	A management strategy which protects Aboriginal sites within an impact area by avoiding them totally in development.
BCD	The Biodiversity and Conservation Division (formerly the Office of Environment and Heritage and now Heritage NSW of the Department of Premier and Cabinet).
Catchment	The area from which a surface watercourse or a groundwater system derives its water.
Code of Practice	Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales.
CPD	City Project and Developments.
Cumulative impacts	Combination of individual effects of the same kind due to multiple actions from various sources over time.
DECCW	The Department of Conservation, Climate Change and Water, replaced by the Biodiversity and Conservation Division (BCD) of the Department of Planning, Industry and Environment (DPIE) and now Heritage NSW of the Department of Premier and Cabinet (DPC).



Term or abbreviation	Definition
Development	The processes involved in preparing the Subject Area for subdivision and associated road infrastructure, including levelling and compacting for future housing constructing, and cutting and compacting areas for road infrastructure.
DA	Development Application.
DG	Director General
DPC	Department of Premier and Cabinet
DPIE	The Department of Planning, Industry and Environment.
Drainage	Natural or artificial means for the interception and removal of surface or subsurface water.
EP&A Act	NSW Environmental Planning and Assessment Act 1979.
FGS	Fine Grained Siliceous material. A type of raw material from which stone artefacts were manufactured.
Flake	A piece of stone detached from a core, displaying a bulb of percussion and striking platform.
Harm	With regard to Aboriginal objects this has the same meaning as the NSW National Parks and Wildlife Act 1974.
НМР	Heritage Management Plan.
Heritage NSW	Aboriginal cultural heritage regulator in the Department of Premier and Cabinet. Responsible for the management of Aboriginal Cultural Heritage (ACH) regulation functions under the <i>National Parks and Wildlife Act 1974</i> . Formerly BCD of DPIE.
Impact	Influence or effect exerted by a project or other activity on the natural, built and community environment.
Impact area	An area that requires archaeological investigation and management assessment.
In situ	Latin words meaning 'on the spot, undisturbed'.
Isolated artefact / find	A single artefact found in an isolated context.
Landscape character	The aggregate of built, natural and cultural aspects that make up an area and provide a sense of place. Includes all aspects of a tract of land – built, planted and natural topographical and ecological features.
Land unit	An area of common landform, and frequently with common geology, soils and vegetation types, occurring repeatedly at similar points in the landscape over a defined region. It is a constituent part of a land system.
Landform	Any one of the various features that make up the surface of the earth.
LALC	Local Aboriginal Land Council.
LEP	Local Environmental Plan.
LGA	Local Government Area.
Management plans	Conservation plans which identify short and long term management strategies for all known sites recorded within a (usually approved) Subject Area.
Methodology	The procedures used to undertake an archaeological investigation.
Mitigation	To address the problem of conflict between land use and site conservation.
NPW Act	National Parks and Wildlife Act 1974.
NPW Regulation	National Parks and Wildlife Regulation 2009.



Term or abbreviation	Definition
OEH	Office of Environment and Heritage, replaced by the Biodiversity and Conservation Division (BCD) of the Department of Planning, Industry and Environment (DPIE) and now Heritage NSW of the Department of Premier and Cabinet.
Open camp site	An archaeological site situated within an open space (e.g. archaeological material located on a creek bank, in a forest, on a hill, etc.).
PAD	Potential Archaeological Deposit.
	A location considered to have a potential for subsurface archaeological material.
RAP	Registered Aboriginal Party.
Site recording	The systematic process of collecting archaeological data for an archaeological investigation.
Site	A place where past human activity is identifiable.
Spit	A unit of archaeological excavation with an arbitrary assigned measurement of depth and extent.
Survey coverage	A graphic and statistical representation of how much of an impact area was actually surveyed and therefore assessed.



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1 Introduction

1.1 Background

This Aboriginal Cultural Heritage Assessment (ACHA) presents the results of an archaeological survey to inform a planning proposal which seeks to amend the *Maitland Local Environmental Plan* (LEP) 2011 to change the zoning of the Subject Area from RU1 Primary Production, RU2 Rural Landscape and C2 Environmental Conservation to Part R1 General Residential, Part C3 Environmental Management, whilst maintaining part of the RU1 Primary Production and all of the C2 Environmental Conservation zoned land at 42 Kezia Road, Oakhampton NSW and the surrounding properties within the Aberglasslyn Urban Release Area (hereafter referred to as the 'Subject Area'). The Subject Area consists of the following lots: Lot1/DP1012258, Lot 8/DP248331, Lot 7/DP248331, Lot 6/DP248331, Lot 5/DP248331, Lot 4/DP248331, Lot 1/DP562346, Lot 2/DP562346, Lot 3/DP562346, Lot 1/DP1086271, Lot 1/DP826919, Lot 66/DP810466, Lot 7/DP998430 and Lot 8/DP998430 (Figure 1 and Figure 2).

The planning proposal covering the Subject Area seeks to amend the Maitland LEP 2011 in order to facilitate low density residential development. This would facilitate the proposed R1 General Residential Area to accommodate approximately 550 residential lots with associated roads, infrastructure, parks, and public spaces.

Bremer Park Pty Ltd ('the Proponent') has engaged Niche Environment and Heritage Pty Ltd (Niche) to assist with the development of an ACHA that:

- Identifies the nature and extent of any Aboriginal objects that may be present within the Subject Area.
- Determines the cultural significance of Aboriginal objects and /or places relevant to the Subject Area.
- Prepares an impact assessment and provides appropriate management recommendations for any identified Aboriginal objects that might be identified during the process.
- Details the community consultation process and any Aboriginal cultural heritage values identified, in compliance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW 2010b).

1.2 Proposed activity and need for the project

The Planning Proposal seeks to amend the Maitland LEP 2011 to change the zoning of the Subject Area from RU1 Primary Production, RU2 Rural Landscape and C2 Environmental Conservation to Part R1 General Residential, Part C3 Environmental Management, whilst maintaining part of the RU1 Primary Production and all of the C2 Environmental Conservation zoned land.

1.3 Statutory and regulatory framework

The National Parks and Wildlife Act 1974 (NPW Act), administered by Heritage NSW in the Department of Premier and Cabinet (DPC), is the primary legislation for the protection of some aspects of Aboriginal cultural heritage in NSW. The National Parks and Wildlife Regulation 2009 (NPW Regulation) gives effect to some of the provisions contained within the NPW Act. One of the objectives of the NPW Act is: 'the conservation of objects, places or features (including biological diversity) of cultural value within the landscape, including but not limited to (i) places, objects and features of significance to Aboriginal people ...' (s.2A(1)(b)).

Under s.85 of the NPW Act, the Director General (DG) of the DPC is responsible for the protection of Aboriginal objects and places in NSW. In particular, the DG is responsible for the preservation and protection of any Aboriginal objects or places on land reserved under the NPW Act, and for the proper



restoration of any such land that has been disturbed or excavated in accordance with an AHIP. Part 6 of the NPW Act provides specific protection for Aboriginal objects and places by making it an offence to harm or desecrate them. Harm means '... any act or omission that destroys, defaces or damages an object or place or, in relation to an object, moves the object from the land on which it had been situated' (s.5).

All archaeological assessments and reporting for this project have been undertaken in accordance with the following regulatory and advisory documents and guidelines:

- Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010a).
- Aboriginal cultural heritage consultation requirements for proponents 2010 (Department of Environment, Climate Change and Water [DECCW], 2010b).
- *Guide to investigating, assessing and reporting Aboriginal cultural heritage in New South Wales* (Office of Environment and Heritage [OEH], 2011a).
- Applying for an Aboriginal Heritage Impact Permit: Guide for applicants (OEH, 2011b).

Where Aboriginal objects are identified and cannot be avoided, an application for an Aboriginal Heritage Impact Permit (AHIP) will be required.

1.4 Objectives

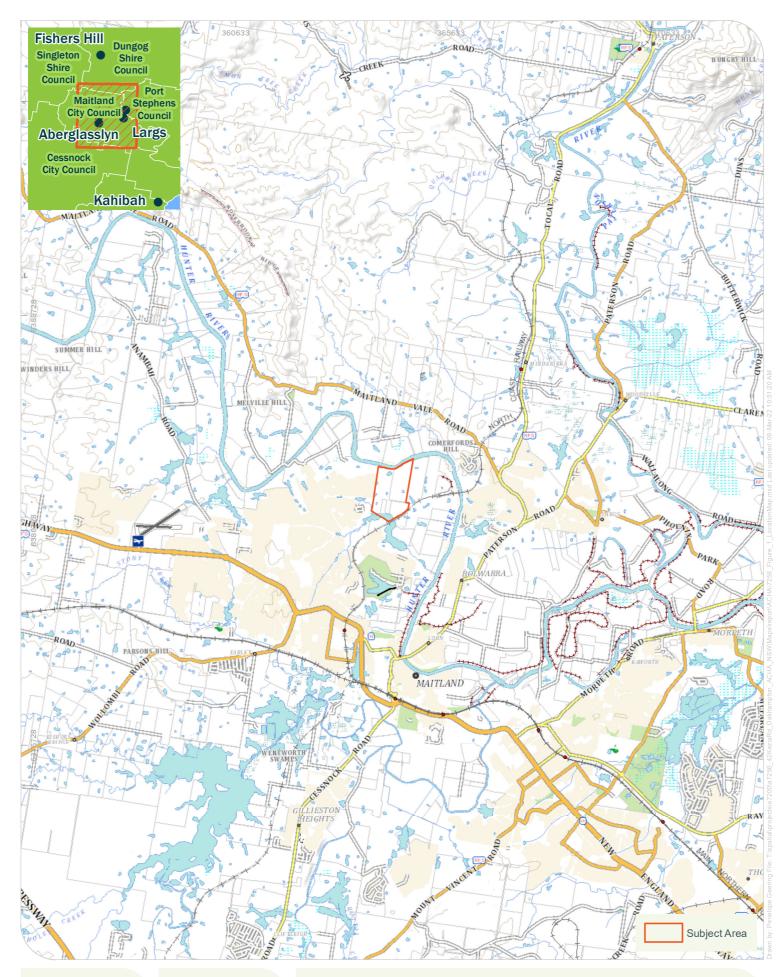
This ACHA report is designed to inform the rezoning process and to manage and mitigate harm to Aboriginal objects and cultural heritage values during any future development within the Subject Area. The assessment requirements and objectives for the ACHA are provided in the Table 1 below.

Table 1: Assessment requirements and objectives

Ob	jectives:	Addressed in:
•	Identify whether Aboriginal objects could be present within the Subject Area.	Appendix A
•	Undertake further investigation within areas identified as having potential high sensitivity.	Appendix A
•	Provide a description of the Aboriginal objects and declared Aboriginal places located within the area of the proposed activity.	Section 2, and Appendix A
•	Provide a description of the cultural heritage values, including the significance of the Aboriginal objects and declared Aboriginal places, that exist across the whole area that will be affected by the proposed activity and the significance of these values for the Aboriginal people who have a cultural association with the land.	Section 5 and Appendix A
•	Demonstrate how the requirements for consultation with Aboriginal people have been met (as specified in clause 80C of the NPW Regulation).	Section 3, Appendix B
•	Present the views of those Aboriginal people regarding the likely impact of the proposed activity on their cultural heritage (if any submissions have been received as a part of the consultation requirements, the report must include a copy of each submission and response).	Section 3, Appendix A and Appendix B
•	Provide an assessment of actual or likely harm posed to the Aboriginal objects or declared Aboriginal places from the proposed activity, with reference to the cultural heritage values identified.	Section 6
•	Provide any practical measures that may be taken to protect and conserve those Aboriginal objects or declared Aboriginal places and any practical measures that may be taken to avoid or mitigate any actual or	Section 7 and Appendix A



Objectives:	Addressed in:
likely harm, alternatives to harm or, if this is not possible, to manage (minimise) harm.	







Niche PM: Chelsea Freeman Niche Proj. #: 7256 Client: Bremer Park Pty Ltd

Location Map 42 Kezia Road, Oakhampton ACHA

Figure 1



Location of the Subject Area 42 Kezia Road, Oakhampton ACHA

Figure 2





GDA 1994 MGA Zone 56

Niche PM: Chelsea Freeman Niche Proj. #: 7256 Client: Bremer Park Pty Ltd

gery: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



2 Description of the area

2.1 Location

The Subject Area is situated within the suburb of Oakhampton in the City of Maitland Local Government Area (LGA) and is located directly adjacent to the South of the Hunter River within the Hunter Region of NSW. It lies within the County of Northumberland and within the Mindaribba Local Aboriginal Land Council (MLALC). The Subject Area is situated across fourteen adjoining lots spanning 502 to 355 Oakhampton Road and up into 42 Kezia Road in Oakhampton, a northern suburb of Maitland, NSW. The lots comprise Lot1/DP1012258, Lot 8/DP248331, Lot 7/DP248331, Lot 6/DP248331, Lot 5/DP248331, Lot 4/DP248331, Lot 1/DP562346, Lot 2/DP562346, Lot 3/DP562346, Lot 1/DP1086271, Lot 1/DP826919, Lot 66/DP810466, Lot 7/DP998430 and Lot 8/DP998430. The Subject Area is made up of dense pastureland located immediately to the east of an existing residential development. The Subject Area is bound by the Hunter River to the North, residential properties of Dunnart Street to the West, Oakhampton Station Road to the East and unnamed wetlands to the South. The location of the Subject Area is illustrated in Figure 1 and Figure 2 with details of the Lots and current zoning provided in Table 2.

Lot	DP	Current zoning	Proposed zoning
1	1012258	RU1 – Primary Production	Part R1 – General Residential and Part RU1 Primary Production
8	248331	RU1 – Primary Production	Part R1 – General Residential and Part RU1 Primary Production
7	248331	RU1 – Primary Production	Part R1 – General Residential
6	248331	RU1 – Primary Production	Part R1 – General Residential
5	248331	RU1 – Primary Production	Part R1 – General Residential
1	562346	RU1 – Primary Production	Part R1 – General Residential and Part RU1 Primary Production
2	562346	RU1 – Primary Production	Part R1 – General Residential and Part RU1 Primary Production
3	562346	RU1 – Primary Production	Part R1 – General Residential and Part RU1 Primary Production
4	248331	RU1 – Primary Production	Part R1 – General Residential
1	1086271	RU2 – Rural Landscape and C2 – Environmental Conservation	Part R1 – General Residential, Part C2 Environmental Conservation and Part C3 Environmental Management
1	826919	RU1 – Primary Production, RU2 – Rural Landscape and C2 – Environmental Conservation	Part R1 – General Residential, Part C2 Environmental Conservation and Part C3 Environmental Management
66	810466	RU1 – Primary Production, RU2 – Rural Landscape and C2 – Environmental Conservation	Part R1 – General Residential, Part C2 Environmental Conservation and Part C3 Environmental Management

Table 2: Overview of the lots contained within the Subject Area and their current zoning



7	998430	RU1 – Primary Production and RU2 – Rural Landscape	Part R1 – General Residential
8	998430	RU2 – Rural Landscape and C2 – Environmental Conservation	Part R1 – General Residential, Part C2 Environmental Conservation and Part C3 Environmental Management

2.2 Description of land where Aboriginal objects are proposed to be harmed

The Subject Area is part of a planning proposal which seeks to amend the Maitland LEP 2011. The proposal seeks to change the zoning of approximately 102.3 ha of land from RU1 Primary Production, RU2 Rural Landscape and C2 Environmental Conservation to Part R1 General Residential, Part C3 Environmental Management, whilst maintaining part of the RU1 Primary Production and all of the C2 Environmental Conservation zoned land.

The results of previous archaeological Assessments (Appendix D), as well as the desktop assessment and archaeological assessments undertaken as part of this report, have determined that no Aboriginal objects have been identified within the Subject Area. Table 3 presents a list of Aboriginal cultural heritage site that were identified over the course of this investigation within a 2 km area surrounding the Subject Area.

Further details of the Aboriginal cultural heritage sites are outlined in the Archaeological Report (AR) in Appendix A.

AHIMS ID#	Site Name	Site Features	Easting (GDA 94, Zone 56)	Northing (GDA 94, Zone 56)
37-5-0636	Bolwarra Height Grinding Grooves 1	Grinding Groove		
38-4-0058	Hunter River;Bolwarra;	Open Camp Site		
38-4-0059	Bolwarra Heights;Bolwarra;	Scarred Tree		
38-4-0061	Bolwarra Burial Site - King Tom	Burial		
38-4-0119	Bolwarra 2 Bolwarra Heights	Scarred Tree		
38-4-0120	Bolwarra 1;Bolwarra heights;	Open Camp Site		
38-4-0142	WW2;	Open Camp Site		
38-4-0143	WW1;	Open Camp Site		
38-4-0144	WW3;	Axe Grinding Groove		
38-4-0155	Walka.;	Axe Grinding Groove		
38-4-0383	Bolwarra 3	Open Camp Site		
38-4-0384	Bolwarra 4	Open Camp Site		
38-4-0430	Bolwarra 5;B5;	Open Camp Site		
38-4-0616	B6/T145	Open Camp Site		
38-4-0677	Aberglasslyn Rd PAD 1	PAD		
38-4-0689	AD1	Artefact Scatter		
38-4-0690	RT3A	Isolated Artefact		
38-4-0691	RT3B	Artefact Scatter		
38-4-0862	AB lsf 1	Isolated Artefact		
38-4-0863	AB Site 1	Artefact Scatter		
38-4-0864	AB Site 2	Artefact Scatter		

Table 3: Details of Aboriginal cultural heritage sites identified within proximity to the Subject Area.



AHIMS ID#	Site Name	Site Features	Easting (GDA 94, Zone 56)	Northing (GDA 94, Zone 56)
38-4-0865	AB PAD 1, same as 38-4-1062	Isolated Artefact		
38-4-0866	AB PAD2, same as 38-4-1063	Artefact Scatter		
38-4-0867	AB PAD 3	Isolated Artefact		
38-4-0994	Bolwarra PAD 1a	Burial		
38-4-1057	Site 1 Open Camp Site	Artefact Scatter		
38-4-1058	Site 2 Isolated Find	Isolated Artefact		
38-4-1062	ABPAD1, same as 38-4-0865	Open Camp Site		
38-4-1063	ABPAD2, same as 38-4-0866	Open Camp Site		
38-4-1144	Bolwarra Heights PAD 1	Artefact Scatter and PAD		
38-4-1145	Bolwarra Heights PAD 2	PAD		
38-4-1172	BH1 (Maitland)	Artefact Scatter		
38-4-1177	RPS BH PAD 1	PAD		
38-4-1512	MCKEACHIES AS 1	Isolated Artefact		
38-4-1513	MCKEACHIES AS 2	Isolated Artefact		
38-4-1514	MCKEACHIES AS 3	Isolated Artefact and PAD		
38-4-1515	MCKEACHIES AS 4	Isolated Artefact		
38-4-1516	MCKEACHIES AS 5	Isolated Artefact		
38-4-1517	MCKEACHIES AS 6	Isolated Artefact		
38-4-1518	MCKEACHIES AS 7	Isolated Artefact		
38-4-1525	MCKEACHIES AS 3A	Isolated Artefact and PAD		
38-4-1528	McKeachies AS 7a	Isolated Artefact and PAD		
38-4-1603	Bolwarra Heights Grinding Grooves 1a	Grinding Groove		
38-4-1604	Bolwarra Heights Grinding Grooves 2	Grinding Groove		
38-4-1605	Bolwarra Heights Grinding Grooves 3	Grinding Groove		
38-4-1606	B1 Grinding Grooves	Grinding Groove		
38-4-1607	B2 Grinding Grooves	Grinding Groove		
38-4-1608	B3 Grinding Grooves	Grinding Groove		
38-4-1609	B4 Grinding Grooves	Grinding Groove		
38-4-2080	ACH_HUN_43760_L_GG1	Grinding Groove and PAD		

2.3 Environmental context

The Subject Area is situated in the Central Lowlands of the Hunter Region, a biogeographic area which extends from approximately 120 km to 310 km north of Sydney. The surrounding landscape is generally flat, made up of undulating floodplains with several non-perennial drainage lines and is characterised by low rolling to steeply sloping hills.

The Subject Area is located <10 m south of the Hunter River, an estuary situated on the Hunter coast of NSW. It is a large barrier river estuary which extends from Barrington Tops and flows around 460 kilometres to its entrance at Newcastle (DPIE, 2021). It drains the third largest coastal catchment in NSW. The Hunter River is a major hub of industrial and export activity since early occupation. The proximity of the



Subject Area to the Hunter River means that past Aboriginal groups in the area would have had access to a reliable source of water and an abundance of aquatic resources.



Plate 1: View from upper slope descending to Hunter River, facing north



Plate 2: View from upper slope descending towards dam in overgrown vegetation, facing north-east.



Plate 3: View north of Subject Area overlooking bank of the Hunter River, facing north-west.



Plate 4: Small natural forming dam area adjacent to Hunter River, facing north-east.



Plate 5: View upslope, facing south



Plate 6: View downslope towards hunter river at eastern edge of Subject Area, facing north-east.





Plate 7: View of low hills with overgrown vegetation, facing east.



Plate 9: Area of exposure surrounding trees at fence line adjacent to main road, facing west.



Plate 8: View of low hills with overgrown vegetation, facing west.





Plate 11: Small rocky exposure in slashed vegetation on lower slope.

Plate 10: Built residential subdivision adjacent to western border of Subject Area, facing west.



Plate 12: Highly landscaped residential driveway cleared of natural vegetation, facing south.





Plate 13: View from edge of wetlands looking over flooded properties, facing south.



Plate 15: View downslope towards wetlands, facing south.



Plate 14: Fence line dividing properties and wetlands, facing east.



Plate 16: Erosion of southern bank of dam at property 355 Oakhampton Rd, facing west



Plate 17: Railway adjacent to eastern boundary of Subject Area at 355 Oakhampton Rd, facing east.



Plate 18: View of residential property used for agricultural purposes, facing south-west.

The underlying geology is predominantly Braxton Formation with smaller areas of Muree Sandstone Greta Coal Measures and the Farley Formation. The area consists of sandstone, siltstone, conglomerate, erratics, shale, coal seams and mudstone (DPIE, 2020).



The Subject Area consists of the Bolwarra Heights erosional soil landscape (Figure 3). The Bolwarra Heights soil landscape generally consists of \leq 25 cm of brownish black gravelly loam topsoil (A¹ Horizon) followed by 15-20 cm of gravelly fine sandy clay loam (A² Horizon) which overlies 75-103 cm of yellowish-brown pedal clay (B² Horizon).

Portions of the Subject Area that are closer to the Hunter River consist of the Paterson River and Hunter soil landscapes. These areas are characterised by Quaternary sediments, consisting of gravel, sand, silt and clay. The dominant materials of the Paterson River soil landscape, which occupies the northern terrace of the Subject Area, consists of a dark brown loamy sand to sandy loam topsoil (A1 horizon) (0–25 cm), onto a loose brown sand to clayey sand subsoil (B horizon) (25– 80 cm). Total dominant soil depth is >150 cm onto Quaternary alluvium deposits. Towards the southern area of the Subject Area, along an unnamed creek line, the Hunter soil landscape consists of friable brown pedal loam topsoil (A horizon) (0-30 cm), onto brown well-structured loam subsoil (B horizon) (30 - 100 cm). The soil boundaries are gradual with a total depth of >150 cm (DPIE, 2020).

These soil landscape profiles indicates that the Activity Area has the potential to preserve moderately deep (between 150-100 cm) deposits associated with crests and lower slopes, deep (>250 cm) deposits associated with alluvial fans and terraces and relatively deep (>150 cm) soil profiles associated with land adjacent to the unnamed wetlands/creek line in the southern portion of the Subject Area.

As documented in the AR (Appendix A), the typical soil profile observed across the Subject Area consists of the following:

- A¹ horizon = Brownish black gravelly loam topsoil.
- A² horizon = The majority of the Subject area consists of gravelly, fine sandy clay loam.
- B horizon = this horizon is only expected in the portion of the Subject Area which is made up of Hunter soil landscape. The B Horizon consists of a pedal brownish black silty clay to a medium clay.
- B^2 horizon = The B^2 horizon consists of a yellowish-brown pedal clay.

Natural vegetation has been extensively cleared in the Activity Area due to farming. The original native vegetation associated with the Bolwarra Heights soil landscape predominantly consists of cleared tall open forests. *Eucalyptus maculata* (spotted gum) is the most dominant species, with *E. fibrosa* (broad-leaved ironbark) and *E. tereticornis* (forest red gum) occurs on some lower slopes. Angophora floribunda (roughbarked apple) and *Allocasuarina torulosa* (forest oak) may also occur, with *Casuarina glauca* (swamp oak) along drainage lines (DPIE, 2020). Historical vegetation associated with the Paterson River soil landscape includes orange growing from the 1830s until after 1900. Remnant vegetation may occur on riverbanks, including *Casuarina cunninghamiana* (river oak) and occasional *Eucalyptus saligna* (Sydney blue gum) (DPIE, 2020).

2.4 Aboriginal occupation and land use of the Subject Area

Water is one of the most important resources to human occupation in a landscape and is considered the primary factor for the prediction of Aboriginal sites potential presence in a landscape. Across NSW, there is a strong correlation to the presence, frequency and density of Aboriginal objects with the abundance and permanency of water sources. Areas within 200 m of water are identified by the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (DECCW 2010c) as landscape features likely to indicate the presence of Aboriginal objects.

The Subject Area is situated in Oakhampton, NSW with its western boundary bordering the eastern extent of the neighbouring suburb of Aberglasslyn, its northern boundary bordering a horizontal section of the



Hunter River, its eastern boundary being at least 1.2 km from the vertical section of the Hunter River and its southern boundary encompassing the southern extents of four properties (i.e. Lot 1 DP 1086271 Lot 1 DP 826919 Lot 66 DP 810466 Lot 7 DP 998430). Occupation in this area would have involved hunting and gathering activities by small to possibly large groups of people. The Subject Area's proximity to the permanent water source of the Hunter River would have been culturally significant as an area offering abundant resources and elevations ideal for the gathering of people and camping. Previous excavations near the Subject Area confirm this, with the discovery of open campsites featuring artefact scatters, such as AB Campsite 1 feature (AHIMS #38-8-0866) (Dallas 2008:11-12).

Excavations approximately 220 m outside of the Subject Area (MDCA 2008) to the southwest show low density artefact deposits extending up to 40cm in brown sandy clay topsoil under a thick covering of paster grasses. Despite the low-density scatter, the stratigraphic integrity of the site was high, providing evidence of distinct horizons. The preservation of the site added to the significance of the site, providing a glimpse into the individual uses of the area (MDCA 2008). Despite evidence of disturbance, the site predominantly retained original deposition position.



Soil landscapes and hydrology in the local area 42 Kezia Road, Oakhampton ACHA



vironment and Heritage

Niche PM: Chelsea Freeman Niche Proj. #: 7256 Client: Bremer Park Pty Ltd



Figure 4a: Historical Imagery of the Subject Area 1998 (Source: Niche)

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Figure 5b: Historical Imagery of the Subject Area 1987 (Source: Niche)

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Figure 6c: Historical Imagery of the Subject Area 1967 (Source: Niche)

REDACTED FOR PUBLIC VERSION



3 Consultation process

In administering its statutory functions under Part 6 of the NPW Act, Heritage NSW (formerly the Biodiversity and Conservation Division (BCD) which replaced OEH) requires that proponents consult with Aboriginal people about the Aboriginal cultural heritage values (cultural significance) of Aboriginal objects and/or places within any given development area, in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents. Part 6 National Parks and Wildlife Act 1974* (DECCW 2010b).

Heritage NSW maintains that the objective of consultation with Aboriginal communities about the cultural heritage values of Aboriginal objects and places is to ensure that Aboriginal people have the opportunity to improve ACHA outcomes (DECCW 2010b). This is ensured by:

- Providing relevant information about the cultural significance and values of Aboriginal objects and /or places,
- Informing the design of the methodology to assess cultural and significance of Aboriginal objects and/or places,
- Actively contributing to the development of cultural heritage management options and recommendations for any Aboriginal objects and/or places within the proposed Subject Area, and
- Commenting on draft assessment reports before they are submitted by the Proponent to Heritage NSW.

Consultation in the form outlined in the Consultation Requirements (DECCW 2010b) is a formal requirement in cases where a proponent is aware that their development activity has the potential to harm Aboriginal objects or places. Heritage NSW also recommends that these requirements be used when the certainty of harm is not yet established but a proponent has, through some formal development mechanism, been required to undertake a cultural heritage assessment to establish the potential harm their proposal may have on Aboriginal objects and/or places.

The Consultation Requirements outline a four-stage consultation process that includes detailed step-bystep guidance as to the aim of the stage, how it should be proceed, and what actions are necessary for it to be considered successfully completed. The four stages area:

- Stage 1 Notification of project proposal and registration of interest.
- Stage 2 Presentation of information about the proposed project.
- Stage 3 Gathering information about the cultural significance of the project area.
- Stage 4 Review of the draft Aboriginal Cultural Heritage Assessment report.

The Consultation Requirements also outline the roles and responsibilities of Heritage NSW, Registered Aboriginal Parties (RAPs) including Local and State Aboriginal Land Councils, and proponents throughout the consultation process.

To meet the requirements of consultation it is expected that the Proponent will:

- Bring the RAPs (or their nominated representatives) together and be responsible for ensuring appropriate administration and management of the consultation process.
- Consider the cultural perspectives, views, knowledge and advice of the RAPs involved in the consultation
 process when they assess cultural significance and work together to develop any heritage management
 outcomes for Aboriginal abject(s) and/or place(s).
- Provide evidence to Heritage NSW of consultation by including information such as cultural perspectives, views, knowledge and advice provided by the RAPs.



- Accurately record and clearly articulate all consultation findings in the final cultural heritage assessment report, and
- Provide copies of their final cultural heritage assessment report to the RAPs who have been consulted.

The consultation process undertaken to seek active involvement from appropriate Aboriginal representatives for the project followed the current NSW statutory guidelines – the Consultation Requirements. Section 1.3 of the Consultation Requirements describes the guiding principles of the document, which have been derived directly from the Principles section of the Australian Heritage Commission's *Ask First: A guide to respecting Indigenous heritage places and values* (Australian Heritage Commission, 2002). Both documents share the aim of creating a system where advice can be sought from the Aboriginal community.

The following sections outline the process and results of the consultation conducted during this assessment to ascertain and reflect the Aboriginal cultural heritage values of the Subject Area. Further detail regarding the Aboriginal community consultation process is outlined in Appendix B.

3.1 Stage 1 – Notification of project proposal and registration of interest

3.1.1 Notification of agencies

Notification was initiated on 11 March 2022 to all relevant organisations named under Section 4.1.2 of the consultation requirements. This is done to identify Aboriginal people who may have cultural knowledge relevant to the Subject Area and whom may have an interest in the proposed project. The list of the contacted organisations is provided in Table 4 below and a copy of the notification letter is provided in Appendix B.

Table 4: List of contacted organisations

Name of Organisation	Date of notification sent	Date of response received
Hunter Local Land Services	11 March 2022	14 March 2022
Mindaribba LALC	11 March 2022	No response received
Office of the Registrar	11 March 2022	No response received
Heritage NSW	11 March 2022	16 March 2022
NTS Corp	11 March 2022	No response received
Maitland City Council	11 March 2022	No response received
National Native Title Tribunal	11 March 2022	11 March 2022

3.1.2 Advertisement

In accordance with Section 4.1.3 of the guidelines, a newspaper advertisement was placed in the Maitland Mercury on Friday 25 March 2022 with a close date of 5 pm on Friday 8 April 2022 to provide additional opportunity for Aboriginal people who may be interested in the project to come forwards. A copy of the advertisement is included in Appendix B.

3.1.3 Notification of potential stakeholders

A list of potential cultural knowledge holders was compiled from submissions and information collected during the notification and registration periods. A list of the potential stakeholders is provided in Table 5 below.



Table 5: List of potential Aboriginal stakeholders

Potential Aboriginal stakeholders			
A1 Indigenous Services	Kevin Duncan		
Aboriginal Native Title Consultants	Lower Hunter Aboriginal Incorporated		
AGA Services	Lower Hunter Wonnarua Cultural Services		
Aliera French Trading	Lower Wonnaruah Tribal Consultancy Pty Ltd		
Arwarbukarl Cultural Resource Association, Miromaa Aboriginal Language and Technology Centre	Mayaroo		
Awabakal & Guringai Pty Ltd	Michael Green Cultural Heritage Consultant		
Awabakal Descendants Traditional Owners Aboriginal Corporation	Mindaribba Local Aboriginal Land Council		
Awabakal Traditional Owners Aboriginal Corporation	Murra Bidgee Mullangari Aboriginal Corporation		
Cacatua Culture Consultants	Myland Cultural & Heritage Group		
Corroboree Aboriginal Corporation	Plains Clans of the Wonnarua People		
Crimson-Rosie	Steve Talbott		
Culturally Aware	The Men's Shack Indigenous Corporations		
D F T V Enterprises	Tocomwall Pty Ltd		
Deslee Talbott Consultants	Ungooroo Aboriginal Corporation		
Didge Ngunawal Clan	Wallagan Cultural Services		
Gidawaa Walang & Barkuma Neighbourhood Centre Inc.	Warragil Cultural Services		
Glen Morris	WATTAKA Pty Ltd		
Hunter Traditional Owner	Widescope Indigenous Group		
Hunter Valley Cultural Surveying	Wonnarua Culture Heritage		
Hunters & Collectors	Wonnarua Elders Council		
Indigenous Learning	Wonnarua Nation Aboriginal Corporation		
Jarban & Mugrebea	Worimi Local Aboriginal Land Council		
Jumbunna Traffic Management Group Pty Ltd	Wurrumay		
Kauma Pondee Inc.	Yinarr Cultural Services		
Kawul Pty Ltd trading as Wonn1 Sites			

A copy of the notification letter that was sent to the above organisations and individuals on Friday 25 March 2022 is included in Appendix B.



3.1.4 Registered Aboriginal Parties

As a result of the Stage 1 enquiries, the following fourteen (14) organisations and/or individuals have become Registered Aboriginal Parties (RAPs) for this project (see Table 6), and a consultation log of all correspondence included in Appendix B. Two organisations have registered for the project and have requested their contact details be kept confidential and have therefore been left off the below list.

Organisation	Contact Name
A1 Indigenous Services	Carolyn Hickey
Awabakal & Guringai Pty Ltd	Tracey Howie & Kerrie Brauer
Awabakal Descendants Traditional Owners Aboriginal Corporation	Peter Leven
Awabakal Traditional Owners Aboriginal Corporation	Kerrie Brauer
Culturally Aware	Tracey Skene
Didge Ngunawal Clan	Paul Boyd & Lilly Carroll
Glen Morris	Glen Morris
Hunter Traditional Owner	Paulette Ryan
Kawul Pty Ltd trading as Wonn1 Sites	Arthur Fletcher
Lower Hunter Aboriginal Incorporated	David Ahoy
Murra Bidgee Mullangari Aboriginal Corporation	Ryan Johnson & Darleen Johnson-Carroll
Tocomwall Pty Ltd	Scott Franks

Table 6: RAP organisations and contacts

3.1.5 Notification of Heritage NSW and LALC

Notification of RAPS to Heritage NSW and Mindaribba Local Aboriginal Land Council, as per Section 4.1.6 of the *Aboriginal cultural heritage consultation requirements for proponents 2010* was sent on the 11 April 2022.

3.2 Stage 2 and 3 – Presentation of project information, assessment methodology and gathering information about the cultural significance of the Subject Area

3.2.1 Project information and assessment methodology

The RAPs were provided with a letter outlining information about the project and an assessment methodology in accordance with the Consultation Requirements (DECCW 2010a) and the Code of Practice (DECCW, 2010b). The project information was provided on 11 April 2022.

The purpose of the provided documents was to:

- Describe the project, outline the project scope, time frame and proposed works.
- Describe the environment of the Subject Area and information relevant to the ACHA process.
- Provide an opportunity for the RAPs to actively contribute to the development of cultural heritage management options and recommendations and comment on the proposed methodology.
- Set a time frame for providing feedback and comments on the methodology and project information.

The draft methodology was submitted to the RAPs on 11 April 2022and the closing date for comments was at 5 pm, 16 May 2022 (to meet the minimum 28 days review period). A copy of the cover letter and methodology is included in Appendix B.



A number of RAPs provided feedback on the project information and assessment methodology. Their comments and/or review are outlined in Table 7, and copies of all submissions made are included in Appendix B.



Table 7: Details of RAP feedback on the project information and assessment methodology

Registered Aboriginal Party	Stakeholder	Comment made	Response from Niche
		Agree with methodology	
Didge Ngunawal Clan	Lilly Carroll	Hi Riley DNC Has reviewed the methodology and is happy with everything	Hi Lilly, Thank you very much for your response.
A1 Indigenous Services	Carolyn Hickey	 Hi, I have reviewed the document and support the Information and Methodology. About the founder Carolyn Hickey I am a Traditional Owner and Custodian with over 20 years experience in helping preserve Aboriginal cultural heritage on projects. I hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and values that exist in the project area. I have attached A1 Indigenous Services Insurances. We would like you to consider including A1's employee's, the Kawalkan workforce and the Women's Circle Employees for all future field work. The Kawalkan workforce Program is a designed program created to employ young indigenous youths between the ages of (18-29) years of age. The Women's Circle was created with the need to always have Experienced Indigenous Women present in all field work. To aim for not only gender equality in the workplace but, to help identify and protect any women's sacred places. Please feel free to contact me on details supplied Kind Regards, Carolyn Hickey Managing Director 	Hi Carolyn, Thank you very much for your response.



Registered Aboriginal Party	Stakeholder	Comment made	Response from Niche
Murra Bidgee Mullangari Aboriginal Corporation	Ryan Johnson	Hi Riley I have read the project information and methodology for the above project, I endorse the recommendations made. Kind regards Ryan Johnson	
		Agree with methodology	
		Agree with methodology	
Murra Bidgee Mullangari Aboriginal Corporation	Ryan Johnson	Hi Riley Our site officer is Aaron Taylor and has a lot of aboriginal cultural heritage knowledge in the Newcastle area. Aaron relevant employment consists of 1979 to 1988 First nations people cultural camps to learn knowledge of countries as follows: 1979 Newcastle to Pilligar scrub, Dubbo 1980 Newcastle to Pilliar scrub, Dubbo, Port Augusta 1981 Newcastle to Coober Pedy 1982 Newcastle to Coober Pedy 1983 Newcastle to Uluru 1983 Newcastle to Uluru 1984 Newcastle to Katherine 1984 Newcastle to Darwin 1985 Newcastle to Kakadu 1986 Newcastle to Kakadu 1987 Newcastle to Amemland 1987 Newcastle to Daley River 1988 Newcastle to Mt Isa, Cairns, Townsville, Brisbane, Newcastle Cultural tradition knowledge of philosophical practices through the dreaming stories of over 65,000 years of study, tutorial, wisdoms practiced on country by LORE/LAW of the land and waterways.	Hi Ryan, Thank you for sending through your insurances and nominated site officer details. Kind regards,



Registered Aboriginal Party	Stakeholder	Comment made	Response from Niche
		Please find attached insurances and we look forward to hearing from you Kind regards Ryan Johnson	
Kawul Pty Ltd	Arthur Fletcher	Ala Riley We hope all is well with you guys. First up thanks for the invite for this project. Yes we like to be involved in all ways for the Oakhampton project Ps in the meantime All stay safe. Nginuwa Arthur- Kauwul Elder and Aunty Lynne and Families.	
Hunter Traditional Owner	Paulette Ryan	to whom it may concern i paulette ryan would love to put in a expres sion of interest for the Aboringinal project kind regards Paulette Ryan HTO	
Lower Hunter Aboriginal Incorporated	David Ahoy	Hi On behalf of LHAI, I would like to be considered for proposed fieldwork. LHAI has received ACHA and has no further comments to add. Please see attached Insurances.	



3.2.2 Project information and assessment methodology

3.2.2.1 Survey Engagement Application process

Due to the volume of potential participants and limited spacing available, representatives from Hunter Traditional Owner, Lower Hunter Aboriginal Incorporated, Murra Bidgee Mullangari Aboriginal Corporation and Confidential were invited to participate in the field survey. The invitation described the requirements that the Proponent needed applications to satisfy for engagement in regard to fitness to work, drugs and alcohol policy, and personal protective equipment.

3.2.2.2 Aboriginal Heritage Survey

An Aboriginal cultural heritage survey was conducted over two (2) days, from 15 to 16 June 2022. Table 8 summarises the representatives of the RAPs who attended the survey. Lower Hunter Aboriginal Incorporated and Confidential were unable to attend the Aboriginal cultural heritage survey.

Registered Aboriginal Party	Stakeholder	Comment made	Response from Niche
Murra Bidgee Mullangari Aboriginal Corporation	Aaron Taylor	During the site inspection, Aaron Taylor from Murra Bidgee discussed the cultural values of the Subject Area. Cultural values included the characteristics of the Subject Area such as the location of the Subject Area, elevated ground, in close proximity to the Hunter River, and how the elevations in the Subject Area align with other aspects of the landscape across the River. Aaron discussed how different songline are associated with eh Hunter River, Additionally Aaron provided some historical background on the Subject Area, describing the area in the 1980's as bush and farm land.	Niche thanks Mr Taylor for his comments during the site inspection. These have been incorporated into the ACHA and AR.
Lower Hunter Aboriginal Incorporated	Nura Smith	No comments were made.	Niche thanks Mr Smith for his contribution during the site inspection.

Table 8: Aboriginal cultural heritage survey attendance

3.3 Stage 4 – Review of preliminary draft Aboriginal cultural heritage assessment report

A draft of this report was provided to the RAPs for their review and comment on 30 August 2022 in accordance with the Consultation Requirements (DECCW 2010b). A statutory timeframe of a minimum of 28 days for responses will be provided to all RAPs, with a request for comments to be provided by 3 October 2022.

One RAP provided feedback on the draft ACHA. Their comments are outlined in Table 9 and copies of all submissions made are included in Appendix B.



Table 9: Details of RAP feedback on the draft ACHA

Registered Aboriginal Party	Stakeholder	Comment made	Response from Niche
Murra Bidgee Mullangari Aboriginal Corporation	Ryan Johnson	Hi Catriona, I have read the project information and draft ACHAR for the above project, I endorse the recommendations made. Thanks Ryan Johnson	Good morning Ryan, Thank you for your contribution to the Oakhampton ACHA and your endorsement of the recommendations. Kind regards, Chelsea Freeman

3.4 Stage 5 – Care Agreement

Any potential artefacts recovered from within the Subjects Area are yet to be determined. No Aboriginal objects have been identified within the Subject Area currently. An unexpected finds procedure will be in place should sites be identified at any point. If sites are identified at any point, further consultation with RAPs will be required.



4 Summary and analysis of background information

Oakhampton is a suburb of the City of Maitland LGA. The suburb was originally established as Oakhampton Park Estate, with the land of that the Subject Area resides in today owned by William B. Wilkinson. The Wilkinson Property extended to both sides of the railway, encompassing the Oakhampton Railway station, and was bordered by the Hunter River to its East and North, while the neighbouring lands of Houston Mitchell and John Jamison border its Southern and Western extents. Various changes to the environment and surrounding landscape were brought about by European land use. Some of the more prominent disturbances to the landscape within the Hunter Valley have been described by Lucas (2013:9) and can be applied to the Oakhampton Region:

- The rapid drainage and subsequent use for agricultural purposes of the large swamps and wetlands that were once dominant features of areas.
- The rapid removal of the original rich and diverse riparian riverbank vegetation along all of the river systems right up to their headwaters in places and its replacement over time by regrowth trees and introduced species such as willows, the creation of extensive tracts of both improved pasture and lands modified for monoculture agriculture and expanding suburbia around the first township sites.
- Extensive creek and river gullying, erosion, and channel flow changes that have occurred from early over-clearing, animal grazing and dam construction.

Some of the archaeological assessments within proximity to the Subject Area have noted the lack of stratigraphic integrity of soil deposits and disturbances (MDCA 2006, MCH 2011) due to localised farming and dwelling soil disturbance. However, further archaeological assessments and test excavations have identified sites high significance and minimal disturbance (Baker 1997 and MDCA 2008).

Water is one of the most important resources to human occupation in a landscape and is considered the primary factor for the prediction of Aboriginal sites potential presence in a landscape. Across NSW, there is a strong correlation to the presence, frequency and density of Aboriginal objects with the abundance and permanency of water sources. Areas within 200 m of water are identified by the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (DECCW 2010c) as landscape features likely to indicate the presence of Aboriginal objects.

The Subject Area is located adjacent to the Hunter River to the north and partially includes an unnamed watercourse/floodplain in the southern extent, and thus considered to be located within primary and secondary resource zones described by Kuskie and Kamminga (2000) for the region. The landscape of the Subject Area comprises of low hills; hill crests; and wetlands/floodplains surrounded. Occupation in this area would have involved hunting and gathering activities by small to possibly large groups of people. The Subject Area's close proximity to the Hunter River, a permanent water source, would have been culturally significant as an area offering abundant resources and elevated areas ideal for the gathering of people and camping. The elevation of the Subject Area overlooking the Hunter River and wetlands/floodplains as well as landmarks in the distance would have been a primary factor in site occupation.

Excavations approximately **Construction** of the Subject Area (MDCA 2006 and 2008) of sites AB PAD1 (AHIMS #38-4-1062 and 38-8-0866) and ABPAD2 (AHIMSID#38-4-1063 and 38-4-0866), show artefact rich deposits extending up to 20 -30 cm in brown sandy topsoil onto a clay subsoil. In their interpretation of the results, MDCA (2006 and 2008) suggests that the excavated site is likely to be campsites with several small concentrations of artefacts representing stone knapping events. MDCA concluded that the PADs represented usage of the wetlands and fringing near the edge of woodland and the stone tools likely



represent a broader toolkit, including wooden implements, fibre nets and bags that would have been used by the area's inhabitants.

While the region is characterised by a rich Aboriginal archaeological record, the reconstruction of past land use of Aboriginal people in the Central Lowlands is an extremely difficult task often relying on historical documents and archaeological evidence resulting from environmental impact assessments rather than research-driven projects. Despite these inherent limitations, archaeologists have built up a picture of Aboriginal settlement patterns for the region, establishing a foundation for the testing of predictive models and the inclusion of ethnographic accounts, and the invaluable knowledge and contributions of the Aboriginal communities of the Hunter Region.

The visibility, exposure and access within the Subject Area has made the site inspection difficult. All landforms within the Subject Area were targeted for survey and were assessed for subsurface potential. The extent of disturbance within the Subject Area is not known but has been noted by other archaeologists who have completed assessments nearby. The past Aboriginal land use indicated by the results of previous archaeological work in the region (reviewed in Section 4 of the AR [Appendix A]) suggests that the Aboriginal objects identified during the field survey are best considered representative of occupation within a primary and secondary resource zone (Clarke and Kuskie 2006). This is reflective of the Subject Area location on elevated ground overlooking a permanent watercourse (the Hunter River) and near wetlands/floodplains.

The location of the Subject Area would have offered elevated ground within the resource rich Central Lowlands which offered various types of food, medicine, and wood resources. Previous excavation at AB PAD1 (AHIMS #38-4-1062 and 38-8-0866) and ABPAD2 (AHIMSID#38-4-1063 and 38-4-0866) show the presence of tuff and silcrete, suggesting that lithic material may be readily available nearby. Many confirmed lithic sources are between 40 and 80 km to the northeast of the Subject Area; however, terraces along the Hunter River north of the Subject Area would have offered silcrete resources (RPS 2013:17).

The site inspection did not identify any Aboriginal cultural heritage sites. Despite this, the Subject Area remains significant due to the intangible values associated with the song lines and surrounding landscape such as in locations closer to the Hunter River.

Overall, the results of the archaeological assessments conducted within the Subject Area are consistent with the predictive model developed for the project in that:

• The presence of surface artefacts is not a predictor of sub-surface archaeological deposits and viceversa.



5 Cultural heritage values and statement of significance

5.1 Methods for assessing heritage significance

Heritage significance is assessed by considering each cultural, or archaeological site, against the significance criteria set out in the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (Office of Environment and Heritage 2011).

In all cases the assessment of significance detailed below is informed by the Aboriginal community, which is documented in this report. If any culturally sensitive values were identified they would be specifically included in the report, or made publicly available, but would be documented and lodged with the knowledge holder providing the information.

5.2 Assessment framework

The Burra Charter (Australia ICOMOS 2013) defines the basic principles and procedures to be observed in the conservation of important places. It provides the primary framework within which decisions about the management of heritage sites in Australia should be made.

5.3 Identifying values

The information collected during the background review of the project can be used to help identify social, historical, scientific, and aesthetic values. The review of background information and information gained through consultation with Aboriginal people should provide insight into past events. These include how the landscape was used and why the identified Aboriginal objects are in this location, along with contemporary uses of the land.

Information gaps are not uncommon and should be acknowledged. They may require further investigation to adequately identify the values present across the Subject Area. It may be helpful to prepare a preliminary values map that identifies, to the extent of information available the:

- Known places of social spiritual, cultural value, including natural resources of significance
- Known historic places
- Known Aboriginal objects and/or declared Aboriginal places; and
- Potential places/ areas of social, spiritual, cultural value, including natural resources, historic or archaeological significance.

Places of potential value that are not fully identified or defined should be included as 'sensitive' areas to target further investigation.

5.3.1 Significance as defined by the Burra Charter

The Burra Charter defines cultural significance as being derived from the following values: aesthetic value, historic value, scientific value and social value. However, more precise categories may be developed as an understanding of a particular place or site increases. The values are outlined below in Table 10.



Table 10: Values from which cultural significance is derived

Value type	Description
Aesthetic Value	Aesthetic value includes aspects of sensory perception for which criteria can and should be stated. Such criteria may include consideration of the form, scale, colour, texture, and material of the fabric; the smells and sounds associated with the place and its use.
Historic Value	Historic value encompasses the history of aesthetics, science, and society, and therefore to a large extent underlies all of the terms set out in this section. A place may have historic value because it has influenced, or has been influenced by, an historic figure, event, phase or activity. It may also have historic value as the site of an important event. For any given place the significance will be greater where evidence of the association or event survives in situ, or where the setting are substantially intact, than where it has been changed or evidence does not survive. However, some events or association may be so important that the place retains significance regardless of subsequent treatment.
Scientific Value	The scientific or research value of a place will depend upon the importance of the data involved, on its rarity, quality, or representativeness (conservation value), and on the degree to which the place may contribute further substantial information.
Social Value	Social or cultural value refers to the spiritual, traditional, historical, or contemporary associations and attachments the place or area has for Aboriginal people. Social or cultural value is how people express their connection with a place and the meaning that place has for them. Places of social or cultural value have associations with contemporary community identity. These places can have associations with tragic or warmly remembered experiences, periods or events. Communities and individuals can experience a sense of loss should a place of social or cultural value be damaged or destroyed.

5.4 Assessing values and significance

This stage is used to assess and discuss the cultural significance of the values identified during the identification and assessment of cultural significance by consulting Aboriginal people and to prepare a statement of significance. The assessment of values is a discussion of what is significant and why. An assessment of values is more than simply restating the evidence collected during the background review and identification of vales stages of the project. Rather, the assessment should lead to a statement of significance that sets out succinct and salient values that have been identified.

The assessment and justification in the statement of significance must discuss whether any value meets the following criteria (NSW Heritage Office, 2001):

- Does the Subject Area have a strong or special association with a particular community or cultural group or social, cultural, or spiritual reasons? (Social Value).
- Is the Subject Area important to the cultural or natural history of the local area and/ or region and/ or state? (Historic Value).
- Does the Subject Area have potential to yield information that would contribute to an understanding of the cultural or natural history of the local area and/or region and/ or state? (Scientific (archaeological) Value); and
- Is the Subject Area important in demonstrating aesthetic characteristic in the local area and/or region and/ or state? (Aesthetic Value).



Assessment of each of the criteria (above) should be graded in terms that allow the significance to be described and compared, for example, as high, moderate, or low. In applying these criteria, consideration should be given to:

- Research potential: does the evidence suggest any potential to contribute to an understanding of the area and/or region and/or state's natural and cultural history?
- Representativeness: how much variability (outside and/or inside the Subject Area) exists, what is already conserved, how much connectivity is there?
- Rarity: is the Subject Area important in demonstrating a distinctive way of life, custom, process, landuse, function or design no longer practised? Is it in danger of being lost or of exceptional interest?
- Educational potential: does the Subject Area contain teaching sites that might have teaching potential?

Then discuss what is significant and why- this should be summarised into a statement of significance. Thus, the statement of significance is a succinct summary of the salient values drawn from the identification of values.

5.4.1 Grading scientific values

The following gradations, where a site or zone satisfies at least one criterion, have been applied to provide a measure of the values/significance for Aboriginal objects identified within the Subject Area, and to provide an overall assessment of the significance of each of the zones used that define the Subject Area.

Gradation	Description
Low	The site or object contains only a single or limited number of features and has no potential to meaningfully inform our understanding of the past beyond what it contributes through its current recording (i.e. no or low research potential). The site or object is a representative but unexceptional example of the most common class of sites or objects in the region. Many more similar examples can be confidently predicted to occur within the Subject Area, and in the region.
Moderate	The site or object derives value because it contains features, both archaeological and contextual, which through further investigation may contribute to our understanding of the local past. These features include but are not limited to the relationship with landscape features or other Aboriginal archaeological sites or areas of identified heritage importance; diagnostic archaeological or landscape features that inform a chronology; and a relatively large assemblage of stone artefacts. The presence of a diverse artefact and feature assemblage, and connectedness with landscape features and other notable sites provide relatively higher representative and rarity values than sites of low significance.
High	The site or object has value because it contains archaeological and/or contextual features which through further investigation may significantly contribute to our understanding of the past, both locally and on a regional scale. These features include, but are not limited to: Aboriginal ancestral remains; the site's relationship with landscape features or other Aboriginal archaeological sites or areas of identified heritage importance; diagnostic archaeological or landscape features that inform a chronology; and a very large assemblage of stone artefacts associated with other features such as oven remains or shell midden. Such sites will be relatively rare and will be representative of a limited number of similar sites that make up this class; hence they derive high representative and rarity values.

Table 11: Criteria for grading scientific values



5.5 Statement of significance for the Subject Area as a whole

These statements of significance have been prepared in consideration of comments received from the RAPs during the consultation process and the interrelationships between the cultural and spiritual values with the natural landscape.

5.5.1 Social Value

The Subject Area holds cultural significance to the local Aboriginal community. Mr Aaron Taylor of Murrabidgee involved in the fieldwork, for instance, considered the Subject Area to have high cultural value due to the exceptional views, access to water, the alignment of landforms across the valley of the Hunter River and the connection of the Hunter River to song lines. This assessment of cultural significance is consistent with the contemporary view held by Aboriginal people that all Aboriginal objects and sites are important within the region due to their interconnectivity with the natural landscape and past occupation of the region.

5.5.2 Aesthetic Value

The Subject Area and surrounding landscape have been assessed as possessing moderate aesthetic value. The landscape has been impacted by farming activities within the Subject Area and the additions of various dwellings. The Subject Area nevertheless has aesthetic values as portions are located on high ground overlooking various bodies of water such as the Hunter River and wetlands/floodplains at the southern portion of the Subject Area. There are also views to the far distance of various mountains and hills that can be seen north of the Subject Area.

5.5.3 Historic Value

Historic value encompasses the history of aesthetics, science, and society, and therefore to a large extent underlies all the terms set out in this section. The Subject Area is of low historical value as there are no known historical references for this location.

5.5.4 Scientific (Archaeological) Value)

The Subject Area does not contain any Aboriginal cultural heritage sites or areas of potential sensitivity owing to the disturbance evident across the Subject Area resulting from current and historical commercial, agricultural and residential use. Therefore, the Subject Area has low scientific (archaeological) value.



6 The proposed activity

6.1 Summary of Subject Area's history

According to Tindale's catalogue of Australian Aboriginal (1974) groups the current Subject Area falls within the boundaries occupied by the Wonnarua tribal group. The Wonnarua tribal group is also known as Wonnuaruah, Wannerawa, Wonarua, Wonnah Kuah.

The boundaries of the Wonnarua extends from the Upper Hunter River from a few kilometres above Maitland west to the Dividing Ranges. The traditional territory of the Wonnarua was bounded to the north by the Geawegal people, to the north-east by the Worimi people, to the southeast by the Awabakal people and to the south by the Darinjang (Tindale 1974:201). Family groups belonged to clans who were united by language and cultural affinities with ties to specific areas of land. Oral tradition of the Wonnarua people tell of a creation spirit called Baiami (Biame, Baayami, Baayama or Byamee), also known as Koin. Baiami, who was the creator of all things and the keeper of the valley. The creation spirit appears in the oral tradition of several Aboriginal peoples including the Wonnarua, Kamilaroi, Eora, Darkinjung, and Wiradjuri people. The Dreaming story tells of how Baiame, the sky father, came down from the sky to the land and created the rivers, mountains and forests. He then gave the people their laws, traditions, songs and culture. Baiami is said to have also created the Bora for male initiation rights (Leaman and Hamacher 2019).

The origins of the dialect spoken by the Wonnarua tribal group is unclear; however, similar dialects have been grouped together in what is called the Language of the Hunter River/Lake Macquarie (HRLM). According to Miller (1886:353) the Wonnarua tribe numbered around 500 in 1841. Due to European settlement and restrictions placed on traditional practices and ways of life, their numbers greatly diminished in the years that followed. The Wonnarua people were semi-nomadic hunter gatherers. They dressed in opossum-skin cloaks and fabric spun from opossum fur and in their possession they carried spears, wommera, shields, and war-boomerangs.as well as bags made from platted swamp grass, koolaman, stone tomahawks and flint knives. Food resources included terrestrial animals and plants, hunting for kangaroo and emu as well as other animals and reptiles and foraging for a variety of roots which were roasted or baked. Fish were caught with nets and three-pronged spears from canoes made of sheets of bark cut from suitable trees (Miller 1886:353).

The arrival of Europeans to the Maitland area in the mid-late 1800s had devastating effects on the local Aboriginal people. Foreign disease killed many of Wonnarua people as well as illness such as bronchitis and rheumatic fever resulting from the disruption of traditional practices and ways of living (Miller 1886:352). Late in the nineteenth century, European prospectors and miners began taking up land in what is now Oakhampton, leading to competition for resources and the alienation of Aboriginal people.

The Aberglasslyn House and the Maitland Vale properties were initially constructed in the area between the 1840s and 1850s. These houses and their surrounds represent a historical reminder of the land settlement and leasehold farming practices which were evident from the pre-1850s near the Subject Area and the Maitland regional area (Heritage NSW State Heritage Register).

The earliest Maitland parish maps date to 1912 and convey that the Subject Area was part of 1000 acres (i.e., 405 hectares) of owned land by William. B. Wilkinson as part of the Oakhampton Park Estate (Plate 1 - Left). This piece of land stretched over both sides of the North Coast railway, encompassing the local Oakhampton railway station, but was bordered by the Hunter River to its East and North, while the neighbouring lands of Houston Mitchell and John Jamison border its Southern and Western extents, respectively.



Access to both specialised and everyday resources (such as water) and the clearing of the land greatly impacted traditional practices and ways of living, causing significant social disruption between Aboriginal groups, and pressure between Aboriginal people and the ever-increasing European population. Those who survived the impacts of disease, alienation from food sources and country and relocation to designated missions continued to live a semi-traditional life on the peripheries of European settlements.

Lucas et.al. (2013:23) suggests that local Aboriginal people may have used pockets of "discrete" land that was of no interest to early farmers. This land would have been the only land available for occupation and travel after settlement. Potential landscapes include elevated hills, or the margins of lower swamps and wetlands situated away from the first homesteads, convict accommodations, and workstations.

Various Wonnarua groups throughout the Hunter Valley has been working hard to increase cultural visibility within the community. This has included promoting the history and culture of the Wonnarua people, supporting the health and education standards of the community, and seeking out opportunities for sustainable development. Private land ownership has perhaps prevented local Wonnarua from accessing the lands within the Subject Area.

6.2 Proposed activity, staging and timeline

The Subject Area is the focus of a planning proposal which seeks to amend the Maitland Local Environment Plan (LEP) 2011 with changes to the zoning from RU1 Primary Production, RU2 Rural Landscape and C2 Environmental Conservation to Part R1 General Residential, Part C3 Environmental Management, whilst maintaining part of the RU1 Primary Production and all of the C2 Environmental Conservation zoned land. The rezoning of portions of the Subjects Area to R1 General Residential will allow for the future development of this land.

The following outlines the proposed activities and impacts associated with the different zones proposed for the Subject Area:

- R1 General Residential Zone: impacts to this zone are proposed to consist of shared off road footpaths and cycleways, roads, and residential housing.
- C3 Environmental Management Zone: impacts to this zone are proposed to consist of the placement of stormwater basins.
- C2 Environmental Conservation Zone: No impacts are proposed to occur within this zone.
- RU1 Primary Production Zone: impacts on this zone are proposed to consist of the placement of storm water basins.

No previously recorded Aboriginal cultural heritage sites or newly identified Aboriginal cultural heritage sites are located within the Subject Area.

The completion of this ACHA prior to public exhibition is a condition of the planning proposal and has been undertaken as part of the planning stage and to inform the re-zoning process and to manage and mitigate harm to Aboriginal objects and cultural heritage values during any future development within the Subject Area.

6.3 Potential for harm

The *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (OEH 2011) requires that both direct and indirect harm to Aboriginal objects and Aboriginal places be considered. Generally direct harm refers to occasions where an activity physically impacts a site or objects and therefore affects the heritage values possessed by the site or objects. Indirect harm is usually taken to mean harm stemming from secondary consequences of the activity and may affect sites or objects as an



indirect consequence of the activity. Examples of such indirect harm are increased visitors to a site, or increased erosion in an area as a result of an activity.

It is anticipated that the proposed subdivision and development of the Subject Area (including future activities undertaken as a result of the subdivision) will not result in the harm of Aboriginal cultural heritage site.

6.4 Likely impacted values

The proposed rezoning and future development of the Subject Area are a part of the broader planned development occurring in the Oakhampton area. The archaeological survey of the Subjects Area completed as part of the ACHA did not identify any Aboriginal cultural heritage sites within the Subject Area. The proposed rezoning and future development of the Subject Area will not harm any known Aboriginal objects or deposits likely to contain Aboriginal objects. The previously recorded Aboriginal cultural heritage sites ABPAD1 (AHIMSID#38-4-1062 and 38-4-0865) and ABPAD2 (AHIMSID#38-4-1063 and 38-4-0866) will not be impacted by the proposed works as agreed location of the sites is approximately **Contained and States** of the Subject Area.

6.5 Project justification

The proposed works seek to create new residential areas and vibrant and well-connected communities for future generations. Furthermore, the proposed rezoning of the Subject Area facilitates Maitland Council's long term strategic view for Oakhampton as a growing residential community provided near local job opportunities, improved transport facilities and ample public recreational areas. The proposed rezoning and subsequent future development of the Subject Area will provide additional housing for a growing population located within commuting distance to Newcastle.



7 Avoiding and minimising harm

7.1 Conservation Principles and Management Framework

The two founding principles behind the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011:12) are ecologically sustainable development and intergenerational equity. These principles hold that "the present generation should make every effort to ensure the health, diversity and productivity of the environment – which includes cultural heritage – is available for the benefit of future generations".

The strong emphasis, as in the Burra Charter, is to quantify and understand the heritage values of a place, a site, or an object and exhaust avenues of avoiding harm to those values. If harm cannot be avoided, then there must be consideration and implementation of strategies to minimise harm (OEH 2011:13).

It follows that the hierarchy for consideration in terms of the management strategies available for surface stone artefacts and subsurface stone artefacts and areas of archaeological potential, fall into four general categories, in order of preference from a conservation perspective:

- avoidance and in-situ conservation;
- partial avoidance and partial in-situ conservation (includes partial harm);
- harm caused with mitigating circumstances such as collection or salvage; and
- unmitigated harm.

The four general categories (described above) have been considered in the following subsections with regard to both direct impacts (e.g. surface disturbance) and indirect impacts (e.g. monitoring activities).

Management and mitigation measures have been prepared in consideration of the results of archaeological investigations and comments received from the RAPs during the consultation process. Though no harm to Aboriginal objects is proposed, the management and mitigation measures in Table 15 should be considered to ensure continued compliance with the NPW Act. All comments received from the RAPs are considered in Section 3.4.

7.2 Justifying harm

In its current layout, the proposed rezoning and future development of the Subject Area (including future activities undertaken because of the rezoning) would not cause harm to any known Aboriginal cultural heritage sites, places or values.

It should be noted that all Aboriginal cultural heritage sites are considered to have high cultural value to the Registered Aboriginal Parties.

7.3 Mitigating harm

Though no harm to Aboriginal objects is proposed, where harm cannot be avoided, management measures are warranted to mitigate the loss of values to Aboriginal sites, objects and values that would result from the proposed activity. Management and mitigation measures are also warranted to ensure continued compliance with the *National Parks and Wildlife Act 1974*. Table 12 should be considered to ensure continued compliance with the NPW Act.



Table 12: Consideration of management and mitigation strategies

Management Risk / Impacted Value	Strategies considered	Response
Management Risk – impacts to cultural values and stakeholder values	Continued consultation with the RAPs	 Bremer Park Pty Ltd should continue to consult with RAPs in accordance with the consultation guidelines and in accordance with any future AHIP)/s. If any further assessment is required, continued consultation will allow for the consultation process to proceed without the need to recommence from the start. To ensure that the current consultation records remain valid to support any future AHIP/s for the Subject Area, the Proponent should send project updates to RAPs at a minimum of every six months for the duration of the Project.
	Further community consultation, Interpretation Plan and Cultural Values Assessment	 Should an Interpretation Plan be required, consultation with the Aboriginal community is to be undertaken to inform the Interpretation Plan. This will enable Aboriginal cultural knowledge to be incorporated into the design and development of the Precinct, focusing on open/public spaces. The interpretation plan or strategy may include elements such as: Identifying and incorporating Wonnarua names and words into the naming of elements in the precinct (for example, parks, streets, community buildings). Inclusion of local Wonnarua art and design in the development of public spaces. Signage and contributing to resources which place value in and increase public awareness of Wonnarua history and values. If further views confirming the cultural significance of the landscape are expressed, then consideration should also be given to a Cultural Values Assessment (CVA) regarding the intangible values expressed during consultation with the RAPs. The above-mentioned strategies are dependent on council approvals and may not be feasible.
	Avoidance and <i>in-situ</i> conservation	 Aboriginal cultural heritage sites if identified should be incorporated into conservation zones and protected in situ within the areas proposed for C2 (Environmental Conservation Zone) and C3 (Environmental Management Zone) Zoning and no ground disturbance should occur within the boundaries of Aboriginal cultural heritage sites.
Management Risk – Compliance and Unexpected Finds (excluding human remains)	Communication to employees, site visitors, contractors and landowners	 All workers should be inducted into the Subject Area, so they are made aware of their obligations under the <i>National Parks and Wildlife Act 1974</i> and any conditions of any future AHIP prior and during and after construction activities. In the unlikely event of the identification of artefacts within the Subject Area, work in the surrounding area is to stop immediately.



Management Risk / Impacted Value	Strategies considered	Response
		 A temporary fence is to be erected around the Aboriginal cultural heritage site, with a buffer zone of at least 10 metres around the known edge of the Aboriginal cultural heritage site. An appropriately qualified archaeological consultant is to be engaged to identify the material. If the material is an Aboriginal object, the Proponent will notify: the BCD's Enviroline on 131 555; and representatives of the RAPs. Facilitate, in co-operation with the appropriate authorities and the RAPs: The recording and assessment of the finds o Compliance with any legal requirements and BCD directions The development and implementation of appropriate management strategies based on an assessment of significance of the finds. Recommencement of ground disturbance works may only resume once legal requirements are fulfilled
Management Risk – Unexpected Finds – human remains	Stop work and follow procedure for discovery of suspected human remains	 All workers should be inducted into the Subject Area, so they are made aware of their obligations under the <i>National Parks and Wildlife Act 1974</i> and any conditions of any future AHIP prior and during and after construction activities. In the unlikely event that suspected human remains are encountered during construction, all work in the area that may cause further impact, must cease immediately. The location, including a 20 m curtilage, should be secured using barrier fencing to avoid further harm. The NSW Police must be contacted immediately. No further action is to be undertaken until the NSW Police provide written notification to Bremer Park Pty Ltd. If the skeletal remains are identified as Aboriginal, Bremer Park Pty Ltd or their agent must contact: the Heritage NSW's Enviroline on 131 555; and Representatives of the RAPs. No works are to continue until Heritage NSW provides written notification to the proponent or their Agent.



7.4 Consideration of cumulative impacts

The proposed rezoning and subdivision at Oakhampton are a part of the planned development occurring in the area. This has led to piece meal assessments and mitigation measures aimed at salvage and collection. Two Aboriginal cultural heritage sites listed on AHIMS within the local region have been destroyed (AHIMS ID#38-4-1177 and AHIMS ID#38-4-1145), while one has been deemed not a site (AHIMS ID#38-4-0120).

7.5 Consideration of ecological sustainable development

Section 5(vii) of the *Environmental Planning and Assessment Act 1979* requires proponents to consider the key principles of Ecologically Sustainable Development (ESD) in the design of their projects. The principles of ESD are defined within the Protection of the Environment Administration Act 1991. This Act defines the precautionary principle and the principles of inter-generational equity, conservation of biological diversity and ecological integrity. The precautionary principle is defined as:

"if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation".

Australia's National Strategy for Ecologically Sustainable Development (1992) defines ecologically sustainable development as: 'using, conserving and enhancing the communities' resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased.' Aboriginal heritage programs which seek to address indigenous concerns in relation to the land, heritage, economic and cultural development include the Commonwealth Indigenous Protected Areas Initiative, Land Acquisition and Maintenance, and Heritage Protection Programs; the Victorian Aboriginal Capital Projects and Aboriginal Cultural Heritage Programs; and the South Australian Aboriginal Tourism Strategy.' (Australian Government 1992: Chapter 22).

Ecologically Sustainable Development (ESD) in regard to the aforementioned Aboriginal cultural heritage sites needs to consider intergenerational equality; this is fundamental to identifying Aboriginal culture and identity into the future. Though ABPAD1 (AHIMS ID# 38-4-0865 and AHIMS ID# 38-4-1062) and AB PAD 2 (AHIMS ID# 38-4-0866 and AHIMS ID# 38-4-1063) are approximately located **Constitution** respectively, the proposed works will not harm the Aboriginal cultural heritage site; subsequently, it will not cause harm to the Aboriginal communities' connection to country or cultural development within the community.

Table 13 considers the key principles of ESD with respect to the results of the literature review, Aboriginal heritage survey and significance assessment contained within this report.



Table 13: Assessment of ESD

Principles of the EIA and ESD Guidelines	ESD Assessment
A fundamental consideration for conservation of biological diversity and ecological integrity	The proponent has considered the conservation of cultural integrity by conducting an ACHA in consultation with the RAPs and determined that no Aboriginal cultural heritage sites will be harmed by the proposed works, which are confined to previously disturbed areas.
Careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment	The proponent has undertaken an ACHA, and it is recommended that consideration of options to avoid, where practical, serious or irreversible damage to the environment. harm to Aboriginal objects be given. Avoidance and in-situ conservation
Consideration of intergenerational equity	The assessment has considered intergeneration equity by: Undertaking community consultation with RAPs regarding the cultural values within the Subject Area and the management of Aboriginal sites and Aboriginal heritage values.
Where risk of serious or irreversible harm and lack of scientific knowledge of the nature of environmental harm combine, the precautionary principle applies. Where there is risk of serious or irreversible harm, it is necessary to establish whether there is adequate scientific knowledge of the subject to evaluate the perceived threat.	This assessment has undertaken an Aboriginal Objects Due Diligence Assessment, which initially identified information gaps and sensitive areas where further information was required to evaluate the potential impacts of the project. Further investigation through an ACHA and Aboriginal community consultation within the Subject Area was undertaken to "acquire adequate scientific knowledge of the subject to evaluate the perceived threat." As a result of these further investigations, no Aboriginal objects or cultural values were identified within the Subject Area.
An assessment of the risk-weighted consequences of various options	A consideration of harm and mitigation is provided above in Section 7.2.



8 Conclusion and recommendations

Part 6 of the *National Parks and Wildlife Act* (1974) provides protection for all Aboriginal objects and declared Aboriginal places from harm. Harm is defined as destroying, defacing, damaging or moving an object from the land. An Aboriginal Heritage Impact Permit (AHIP) is a legal document that grants you permission to harm Aboriginal objects or declared Aboriginal places and sets out any conditions you must comply with. An AHIP is required to disturb any Aboriginal objects or places.

In order to fulfil the requirements of the planning proposal, Niche has prepared an ACHA and AR which presents the results of an Aboriginal cultural heritage site inspection completed by Niche and representatives of the RAPs in compliance with the requirements of the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010a).

Based on the community consultation with the Aboriginal stakeholders and archaeological investigations undertaken for the Project by Niche, the following recommendations have been made:

Recommenda	Recommendations		
	Aboriginal Heritage Impact Permit		
1.	To ensure that the consultation records remain valid to support any future AHIP/s for the Subject Area, Bremer Park Pty Ltd should continue to consult with the Aboriginal community in accordance with the consultation guidelines and in accordance with any future Aboriginal Heritage Impact Permit (AHIP). To maintain consultation records and contact with stakeholders, the Proponent should send project updates to RAPs at a minimum of every six months for the duration of the Project. Should an Interpretation Plan be required, consultation with the Aboriginal community should be undertaken to inform the Interpretation Plan. This will enable Aboriginal cultural knowledge to be incorporated into the design and development of the Precinct, focusing on open/public spaces.		
2.	Further assessment of Aboriginal heritage should be undertaken if the scope of works, as specified in the current ACHA/AR, is altered, redesigned or goes beyond the proposed development. If further assessment is required, assessment of Aboriginal heritage should be undertaken in accordance with the <i>National Parks & Wildlife Act 1974</i> (Amended 2010) and <i>National Parks & Wildlife Amendment Regulation 2019</i> . This may take the form of an Aboriginal Objects Due Diligence Assessment in the first instance.		
3.	Survey in the Subject Area of previously unsurveyed properties 29 Kezia Rd, Oakhampton and 487 Oakhampton Rd, Oakhampton is still required. Survey of properties should be undertaken in consultation with Aboriginal community when access is available and can occur as part of the DA.		
	General		
4.	All workers should be inducted into the Subject Area, so they are made aware of their obligations under the <i>National Parks and Wildlife Act 1974</i> and any conditions of any future AHIP prior and during and after construction activities.		
5.	In the event that previously unknown Aboriginal object(s) and/or sites are discovered during the proposed activity, work must stop, and an appropriately qualified archaeologist be contacted to access the nature, extent, and significance of the identified sites and notification is provided to Heritage NSW. Works should not proceed without advice from Heritage NSW or an appropriately qualified archaeologist.		
6.	In the unlikely event that suspected human remains are encountered during construction, all work in the area that may cause further impact, must cease immediately and:		



Recommendations		
	• The location, including a 20 m curtilage, should be secured using barrier fencing to avoid further harm.	
	The NSW Police must be contacted immediately.	
	• No further action is to be undertaken until the NSW Police provide written notification to Bremer Park Pty Ltd.	
	• If the skeletal remains are identified as Aboriginal, Bremer Park Pty Ltd or their agent must contact:	
	 Heritage NSW's Enviroline on 131 555; and representatives of the RAPs. 	
	 No works are to continue until Heritage NSW provides written notification to the proponent or their Agent. 	



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Appendix A: Archaeological Report



Appendix A: Archaeological Report Oakhampton, Maitland, NSW Rezoning Development City of Maitland LGA Prepared for Bremer Park Pty Ltd

Prepared by Niche Environment and Heritage Pty Ltd | 13 October 2022





Document control

Project number	Client	Project manager	LGA
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FNL	Chelsea Freeman	Public Exhibition Version	Final	12/10/22

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Executive summary



Project outline

Niche Environment and Heritage Pty Ltd (Niche) was commissioned by Bremer Park Pty Ltd (hereafter referred to as 'the Proponent') to prepare an Aboriginal Cultural Heritage Assessment (ACHA) to inform a Planning Proposal for the Oakhampton project at 42 Kezia Road, Oakhampton, NSW and the surrounding properties within the Aberglasslyn Urban Release Area (hereafter referred to as the 'Subject Area'). The Subject Area comprises of the following lots: Lot 1/DP 1012258, Lot 8/DP248331, Lot 7/DP248331, Lot 6/DP248331, Lot 5/DP248331, Lot 4/DP248331, Lot 1/DP562346, Lot 2/DP562346, Lot 3/DP562346, Lot 1/DP1086271, Lot 1/DP826919, Lot 66/DP810466, Lot 7/DP998430 and Lot 8/DP998430. The Planning Proposal of the Subject Area seeks to amend the *Maitland Local Environmental Plan* 2011 to change the zoning of the Subject Area from RU1 Primary Production, RU2 Rural Landscape and C2 Environmental Conservation to Part R1 General Residential, Part C3 Environmental Management, whilst maintaining part of the RU1 Primary Production and all of the C2 Environmental Conservation zoned land.

This Archaeological Report (AR) presents the results of an Aboriginal archaeological assessment for the proposed redevelopment. The AR is an integral part of the ACHA and will be included as an Appendix in the ACHA report and has been carried out in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (Department of Environment, Climate Change and Water NSW, 2010, [DECCW 2010] 'Code of Practice').

Summary of findings

The ACHA report process and the AR assessment has included background archaeological and historical investigation, ongoing consultation with the Registered Aboriginal Parties (RAPs), and an archaeological site inspection.

No previously recorded Aboriginal cultural heritage sites are located within the Subject Area. No new Aboriginal cultural heritage sites were located during the site inspection completed by Niche and representatives of the Murra Bidgee Mullangari Aboriginal Corporation and Lower Hunter Aboriginal Incorporated in compliance with the requirements of the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010a).).

Overall, the results of the archaeological assessments conducted within the Subject Area are consistent with the predictive model developed for the project in that:

• The presence of surface artefacts is not a predictor of sub-surface archaeological deposits and viceversa.

Summary of potential impacts

This assessment has determined that the proposed rezoning and future redevelopment of the Subject Area does not have the potential to impact the Aboriginal cultural heritage sites registered on AHIMS.

Conclusion and recommendations

No Aboriginal cultural heritage site were identified within the Subject Area. Aboriginal objects and sites are protected under the National Parks and Wildlife Act 1974.



The following recommendations have been made:

Recommendations		
	Aboriginal Heritage Impact Permit	
1.	To ensure that the consultation records remain valid to support any future AHIP/s for the Subject Area, Bremer Park Pty Ltd should continue to consult with the Aboriginal community in accordance with the consultation guidelines and in accordance with any future Aboriginal Heritage Impact Permit (AHIP). To maintain consultation records and contact with stakeholders, the Proponent should send project updates to RAPs at a minimum of every six months for the duration of the Project. Should an Interpretation Plan be required, consultation with the Aboriginal community should be undertaken to inform the Interpretation Plan. This will enable Aboriginal cultural knowledge to be incorporated into the design and development of the Precinct, focusing on open/public spaces.	
2.	Further assessment of Aboriginal heritage should be undertaken if the scope of works, as specified in the current ACHA/AR, is altered, redesigned or goes beyond the proposed development. If further assessment is required, assessment of Aboriginal heritage should be undertaken in accordance with the <i>National Parks & Wildlife Act 1974</i> (Amended 2010) and <i>National Parks & Wildlife Amendment Regulation 2019</i> . This may take the form of an Aboriginal Objects Due Diligence Assessment in the first instance.	
3.	Survey in the Subject Area of previously unsurveyed properties 29 Kezia Rd, Oakhampton and 487 Oakhampton Rd, Oakhampton is still required. Survey of properties should be undertaken in consultation with Aboriginal community when access is available and can occur as part of the DA.	
	General	
4.	All workers should be inducted into the Subject Area, so they are made aware of their obligations under the <i>National Parks and Wildlife Act 1974</i> and any conditions of any future AHIP prior and during and after construction activities.	
5.	In the event that previously unknown Aboriginal object(s) and/or sites are discovered during the proposed activity, work must stop, and an appropriately qualified archaeologist be contacted to access the nature, extent, and significance of the identified sites and notification is provided to Heritage NSW. Works should not proceed without advice from Heritage NSW or an appropriately qualified archaeologist.	
6.	In the unlikely event that suspected human remains are encountered during construction, all work in the area that may cause further impact, must cease immediately and:	
	 The location, including a 20 m curtilage, should be secured using barrier fencing to avoid further harm. The NSW Police must be contacted immediately. No further action is to be undertaken until the NSW Police provide written notification to Bremer Park Pty Ltd. If the skeletal remains are identified as Aboriginal, Bremer Park Pty Ltd or their agent must contact: Heritage NSW's Enviroline on 131 555; and representatives of the RAPs. No works are to continue until Heritage NSW provides written notification to the proponent or their Agent. 	



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1. Introduction

1.1 Background and need for the project

This Archaeological Report (AR) presents the results of an archaeological assessment which included a site inspection to inform a planning proposal for the proposed rezoning of fourteen adjoining lots spanning 502 to 355 Oakhampton Road and up into 42 Kezia Road in Oakhampton, a northern suburb of Maitland, NSW (hereafter referred to as 'the Subject Area'; Figure 1 and Figure 2). The Subject Area is situated within the suburb of Oakhampton in the City of Maitland Local Government Area (LGA) and is located directly adjacent to the South of the Hunter River within the Hunter Region of NSW. It lies within the County of Northumberland and Parish of Maitland and within the Mindaribba Local Aboriginal Land Council (LALC). The Subject Area incorporates fourteen adjoining lots comprising Lot1/DP1012258, Lot 8/DP248331, Lot 7/DP248331, Lot 6/DP248331, Lot 5/DP248331, Lot 4/DP248331, Lot 1/DP562346, Lot 2/DP562346, Lot 3/DP562346, Lot 1/DP1086271, Lot 1/DP826919, Lot 66/DP810466, Lot 7/DP998430 and Lot 8/DP998430.

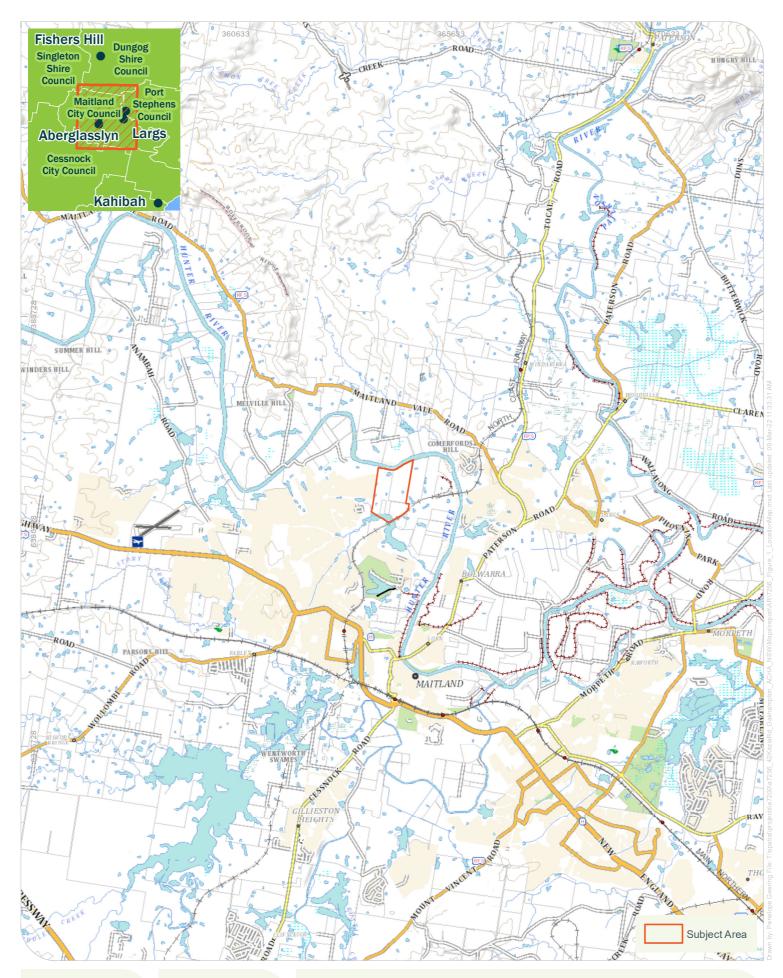
The planning proposal covering the Subject Area seeks to amend the Maitland Local Environment Plan (LEP) 2011 to change the zoning from RU1 Primary Production, RU2 Rural Landscape and C2 Environmental Conservation to Part R1 General Residential, Part C3 Environmental Management, whilst maintaining part of the RU1 Primary Production and all of the C2 Environmental Conservation zoned land.

Niche Environment and Heritage Pty Ltd (Niche) were commissioned by Bremer Park Pty Ltd (hereafter referred to as 'the Proponent') to prepare an ACHA and AR for the Project.

Niche has prepared this AR in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW, 2010a).

As per the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW 2010b), the objectives of the archaeological assessment undertaken to inform the ACHA were:

- Describe the aims of the project and the rationale for the archaeological assessment.
- Present a feasible and appropriate methodology for the archaeological survey and other investigations.
- Undertake field surveys in accordance with Section 2.2 of the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales 2010
- Present the findings and interpretation of the results within a wider context of archaeological knowledge and Aboriginal history.
- Ensure that the findings and interpretation of the results support the assessment of the archaeological significance of the Subject Area.







Niche PM: Chelsea Freeman Niche Proj. #: 7256 Client: Bremer Park Pty Ltd

Location Map 42 Kezia Road, Oakhampton AR

Figure 1



Location of the Subject Area 42 Kezia Road, Oakhampton AR

Figure 2

Environment and Heritage



GDA 1994 MGA Zone 56

Niche PM: Chelsea Freeman Niche Proj. #: 7256 Client: Bremer Park Pty Ltd

ri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



2. Investigator and contributors

The contributors to this AR and their project roles are listed in Table 1 below.

Table 1: Contributors, a	affiliations and contributions
--------------------------	--------------------------------

Contributor	Affiliation	Contribution	Qualification	
Chelsea Freeman	Niche	Project Manager, Aboriginal Community Consultation	BA, BSc	
Riley Finnerty	Niche	Draft Report BA (Hon:		
Dr Olivier Rochecouste	Niche	Draft Report	BA, MRes, PhD	
Ben Slack	Niche	Internal Review	BA	
Nicole Topple	Bremer Park Pty Ltd	Client Contact, Client Review	NA	
Registered Aboriginal Parties (I	RAPS)			
Contact Person	Organisation	Contribution		
Carolyn Hickey	A1 Indigenous Services	Registered Aboriginal Party		
Tracey Howie & Kerrie Brauer	Awabakal & Guringai Pty Ltd	Registered Aboriginal Party		
Peter Leven	Awabakal Descendants Traditional Owners Aboriginal Corporation	Registered Aboriginal Party		
Kerrie Brauer	Awabakal Traditional Owners Aboriginal Corporation	Registered Aboriginal Party		
		Registered Aboriginal Party		
Tracey Skene	Culturally Aware	Registered Aboriginal Party		
Paul Boyd & Lilly Carroll	Didge Ngunawal Clan	Registered Aboriginal Party		
Glen Morris	Glen Morris	Registered Aboriginal Party		
Paulette Ryan	Hunter Traditional Owner	Registered Aboriginal Party		
Arthur Fletcher	Kawul Pty Ltd trading as Wonn1 Sites	Registered Aboriginal Party		
David Ahoy	Lower Hunter Aboriginal Incorporated	Registered Aboriginal Party		



Ryan Johnson & Darleen Johnson-Carroll	Murra Bidgee Mullangari Aboriginal Corporation	Registered Aboriginal Party
Scott Franks	Tocomwall Pty Ltd	Registered Aboriginal Party
		Registered Aboriginal Party
Aaron Taylor	Murra Bidgee Mullangari Aboriginal Corporation	Site Inspection
Nura Smith	Lower Hunter Aboriginal Incorporated	Site Inspection



3. Description of development proposal

3.1 Project location

The Subject Area is situated within the suburb of Oakhampton in the City of Maitland LGA and is located directly adjacent to the south bank of the Hunter River within the Hunter Region of NSW. It lies within the Mindaribba Local Aboriginal Land Council (MLALC) and within the County of Northumberland and Parish of Maitland. The Subject Area encompasses fourteen (14) lots: Lot1/DP1012258, Lot 8/DP248331, Lot 7/DP248331, Lot 6/DP248331, Lot 5/DP248331, Lot 4/DP248331, Lot 1/DP562346, Lot 2/DP562346, Lot 3/DP562346, Lot 1/DP1086271, Lot 1/DP826919, Lot 66/DP810466, Lot 7/DP998430 and Lot 8/DP998430 and is made up of pastureland located immediately to the east of an existing low-density residential development. The Subject Area is bound by the Hunter River to the North, residential properties of Dunnart Street to the West, Oakhampton Station Road to the East and unnamed wetlands to the South.

3.2 Proposed development description

The Subject Area is part of a planning proposal which seeks to amend the Maitland Local Environment Plan (LEP) 2011. The changes seek to modify the zoning of approximately 102.3 ha of land from RU1 Primary Production, RU2 Rural Landscape and C2 Environmental Conservation to Part R1 General Residential, Part C3 Environmental Management, whilst maintaining part of the RU1 Primary Production and all of the C2 Environmental Conservation zoned land.

3.3 Potential for harm

The results of an Aboriginal Heritage Information Management System (AHIMS) search (Table 3), desktop assessment, and archaeological field inspection, undertaken as part of this report, determined that no previously recorded Aboriginal cultural heritage sites registered on AHIMS are located within the Subject Area and therefore will not be impacted by the proposed works. No new Aboriginal cultural heritage sites were identified during the site inspection.

Portion of site to be impacted	AHIMS ID#	Site Name	Site Features	Easting (GDA 94, Zone 56)	Northing (GDA 94, Zone 56)
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	37-5-0636	Bolwarra Height Grinding Grooves 1	Grinding Groove		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-0058	Hunter River;Bolwar ra;	Open Camp Site		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-0059	Bolwarra Heights;Bolw arra;	Scarred Tree		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-0061	Bolwarra Burial Site - King Tom	Burial		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-0119	Bolwarra 2 Bolwarra Heights	Scarred Tree		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-0120	Bolwarra 1;Bolwarra heights;	Open Camp Site		

Table 2: Details of the Aboriginal objects within 2.5km of Subject Area



Posting of starts he had successful	A1119.4C	Che News	City Frankruss	Franklaur	
Portion of site to be impacted	AHIMS ID#	Site Name	Site Features	Easting (GDA 94, Zone 56)	Northing (GDA 94, Zone 56)
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-0142	WW2;	Open Camp Site		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-0143	WW1;	Open Camp Site		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-0144	WW3;	Axe Grinding Groove		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-0155	Walka.;	Axe Grinding Groove		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-0383	Bolwarra 3	Open Camp Site		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-0384	Bolwarra 4	Open Camp Site		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-0430	Bolwarra 5;B5;	Open Camp Site		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-0616	B6/T145	Open Camp Site		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-0677	Aberglasslyn Rd PAD 1	PAD		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-0689	AD1	Artefact Scatter		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-0690	RT3A	Isolated Artefact		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-0691	RT3B	Artefact Scatter		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-0862	AB Isf 1	Isolated Artefact		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-0863	AB Site 1	Artefact Scatter		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-0864	AB Site 2	Artefact Scatter		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-0865	AB PAD 1, same as 38- 4-1062	Isolated Artefact		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-0866	AB PAD2, same as 38- 4-1063	Artefact Scatter		



Portion of cito to be impacted	AHIMS	Site Name	Site Features	Facting	Northing
Portion of site to be impacted	ID#	Site Name	Site reatures	Easting (GDA 94, Zone 56)	Northing (GDA 94, Zone 56)
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-0867	AB PAD 3	Isolated Artefact		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-0994	Bolwarra PAD 1a	Burial		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-1057	Site 1 Open Camp Site	Artefact Scatter		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-1058	Site 2 Isolated Find	Isolated Artefact		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-1062	ABPAD1, same as 38- 4-0865	Open Camp Site		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-1063	ABPAD2, same as 38- 4-0866	Open Camp Site		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-1144	Bolwarra Heights PAD 1	Artefact Scatter and PAD		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-1145	Bolwarra Heights PAD 2	PAD		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-1172	BH1 (Maitland)	Artefact Scatter		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-1177	RPS BH PAD 1	PAD		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-1512	MCKEACHIES AS 1	Isolated Artefact		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-1513	MCKEACHIES AS 2	Isolated Artefact		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-1514	MCKEACHIES AS 3	Isolated Artefact and PAD		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-1515	MCKEACHIES AS 4	Isolated Artefact		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-1516	MCKEACHIES AS 5	Isolated Artefact		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-1517	MCKEACHIES AS 6	Isolated Artefact		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-1518	MCKEACHIES AS 7	Isolated Artefact		



Portion of site to be impacted	AHIMS ID#	Site Name	Site Features	Easting (GDA 94, Zone 56)	Northing (GDA 94, Zone 56)
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-1525	MCKEACHIES AS 3A	Isolated Artefact and PAD		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-1528	McKeachies AS 7a	Isolated Artefact and PAD		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-1603	Bolwarra Heights Grinding Grooves 1a	Grinding Groove		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-1604	Bolwarra Heights Grinding Grooves 2	Grinding Groove		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-1605	Bolwarra Heights Grinding Grooves 3	Grinding Groove		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-1606	B1 Grinding Grooves	Grinding Groove		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-1607	B2 Grinding Grooves	Grinding Groove		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-1608	B3 Grinding Grooves	Grinding Groove		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-1609	B4 Grinding Grooves	Grinding Groove		
None- there is no potential for the site to be harmed by the proposed development in the Subject Area	38-4-2080	ACH_HUN_4 3760_L_GG1	Grinding Groove and PAD		



4. Previous archaeological work

4.1 Heritage registers

4.1.1 Aboriginal Heritage Information Management System (AHIMS)

An extensive search of the AHIMS was carried out on the 22 February 2022 (AHIMS Client ID #661600; Annex 1) for the Subject Area in the area from -32.716, 151.5238 Latitude and Longitude to -32.68, 151.5856 Latitude and Longitude. A total of fifty (50) Aboriginal cultural heritage sites were identified within the search area and include Isolated Artefacts (n=11), Grinding Grooves (n=10), Open Campsite (n=10) and Artefacts Scatters (n=7) (summarised in Table 3 and Figure 3).

Site features	Total
Isolated Artefact	11
Grinding Groove	10
Open Camp Site	10
Artefact Scatter	7
Isolated Artefact and PAD	3
PAD	3
Burial	2
Scarred Tree	2
Artefact Scatter and PAD	1
Grinding Groove and PAD	1
Total	50

Table 3: Summary of AHIMS site features within the wider region of the AHIMS search

Table 4 below provides a summary of recorded sites registered on AHIMS and their proximity to the Subject Area.



Table 4: Summary of Aboriginal sites registered on AHIMS within AHIMS search area

Site name	AHIMS ID#	Site Context	Site Status	Approximate distance from current Subject Area (m)	Site Features	Reference	Notes
Bolwarra Height Grinding Grooves 1	37-5-0636	Open site	Valid		Grinding Groove	Miss.Cheryl Kitchener,Kleinfelder Australia Pty Ltd - CaRdiff	
Hunter River;Bolwarra;	38-4-0058	Open site	Valid		Open Camp Site	Helen Brayshaw	
Bolwarra Heights;Bolwarra;	38-4-0059	Open site	Valid		Scarred Tree	Helen Brayshaw	
Bolwarra Burial Site - King Tom	38-4-0061	Open site	Valid		Burial	Warren Bluff,Glen Morris,Ron Mead,Harry Boyle	
Bolwarra 2 Bolwarra Heights	38-4-0119	Open site	Valid		Scarred Tree	Helen Brayshaw,Denis Byrne,Doctor.Jo McDonald	
Bolwarra 1;Bolwarra heights;	38-4-0120	Open site	Not a Site		Open Camp Site	Helen Brayshaw,Doctor.Jo McDonald,RPS Australia East Pty Ltd - York Street Sydney	
WW2;	38-4-0142	Open site	Valid		Open Camp Site	Helen Brayshaw	
WW1;	38-4-0143	Open site	Valid		Open Camp Site	Helen Brayshaw,Mr.John Gilding	
WW3;	38-4-0144	Open site	Valid		Axe Grinding Groove	Helen Brayshaw,Mr.John Gilding	
Walka.;	38-4-0155	Open site	Valid		Axe Grinding Groove	Warren Bluff	
Bolwarra 3	38-4-0383	Open site	Valid		Open Camp Site	Helen Brayshaw,Denis Byrne	
Bolwarra 4	38-4-0384	Open site	Valid		Open Camp Site	Helen Brayshaw,Denis Byrne	
Bolwarra 5;B5;	38-4-0430	Open site	Valid		Open Camp Site	Mr.Neville Baker	
B6/T145	38-4-0616	Open site	Valid		Open Camp Site	Mr.Neville Baker	
Aberglasslyn Rd PAD 1	38-4-0677	Open site	Valid		PAD	Mary Dallas Consulting Archaeologists (MDCA)	



AD1	38-4-0689	Open site	Valid	Artefact Scatter	Wildthing Environmental	
					Consultants	
RT3A	38-4-0690	Open site	Valid	Isolated Artefact	Wildthing Environmental Consultants	
RT3B	38-4-0691	Open site	Valid	Artefact Scatter	Wildthing Environmental Consultants	
AB Isf 1	38-4-0862	Open site	Valid	Isolated Artefact	Mary Dallas Consulting Archaeologists (MDCA)	
AB Site 1	38-4-0863	Open site	Valid	Artefact Scatter	Mary Dallas Consulting Archaeologists (MDCA)	
AB Site 2	38-4-0864	Open site	Valid	Artefact Scatter	Mary Dallas Consulting Archaeologists (MDCA)	
AB PAD 1	38-4-0865	Open site	Valid	Isolated Artefact	Mary Dallas Consulting Archaeologists (MDCA)	same as 38-4- 1062
AB PAD2	38-4-0866	Open site	Valid	Artefact Scatter	Mary Dallas Consulting Archaeologists (MDCA)	same as 38-4- 1063
AB PAD 3	38-4-0867	Open site	Valid	Isolated Artefact	Mary Dallas Consulting Archaeologists (MDCA)	
Bolwarra PAD 1a	38-4-0994	Open site	Valid	Burial	Ms.Penny MccaRdle	
Site 1 Open Camp Site	38-4-1057	Open site	Valid	Artefact Scatter	Ms.Penny MccaRdle	
Site 2 Isolated Find	38-4-1058	Open site	Valid	Isolated Artefact	Ms.Penny MccaRdle	
ABPAD1	38-4-1062	Open site	Valid	Open Camp Site	Ms.Mary Dallas	same as 38-4- 0865
ABPAD2	38-4-1063	Open site	Valid	Open Camp Site	Ms.Mary Dallas	same as 38-4- 0866
Bolwarra Heights PAD 1	38-4-1144	Open site	Destroyed	Artefact Scatter and PAD	Wildthing Environmental Consultants	
Bolwarra Heights PAD 2	38-4-1145	Open site	Destroyed	PAD	Wildthing Environmental Consultants	
BH1 (Maitland)	38-4-1172	Open site	Valid	Artefact Scatter	RPS Australia East Pty Ltd - Hamilton	
RPS BH PAD 1	38-4-1177	Open site	Destroyed	PAD	Ms.Gillian Goode,RPS Australia East Pty Ltd - York Street Sydney	



MCKEACHIES AS 1	38-4-1512	Open site	Valid	-	Isolated Artefact	GML Heritage Pty Ltd - Surry Hills
MCKEACHIES AS 2	38-4-1513	Open site	Valid		Isolated Artefact	GML Heritage Pty Ltd - Surry Hills
MCKEACHIES AS 3	38-4-1514	Open site	Valid		Isolated Artefact and PAD	GML Heritage Pty Ltd - Surry Hills
MCKEACHIES AS 4	38-4-1515	Open site	Valid		Isolated Artefact	GML Heritage Pty Ltd - Surry Hills
MCKEACHIES AS 5	38-4-1516	Open site	Valid		Isolated Artefact	GML Heritage Pty Ltd - Surry Hills
MCKEACHIES AS 6	38-4-1517	Open site	Valid		Isolated Artefact	GML Heritage Pty Ltd - Surry Hills
MCKEACHIES AS 7	38-4-1518	Open site	Valid		Isolated Artefact	GML Heritage Pty Ltd - Surry Hills
MCKEACHIES AS 3A	38-4-1525	Open site	Valid		Isolated Artefact and PAD	GML Heritage Pty Ltd - Surry Hills
McKeachies AS 7a	38-4-1528	Open site	Valid		Isolated Artefact and PAD	GML Heritage Pty Ltd - Surry Hills
Bolwarra Heights Grinding Grooves 1a	38-4-1603	Open site	Valid	-	Grinding Groove	Miss.Cheryl Kitchener,Kleinfelder Australia Pty Ltd - CaRdiff
Bolwarra Heights Grinding Grooves 2	38-4-1604	Open site	Valid		Grinding Groove	Miss.Cheryl Kitchener,Kleinfelder Australia Pty Ltd - CaRdiff
Bolwarra Heights Grinding Grooves 3	38-4-1605	Open site	Valid		Grinding Groove	Miss.Cheryl Kitchener,Kleinfelder Australia Pty Ltd - CaRdiff
B1 Grinding Grooves	38-4-1606	Open site	Valid		Grinding Groove	Miss.Cheryl Kitchener,Kleinfelder Australia Pty Ltd - CaRdiff
B2 Grinding Grooves	38-4-1607	Open site	Valid		Grinding Groove	Miss.Cheryl Kitchener,Kleinfelder Australia Pty Ltd - CaRdiff
B3 Grinding Grooves	38-4-1608	Open site	Valid		Grinding Groove	Miss.Cheryl Kitchener,Kleinfelder Australia Pty Ltd - CaRdiff



B4 Grinding Grooves	38-4-1609	Open site	Valid		Grinding Groove	Miss.Cheryl Kitchener,Kleinfelder Australia Pty Ltd - CaRdiff
ACH_HUN_43760_L_G G1	38-4-2080	Open site	Valid	-	Grinding Groove and PAD	Miss.Rachel (Elle) Lillis,Virtus Heritage Pty Ltd - Pottsville



The AHIMS data identifies four (4) Aboriginal cultural heritage sites located within 400 m of the Subject Area. However, these sites are identified as duplicated within the AHIMS data due to both sites containing the same registered coordinates. Removing the duplicated sites, two (2) Aboriginal cultural heritage sites remain located within 400 m of the Subject Area including:

- AB PAD 1 (AHIMS ID# 38-4-0865 and AHIMS ID# 38-4-1062) is an open campsite that is located approximately for the Subject Area. The Aboriginal cultural heritage site was recorded originally recorded as an area of Potential Archaeological Deposit. Test excavation by Mary Dallas Consulting Archaeologists (MDCA) in 2007 identified 74 flaked stone pieces or a minimum of 21 artefacts (see Site Card provided in Annex 2).
- AB PAD 2 (AHIMS ID# 38-4-0866 and AHIMS ID# 38-4-1063) is an open campsite that is located approximately for the Subject Area. The Aboriginal cultural heritage site was recorded originally recorded as an area of Potential Archaeological Deposit along with site ABPAD1 (AHIMS ID# 38-4-0865 and AHIMS ID# 38-4-1062). Test excavation by MDCA in 2007 identified a total of 293 flaked stone pieces comprising of at least 124 artefacts. These artefacts included backed blades (see Site Card provided in Annex 2).

The forty-six (46) remaining sites listed on AHIMS are located more than 300 m away from the Subject Area.

4.1.1.1 Assessment of robustness of AHIMS data

It must be noted that care should be taken when using the AHIMS database to reach conclusions about site prevalence or distribution. The distribution of registered sites does not reflect patterns of occupation, but rather is often indicative of survey coverage and conditions.

The Hunter Valley is one of the most intensively studied regions in NSW. Archaeological studies over the last few decades within and around Oakhampton has been initiated as a requirement of planning proposals for residential development and rezoning projects. To date, the main research questions addressed by these studies include the presence, absence, and distribution of sites, and broad characterisation of where the sites occur within the landscape and their association with certain environmental features (e.g. distance from water).

4.1.2 Other registers

Searches of the Australian World Heritage Database, the Commonwealth Heritage List, National Heritage List, State Heritage Register, State Heritage Inventory, the Maitland Local Environmental Plan (LEP) (2011), Section 170 Heritage and Conservation Registers and the Register of the National Estate (non-statutory archive) were conducted on 21 February 2022. No listed heritage items or places are present within the Subject Area (Table 5).

Heritage Register	Items in the Subject Area	Items nearby to the Subject Area
Australian World Heritage Database	None located within the Subject Area	None located within close proximity to the Subject Area
Commonwealth Heritage List	None located within the Subject Area	None located within close proximity to the Subject Area
National Heritage List	None located within the Subject Area	None located within close proximity to the Subject Area

Table 5: Listed heritage items in proximity to the Subject Area



Heritage Register	Items in the Subject Area	Items nearby to the Subject Area
State Heritage Register	None located within the Subject Area	 Aberglasslyn (No: 00195) Walka Water Works (No: 00466)
State Heritage Inventory	None located within the Subject Area	 Aberglasslyn (No: 00195) Walka Water Works (No: 00466)
Schedule 5 of the LEP	None located within the Subject Area	 Former School (No: 1220) Aberglasslyn House Heritage Conservation Area (No: C7) Aberglasslyn House (1860) (No: 11) Government Railway (No: 1119) Walka Water Works (No: 1222)
Register of the National Estate	None located within the Subject Area	None located within close proximity to the Subject Area

4.2 Previous heritage assessments of the Subject Area

One (1) archaeological assessment have been conducted within the boundaries of the Subject Area, with several have been conducted in and around the Maitland region. A summary of these is provided in Table 6 below.

Table 6: Aboriginal heritage assessments v	within the Subject Area
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Author and year	Title and description
Niche Environment and Heritage, 2022.	Oakhampton, Maitland, NSW. Desktop Aboriginal Objects Due Diligence Assessment (DD). Report prepared to Bremer Park Pty Ltd.
	Niche undertook a Desktop Aboriginal Objects Due Diligence Assessment for the current Subject Area at Oakhampton, Maitland, NSW to identify heritage constraints of the Subject Area. The desktop review of the Subject Area identified high potential for Aboriginal objects to have survived within the Subject Area due to its location within an archaeologically sensitive landscape (i.e., within 200 m of the Hunter River) and its proximity to previously recorded Aboriginal cultural heritage sites. The results of the Desktop assessment recommended the completion of an Aboriginal Cultural Heritage Assessment (ACHA) and Community Consultation.

4.3 Previous heritage assessments of the wider region

Several heritage assessments have been undertaken within the vicinity of the Subject Area. While these reports mostly focus on the presence and absence of Aboriginal objects within a limited area of works, they provide an insight into the nature of the broader archaeological landscape and are useful in the development of a predictive model for the region. A summary of the most relevant heritage assessments undertaken in the surrounding region, as identified based on the search of the AHIMS report register and other archaeological reports, is provided in Table 7 below.



Table 7: Regional heritage assessments considered

Author and year	Title and relevance to the Subject Area
Brayshaw, 1984	Archaeological investigations for West Bolwarra Heights planning study (AHIMS Report ID 123)
	An archaeological assessment was carried out on a 120-hectare property north of Bolwarra Road and adjacent to the eastern side of the Hunter River at Bolwarra Heights, approximately 1.5 km south-east from the current Subject Area. A survey was conducted and found one (1) open camp site, consisting of 40 artefacts within an exposure adjacent to a vehicle track (Bolwarra 1 AHIMS #38-4-0058). The site consisted of cores, flakes and tools made up of silcrete, mudstone, quartz, chert, quartzite, and fine-grained basalt materials. Most materials were probably locally procured from the Hunter River, however some quartz and silcrete could also have been sourced from elsewhere. The site was dated to less than 1500 years due to the presence of quartz and the archaeological significance of the site as being minimal due to the considerable disturbance.
Brayshaw, 1986	Archaeological Survey of Walka Waterworks. Maitland. Prepared for
	Maitland City Council Brayshaw surveyed the Walka Water Works in 1986 (1 km south of present study area) and located two artefact scatters and an axe-grinding groove. The scatters were located on disturbed soil and consisted of two and three artefacts respectively, located on exposed reddish and buff clays. The artefact scatters did not contain cores or modified flakes, therefore Brayshaw suggested this was maintenance activity rather than a manufacturing site. The axe grinding groove (AHIMS #38-4-0144) was found on high ground on 'a sandstone outcrop adjacent to a shallow waterhole.' According to Brayshaw, the available evidence did not suggest intense occupation, although she suspected that such evidence may have been found on the margins of the original lagoon now submerged by the Water Works Reservoir.
Brayshaw, 1995	Archaeological Survey for Aboriginal Sites, Bolwarra Heights, NSW (AHIMS Report ID 3332)
	A re-survey of Brayshaw's 1984 archaeological survey was conducted for 86 hectares of property located in Bolwarra Heights (approximately 1.5km south-east of the Subject Area). Surface visibility was much higher than in 1984 and two new artefact scatters were identified, Bolwarra 3 (AHIMS #38-4-0383) and Bolwarra 4 (AHIMS #38-4-0384). Bolwarra 3 was found exposed in a dam wall located on a spur 100 metres east of the Hunter River. It consisted of four flake fragments, one mudstone core and one silcrete flake. Approximately 10 additional artefacts were observed just outside the boundary. Bolwarra 4 was found in a reasonably extensive exposure (50m x 2m) adjacent to an ephemeral creek and consisted of one banded mudstone microblade core and one mudstone flake. Brayshaw determined that the presence of cores at both sites indicates artefact manufacture. The presence of the microblade core at Bolwarra 4 suggests that later occupation might be represented at that site. Overall, the survey area was assessed as having little potential for further archaeological material; however, an area of elevated ground close was thought to have been more conducive to camping. Brayshaw recommended subsurface testing which was subsequently
D. 1. 4000	carried out by Baker (1997). Excavations revealed the presence of silcrete and identified several areas of high archaeological significance.
Baker, 1997	Archaeological test excavations at Landcom Project 12163.001 Bolwarra Heights, Hunter Valley NSW (AIHIMS Report ID 3868)
	An archaeological report which outlines the results from a series of test excavations pits over almost 50 hectares of land at Bolwarra Heights that had been surveyed by Brayshaw (1995).



Author and year	Title and relevance to the Subject Area
	The pits revealed extensive subsurface evidence of Aboriginal occupation with a total of 823 artefacts found. Almost all the artefacts were recovered from the western two-thirds of the study area, which abutted the Hunter River. The assemblage was indicative of primary reduction in the southwestern crest of the survey area and backed-blade manufacture and camping took place in the north western corner. Both areas were designated by Baker as having high significance. Differences in raw materials were identified in different areas. Whilst silcrete was the predominant raw material, tuff, petrified wood, quartz, quartzite and volcanic were also found in the assemblage.
Roberts, 2003	Gillieston Heights Investigation Area, Gilleston Heights. Report to Hunter Development Brokerage, Maitland, NSW.
	This report was summarised in MCH 2011 and states that Roberts (2003) completed an assessment of various lots at Gilleston Heights as part of a rezoning application for housing subdivisions. The assessment identified no sites or PADs. Civil construction began on the site in February; however, all works ceased within 24 days as several stone artefacts were identified by MLALC. Subsequently Umwelt (2008) were engaged to complete monitoring and salvage works. The Roberts (2003) report was unable to be located.
Hamm, 2004	Archaeological Assessment of Lots:1, 2, 10, 12, Part of 15, 1411 & 1412, Aberglasslyn Road, Aberglasslyn. NSR08/1100
	The Archaeological Risk Assessment Report developed by Giles Hamm, Cultural Heritage Consultant (GHCHC) in 2004 for seven lots that were the subject of a re-zoning application on Aberglasslyn Road, approximately 1.2 km west of the present Subject Area.
	The results from this investigation identified 1 open scatter consisting of three artefacts (broken flakes) eroding out of a bare soil scald was found on the western edge of a drainage line. The raw materials of the assemblage consisted of yellow rhyolite tuff and yellow silcrete. One Isolated find – a multiplatform core made of yellow rhyolitic tuff – was found on the northern bank of the western edge of the drainage line, exposed within a vehicle track.
	The sites were assessed as representing low level Aboriginal occupation, while identified as having Aboriginal heritage potential. A re-zoning proposal with all sites and artefacts mapped was recommended for the area.
Mary Dallas Consulting Archaeologists	Aboriginal archaeological assessment lots 80 and 81 in DP 524028, 41 in DP 611238, 11 in DP 1042562 and Portion 2 in DP 160043, Aberglassyn, NSW. Report to Stockland Development Pty Ltd.
(MDCA), 2004	An Aboriginal archaeological assessment of an approximately 130-hectare area of land at Aberglaslyn for a Master Plan and rezoning proposal. The study area is dissected by Oakhampton Road and Main Northern Railway and is wholly to the east of Aberglasslyn Road - approximately 100-250 m west of the Subject Area. The results from this study were based on a surface survey and observations of previous geotechnical test pitting programs. Subsurface potential was assessed using a regional Aboriginal Land Use model which allowed identification of likely site locations and predictions as to possible structure and integrity by soil landscapes. Two open camp sites were identified (AB Site 1 and AB Site 2) and one isolated find (AB ISF 1). The study also identified three (3) archaeologically sensitive areas which require further investigations.



Author and year	Title and relevance to the Subject Area
Insite Heritage Pty Ltd, 2005	Aboriginal and European Heritage Assessment of the Proposed Resource and Recycling Facility 11 Kyle Street, Rutherford, NSW. An Aboriginal and European heritage assessment were prepared for Lot 223/DP137300, Kyle Street Rutherford, NSW for a proposed resource recovery and recycling facility. A site inspection was conducted with members of the local Aboriginal community and no cultural heritage sites were identified. Due to the high level of disturbance, the site was found to have low cultural significance.
Mary Dallas Consulting Archaeologists (MDCA), 2006	Application for a S87 Permit and Accompany Research Design Areas of Potential Archaeological Deposit (AHIMS # 38-8-0865 & 38-8-0866) at Aberglasslyn Road, Aberglassyn, NSW. Report to NSW Department of Environment and Conservation. MDCA developed a research design to apply for a S87 Permit for AHIMS PADs 38-8-0865 and 38-8-0866. This enables the test excavation of two (2) PADs located within an area proposed for residential development at Aberglasslyn Road. The research design sought out to determine if subsurface artefacts were present to characterise the archaeological deposits encountered, identify further requirements, and provide mitigation recommendations. The methodology consisted of machine grader stripping the topsoil up to 20–30cm in depth across 100m transects 'several meters wide', with sample buckets sieved. PAD 1 was considered to have sufficient farming and dwelling soil disturbance in areas to destroy any Aboriginal heritage features/artefacts. PAD 2 consisted, like PAD 1, of localised subsurface disturbance in association with farm tracks and dams. No mitigation measures were recorded as the report was an application for a S87 Permit.
Mary Dallas Consulting Archaeologists (MDCA), 2008	Aboriginal Archaeological Excavation - Partial Salvage of AB Campsite 1 (AHIMS # 38-8- 0866) at Oakhampton Road, Aberglasslyn, NSW NSR08/1744. Report to Pulver Cooper Blackley Pty Ltd on behalf of Stockland Developments Pty Ltd. A report which outlines the results of a partial archaeological salvage excavation of an Aboriginal campsite (AB Campsite 1 – AHIMS #38-8-0866). Seven (7) test pits were excavated and a further forty-seven (47) as one "open area" excavation. The staged salvage excavations consisted of 47 1m x 1m squares of which, 36 were within a contiguous area. Results from these excavations retrieved 1,111 flaked stone pieces with at least 398 stone artefacts. Artefacts were largely tuff and silcrete, which would have been available in the gravel beds of the Hunter River, represented knapping events. The knapping events was associated with the production of backed blades. It was concluded AB Campsite 1 was indicative of a small campsite with frequency of site use.
Umwelt, 2008	Salvage Report – DECC s90#2714, Gillieston Heights, NSW. A report to the Department of Environment and Climate Change on behalf of Mirvac Homes Pty Ltd. Umwelt conducted an excavation program for an estate development in Gillieston Heights, Maitland. The project began as a monitoring and salvage; however, further variations for the methodology were approved based on the concentration of artefacts. In total, 548 artefacts were recovered. A total of 194 artefacts were recovered from a monitoring program during topsoil removal while a further 354 artefacts were recovered from the subsurface salvage program. Of the artefacts recovered silcrete was the most dominant form of raw material, making up more than 80% of all artefacts. Other raw materials recovered include mudstone, tuff, chert, homfels, quartzite and basalt. The most dominant artefact type recovered was broken flakes with smaller occurrences of flakes, cores, retouched flakes, an axe blank and a manuport (Umwelt 2011:6). The monitoring area was located on a knoll with associated saddle and spur crest landforms in an area of simple slope. The soil profile of the test pits indicated that the entire area had been subject to a high level of historic disturbance and none of the artefacts recovered were assessed as being <i>in situ</i> (Umwelt 2011:6).



Author and year	Title and relevance to the Subject Area
McCardle Cultural Heritage Pty Ltd (MCH), 2010	Farley Investigation Area: Indigenous Archaeological Due Diligence Assessment. Report to ADW Johnson Pty Ltd. This report presents the outcomes of an Aboriginal due diligence assessment. The assessment area was located approximately 4.5 km south-west of the current Subject Area. The survey undertaken as part of this assessment resulted in the identification of 4 new Aboriginal cultural heritage sites (including one artefact scatter, two isolated artefacts, and a PAD). The study concluded that the availably and occurrence of water most influenced the location of sites stating that the "most common site locations are along reliable watercourses, gentle slopes and hilltops and ridges. Artefact density is greatest within 50 metres of watercourses and appears to be comparatively high on elevated landforms over 100 metres from water." (MCH 2010: 45).
McCardle Cultural Heritage Pty Ltd (MCH), 2011	Proposed Rosebrook Sand & Gravel Extension at Maitland Vale: Indigenous Archaeological Assessment This report presents the results of an Indigenous Archaeological Assessment for the extension of the Rosebrook Sand and Gravel extraction in Maitland Vale NSW. The research area is located approximately 100 m northwest of the current Subject Area, directly across the Hunter River. The assessment did not identify any Aboriginal cultural heritage sites within the assessment area. However, a PAD (PAD1) was identified along the southern section of the assessment area running along the Hunter River. The PAD was identified to include a terrace that overlooks the river and flows to the north of a simple slope that overlooks he river. PAD1 extends to a width of 100 m and approximately 750 along the length of the river. The assessment identified PAD1 to be directly harmed resulting in total loss of value by the proposed sand and gravel extraction works. Test excavations of PAD1 were recommended as per the DECCW Code of Practice for Archaeological Investigations of Aboriginal Objects in New South Wales.
Umwelt, 2011	Section 87/90 AHIP Salvage of Artefacts from the Stage 4 to 11 Areas, Saddlers Ridge Estate, Gillieston Heights, NSW. A report to Mirvac Homes Pty Ltd. This report presents the results of a program of monitoring of ground disturbance works conducted within the Stage 4 to 11 area of the Saddlers Ridge housing subdivision at Gillieston Heights. The works took place approximately 900 m to the northwest of the current Subject Area. The monitoring area consisted of a knoll with associated saddle and spur crest landforms and an area of simple slope. Drainage lines within the broader development area flow into Wallis Creek to the east. A total of four artefacts were recovered because of the monitoring work. This report is of relevance as it contributes to the archaeological record of the region and assists in establishing a predictive model for the nature and distribution of Aboriginal sites for the Subject Area.
Lucas, 2013	Hunter Estates: A Comparative Heritage Study of pre 1850s Homestead Complexes in the Hunter Region. Volume 1: Historical Context and Survey of Sites. State of NSW and the NSW Office of Environment and Heritage. Online at http://ww environment.nsw.gov.au/resources/heritagebranch/heritage/ media/13235huntesvol1.pdfMaitland LEP, 2011. Maitland Local Environmental Plan 2018 under the Environmental Planning and Assessment Act 1979. New South Wales. This study is an independent and comprehensive comparative heritage study of pre 1850s homestead complexes located throughout the Hunter Region. In order to achieve this outcome, this study first aims to contextualise the homestead complexes found in the area and provides an overview of the historic and cultural phenomenon of the Hunter Estate. The study was useful in understanding some of the impacts of European settlement, not only on the environment and landscape, but also on the Wonnarua people.
RPS Group, 2013	Archaeological Excavation and Surface Collection at Farley under AHIP # 1131144.



Author and year	Title and relevance to the Subject Area
	An ACHA prepared for Hunter Water Corporation for the proposed Farley rising main pipeline and the Farley waste Water Treatment Works (FWWTW). The project area is located approximately 4.5km south-west from the Subject Area. Pedestrian archaeological surveys of the Project Area were conducted in 2010 and 2011 in consultation with the Aboriginal stakeholders. Ten new Aboriginal archaeological sites were identified within the project area, including seven artefact scatters, two isolated finds and one artefact scatter with Potential Archaeological Deposit (PAD). Surface collection was conducted in 2011 for seven (7) Aboriginal heritage sites, resulting in an assemblage of 152 artefacts from four of the sites. Scientific archaeological excavations were undertaken between November 2011 and January 2012 under AHIP #1131144. Seventy-two pits were excavated, and 4364 artefacts recovered.
Hughes et.al., 2014	The Central Lowlands of the Hunter Valley, NSW: Why so few early sites have been found in this archaeologically rich landscape. Australian Archaeology (79):34-44.
	This study looked at the geomorphology of the region. Their study states that while the Central Lowlands are abundant in Holocene-aged open stone artefact concentrations, very few traces of Pleistocene occupation have been recorded. They argue that most archaeological material older than 10,000 years has either been completely removed or widely dispersed due to bioturbation. This analysis is useful for the current analysis as it discusses the formation processes of the landform units within the Subject Area and expected deposits.
GML Heritage Pty	McKeachies Run; Aboriginal Archaeological Post-Excavation Report; Report prepared for Stockland December 2015, Report to Stockland
Ltd - Surry Hills, 2015	Stockland December 2015. Report to Stockland. Salvage excavations of McKeachies Run was carried out by GML Heritage Pty Ltd (GML) in 2012. An Aboriginal archaeological post-excavation report was produced following the Topsoil Stripping (TSS) and two-staged archaeological salvage excavations in accordance with AHIP #1131894. Results from the excavations reviled a total of 324 stone artefacts which were identified across nine (9) heritage sites and a range of landforms within the study area. Findings from the assessment found an identification of a coastal connection through the presence of Nobby's tuff and confirmation of primary reduction.
RPS Group, 2017a	Aboriginal Due Diligence Heritage Assessment, Gillieston Heights, NSW. A report to
	Graham Warby CL/- Pulver Cooper and Blackley. This report presents the results of an Aboriginal Objects Due Diligence Assessment for a portion of the current Subject Area; Lot 2 DP601226. The assessment was conducted to support a Planning Proposal for the rezoning of land at Gillieston Heights, NSW. The project area was inspected on 18 August 2017. No Aboriginal objects or places were identified in the project area.
Umwelt, 2018	Archaeological Technical Report. New Maitland Hospital, MetfoRd, NSW
	A technical report (ATR) was undertaken by Umwelt to inform an Aboriginal Cultural Heritage Assessment Report (ACHAR) for the archaeological significance for the proposed New Maitland Hospital at MetfoRd, NSW. An archaeological survey was carried out which found an isolated find (AHIMS 38-4-1684) which has been identified as having low archaeological significance within the local and regional contexts.
Eureka Heritage,	Aboriginal Cultural Heritage Preliminary Due Diligence Assessment Report
2019	A preliminary Due Diligence Assessment prepared for the Maitland City Council (MCC) for the proposed re-development of land in High Street, Maitland for Council Admiration Offices. No fieldwork component was completed for this assessment. The report outlines a detailed synthesis and summary of previous archaeological work and regional background for Maitland. This also includes recommendations for the management of Aboriginal cultural heritage for the MCC.



Author and year	Title and relevance to the Subject Area					
Heritage Now, 2019	Aboriginal Due Diligence Assessment Report – 59 Owlpen Lane, Farley. An Aboriginal Due Diligence Assessment conducted by Heritage Now for Tomhil Developments Pty Ltd to assess heritage constraints as part of the Farley Urban Release Area. This is located approximately 4.5 km south-west of the current Subject Area. The assessment identified surface artefacts (isolated finds, artefact/s and artefact scatter) are the most common site type in the local region with Potential Archaeological Deposits (PADs) the next most common site. A visual site inspection determined one archaeologically sensitive area, ASA01, in the south-eastern portion of the Project Area which was recommended for subsurface investigations.					
RPS Group, 2020	RPS Group, 2020. Aboriginal Heritage Due Diligence Assessment, Cessnock Road, Gillieston Heights. A report to Rotor Sand Unit Trust. This report presents the results of an Aboriginal Objects Due Diligence Assessment for a portion of the current Subject Area; Lot 1 DP 302745 and Lot 2 DP 302745. The assessment was conducted to support a Planning Proposal for the rezoning of land at Gillieston Heights, NSW. The project area was inspected on 14 October 2020. No Aboriginal objects or places were identified in the project area.					
Niche Environment and Heritage, 2022.	Gillieston Heights Land Rezoning, Maitland, NSW. Aboriginal Cultural Heritage Assessment Report (ACHA). Report prepared to Walker Gillieston Heights Pty Ltd. An ACHA to inform a planning proposal gateway determination for a proposed rezoning of six adjoining lots in Gillieston Heights. A total of eight (8) Aboriginal cultural heritage sites were identified within the subject area, resulting in a test excavation program. Twenty-six (26) test pits were excavated with a total of four (4) sub-surface objects recovered and three (3) PAD sites confirmed.					

The area surrounding the Subject Area has been the focus of numerous archaeological assessments over the past thirty (30) years. Assessments near the Subject Area have been mostly undertaken in association with residential rezoning requirements. The assessments all provide information that contributes to the regional archaeological record of the Hunter Valley.

Syntheses of the earlier work in and around Oakhampton by archaeologists have set the groundwork for the characterisation of the region. Such studies highlight the inherent limitations of previous assessments with issues relating largely to the nature of past assessments which comprised of small study areas.

Archaeological assessments undertaken previously show that the most common site types to occur within the immediate surrounds of the Subject Area include surface artefacts (isolated artefacts, artefact/s and artefact scatters), PADs and Grinding Grooves. Most of which, 94% of the archaeological record is comprised of open campsites (or artefact scatters) which are consistently found along watercourses of all sizes throughout the Central Lowlands (Hughes, 1984). However, the distribution and number of sites recorded across the Hunter region only reflects the degree to which those areas have been the focus of archaeological investigation rather than any 'inherent variations in the frequency of sites' (Hughes, 1984:51).

Sub-surface investigations have revealed varying levels of archaeological material and sites with areas situated in the Bolwarra Height's soil landscape. Excavations conducted by Baker (1997) in Bolwarra Heights, identified the Bolwarra Heights soil landscape to continue to a depth greater than that previously predicted by Brayshaw (1995). Brayshaws survey of the Bolwarra Heights soil landscape approximated the depth of the soil to 40 cm deep. Bakers (1997) excavation identified the soil landscape continued to approximately 65 cm, until a transition from sandy loamy to sandy clay was noticeable. Baker (1997)



identified a high density of artefacts immediately adjacent to the Hunter River, with artefacts occurring more frequently in the topsoil and gravelly layers and diminished with depth. Baker identifies detection of stone artefacts is restricted on the surface and only evident through gross disturbance of soil. Excavation of site AB Campsite 1 (AHIMS ID#38-8-0866) (MDCA, 2008) in the Bolwarra Heights soil landscape in proximity to Oakhampton Swamp, identified a uniform deposit across the excavated area, consists of brown sandy clay topsoil at approximately 20 - 40 cm depth underneath a thick layer of pasture grasses, 5 - 10 cm deep. The topsoil was underlain by a clay subsoil with a gravel layer above, similar to that identified by Baker (1997).

The scientific significance of identified Aboriginal cultural heritage sites have been revised during the process and patterns of site distribution and impact of historical land use investigated during these assessments have been reviewed. Overall, the results of the field inspection, background research and literature reviews suggest that existing predictive models for the region can be applied to the Subject Area.

4.4 Existing predictive models for the Central Lowlands of the Hunter Region

A predictive model is formulated to indicate where Aboriginal cultural heritage sites are most likely to be located, what types of sites these are likely to be and what they are likely to contain. A number of predictive models concerning Aboriginal occupation and settlement of the Hunter Region and Central Lowlands have been formulated and refined based on archaeological assessments undertaken in the region, as presented above (e.g., Baker 1997; Braysahw 1984, 1986, 1995; MDCA 2004, 2006, 2008; Koetigg 1994; MCH 2010, Niche 2022; RPS Group 2013, 2015, 2017, 2020).

Aboriginal objects are often associated with particular landscape features as a result of Aboriginal people's use of those features in their everyday lives. Examples of landscape features that indicate the likelihood of Aboriginal objects are rock shelters, sand dunes, waterways, waterholes, rocky outcrops, and wetlands. According to RPS Group (2020: 9) the availability and occurrence of water primarily influenced the location of Aboriginal cultural heritage sites within the region stating that "sites will most commonly be found along permanent creeks and within and around swamp margins. Creek flats and banks are the topographical features most likely to contain sites". RPS's predictive modelling is in line with that provided by Brayshaw (1996) for the Maitland region. Brayshaw's (1996: 6) review of the ethnographic literature relating to the Hunter Valley, led her to conclude that open campsites (artefact scatters) were commonly situated close to water, especially creek lines and creek confluences which provided 'extensive areas of flat well-drained land' suitable for habitation. Campsites were also located, though less frequently, on ridges, saddles, and spurs (Brayshaw, 1996:6).

Both RPS's (2020) and Brayshaw's (1996) models can be situated within regional models of Aboriginal occupation within the Hunter Valley. Kuskie and Kamminga (2000) highlights the pattern of activity and occupation around the margins of wetlands and the former Hunter River estuary. Primary resource zones are areas with reliable and abundant resources were occupied most frequently and/or for longer periods, whilst, secondary resource zones were occupied more sporadically on a seasonal basis, supporting only small groups of people for short durations. Secondary zones were centred around lower order watercourses associated with simple slopes, ridge crests, spur crests. Areas outside the primary and secondary zones were associated either with hunting and gathering activities by small parties (of men and/or women and children), or transitory movement between locations for the procurement of stone materials or for ceremonial or spiritual purposes (Kuskie & Kamminga, 2004:604, 605). Kuskie (2012) reconfirmed the preference for camp site to occur on level to very gently sloping ground or valley flats,



adjacent to reliable water sources (typically within 50 meters of higher order water courses) such as the Hunter River and its former estuarine margins.

The predictive modelling and can be applied to the current Subject Area to suggest the following outcomes:

- Artefact scatters, isolated artefacts and axe grinding grooves are the most likely site types to be encountered within the Subject Area.
- It is expected that archaeological cultural heritage sites will be found along watercourses, gentle slopes, and hilltops.
- Artefact density is likely to be greater within 50 m distance from a watercourse while lower density sites are expected within 100 m from watercourses.
- Given the water sources available to the Subject Area, there is high potential for sites to occur, particularly low to medium density artefact scatters within 50 m of these watercourses.
- Higher density scatters may be present along high order streams and swamp margins.
- Any artefacts located are likely to be from the mid to late Holocene period.
- The dominant raw material for artefacts is likely to be mudstone or silcrete, with small amounts of quartz, chert, petrified woods and other raw materials.
- Sites are likely to be in a disturbed context.





5. Landscape context

5.1 Preamble

Understanding the past and present environmental contexts of a Subject Area is requisite in any Aboriginal archaeological and cultural heritage investigation (DECCW 2010a). The landscape context may provide insight as to areas of land that may have been more intensively used by Aboriginal people in the past due to the presence of resources such as water, stone, plants and animals and other raw materials or landscape features associated with sustenance, shelter, tool manufacture and cultural activities. Furthermore, the landscape provides the context within which the material remains of past Aboriginal occupation may be preserved and detectable due to the movement of soil through geomorphic processes such as erosion or its removal from the landscape through past land use and disturbance (DECCW 2010a: 8). By considering these factors, an Aboriginal cultural heritage investigation may develop a sampling strategy for identifying any tangible Aboriginal heritage values within the Subject Area. It allows for an understanding of what activities would likely have taken place across the Subject Area in the past and the likelihood that any trace of these would have survived below the surface. The following section provides details of the environmental characteristics of the Subject Area.

5.2 Topography and landforms

The Subject Area is situated within the Quaternary alluvial floodplain of the Hunter River within a wider landscape characterised by rolling low hills of the East Maitland Hills region. The topography of the Subject Area is generally flat with low rising slopes intersected by a number of non-perennial drainage lines. The Subject Area is bounded in the north by the Hunter River and associated alluvial plains, which is characterised by level to gently undulating, narrow (100–500 m) land. Slope gradients within the local region are typically <3% with a local relief of <10 m (DPIE, 2020). Small, dissected terrace remnants up to 300 m wide and 10 m high occur. Other landform elements within the region include ox-bows and low (<1 m), narrow (<10 m) levee banks (DPIE, 2020). Occasional small alluvial fans (to 700 m) may also occur.

5.3 Geology and soils

The underlying geology of the Subject Area is located within a number of formations of the Permian period. The primary geology comprised predominantly of the Branxton Formation of the Maitland Group which includes sandstones, siltstones, conglomerates, and erratics. Small areas may also include areas of Muree Sandstone geological units which comprise of sandstone, conglomerate, and siltstone materials, Greta Coal Measures which comprise of lenticular conglomerates, sandstone, shale, spitting coal seams; and the Farley Formation which includes sandstone, mudstone, siltstone, shale, and erratics (DPIE, 2020).

The Subject Area predominantly consists of the Bolwarra Heights erosional soil landscape. This soil landscape features rolling low hills on Permian sediments in the centre-west of the sheet in the East Maitland Hills region. The local relief of the soil landscape can range from 50 m to 80 m and slopes often range between 5-20%. Rock outcrops make up less than 2% of the landscape, often occurring where an underlying geology of Muree Sandstone is present, with broad crests (200-500 m), short (300-500 m) convex side slopes and narrow, incised drainage lines. Soils within this soil landscape are moderately deep (<150 cm), with well-drained Yellow Podzolic Soils, Red Podzolic Soils and Brown Podzolic Soils in addition to some moderately deep (<100 cm), well-drained Lithosols in association with crest landforms. Moderately deep (<140 cm) imperfectly drained yellow Soloths occur in association with lower slopes (DPIE, 2020).

Portions of the Subject Area location closer to the Hunter River consist of the Paterson River and Hunter soil landscapes. These areas are characterised by Quaternary sediments, consisting of gravel, sand, silt and clay. The northern terrace of the Subject Area is characterised by the Paterson River soil landscape which



consist of deep (>200 cm), rapidly drained Siliceous Sands (Uc1.23, Uc1.22) and deep (>200 cm), welldrained Alluvial Soils (Um6.12, Uc1.23) and Earthy Loams (Um5.52) (DIPE, 2020). On alluvial fans and terraces, deep (>250 cm), moderately well-drained Brown Podzolic Soils (Db1.12) and some Prairie Soils (Gn3.42, Gn3.41) occur (DIPE, 2020). The dominant soil materials consist of a dark brown loamy sand to sandy loam topsoil (A1 horizon) (0–25 cm), onto a loose brown sand to clayey sand subsoil (B horizon) (25– 80 cm). Total dominant soil depth is >150 cm onto Quaternary alluvium deposits.

The southern area of the Subject Area is intersected by the Hunter soil landscape which occurs along an unnamed creek line. The Hunter soil landscape is characterised by deep (>150 cm), moderately well to imperfectly drained Prairie Soils (Gn3.42, Gn3.22, Gn3.41, Gn3.12), deep (>150 cm), imperfectly to poorly drained Brown Clays (Uf6.32, Uf6.12, Ug5.15, Ug6.4), some deep (>150 cm), well-drained Chernozems (Um6.11, Um6.12) (DPIE, 2020). Similar to the Peterson River soils, the dominant soil materials consist of friable brown pedal loam topsoil (A horizon) (0-30 cm), onto brown well-structured loam subsoil (B horizon) (30 – 100 cm). The soil boundaries are gradual with a total depth of >150 cm (DPIE, 2020).

These soil landscape profiles indicates that the Subject Area has the potential to preserve moderately deep (between 150-100 cm) deposits associated with crests and lower slopes, deep (>250 cm) deposits associated with alluvial fans and terraces and relatively deep (>150 cm) soil profiles associated with land adjacent to the unnamed creek line in the southern portion of the Subject Area.

5.4 Hydrology

Accessibility to water is a strong indicator for the presence of Aboriginal sites. The Subject Area is located in the Hunter River catchment, within a significant network of high-order waterways and wetland area. The Hunter River is a large barrier river estuary which extends from Barrington Tops and flows around 460 kilometres to its entrance at Newcastle (DPIE, 2021). The Subject Area is located on the periphery of the Hunter River and contains several lower-order creek and drainage lines which flows south-east into the catchment.

Historically, the Hunter River has been a major hub of industrial and export activity since early occupation. The proximity of the Subject Area to the Hunter River means that past Aboriginal groups in the area would have had access to a reliable source of water and an abundance of aquatic resources. The Hunter River has also been subject to meandering which has likely eroded river banks and caused significant sediment movement downstream.

5.5 Vegetation

Natural vegetation has been extensively cleared in the Activity Area due to farming. The original native vegetation associated with the Bolwarra Heights soil landscape predominantly consists of cleared tall open forests. *Eucalyptus maculata* (spotted gum) is the most dominant species, with *E. fibrosa* (broad-leaved ironbark) and *E. tereticornis* (forest red gum) occurs on some lower slopes. *Angophora floribunda* (rough-barked apple) and *Allocasuarina torulosa* (forest oak) may also occur, with *Casuarina glauca* (swamp oak) along drainage lines (DPIE, 2020). Historical vegetation associated with the Paterson River soil landscape includes orange growing from the 1830s until after 1900. Remnant vegetation may occur on riverbanks, including *Casuarina cunninghamiana* (river oak) and occasional *Eucalyptus saligna* (sydney blue gum) (DPIE, 2020).

5.6 Past land use and disturbance

Oakhampton is a suburb of the City of Maitland Local Government Area. The suburb was originally established as Oakhampton Park Estate, with the subdivision of properties. Local infrastructure such as the roads, low-density residential, and railway lines have been implemented to support the local residents.



Changes to the environment and surrounding landscape were brought about by extensive European land use in the Maitland area from the early to mid-1800s. The Aberglasslyn House and the Maitland Vale properties were initially constructed in the area between the 1840s and 1850s. These houses and their surrounds represent a historical reminder of the land settlement and leasehold farming practices which were evident from the pre-1850s near the Subject Area and the Maitland regional area (Heritage NSW State Heritage Register).

The earliest Maitland parish maps date to 1912 and convey that the Subject Area was part of 1000 acres (405 hectares) of owned land by William. B. Wilkinson as part of the Oakhampton Park Estate (Plate 1-Left). This piece of land stretched over both sides of the North Coast railway, encompassing the local Oakhampton railway station, but was bordered by the Hunter River to its East and North, while the neighbouring lands of Houston Mitchell and John Jamison border its Southern and Western extents, respectively. The 1934 parish map shows that flood levels were recorded for the Hunter River, most likely in relation to the floods that affected the area in 1930 (Plate 1 - Right).

Subsequent parish maps from 1958 for Maitland do exist, but they do not display this specific area of Oakhampton. Instead, aerial photographs provide a picture of a landscape that has seemingly remained undeveloped; however, the local area has been greatly disturbed since European settlement through actions associated with land clearing and usage. These aerial photographs are summarised in Table 8 and Figure 5 below.

Year	Description
1967	Historical aerial imagery shows that the Subject Area had experienced heavy disturbance from extensive vegetation clearing of the land for agriculture prior to 1967. The image shows that the Subject Area and its surroundings had already undergone extensive clearing of native vegetation and having been subjected to agricultural use. This is indicated by the existence of pastures, visible ploughing, dams and construction of access roads, rail lines and properties.
1987	The image taken in 1987 indicates that the Subject Area had been largely cleared of native vegetation and subdivided by neighbouring properties, consisting largely of pastures and arable land. Dwellings are visible occupying lots along Kezia Road. Great construction of rural infrastructure (such as dams, access tracks, roads, fences) is noticeable in the historical imagery resulting in increased disturbance of the upper soil profiles within the Subject Area.
1998	The Subject Area had continued to be used primarily for agriculture with minimal new development since the 1987 imagery. Urban development occurring west of the Subject Area at Aberglasslyn is further expanding onto traditional grazing farm areas.

Table 8: Historical mapping and aerial photos



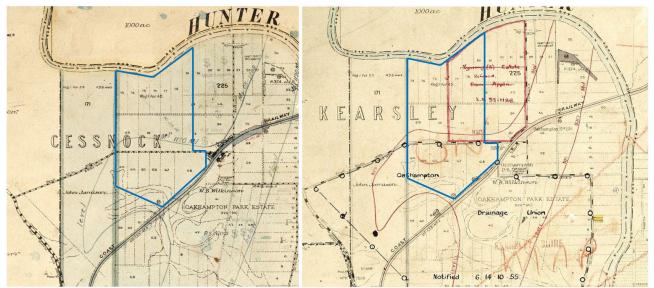


Plate 1: The 1912 historic parish maps of Maitland with the Subject Area marked out in blue (Left). The 1934 historic parish maps of Maitland with the Subject Area marked out in blue (Right) (Source: Land Registry Services NSW).

5.7 Synthesis

Water is one of the most important resources to human occupation in a landscape and is considered the primary factor for the prediction of Aboriginal sites potential presence in a landscape. Across NSW, there is a strong correlation to the presence, frequency and density of Aboriginal objects with the abundance and permanency of water sources. Areas within 200 m of water are identified by the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (DECCW 2010c) as landscape features likely to indicate the presence of Aboriginal objects.

The Subject Area is located directly adjacent to the Hunter River, within an alluvial floodplain, with tributaries of the Hunter River flowing through the Subject Area and thus considered to be located within primary and secondary resource zones described by Kuskie and Kamminga (2000) for the region. The proximity of the Subject Area to the Hunter River would have been provided a rich resource zone for the local Aboriginal people in the area in terms of floral and faunal species, especially the Wonnarua cultural group.

From the 1800s, European settlers would have also been attracted to the area due to the access to water in the region. Furthermore, the relatively flat lands of Oakhampton and nearby Aberglasslyn would have been viewed as prime land for settlement and agricultural farming. These activities would displace local Aboriginal people from the area. With the initial construction of the Aberglasslyn House and Maitland Vale properties, this would have encouraged further settlement in this area for farmers and esteemed estate holders from the mid1800s.

With the advent of coal mining in the Hunter-Maitland areas, Oakhampton would have further developed infrastructure to support a growing population from the 1900s onwards. Aerial photographs from the 1990ss show an increased effort to create more urban development, especially in the Aberglasslyn suburb adjacent to the Subject Area in Oakhampton.



Soil landscapes and hydrology in the local area 42 Kezia Road, Oakhampton AR



vironment and Heritage

Niche PM: Chelsea Freeman Niche Proj. #: 7256 Client: Bremer Park Pty Ltd



Figure 5a: Historical Imagery of the Subject Area 1998 (Source: Niche)



Figure 6b: Historical Imagery of the Subject Area 1987 (Source: Niche)



Figure 7c: Historical Imagery of the Subject Area 1967 (Source: Niche)



6. Regional character

6.1 Regional archaeological context

It is now proposed that Aboriginal occupation of Australia dates back at least 65,000 years based on results from Madjedbebe, a rockshelter located in northern Australia (Clarkson *et al.* 2017). Occupation of the Central Lowlands, where the Subject Area is located, has been dated to at least 20,000 years, possibly longer (Lucas 2013:11). Work in the Central Lowlands has aimed to understand the nature of Aboriginal occupation and determine the nature of land use. This theme often seeks to identify and explain archaeological patterning in site type, content, and distribution. General theories have been developed outlining the relationship between land use patterns and the resulting archaeological evidence. Over 98% of Aboriginal archaeological sites recorded within the Hunter Valley to date are stone artefact scatters and isolated artefacts. Less common site types include painted and stencilled art in rock shelters, rock engravings and axe grinding grooves, rock shelters with occupation evidence, open shell middens on the coast, burials, scarred and carved trees, stone arrangements, stone quarries, and ceremonial sites (Lucas 2013:12).

The antiquity of sites within the Hunter Valley are often dated from the mid to late Holocene (<5,000 years) (Kuskie 2012; MCH 2004). This is evident by the dominance of open sites and artefacts associated with he backed-blade technology which form part of the Australian 'Small Tool Tradition' and which, for a long time, were considered to be no older than 4500BP (Hiscock & Attenbrow, 1998:49). Recent evidence suggest backed artefacts were manufactured and discarded in large numbers between 3500 and 1400 BP, which may account for the dominance of these later Holocene dates in the Hunter record (Eureka, 2019:18). Evidence of Pleistocene occupation within the Hunter is rarer, with only three locations dated, none of which are located in the vicinity of the Subject Area. One of which is from Koettig's (1986, 1987) excavation of a hearth located in the Unit B Horizon at Glennies Creek (Falbrook), north of Singleton, returned radiocarbon dates of between 13,020 ± 360 and 34,580 ±650 BP. This supports Hughes' (1984:76) assertion 'that earlier sites may be located within the alluvial terraces of the Hunter flood plain'. Secondly, artefacts found in the clay horizon of a terrace at Wollombi Brook (west of Singleton) in 2002, date to the late Pleistocene (between 18,000 and 30,000 years ago) (Kuskie 2002), and a fragment of charcoal retrieved from the base of a dune at Moffats Swamp near Medowie, provides a thiRd (uncalibrated) Pleistocene date of 14,750 BP (Eureka 2019:18).

The extent of archaeological research within the Hunter Valley, where the Central Lowlands are located, has revealed more than 3,500 sites (ERM 2004), and has helped to establish likely patterns of occupation and movement throughout the landscape. Reports mentioned in Section 4.3 show results which supports the archaeological models for the area. MCH (2010) states that, while a number of models have been developed for the Hunter Valley, the model developed by Kuskie and Kamminga (2000) is thus far the most widely accepted model. Kuskie and Kamminga (2000) explore short-term or extended long-term occupation, discuss the theme of occupational fluidity through time, and make some predictions about the likely location of different foraging and settlement activities and assemblage patterns. AccoRding to MCH (2011:48-50) the more transitory a group is within the environment the lower the expected complexity of a site. Table 9 has been taken from MCH (2011) and is an adaptation of Kuskie and Kamminga (2000) with additional information in relation to sites and distance from water.



Occupation Pattern	Activity Location	Proximity to Water	Proximity to Food	Archaeological expectations
Transitory movement	All landscape zones	Not important	Not important	 Assemblages of low density and diversity Evidence of took maintenance & repair Evidence for stone knapping
Hunting &/or gathering without camping	All Landscapes	Not important	Near food resources	 Assemblages of low density and diversity Evidence of took maintenance & repair Evidence for stone knapping High frequency of used tools
Camping by small groups	Associated with permanent & temporary water	Near (within 100 m)	Near food resources	 Assemblages of moderate density and diversity Evidence of took maintenance & repair Evidence of stone knapping & hearths
Nuclear family base camp	Level or gently undulating ground	Near reliable source (within 50 m)	Near food resources	 Assemblages of high density and diversity Evidence of took maintenance & repair & casual knapping Evidence for stone knapping Heat treatment pits, stone lined ovens grindstones
Community based camp	Level or gently undulating ground	Near reliable source (within 50 m)	Near food resources	 Assemblages of high density and diversity Evidence of tool maintenance & repair & causal knapping Evidence for stone knapping Heat treatment pits, stone lined ovens Grindstones & ochre Large area >100 sqm with isolated camp sites

Table 9: Site descriptions (after Kuskie and Kamminga 2000 in MCH 2011:66)

6.2 Post-1788 ethnology and history

Ethnographic information can be used to interpret and contextualise the archaeological record by providing meaning, value, and significance to the physical evidence. In turn, the archaeological evidence can validate claims to place and country, or reject misinformation, incomplete or biased ethnohistorical accounts. Therefore, the archaeological significance or potential for an area of interest can best be understood when it is situated within its broader cultural context which requires a consideration of the Subject Areas ethnographic history.

According to Tindale's catalogue of Australian Aboriginal (1974) groups, the current Subject Area falls within the boundaries occupied by the Wonnarua tribal group and lies within the boundaries of the Mindaribba Local Aboriginal Land Council. The Wonnarua tribal group is also known as Wonnuaruah, Wannerawa, Wonarua, Wonnah Kuah and are known *as the people of the hills and plains* (Eureka 2019:21).

The boundaries of the Wonnarua extends from the Upper Hunter River from a few kilometres above Maitland west to the Dividing Ranges. The traditional territory of the Wonnarua was bounded to the north



by the Geawegal people, to the north-east by the Worimi people, to the southeast by the Awabakal people and to the south by the Darkinjang (Tindale 1974:201). Family groups belonged to clans who were united by language and cultural affinities with ties to specific areas of land. Oral tradition of the Wonnarua people tell of a creation spirit called Baiami (Biame, Baayami, Baayama or Byamee), also known as Koin. Baiami, who was the creator of all things and the keeper of the valley. The creation spirit appears in the oral tradition of several Aboriginal peoples including the Wonnarua, Kamilaroi, Eora, Darkinjung, and Wiradjuri people. The Dreaming story tells of how Baiame, the sky father, came down from the sky to the land and created the rivers, mountains and forests. He then gave the people their laws, traditions, songs and culture. Baiami is said to have also created the Bora for male initiation rights (Leaman and Hamacher 2019).

According to Miller (1886:353) the Wonnarua tribe numbered around 500 in 1841. Due to European settlement and restrictions placed on traditional practices and ways of life, their numbers greatly diminished in the years that followed. The Wonnarua people were semi-nomadic hunter gatherers. They dressed in opossum-skin cloaks and fabric spun from opossum fur and in their possession, they carried spears, wommera, shields, and war-boomerangs.as well as bags made from platted swamp grass, koolaman, stone tomahawks and flint knives. Food resources included terrestrial animals and plants, hunting for kangaroo and emu as well as other animals and reptiles and foraging for a variety of roots which were roasted or baked. Fish were caught with nets and three-pronged spears from canoes made of sheets of bark cut from suitable trees (Miller 1886:353).

The arrival of Europeans to the Maitland area in the mid-late 1800s had devastating effects on the local Aboriginal people. Foreign disease killed many of Wonnarua people as well as illness such as bronchitis and rheumatic fever resulting from the disruption of traditional practices and ways of living (Miller 1886:352). Late in the nineteenth century, European prospectors and miners began taking up land in what is now Oakhampton, leading to competition for resources and the alienation of Aboriginal people.

The Aberglasslyn House and the Maitland Vale properties were initially constructed in the area between the 1840s and 1850s. These houses and their surrounds represent a historical reminder of the land settlement and leasehold farming practices which were evident from the pre-1850s near the Subject Area and the Maitland regional area (Heritage NSW State Heritage Register).

The earliest Maitland parish maps date to 1912 and convey that the Subject Area was part of 1000 acres (i.e., 405 hectares) of owned land by William. B. Wilkinson as part of the Oakhampton Park Estate (Plate 1 - Left). This piece of land stretched over both sides of the North Coast railway, encompassing the local Oakhampton railway station, but was bordered by the Hunter River to its East and North, while the neighbouring lands of Houston Mitchell and John Jamison border its Southern and Western extents, respectively.

Access to both specialised and everyday resources (such as water) and the clearing of the land greatly impacted traditional practices and ways of living, causing significant social disruption between Aboriginal groups, and pressure between Aboriginal people and the ever-increasing European population. Those who survived the impacts of disease, alienation from food sources and country and relocation to designated missions continued to live a semi-traditional life on the peripheries of European settlements.

Lucas et.al. (2013:23) suggests that local Aboriginal people may have used pockets of "discrete" land that was of no interest to early farmers. This land would have been the only land available for occupation and travel after settlement. Potential landscapes include elevated hills, or the margins of lower swamps and wetlands situated away from the first homesteads, convict accommodations, and workstations.



Various Wonnarua groups throughout the Hunter Valley has been working hard to increase cultural visibility within the community. This has included promoting the history and culture of the Wonnarua people, supporting the health and education standards of the community, and seeking out opportunities for sustainable development. Private land ownership has perhaps prevented local Wonnarua from accessing the lands within the Subject Area.

6.3 Synthesis of local and regional character of Aboriginal land use and its material traces

The Subject Area is located in the Central Lowlands, a physiographic region of Maitland characterised by its open undulating hilly landscape with alluvium rich soil underlain by the sedimentary geology. While occupation of the Australian continent has been dated to around 65,000 years, occupation for the Central Lowlands is dated to around 20,000 years. Hughes *et.al.* (2014) state that while the Central Lowlands is abundant in Holocene-aged Aboriginal cultural heritage sites, very few traces of Pleistocene occupation have been recorded. They argue that most archaeological material older than 10,000 years has either been completely removed or widely dispersed due to events of bioturbation (2014:34).

Past Aboriginal land use indicated by the results of previous archaeological work in the region (reviewed in Section 4 of this report) suggests that artefact scatters and isolated artefacts are by far the most common archaeological cultural heritage site type occurring in the region, with these site types usually located within close proximity to water. The number of sites as well as artefact volume decrease with distance from water. Aboriginal sites are usually found on landforms such as creek lines, crests/ridges, and slopes. According to MCH (2010:32) there also appears to be a secondary peak in site numbers and artefact volumes at distances over 100 m from water.

The Subject Area is potentially reminiscent of an occupation site linked to other known sites within the landscape (see AHIMS search results for the closest known sites). Previous assessments confirm that the low density (<1 artefact/m²) of surface artefacts does not appear to be an indicator of subsurface potential within the region.



7. Predictions

The predictive model for the Subject Area has been developed based on a review of landscape and archaeological data from previous assessments within the region. As such, the following criterion have been used to determine the archaeological potential (both surface and subsurface) for the Subject Area:

- Patterns of Aboriginal land use and occupation of the region, to identify those landscape areas where material was likely to have been deposited.
- Distribution of known sites within the Subject Area and broader Central Lowlands, to identify the landforms known to contain archaeological materials (and patterning of those materials).
- Geomorphic evolution, including soil characteristics, of the Subject Area, to identify those natural processes that may have affected the archaeological resource.
- Likely detection of archaeological materials within the Subject Area, considering the nature of the resource (surface/ sub-surface materials) and ground surface visibility constraints.
- The nature of past land use within the Subject Area to consider the likely level of integrity of any Aboriginal objects found.

Based on these criteria, the following predictions concerning the presence or absence of Aboriginal cultural heritage site types have been formulated specific to the Subject Area:

- Artefact scatters and isolated artefacts are the most likely Aboriginal site types to occur on very gently to moderately inclined slopes in close proximity to the Hunter River.
- Potential Archaeological Deposits (PADs) are likely to occur where soil profiles remain intact and close to the Hunter River, low hills, and hill crests.
- Grinding Grooves are likely to occur near the Hunter River and other watercourses.
- The occurrence of sub-surface material is not predicated on finding Aboriginal objects upon the surface and vice versa.
- Culturally modified trees (scarred or carved) are unlikely to occur within the Subject Area due to historic clearing of vegetation and the absence of remnant woodland areas.
- Aboriginal burials, though rare, may occur within the Subject Area due to the presence of suitable soils landscapes (deep, soft sediments, such as Aeolian or alluvial deposits). Burials would only be visible as surface expressions if they had been exposed by erosion or as the result of animal or human activities.
- Aboriginal places are places of cultural significance to Aboriginal people. No Aboriginal Places have been declared within the Subject Area or listed on AHIMS

(https://www.heritage.nsw.gov.au/about-our-heritage/aboriginal-cultural-heritage/).

Although the Subject Area has seemingly remained undeveloped, the clearing of vegetation and agricultural land use within the area has been extensive and may have impacted the integrity of the soil profile and consequently the likelihood of finding *in-situ* artefacts in some areas. This is particularly relevant adjacent to the Hunter River, where vegetation clearing has resulted in significant erosion of the banks of the Hunter River (NSW Department of Commerce, 2003). The likelihood of finding Aboriginal objects in the Subject Area is currently unknown due to a lack of surface visibility; however, there is potential for archaeologically rich subsurface deposits within the Subject Area. Section 4.5 provides information on land use and disturbance relating to land use and geotechnical testing. Land disturbance and soil contamination was greatest around dwellings and associated building structures.

Caution must be taken when using predictive models as archaeological investigations continue to reveal patterns and information that challenge current understandings. As such, these models must continue to be assessed, tested and refined based the results from present and future investigations. The following



section of this report looks at the sampling strategy and field methods used in the Aboriginal archaeological assessment of the Subject Area.



8. Sampling strategy

8.1 Archaeological survey

The Subject Area is made up of three (3) discrete landform units: low hills; hill crests; and wetlands and floodplains. The survey objective was to sample all landforms within the Subject Area and target areas of higher ground exposure and visibility due to the extent of the Subject Area, the varying landform units within, and the dense ground coverage. The survey strategy for the current archaeological assessment was to sample all landform units.

9. Methods

9.1 Assessment methodology

An assessment methodology was developed and is outlined below and presented in Appendix B of, the ACHA (Niche 2022).

The following methods were used to identify archaeological resources, heritage values and significant cultural themes for the Subject Area:

- Aboriginal community input this was sought throughout the project via the consultation process, participation in archaeological fieldwork and other correspondence.
- Archaeological research this included landscape characterisation, analysis of previous archaeological works in the region and field survey.

9.2 Sensitive cultural information – Management protocol

During the consultation process the proponent and Niche provided the opportunity for the RAPs to provide cultural information, including a statement of the value of identified sites and other matters. The input points were listed within the survey methodology that has been included in Appendix B, information will be accepted at any point during the project prior to the finalisation of the ACHA and AR.

RAPs were made aware that proponent and Niche staff would seek cultural information and supporting evidence in regard to matters of cultural value.

In the event that a stakeholder had sensitive or restricted public access information it was proposed that the proponent and Niche would manage this information (if provided by the Aboriginal community) in accordance with a sensitive cultural information management protocol. It is anticipated that the protocol will include making note of and managing the material in accordance with the following key limitations as advised by Aboriginal people at the time of the information being provided:

- Any restrictions on access to the material.
- Any restrictions on communication of the material (confidentiality).
- Any restrictions on the location/storage of the material.
- Any cultural recommendations on handling the material.
- Any names and contact details of persons authorised within the relevant Aboriginal stakeholder to make decisions concerning the Aboriginal material and the degree of authorisation.
- Any details of any consent given in accordance with customary law.
- Any access and use by the registered Aboriginal stakeholders of the cultural information in the material.



9.3 Archaeological and cultural heritage survey field methods

A comprehensive site survey was completed by Chelsea Freeman (Niche), Aaron Taylor (Murra Bidgee Mullangari Aboriginal Corporation) and Nura Smith (Lower Hunter Aboriginal Incorporated) over two days from 15 to 16 June 2022. The survey covered the three different landform units and all accessible properties within the Subject Area. Opportunistic inspection of exposures and a systematic survey across the Subject Area was undertaken during the survey.

The survey methodology is outlined below:

- A hand-held non-differential GPS unit was used to record all tracks and appropriate site data for the survey with spatial data recorded in terms of Datum and grid co-ordinates (i.e., Zone, Easting, Northing) as per Requirement 8b of The Code.
- Representative photographs were taken of survey units, different visibility levels, exposures and disturbed areas.
- A proportional emphasis was placed on the landforms identified within the predictive model as likely to contain Aboriginal archaeological objects or sites
- Different types and levels of exposure were recorded. Exposure was defined as an estimate of the area which has a likelihood of revealing buried artefacts and/or deposits. Exposure is represented as a percentage of land for which erosion and exposure was sufficient to reveal archaeological evidence on the surface of the ground. As Burke and Smith (2004: 78-80) phrase it: exposure refers to what reveals. Exposure types are based on the results of erosional processes (e.g. sheet wash, gullying, blow-outs, animal tracks or pads, vehicle or walking tracks etc).
- Archaeological visibility was recorded, defined as the amount of bare ground on the exposures which might reveal artefacts or other archaeological materials. As Burke and Smith (2004: 78-80) phrase it: visibility refers to what conceals. Visibility is affected by vegetation, leaf litter, stone ground, introduced material etc.
- Effective survey coverage area was also recorded (the area of the survey unit multiplied by the visibility percentage and exposure percentage and given in either square meters or hectares) as per Requirement 9 of The Code.



10. Results

10.1 Archaeological and cultural heritage survey

The Subject Area was initially assessed through a Desktop Aboriginal Objects Due Diligence Assessment by Chelsea Freeman (Heritage Consultant, Niche) in March 2022.

A comprehensive site survey was completed by Chelsea Freeman (Niche), Aaron Taylor (Murra Bidgee Mullangari Aboriginal Corporation) and Nura Smith (Lower Hunter Aboriginal Incorporated) over two days from 15 to 16 June 2022.

10.2 Survey results

The Subject Area was surveyed by foot by two people on the 15 and 16 June 2022. The Subject Area is currently characterised by dense grass cover and regrowth vegetation with minimal scattered areas of exposure. Visibility and exposure levels were low within the Subject Area as outlined in Table 10. The survey covered all landform units within the Subject Area (Table 11). Plate 2 through to Plate 49 presents aspects of the Subject Area.

Due to the constraints surrounding access, all properties were surveyed by foot except for properties 29 Kezia Rd (Lot 5/DP248331) and 487 Oakhampton Rd (Lot 1/DP1086271), Oakhampton. The Ground Surface Visibility (GSV) across the Subject Area was very poor (<25%) due to overgrown grasses. The majority of the Subject Area and associated paddocks have been cleared of native vegetation. GSV was highest surrounding residential properties, commercial properties, associated infrastructure and roads/access tracks. The GSV high (approx. 60%) due to landscaping and maintenance of structures. Minimal natural exposures were evident within the Subject Area. The largest exposure was identified at the rear of the commercial property at 35 Kezia Rd (Lot 6/DP248331). The exposure, located on the low hills, contains small sections of exposed sandstone and other pebbles (Plate 28).

10.2.1 Survey Unit 1

Survey Unit 1 consists of low hills and covers the majority of the Subject Area. Low hills are characterised by low relief (30 – 90 m) and a gentle to steep slopes (The National Committee on Coil and Terrain, 2009) and are evident in the Subject Area sloping towards the Hunter River to the north and the wetlands/floodplains to the south. Survey Unit 1 had minimal visibility (<10%), dominated by overgrown vegetation, predominantly pastural grasses. Exposure in Survey Unit 1 (10%) was dominated by disturbances from residential use of the Subject Area, including buildings, driveways, manmade dams and associated farming infrastructure.

10.2.2 Survey Unit 2

Survey Unit 2 consists of Hill Crests and is the smallest survey unit of the Subject Area. Hill crests are characterised by very gently inclined to steep crests that are smoothly convex (The National Committee on Coil and Terrain, 2009). Survey Unit 2 is evident in the north-western section of the Subject Area, at the crest of the low hills (Survey Unit 1). Survey Unit 2 had minimal visibility (<5%), dominated by overgrown vegetation, predominantly pastural grasses. Survey Unit 2 had minimal exposure (<5%), associated with historical use of area for agriculture.

10.2.3 Survey Unit 3

Survey Unit 3 consists of Wetlands and floodplains and dominates the southern section of the Subject Area. Survey Unit 3 is characterised by an inland riverine floodplain, that includes seasonal flooding (The National Committee on Coil and Terrain, 2009). Survey Unit 3 had minimal visibility (<5%) due to the are being



covered by water, with only the banks allowing for minimal visibility. Survey Unit 3 had minimal exposure (<5%), associated with historical use of the area for agriculture.

10.3 Summary of survey finds

No Aboriginal objects or PADs were identified during the survey of the Subject Area. Despite the Subject Area being located adjacent to the Hunter River, the significant level of modification from natural and human induced disturbance, has resulted in a low likelihood of Aboriginal Objects being present. These disturbances include significant erosion due to repeated flooding and meandering of the Hunter River, this has been exacerbated by vegetation clearing weaking the banks of the river.

Table 10: Survey coverage

Survey unit	Landform	Survey unit area (m²)	Survey coverage (m ²)	Visibility (%)	Exposure (%)	Effective coverage (m ²)	Effective coverage (%)
1	Low Hills	718,000	418,728	<10%	10%	7180.00	1.0%
2	Hill Crest	83,796	15,335	<5%	<5%	209.49	0.3%
3	Wetlands and Floodplain	124,642	49,742	<5%	<5%	311.61	0.3%

Table 11: Landform summary – sampled areas

Landform	Landform area (m²)	Area effectively surveyed (m ²)	Landform effectively surveyed (m ²)	Number of sites	Number of artefacts or features
Low Hills	718,000	7180.00	1.0%	0	0
Hill Crest	83,796	209.49	0.3%	0	0
Wetlands and Floodplain	124,642	311.61	0.3%	0	0





Plate 2: Survey Unit 1 – view from lower slope descending to Hunter River, facing west.



Plate 4: Survey Unit 1 – view from lower slope descending to Hunter River, facing north.



Plate 3: Survey Unit 1- View from lower slope looking up to hill crest, facing south-east.



Plate 5: Survey Unit 1- overgrown vegetation north of Subject Area descending to Hunter River, facing north.



Plate 6: Survey Unit 1- View upslope, facing north-east.



Plate 7: Survey Unit 1- View upslope, facing southwest.





Plate 8: Survey Unit 1- powerlines running between two properties, facing south-west.



Plate 10: Survey Unit 1- Drainage towards Hunter River, facing west.



Plate 9: Survey Unit 1- Drainage towaRds Hunter River, facing east.



Plate 11: Survey Unit 2- view from hillcrest looking down on hunter river, facing north.



Plate 12: Survey Unit 2- hillcrest with slashed vegetation, facing east.



Plate 13: Survey Unit 2- hillcrest looking down over low hills with dam, facing north-east.





Plate 14: Survey Unit 2- View towards Hunter River, facing north.



Plate 16: Survey Unit 2- Hillcrests with small drainage line leading to dam in property 43 Kezia Rd, facing south.



Plate 15: Survey Unit 2- View over dam in property 43 Kezia Rd, facing east.



Plate 17: Survey Unit 2- View over dam in property 43 Kezia Rd, facing west.



Plate 18: Survey Unit 2- small exposure on hillcrest in property 42 Kezia Rd, near residential building, facing south.



Plate 19: Survey Unit 1- Nearly dried out dam, located on low hills of property 42 Kezia Rd, facing west.





Plate 20: Survey Unit 1- exposure of subsurface in bed of dried out dam, facing north.



Plate 22: Survey Unit 1- Overgrown grasses minimising visibility on property 42 Kezia Rd, facing west.



Plate 21: Survey Unit 1- Overgrown grasses minimising visibility on property 42 Kezia Rd, facing east.



Plate 23: Survey Unit 1- Disturbance through current and historical agricultural use of property 42 Kezia Rd. Remains of associated infrastructure, facing southwest.



Plate 24: Survey Unit 1- Dam within small run off area in property 42 Kezia Rd, facing north-west.



Plate 25: Survey Unit 1- exposure surrounding trees along fence line, bordering Oakhampton Rd, facing south-west.





Plate 26: Survey Unit 1- Disturbance to ground surface through commercial use at property 35 Kezia Rd, facing south-west.



Plate 28: Survey Unit 1- small exposure on low hills at rear of property 35 Kezia Rd.



Plate 27: Survey Unit 1- small drainage area in property 35 Kezia Rd, into dam in adjoining property 29 Kezia Rd, facing south.



Plate 29: Survey Unit 1- soil profile revealed through ground surface work being undertaken at commercial business at 35 Kezia Rd, facing north.



Plate 30: Survey Unit 1- disturbance to lower gills through roads, fences, dams and agricultural and residential use of properties, facing south.



Plate 31: Survey Unit 1 – lower hills of properties located on Oakhampton Rd, facing south-west.





Plate 32: Survey Unit 1- exposure in low hills.



Plate 33: Survey Unit 1- heavily landscaped entrance to property 473 Oakhampton Rd, with introduced vegetation, facing south.



Plate 34: Survey Unit 3- view across wetlands/flood plain at rear of property 473 Oakhampton Rd, facing south.



Plate 35: Survey Unit 3- view across wetlands/flood plain at rear of property 473 Oakhampton Rd, facing south.



Plate 36: Survey Unit 3- view across wetlands/flood plain at rear of property 473 Oakhampton Rd, facing south-east.



Plate 37: Survey Unit 1- slope of property 473 Oakhampton Rd with overgrown grasses, facing north.





Plate 38: Survey Unit 1- Disturbance of front paddock of property 473 Oakhampton Rd from agricultural use, facing south-east.



Plate 40: Survey Unit 3- Overgrown vegetation surrounding wetlands at rear of property 461 Oakhampton Rd, facing south-west. .



Plate 39: Survey Unit 3- view across wetlands/flood plain at rear of property 461 Oakhampton Rd, facing south-east.



Plate 41: Survey Unit 3- Overgrown vegetation surrounding wetlands at rear of property 461 Oakhampton Rd, facing south-east.



Plate 42: Survey Unit 3- view across wetlands/flood plain at rear of property 461 Oakhampton Rd, facing south.



Plate 43: Survey Unit 3- view across wetlands/flood plain at rear of property 461 Oakhampton Rd, facing south.





Plate 44: Survey Unit 1- Introduced materials at property 355 Oakhampton Rd, facing south.



Plate 45: Survey Unit 1- mature trees located within property 355 Oakhampton Rd, facing south-east.



Plate 46: Survey Unit 1-dam on low hill of property 355 Oakhampton Rd. Dam is manmade with southern bank constructed, facing west.

Plate 47: Survey Unit 1- erosion of southern bank of dam at property 355 Oakhampton Rd, facing west.



Plate 48: Survey Unit 3- view across wetlands/flood plain towaRd rail at rear of property 355 Oakhampton Rd, facing south-east.



Plate 49: Railway at eastern boundary of 355 Oakhampton Rd, facing east.

10.4 Archaeological cultural heritage sites

No previously recorded Aboriginal cultural heritage sites were located during the site inspection. No new Aboriginal cultural heritage sites were recorded during the site inspection. Figure 8 shows the survey coverage as a result of the site inspection.



Figure 8: Site inspection results (Source: Niche)



11. Analysis and discussion

11.1 Analysis and discussion of results

While the region is characterised by a rich Aboriginal archaeological record, the reconstruction of past land use of Aboriginal people in the Central Lowlands is an extremely difficult task often relying on historical documents and archaeological evidence resulting from environmental impact assessments rather than research-driven projects. Despite these inherent limitations, archaeologists have built up a picture of Aboriginal settlement patterns for the region, establishing a foundation for the testing of predictive models and the inclusion of ethnographic accounts, and the invaluable knowledge and contributions of the Aboriginal communities of the Hunter Region.

No Aboriginal objects or PADs were identified within the Subject Area. The site inspection as made difficult by the lack of visibility and exposures in the Subject Area. All landforms within the Subject Area were targeted for survey and were assessed for subsurface potential. The Subject Area has been subjected to significant disturbance through current and historical commercial, residential and agricultural use.

During the site inspection the location of the nearest recorded sites, ABPAD1 (AHIMSID#38-4-1062 and 38-4-0865) and ABPAD2 (AHIMSID#38-4-1063 and 38-4-0866) located approximately 220m and 390m from the Subject Area, were discussed. It was discussed that both sites contained low density artefact scatters identified through test excavations. The test excavations identified the area as disturbed. RAPs were satisfied that these sites will not be harmed by the proposed works in the Subject Area.

Based on the above, it can be deduced that no known Aboriginal objects or deposits likely to contain Aboriginal objects will be harmed by the proposed works in the Subject Area.

11.2 Results summary

- Field survey within the Subject Area did not identify previously unrecorded Aboriginal cultural heritage sites.
- No surface artefacts were identified.
- The whole Subject Area is considered to be of low archaeological although the entire area falls within an archaeologically sensitive landscape (i.e. within 200 m from water). This is due to the significant subsurface disturbances occurring within the Subject Area.
- Despite no Aboriginal cultural heritage sites being identified during the survey, the Subject Area remains significant due to the intangible values associated with the song lines and surrounding landscape of the Hunter River.
- Overall, the results of the assessments conducted as part of this ACHA / AR support the predictive model developed for the Project in that:
 - The presence of surface artefacts is not a predictor of sub-surface archaeological deposits and viceversa.



12.1 Assessment framework

The Burra Charter (Australia ICOMOS 2013) defines the basic principles and procedures to be observed in the conservation of important places. It provides the primary framework within which decisions about the management of heritage sites in Australia should be made. The Burra Charter defines cultural significance as being derived from the following values summarised in Table 12 below.

Value type	Description
Aesthetic Value	Aesthetic value includes aspects of sensory perception for which criteria can and should be stated. Such criteria may include consideration of the form, scale, colour, texture and material of the fabric; the smells and sounds associated with the place and its use.
Historic Value	Aesthetic value includes aspects of sensory perception for which criteria can and should be stated. Such criteria may include consideration of the form, scale, colour, texture and material of the fabric; the smells and sounds associated with the place and its use.
Scientific Value	The scientific or research value of a place will depend upon the importance of the data involved, on its rarity, quality or representativeness, and on the degree to which the place may contribute further substantial information.
Social Value	Social value embraces the qualities for which a place has become a focus of spiritual, political, national or other cultural sentiment to a majority or minority group.

12.2 Other approaches

The categorisation into aesthetic, historic, scientific and social values is one approach to understanding the concept of cultural significance. However, more precise categories may be developed as understanding of a particular place increases.

The NSW DECCW guidelines for the significance assessment of Aboriginal archaeological sites are contained within the Aboriginal Cultural Heritage Standards and Guidelines Kit (National Parks and Wildlife Service 1997). The Kit identifies with two main streams in the overall significance assessment process: the assessment of cultural/social significance to Aboriginal people and the assessment of scientific significance to archaeologists.

This approach encapsulates those aspects of the Burra Charter that are relevant to Aboriginal archaeological sites. The guidelines specify the following criteria for archaeological significance, as paraphrased in Table 13.

Criteria	Description
Research potential	It is the potential to elucidate past behaviour which gives significance under this criterion rather than the potential to yield collections of artefacts. Matters considered under this criterion include – the intactness of a site, the potential for the site to build a chronology and the connectedness of the site to other sites in the archaeological landscape.
Representativeness	As a criterion, representativeness is only meaningful in relation to a conservation objective. Presumably all sites are representative of those in their class or they would not be in that

Table 13: Criteria specified for archaeological significance



Criteria	Description
	class. What is at issue is the extent to which a class of sites is conserved and whether the particular site being assessed should be conserved in oRder to ensure that we retain a representative sample of the archaeological record as a whole. The conservation objective which underwrites the 'representativeness' criteria is that such a sample should be conserved.
Rarity	This criterion cannot easily be separated from that of representativeness. If a site is 'distinctive' then it will, by definition, be part of the variability which a representative sample would represent. The criteria might best be approached as one which exists within the criteria of representativeness, giving a particular weighting to certain classes of site. The main requirement for being able to assess rarity will be to know what is common and what is unusual in the site record but also the way that archaeology confers prestige on certain sites because of their ability to provide certain information. The criterion of rarity may be assessed at a range of levels: local, regional, state, national, and global.
Educational Potential	Heritage sites and areas should be conserved and managed in relation to their value to people. It is assumed that archaeologists have the ability to speak of the value of sites to members of their own profession. Where archaeologists or others carrying out assessments are speaking for the educational value of sites to the public, the onus is on them to go to the public for an assessment of this value, or to reputable studies which have canvassed public demand for education. The danger, otherwise, is that archaeologists would be projecting their values onto a public which is itself given no voice on the matter.
Aesthetics	Archaeologists are not expected to include an assessment of aesthetic significance along with their assessment of scientific significance. In relation to heritage places, aesthetic significance is generally taken to mean the visual beauty of the place. Aesthetic value is not inherent in a place but arises in the sensory response people have to it. Although the guidelines provide no expectation for archaeologists to consider aesthetic values it is often the case that a site's or a landscape's aesthetic is a significant contributory value to significance. Examples of archaeological sites that may have high aesthetic values would be rock art sites, or sites located in environments that evoke strong sensory responses. For this reason, we consider it appropriate to include aesthetic values as part of the significance assessments for the sites identified during this assessment.

12.3 Statement of Significance

Statements of significance for the Subject Area are presented in the following sub sections. These statements of significance have been prepared in consideration of comments received from the RAPs during the consultation process, including those comments relating to the cultural significance of all sites and the interrelationships between the cultural and spiritual values with the natural landscape.

12.3.1 Social Value

The Subject Area holds cultural significance to the local Aboriginal community. Mr Aaron Taylor of Murrabidgee involved in the fieldwork, for instance, considered the Subject Area to have high cultural value due to the exceptional views, access to water, the alignment of landforms across the valley of the Hunter River and the connection of the Hunter River to song lines.

12.3.2 Aesthetic Value

The Subject Area has moderate aesthetic values owing to the portions of high ground overlooking various bodies of water such as the Hunter River and the wetlands/floodplains at the southern portion of the Subject Area.



12.3.3 Historic Value

The Subject Area is of low historical value as there are no known historical references for this location.

12.3.4 Scientific (Archaeological) Value

The Subject Area does not contain any Aboriginal cultural heritage sites or areas of potential sensitivity owing to the disturbance evident across the Subject Area resulting from current and historical commercial, agricultural and residential use. Therefore, the Subject Area has low scientific (archaeological) value.



13. Impact assessment

13.1 Proposed activity

The Subject Area is the focus of a planning proposal which seeks to amend the *Maitland Local Environmental Plan* 2011 to change the zoning of the Subject Area from RU1 Primary Production, RU2 Rural Landscape and C2 Environmental Conservation to Part R1 General Residential, Part C3 Environmental Management, whilst maintaining part of the RU1 Primary Production and all of the C2 Environmental Conservation zoned land. The rezoning of portions of the Subjects Area to R1 General Residential will allow for the future development of this land.

The following outlines the proposed impacts associated with the different zones proposed for the Subject Area:

- R1 General Residential Zone: impacts to this zone are proposed to consist of shared off road footpaths and cycleways, roads, and residential housing.
- C3 Environmental Management Zone: impacts to this zone are proposed to consist of the placement of stormwater basins.
- C2 Environmental Conservation Zone: No impacts are proposed to occur within this zone.
- RU1 Primary Production: impacts on this zone are proposed to consist of the placement of storm water basins.

13.2 Potential for harm

The *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (OEH 2011) requires that both direct and indirect harm to Aboriginal objects and Aboriginal places be considered. Generally direct harm refers to occasions where an activity physically impacts a site or objects and therefore affects the heritage values possessed by the site or objects. Indirect harm is usually taken to mean harm stemming from secondary consequences of the activity and may affect sites or objects as an indirect consequence of the activity. Examples of such indirect harm are increased visitors to a site, or increased erosion in an area as a result of an activity.

The proposed activity will not harm any known Aboriginal objects or deposits likely to contain Aboriginal objects. The previously recorded Aboriginal cultural heritage sites ABPAD1 (AHIMSID#38-4-1062 and 38-4-0865) and ABPAD2 (AHIMSID#38-4-1063 and 38-4-0866) will not be impacted by the proposed works as agreed location of the sites is approximately 220m and 390m west of the Subject Area.



14. Management and mitigation measures

14.1 Conservation Principles and Management Framework

The two founding principles behind the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011:12) are ecologically sustainable development and intergenerational equity. These principles hold that "the present generation should make every effort to ensure the health, diversity and productivity of the environment – which includes cultural heritage – is available for the benefit of future generations".

The strong emphasis, as in the Burra Charter, is to quantify and understand the heritage values of a place, a site, or an object and exhaust avenues of avoiding harm to those values. If harm cannot be avoided, then there must be consideration and implementation of strategies to minimise harm (OEH 2011:13).

It follows that the hierarchy for consideration in terms of the management strategies available for surface stone artefacts and subsurface stone artefacts and areas of archaeological potential, fall into four general categories, in order of preference from a conservation perspective:

- avoidance and in-situ conservation;
- partial avoidance and partial in-situ conservation (includes partial harm);
- harm caused with mitigating circumstances such as collection or salvage; and
- unmitigated harm.

The four general categories (described above) have been considered in the following subsections with regard to both direct impacts (e.g. surface disturbance) and indirect impacts (e.g. monitoring activities).

The management and mitigation measures have been prepared in consideration of comments received from the RAPs during the consultation process. These comments include those related to cultural considerations surrounding salvage works and the handling of artefactual materials, as well as the cultural significance of all sites. All comments received from the RAPs are considered in Section 3.3 of the ACHA.

Where possible, harm to all sites will be avoided and sites will be retained in situ.

Where harm to Aboriginal sites and objects cannot be avoided, an Aboriginal Heritage Impact Permit (AHIP) will be required.

Management measures are warranted to mitigate the loss of value to the Aboriginal sites that would result from the proposed subdivision and development activities. Management and mitigation measures are required to ensure continued compliance with the *National Parks and Wildlife Act 1974*.

Consideration and discussion of management and mitigation options are provided in Table 14.



Table 14: Consideration of management and mitigation strategies

Management Risk / Impacted Value	Strategies considered	Response
Management Risk – impacts to cultural values and stakeholder values	Continued consultation with the RAPs	 Bremer Park Pty Ltd should continue to consult with RAPs in accordance with the consultation guidelines and in accordance with any future AHIP)/s. If any further assessment is required, continued consultation will allow for the consultation process to proceed without the need to recommence from the start. To ensure that the current consultation records remain valid to support any future AHIP/s for the Subject Area, the Proponent should send project updates to RAPs at a minimum of every six months for the duration of the Project.
	Further community consultation, Interpretation Plan and Cultural Values Assessment	 Should an Interpretation Plan be required, consultation with the Aboriginal community is to be undertaken to inform the Interpretation Plan. This will enable Aboriginal cultural knowledge to be incorporated into the design and development of the Precinct, focusing on open/public spaces. The interpretation plan or strategy may include elements such as: Identifying and incorporating Wonnarua names and words into the naming of elements in the precinct (for example, parks, streets, community buildings). Inclusion of local Wonnarua art and design in the development of public spaces. Signage and contributing to resources which place value in and increase public awareness of Wonnarua history and values. If further views confirming the cultural significance of the landscape are expressed, then consideration should also be given to a Cultural Values Assessment (CVA) regarding the intangible values expressed during consultation with the RAPs. The above-mentioned strategies are dependent on council approvals and may not be feasible.
	Avoidance and <i>in-situ</i> conservation	 Aboriginal cultural heritage sites if identified should be incorporated into conservation zones and protected in situ within the areas proposed for C2 (Environmental Conservation Zone) and C3 (Environmental Management Zone) Zoning and no ground disturbance should occur within the boundaries of Aboriginal cultural heritage sites.
Management Risk – Compliance and Unexpected Finds (excluding human remains)	Communication to employees, site visitors, contractors and landowners	 All workers should be inducted into the Subject Area, so they are made aware of their obligations under the <i>National Parks and Wildlife Act 1974</i> and any conditions of any future AHIP prior and during and after construction activities. In the unlikely event of the identification of artefacts within the Subject Area, work in the surrounding area is to stop immediately.



Management Risk / Impacted Value	Strategies considered	Response
		 A temporary fence is to be erected around the Aboriginal cultural heritage site, with a buffer zone of at least 10 metres around the known edge of the Aboriginal cultural heritage site. An appropriately qualified archaeological consultant is to be engaged to identify the material. If the material is an Aboriginal object, the Proponent will notify: the BCD's Enviroline on 131 555; and representatives of the RAPs. Facilitate, in co-operation with the appropriate authorities and the RAPs: The recording and assessment of the finds o Compliance with any legal requirements and BCD directions The development and implementation of appropriate management strategies based on an assessment of significance of the finds. Recommencement of ground disturbance works may only resume once legal requirements are fulfilled
Management Risk – Unexpected Finds – human remains	Stop work and follow procedure for discovery of suspected human remains	 All workers should be inducted into the Subject Area, so they are made aware of their obligations under the National Parks and Wildlife Act 1974 and any conditions of any future AHIP prior and during and after construction activities. In the unlikely event that suspected human remains are encountered during construction, all work in the area that may cause further impact, must cease immediately. The location, including a 20 m curtilage, should be secured using barrier fencing to avoid further harm. The NSW Police must be contacted immediately. No further action is to be undertaken until the NSW Police provide written notification to Bremer Park Pty Ltd. If the skeletal remains are identified as Aboriginal, Bremer Park Pty Ltd or their agent must contact: the Heritage NSW's Enviroline on 131 555; and Representatives of the RAPs. No works are to continue until Heritage NSW provides written notification to the proponent or their Agent.



15. Recommendations

Part 6 of the *National Parks and Wildlife Act* (1974) provides protection for all Aboriginal objects and declared Aboriginal places from harm. Harm is defined as destroying, defacing, damaging or moving an object from the land. An Aboriginal Heritage Impact Permit (AHIP) is a legal document that grants you permission to harm Aboriginal objects or declared Aboriginal places and sets out any conditions you must comply with. An AHIP is required to disturb any Aboriginal objects or places.

In order to fulfil the requirements of the planning proposal, Niche has prepared an ACHA. This Archaeological Report (AR) presents the results of an Aboriginal cultural heritage site inspection completed by Niche and representatives of the RAPs in compliance with the requirements of the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010a).

Based on the community consultation with the Aboriginal stakeholders and archaeological investigations undertaken for the Project by Niche, the following recommendations have been made:

Recommenda	Recommendations	
	Aboriginal Heritage Impact Permit	
1.	To ensure that the consultation records remain valid to support any future AHIP/s for the Subject Area, Bremer Park Pty Ltd should continue to consult with the Aboriginal community in accordance with the consultation guidelines and in accordance with any future Aboriginal Heritage Impact Permit (AHIP). To maintain consultation records and contact with stakeholders, the Proponent should send project updates to RAPs at a minimum of every six months for the duration of the Project. Should an Interpretation Plan be required, consultation with the Aboriginal community should be undertaken to inform the Interpretation Plan. This will enable Aboriginal cultural knowledge to be incorporated into the design and development of the Precinct, focusing on open/public spaces.	
2.	Further assessment of Aboriginal heritage should be undertaken if the scope of works, as specified in the current ACHA/AR, is altered, redesigned or goes beyond the proposed development. If further assessment is required, assessment of Aboriginal heritage should be undertaken in accordance with the <i>National Parks & Wildlife Act 1974</i> (Amended 2010) and <i>National Parks & Wildlife Amendment Regulation 2019</i> . This may take the form of an Aboriginal Objects Due Diligence Assessment in the first instance.	
3.	Survey in the Subject Area of previously unsurveyed properties 29 Kezia Rd, Oakhampton and 487 Oakhampton Rd, Oakhampton is still required. Survey of properties should be undertaken in consultation with Aboriginal community when access is available and can occur as part of the DA.	
	General	
4.	All workers should be inducted into the Subject Area, so they are made aware of their obligations under the <i>National Parks and Wildlife Act 1974</i> and any conditions of any future AHIP prior and during and after construction activities.	
5.	In the event that previously unknown Aboriginal object(s) and/or sites are discovered during the proposed activity, work must stop, and an appropriately qualified archaeologist be contacted to access the nature, extent, and significance of the identified sites and notification is provided to Heritage NSW. Works should not proceed without advice from Heritage NSW or an appropriately qualified archaeologist.	
6.	In the unlikely event that suspected human remains are encountered during construction, all work in the area that may cause further impact, must cease immediately and:	



Recommendations		
	• The location, including a 20 m curtilage, should be secured using barrier fencing to avoid further harm.	
	The NSW Police must be contacted immediately.	
	• No further action is to be undertaken until the NSW Police provide written notification to Bremer Park Pty Ltd.	
	• If the skeletal remains are identified as Aboriginal, Bremer Park Pty Ltd or their agent must contact:	
	 Heritage NSW's Enviroline on 131 555; and representatives of the RAPs. 	
	 No works are to continue until Heritage NSW provides written notification to the proponent or their Agent. 	



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Annex 1: AHIMS extensive search



Contact Us

Niche Environment and Heritage 02 9630 5658 info@niche-eh.com

NSW Head Office – Sydney PO Box 2443 North Parramatta NSW 1750 Australia

QLD Head Office – Brisbane PO Box 540 Sandgate QLD 4017 Australia

Sydney Brisbane Cairns Port Macquarie Illawarra Coffs Harbour Central Coast Gold Coast Canberra

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Environmental management and approvals

Impact assessments Development and activity approvals Rehabilitation Stakeholder consultation and facilitation Project management

Environmental offsetting

Offset strategy and assessment (NSW, QLD, Commonwealth) Accredited BAM assessors (NSW) Biodiversity Stewardship Site Agreements (NSW) Offset site establishment and management Offset brokerage Advanced Offset establishment (QLD)



Appendix B: Aboriginal community consultation log and documents





Contact Us

Niche Environment and Heritage 02 9630 5658 info@niche-eh.com

NSW Head Office – Sydney PO Box 2443 North Parramatta NSW 1750 Australia

QLD Head Office – Brisbane PO Box 540 Sandgate QLD 4017 Australia

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