

Project Number: HN000290-A



ABORIGINAL DUE DILIGENCE ASSESSMENT REPORT - LOT 12 DP 1197316 METFORD ROAD, TENAMBIT

FINAL 11 / 11 / 2021

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Executive Summary

Heritage Now Pty Ltd has been engaged by Metford Road Pty Ltd to undertake an Aboriginal Heritage Due Diligence Assessment at 35 Metford Road, Tenambit (Lot 12, DP 1197316).

The background research identify the locality as having potential for Aboriginal occupation, as it is likely to have had nearby wetland resources (subsequently modified by the wastewater treatment plant). The Aboriginal Heritage Information Management System (AHIMS) search identified that a 120 x 3-4m artefact scatter with archaeological deposit (AHIMS# 38-4-0396), registered adjacent to the locality, likely extends into the Project Area.

No Aboriginal artefact were identified during the survey; however, visibility was low and it is likely based on the site card description and observed landforms that AHIMS# 38-4-0396 extends into the Project Area, and thus an area of archaeological sensitivity was identified.

The Proposal has the potential to impact artefacts associated with AHIMS# 38-4-0396, however full assessment of this site was hampered by low visibility, but there is subsurface archaeological potential associated with this site which is constrained to stages 4-7. There are no Aboriginal objects or areas of subsurface archaeological potential in the remaining part of the Project Area (Stages 1-3) and thus works can proceed in this area under the Due Diligence Code.

General mitigation measures including heritage induction and human remains protocols are also to be implemented.

The Proposal can proceed subject to recommendations below:

Recommendation 1

AHIMS# 38-4-0396 and its associated area of sensitivity (Stages 4-7) is to be subject to archaeological testing under the *Code of Practice for the Investigation of Aboriginal Objects in NSW* before ground disturbing works commence in these stages.

Recommendation 2

All on-site personnel are to be made aware of their obligations under the *National Parks and Wildlife Act 1974*. This includes the protection of Aboriginal sites and the reporting of any new or suspected Aboriginal heritage sites. This may be done through an on-site induction or other suitable format.

Recommendation 3

In the unlikely event that human remains, or suspected human remains, are uncovered during the development, works in that area are to stop and the area is to be cordoned off. The project manager is to contact the NSW Police to establish whether the area is a crime scene. If it is not a crime scene, Heritage NSW is to be notified via the Environment Line on 131 555 and management measures are to be devised in consultation with the local Aboriginal community. Works are not to recommence in the area until the management measures have been implemented.



Acronyms and Definitions

Acronym	Definition
AHIMS	Aboriginal Heritage Information Management System – register for Aboriginal sites in NSW
AHIP	Aboriginal Heritage Impact Permit
DECCW	Department of Environment, Climate Change and Water, NSW (became the Office of Environment and Heritage in 2011)
EP&A Act	Environmental Planning and Assessment Act 1979
GDA	Geocentric Datum Australia
km/s	Kilometre/Kilometres
LALC	Local Aboriginal Land Council (Land Council under the Aboriginal Land Rights Act 1983)
LEP	Local Environmental Plan
LGA	Local Government Area
ОЕН	Office of Environment and Heritage, NSW (Now Heritage NSW)
m	Metric metres



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1 Introduction

Heritage Now Pty Ltd has been engaged by Metford Road Pty Ltd to undertake an Aboriginal Heritage Due Diligence Assessment.

1.1 Project Area

The Project Area is located at 35 Metford Road, Tenambit (Lot 12, DP 1197316) (Figure 1) and is 1.5 km south of Morpeth. It is approximately 260 m west-east and 510 m north-south. The Project Area is within the Maitland Local Government Area and within the Mindaribba Local Aboriginal Land Council boundaries.



Figure 1. Project Area. (Source: SIX Maps aerial with Heritage Now and AHIMS additions)

1.2 Overview of Project Proposal

The Project Area is proposed for a residential subdivision. This will include clearing of vegetation as well as cut and fill to prepare the Project Area. It will require the installation of below and above ground services including water and sewer, telecommunications and electricity. It will also require the formation of roads and access ways to the residential lots as well as the building of individual residences. The works have been divided into seven stages, with stages 1-3 in the northern portion and stages 4-7 in the southern portion.



1.3 Methodology

This report has been written in accordance with the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (DECCW 2010). In accordance with this code, the report includes a consideration of whether the activity will disturb the ground surface; a search of Aboriginal Heritage Information Management System (AHIMS) as well as other information; landscape analysis; a visual inspection; and assessment of potential impacts.

1.4 Authorship and Acknowledgements

This report has been written by Tessa Boer-Mah Principal Heritage Consultant at Heritage Now with input from other members of the Heritage Now team including Joven Sanchez. Quality review has been provided by Lara Tooby, Heritage Consultant at Heritage Now.



2 Legislative Context

This section provides an outline of the Acts, Regulations and guidelines under which this assessment has been undertaken. It is for information purposes only and should not be taken as legal advice.

2.1 National Parks and Wildlife Act 1974

This Act contains the provisions for protecting Aboriginal objects in NSW. Aboriginal objects are protected regardless of whether they are in their original context (location) or not, and it is an offence to harm an Aboriginal object regardless of whether you know it is an Aboriginal object or not. Protection under Section 86 of the Act is as follows:

- s86(1) A person must not harm or desecrate an object that the person knows is an Aboriginal object.
- s86(2) A person must not harm an Aboriginal object.
- s86(3) A person must not harm or desecrate an Aboriginal place.

Penalties for harming Aboriginal objects or places range from \$80,000–\$800,000 for individuals and \$330,000–\$1,650,000 for corporations, and may also include imprisonment. Under Section 87, there are certain defences from prosecution. These include that harm was authorised under an Aboriginal Heritage Impact Permit (AHIP) and actions were in accordance with the AHIP; that due diligence was exercised in relation to Aboriginal object/s; and/or that the activity was classified as low impact.

Under Section 89A, an Aboriginal object must be reported to Heritage NSW within a reasonable timeframe unless they have previously been recorded and submitted to the Aboriginal Heritage Information Management System (AHIMS). Penalties for failure to report an Aboriginal object start from \$16,500 for individuals and \$33,000 for corporations.

2.2 National Parks and Wildlife Regulations 2009

This Regulation provides a framework for exercising due diligence and outlines codes of practice in respect to Aboriginal objects (Section 80A), as well as defences for carrying out certain low-impact activities (Section 80B). The Regulation also outlines requirements for Aboriginal consultation (Section 80C), particularly in relation to an Aboriginal Heritage Impact Permit. Under the Regulation, the following codes of practice are recognised, amongst others:

- Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW (DECCW 2010)
- NSW Minerals Industry Due Diligence Code of Practice for the Protection of Aboriginal Objects (NSW Minerals Council 2010)

2.3 Aboriginal Land Rights Act 1983

This Act provides land rights to Aboriginal people through the Local Aboriginal Land Councils. It details a process for claiming unused Crown Land in NSW and for enabling land use. It also allows for agreements to permit traditional hunting, fishing and gathering.



2.4 Environmental Planning and Assessment Act 1979

The Environmental Planning and Assessment Act 1979 (EP&A Act) provides triggers for undertaking environmental and heritage assessments as part of the wider land use planning framework. Part 4 details how authorities are to determine development applications, as well as identifying whether projects require an Environmental Impact Statement. Part 9 outlines the implementation and enforcement of the EP&A Act.

2.5 Maitland Local Environmental Plan (LEP) 2011

The Maitland LEP 2011 requires development consent to demolish, disturb, excavate or develop land on which an Aboriginal object is located or that is within an Aboriginal place of significance. Council must consider the effect of a proposal on an Aboriginal Place and any Aboriginal object located within an area of works. Council must inform the local Aboriginal community about the application where impacts to Aboriginal cultural heritage may occur. Protected heritage under the LEP is listed in Schedule 5.

There are no Aboriginal sites or places listed within the Project Area under the Maitland LEP 2011.



3 Environmental Context

This section provides the environmental context for the assessment of past Aboriginal occupation in the Project Area.

3.1 Geology and Soils

The geological formations of the local area can provide valuable information regarding resources that were available to Aboriginal people in the past. The geology of the Project Area is Permian sedimentary rocks of the Tomago Coal Measures. This includes lithic sandstone, laminated carbonaceous shale and mudstone, siltstone, coal, sideritic bands and rare pebble paraconglomerate (Troedson and Dreyssing 2016). In some instances, suitable quality sandstone in this region could provide natural sandstone exposures suitable for grinding axes and other stone artefacts. Furthermore, indurated/ silicified mudstone (and siltstone) is known to have been used for stone artefacts manufacture.

The Project Area is made up of Beresfield soil landscape. The A1 horizon consists of a friable brownish black loam (0-10cm). The A2 horizon consists of a hard setting dull yellowish brown sandy loam (10-15cm). The B horizon is a pedal brown plastic mottled clay (15-120cm) (Matthei 1995). Where artefacts are present in soils they are generally within the A horizon soils. Therefore, if the soils have not been subjected to erosion or stripping/excavation, there is potential for approximately 25 cm of artefact bearing deposit.

3.2 Topography and Hydrology

The Project Area is characterised by undulating low hills and rises, overlooking the low-lying Hunter River floodplain. The Project Area is situated at an elevation of between 10 and 20m Australian Height Datum (AHD). It is in close proximity to the Morpeth Waste Water Treatment Works and a large lagoon/estuary called Four Mile Creek, and also lies close to the Hunter River (1.5km north and 3.6km west of the Project Area).

3.3 Flora and Fauna

This section is intended to give a general overview of the flora and fauna that may have been used by Aboriginal people in the past. The information has been supplied for understanding the past Aboriginal use of the landscape and is not intended for ecological assessment purposes.

Past Aboriginal people are likely to have encountered vegetation similar to the Hunter-Macleay Dry Sclerophyll Forests in the Project Area. These forests consist of dry open eucalypt forest to 30 m tall, with a mixed sclerophyll and mesophyll shrub stratum and semi-continuous grassy groundcover. Common tree types include spotted gum, narrow-leaved ironbark, grey box, grey gum, grey ironbark turpentine. Common shrubs include silver-stemmed wattle, and forest oak are present as tall shrubs or small trees. Smaller shrubs include coffee bush, gorse bitter pea, peach heath, large mock-olive, narrow-leaved geebung, and muttonwood. Forbs include yellow burr-daisy, slender tick-trefoil, kidney weed, white root, poison rock fern, barbed wire grass, wiry panic, weeping grass and kangaroo grass (Keith 2004).



This vegetation community would have provided a variety of foods and raw materials for Aboriginal occupation in the area. The fruits of plants such as the geebung and coffee bush produce edible fruits and the timbers of eucalypts could be used to create tools, vessels and canoes (Brayshaw 1987). The narrow-leaved geebung has edible fruit as well as seeds. The juice and flesh of unripe fruit were used for treating burns, scratches and rashes. The ripe fruit on the ground also attracted possums, bandicoots and wallabies (Caton, J.M. and Hardwick, R.J. 2018, 267). The gum (kino) of the spotted gum could be used as a pigment and when mixed in a drinking solution could assist with bladder infections. The nectar of the spotted gum flowers could be used as a sweetener (Caton, J.M. and Hardwick, R.J. 2018, 249). The cooked leaves of the poison rock fern could be used to treat parasitic infections and intestinal worms and the leaves could also be made into a poultice for treating eczema and ringworm (Caton, J.M. and Hardwick, R.J. 2018, 311).

Common fauna in the area may have included parrots, cockatoos, galahs, flying foxes, bats, possums, wallabies, gliders, reptiles, and birds that would have provided food resources for Aboriginal people.

3.4 Land Use

The lands surrounding Hunter River near present-day Morpeth have been impacted since the 1800s, first by convict, and then free-settler, colonial expansion in the Hunter region. The area was felled for Toona ciliate (red cedar) and other trees in this region as early as 1804 (Dunn 2020, 47). Since then, the land has been subdivided and farmed. Currently, the Project Area is rural land used for horse grazing.

3.5 Synthesis

The landscape had features that may have supported Aboriginal people from the past. The proximity of the Project Area to the Hunter River and to the surrounding wetlands that were rich in resources make it a potential location for resource gathering.



4 Heritage Context

This section outlines the Aboriginal heritage context of the Project Area. It includes a general outline of Aboriginal occupation in Australia and the region, an analysis of search results from the Aboriginal Heritage Information Management System (AHIMS), as well as relevant heritage studies.

4.1 Aboriginal Occupation of the Hunter Valley – Historic Records

The early Europeans kept written records of their observations of Aboriginal culture, including the use of tools, resources, particular places, and in some instances, even recorded indigenous language. These records have become important sources of information, although it must be remembered they also contain cultural and historical biases. These primary sources used in conjunction with archaeological sources and traditional knowledge can reveal much about Aboriginal society, history, lifestyle and use of resources.

The traditional owners of the land within the Project Area are the Wonnarua people. The traditional lands of the Wonnarua people have been documented as extending to the Upper Hunter River from a few miles above Maitland, west to the Dividing Range (Tindale 1974). According to the Dreaming of the Wonnarua people, the Hunter Valley region; the mountains, plains and all living things were created be the great spirit Baiame (Miller 1985).

Historic records and oral history demonstrate there was a vast array of material culture, including shields, clubs, spears, digging sticks, boomerangs, water containers, canoes, rafts, message sticks, clap sticks, spear throwers, cordage, huts, woven baskets and bags, bone tools, shell tools, stone tools, fur belts and cloaks and shell pendants (Brayshaw 1987).

4.2 Aboriginal Occupation of the Hunter Valley – Archaeological Background

While the Aboriginal occupation of Australia is currently accepted as being at least 65,000 years (Clarkson et al. 2017), the Aboriginal occupation of the area known as the Hunter Valley in NSW has been dated to approximately 20,000 years ago (Brayshaw 1987, 100). Radiocarbon dates obtained from charcoal at a site in Glennies Creek, north of Singleton, found that artefacts within the deposit dated to approximately 20,200 years before present (BP).

The nature, distribution and potential for archaeological sites across the landscape depends upon environmental factors, such as geology, landforms, vegetation, proximity to water etc; the durability of the raw materials used in manufacturing; and the land use history, particularly post occupation disturbance and development.

A wide variety of subsistence resources were available to the local Aboriginal population including the nearby wetlands. Aboriginal people made everything they needed to survive from their local environment or traded with other groups from where the resource could be found. Shelter, fire, tools, weapons, implements, apparel and ceremonial equipment were made from raw materials found in the local environment. The primary raw materials used were wood, bark, stone, shell, bone, animal skins, grasses and other plant materials. Not all of the materials used by Aboriginal people would survive particularly well in archaeological contexts. This is partly due to the wet-dry effect of



Australian soils, as well as the nature of the organic material. An exception to this would be if the artefacts were buried in an anaerobic environment, such as a peat swamp, which would enable the preservation and survival of organic material such as wood and fibre. Generally, the stone component, such as the stone barbs from spears or other implements and tools, is most likely to survive in an archaeological deposit.

Artefacts related to stone tool manufacture are some of the most common finds in the Australian archaeological record. They often preserve better than material culture made of natural plant, bone or shell materials. Such artefacts include the tools themselves, such as axes, blades and microliths, as well as remnants of their production such as cores, flakes and flake pieces. The presence of stone artefacts in the archaeological record is dependent on the location of stone outcrops and quarries. Common stone types in the Hunter Valley include mudstone, silcrete, and tuff. Other materials such as quartz, quartzite, and chert may also be found, albeit at lower frequencies.

4.3 Aboriginal Heritage Information Management System (AHIMS)

The Aboriginal Heritage Information Management System was searched on 1 July 2021 from Latitude, Longitude -32.7698, 151.5821 to Latitude, Longitude -32.7097, 151.6615. The search produced a result of 114 sites (Figure 2). Site types are those that had stone artefacts (Artefact/s, Isolated Find, Artefact Scatter, Artefact/s + PAD [Potential Archaeological Deposit], Isolated Find + PAD), Isolated find + midden, Artefact Scatter + Midden, comprised 93% of the total number of sites (Table 1)

Table 1. AHIMS Site types. All stone artefact categories are highlighted blue.

Site Types	Count	Per cent
Artefact/s	48	42.11%
Isolated Find	22	19.30%
Artefact Scatter	20	17.54%
Artefact/s + PAD	12	10.53%
PAD	5	4.39%
Isolated Find + PAD	2	1.75%
Isolated Find + Midden	1	0.88%
Artefact Scatter + PAD	1	0.88%
Modified Tree	1	0.88%
Ceremonial Ring + Aboriginal	1	0.88%
Ceremony and Dreaming		
Hearth + PAD + Midden	1	0.88%
Total	114	100%



Most of the sites identified in the search are valid, usually meaning they have not been subject to an AHIP. The AHIMS search indicated that 24 sites have been completely salvaged and 6 sites have been partially salvaged. The status of sites identified in the search is summarised in (Table 2)

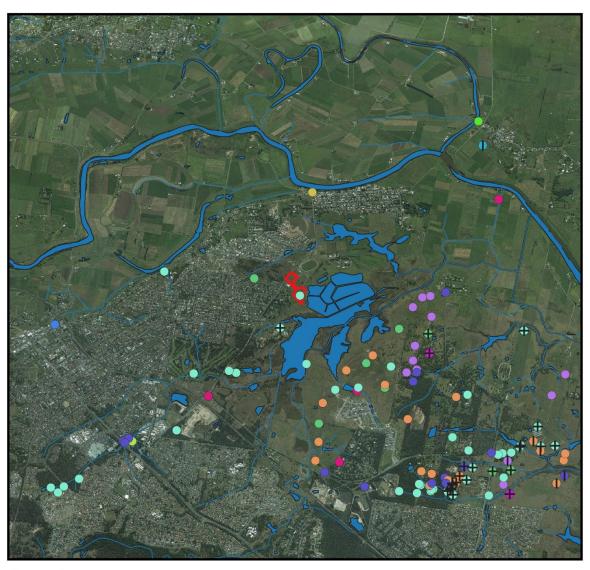
Table 2. Site Status

Site Types	Salvaged/ Destroyed	Partially Salvaged/ Destroyed	Valid
Artefact/s	16		32
Isolated find	4	1	17
Artefact Scatter	2	3	15
Artefact/s + PAD		1	11
PAD			5
Isolated find + PAD	2		
Isolated find + Midden			1
Artefact Scatter + PAD		1	
Modified Tree			1
Ceremonial Ring + Aboriginal Ceremony and Dreaming			1
Hearth + PAD + Midden			1
Total	24	6	84
Percent	21.05 %	5.26 %	73.68 %

4.3.1 AHIMS# 38-4-0396

This Aboriginal site is an artefact scatter with archaeological deposit. It was located between the waste water treatment works pond and the fence line (Figure 3), outside the current Project Area, however, the AHIMS location shows it within the Project Area (Figure 4). Despite this the site is described as extensive and was 120 m in length (along a track) and 2-3 m wide. In addition, it also had a potential archaeological deposit of 70 m x 40 m. As such the site may extend into the Project Area.





Legend

- Project Area
- AHIMS Sites
- Artefact Scatter
- Artefact Scatter + PAD
- Artefact/s
- Artefact/s + PAD
- Ceremonial Ring +
 - Aboriginal Ceremony and Dreaming
- Hearth + PAD + Midden
- Isolated find
- Isolated Find
- Isolated find + Midden
- Isolated find + PAD

- Modified Tree
- PAD
- **AHIMS Sites Status**
- + Destroyed
- I Partially Destroyed
- hydroline
- hydroarea



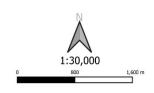


Figure 2. AHIMS Map. (Source: SIX Maps aerial with Heritage Now and AHIMS additions)



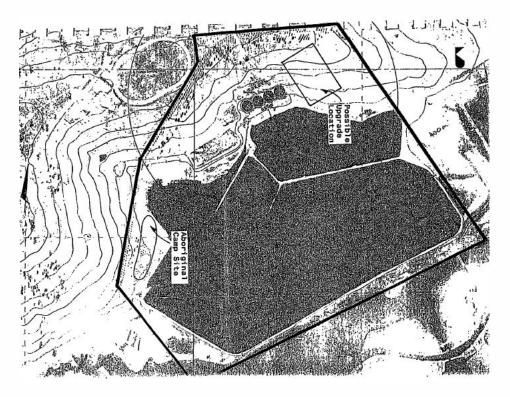


Figure 3. Extract from Dallas 1996, Project Area west of boundary, north is at the top of the image. (Source: Dallas 1996)



Figure 4. AHIMS zoomed in around Project Area, showing AHIM# 38-4-0396. (Source: SIX Maps aerial with Heritage Now and AHIMS additions)



4.4 Heritage Report Summaries

Heritage reports relevant to the Project Area have been summarised in this section to provide an understanding of the previous assessments that have been undertaken and the implications for Aboriginal site patterning.

Mary Dallas, 1996, Archaeological Survey, Morpeth

This report outlines the survey of an area of 72 hectares on the site of the Morpeth Sewage Treatment Works. The current Project Area for this report directly abuts this study area on its western side. An open camp site (artefact scatter) was identified on the western boundary of the study area but it was not within the impact zone for proposed upgrades at the site, which was recorded as AHIMS# 38-4-0396.

A site recording form was lodged with NSW NPWS, and further assessment of that site was recommended required should future works be proposed within that vicinity. The study area was considered highly disturbed and there were no Aboriginal sites located during the survey within the impact zone. Recommendations were that no further archaeological survey or investigation was required in the study area (Dallas 1996, 5).

South East Archaeology, 2015, Aboriginal Cultural Heritage Assessment, Chisholm

South East Archaeology Pty Ltd was engaged by Waterford County Pty Ltd for survey of Aboriginal sites for a residential subdivision in Thornton North. The study area is located approximately 1.75kms southeast of the current Project Area. Previous investigations had been done some years earlier but the AHIP had expired. A comprehensive heritage survey was undertaken, archaeological test excavations, and an identification of contemporary cultural values, were undertaken as part of the assessment.

A total of 12 Aboriginal heritage sites comprising 18 loci of identified evidence were recorded. Eight artefacts were recorded during the surface surveys and 242 artefacts were retrieved during the test excavations. The artefact assemblage is primarily silcrete, with evidence of backed artefacts being manufactured on site. The overall spatial distribution is 'very low density distribution of artefacts consistent with background discard, interspersed by a low number of discrete activity areas in which more focused activity has occurred, typically in relation to the production of backed artefacts' (PJ Kuskie 2015, 3). Proximity to wetlands was considered the primary factor influencing the nature and extent of occupation in the study area, with intensity increasing within 300m of the wetlands and on gentle simple slopes or level/very gentle flat/terrace environmental contexts. The sites are considered to represent transitory movement of people through the landscape, as they hunted/gathered resources from the locality.

Three of the open artefact sites were assessed as holding low to potentially moderate significance within a local context and nine of being low significance. The sites have contemporary cultural significance to Aboriginal people as they represent an important tangible link to their past and to the landscape. Recommendations included an AHIP for a combination of strategies of salvage and unmitigated impact.

South East Archaeology, 2006, Sub-surface Archaeological Investigation, Thornton

Commissioned by Investa Housing Pty Ltd for the proposed extension of the Somerset Park residential development at Thornton, this report outlines the sub-surface archaeological



investigation of Aboriginal heritage. The study area is located approximately 4.5km southeast of the current Project Area.

An initial survey had recorded nine Aboriginal sites, comprising fourteen spatially separate loci of evidence. Sub surface investigation was conducted in order to retrieve a suitable sample from the stud area to identify the nature and distribution of heritage across the site, clarify the integrity of deposit, thereby permitting a robust assessment of significance on which to formulate strategies for management of the Aboriginal heritage resource. A total of 66 test units were excavated, with a total of 263 artefacts recovered. Silcrete was the most common material, accounting for 85.55% of the assemblage, followed by tuff (12.55%) and quartz (1.9%). Typological analysis of the assemblage suggests a late Holocene (4,000 years) age and represents transitory movement and /or hunting/gathering without camping, involving small groups of people for short periods of time (Peter Kuskie and Clarke 2006, 3).

While the sites are considered culturally significant to contemporary Aboriginal people, only three of the sites were considered as having low to moderate scientific significance, while four sites were considered to have low significance. The rest did not pass the threshold for significance. Recommendations for the site included a program of salvage via controlled surface scrapes and localised hand excavations.

Umwelt, 2011, AHIP Salvage of Artefacts, Gillieston Heights

This report details the monitoring of ground disturbing works conducted under AHIP #3077 for Mirvac Homes Pty Ltd at their Saddlers Ridge housing subdivision (for the proposed impacts to site #38-4-1044). The study area is located approximately 9.2km southwest of the current Project Area.

The site had been identified during an earlier subsurface testing program but was considered insufficient archaeological potential to warrant further archaeological investigation. No research design was proposed for the cultural salvage program. Topsoil was removed by grader scrapes. A total of four artefacts were recovered as a result of the salvage program. These included two mudstone flakes, one broken mudstone flake, and one broken quartz flake. None of these were considered to have been recovered from a soil profile retaining any spatial or stratigraphic integrity. The combined results of the monitoring and subsurface testing and salvage indicated that the site was used in a transient manner by Aboriginal people and restricted to the discard of artefactual material on the more elevated landforms. The location of a spring fed creek would have provided potable water for Aboriginal people traversing the area and would have made it attractive for short-term occupation (Umwelt Environmental Consultants 2011, 1). Material collected was placed in the care of Mindaribba Local Aboriginal Land Council in their secure Keeping Place as per the schedule of the AHIP permit.

Biosis, 2018, Archaeological Report, Thornton

This report was commissioned on behalf of Thornton Brentwood Pty Ltd for an Aboriginal Cultural Heritage Assessment for a subdivision on Raymond Terrace Road, Thornton. The study area is located approximately 3.4km southeast from the current Project Area. An AHIMS search indicated there were ten Aboriginal sites (including seven artefact scatters and three isolated finds) located within the study area, although it was later discovered that one of these scatters (AHIMS #38-4-0124) was actually not within the study area. During field investigations, 11 previously unrecorded Aboriginal heritage sites were identified within the study area. These consisted of one PAD, five isolated finds, and five artefact scatters. Following this, a test excavation program was undertaken to



determine whether subsurface archaeological deposits could be identified within undisturbed areas located within the vicinity of Aboriginal sites that had been identified during the survey and AHIMS search. The results of the test excavation were the identification of three low density artefacts scatters. Recommendations for the management of the sites included an AHIP application and salvage of surface collections (Biosis 2018, 10).

4.5 Synthesis

Surface artefacts are the most common site type in the surrounding area. They are most likely to be made of silcrete, but mudstone, chert and quartz are also found in lower frequencies. Sites occur more frequently and in denser amounts near creek lines and wetlands, especially within 300m or on elevated landforms further than 300m. Regional patterning indicates sites within close proximity to wetlands are often of a transient nature for hunting/gathering of resources rather than campsites.

One Aboriginal site (AHIMS# 38-4-0396, artefact scatter and PAD) likely extends into the Project Area.



5 Archaeological Survey

The Project Area was surveyed by Tessa Boer-Mah of Heritage Now on 15 July 2021. The Project Area was surveyed in a single survey unit.

The Project Area gently slopes from Metford Road down towards the waste water treatment works (Plate 1). This area is thickly grassed (Plate 2), with a few exposures from stock movement (Plate 3). The central portion of the Project Area has been cut away as part of a previous racetrack (Plate 4) and there is some exposure through this area, but the majority is thickly grassed.

The southern portion of the Project Area overlooks the ponds for the waste water treatment works (but is likely to have originally been a swamp) and is thickly grassed (Plate 5). This area is gently sloping with the exception of the dam which has been constructed at the top of the hill and was heavily overgrown with reeds and grass (Plate 6).

The area in the vicinity of AHIMS# 38-4-0396 was inspected (Plate 7). This area is heavily grassed there no visibility and little evidence of the track described in the site card, which appears to have been grown over (Plate 8). This area is gently sloping and there is no difference in the landforms east of the fence to that in the Project Area. Flag probe tests revealed soil depth of at least 20 cm which is comparable to the reported Beresfield Soil Landscape which has 10-25 cm of topsoil. Furthermore the brownish black loam of this soil landscape was observed in the few exposures present in the Project Area. No Aboriginal artefacts were identified; however, visibility was low and is likely based on the site card description that AHIMS# 38-4-0396 extends into the Project Area and thus an area of archaeological sensitivity was identified (Figure 5).

5.1 Summary

No Aboriginal artefacts were identified during the survey; however, visibility was low and it is likely based on the site card description and observed landforms that AHIMS# 38-4-0396 extends into the Project Area and thus an area of archaeological sensitivity was identified.





Figure 5. Area of archaeological sensitivity associated with AHIMS# 38-4-0396. (Source: SIX Maps aerial with Heritage Now and AHIMS additions)



6 Impact Assessment

This section assesses the potential impact of the proposed works in relation to Aboriginal heritage values in the Project Area.

6.1 Proposed Works

The Project Area is proposed for a staged residential subdivision (Figure 6). This will include clearing of vegetation as well as cut and fill to prepare the Project Area. It will require the installation of below and above ground services including water and sewer, telecommunications and electricity. It will also require the formation of roads and access ways to the residential lots as well as the building of individual residences. The works have been divided into seven stages, with stages 1 -3 in the northern portion and stages 4-7 in the southern portion.

6.2 Impact Assessment

The Proposal has the potential to impact artefacts associated with AHIMS# 38-4-0396, however full assessment of this site was hampered by low visibility, but there is subsurface archaeological potential associated with this site which is constrained to stages 4-7 (Figure 7). There are no Aboriginal objects or areas of subsurface archaeological potential in the remaining part of the Project Area (Stages 1-3) and thus works can proceed in this area under the Due Diligence Code.

6.3 Mitigation

AHIMS# 38-4-0396 and its associated area of sensitivity will require archaeological test excavation before ground surface disturbance for the development takes place in Stages 4-7. Prior to the archaeological test excavation, the grass will require slashing or is it be subject to an Aboriginal cool cultural burn to ensure excess vegetation is removed to enable the excavation to take place.

All on-site personnel are to be made aware of their obligations under the National Parks and Wildlife Act 1974, this includes protection of Aboriginal sites and the reporting of any new Aboriginal, or suspected Aboriginal, heritage sites. This may be done through an onsite induction or other suitable format.

In the unlikely event that human remains, or suspected human remains, are uncovered during the development, works in that area are to stop and the area is to be cordoned off. The project manager is to contact the NSW Police to establish whether the area is a crime scene. If it is not a crime scene, Heritage NSW is to be notified via the Environment Line on 131 555 and management measures are to be devised in consultation with the local Aboriginal community. Works are not to recommence in the area until the management measures have been implemented.

The works are to be carried out as per the design/Proposal assessed in this report. Should there be modifications to the design/Proposal then this document is to be updated to assess these changes.

6.4 Summary

AHIMS# 38-4-0396 and its associated area of sensitivity will require archaeological test excavation before ground surface disturbance for the development takes place. General mitigation measures including heritage induction and human remains protocols are to be implemented.



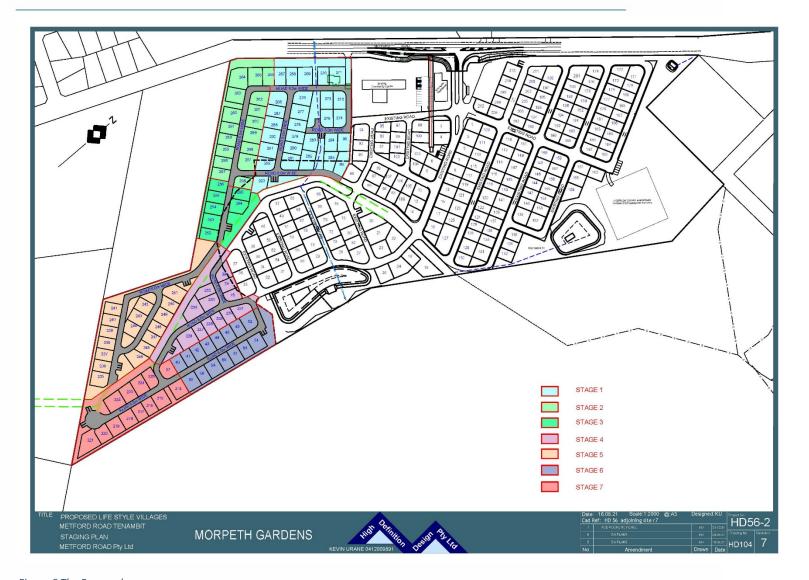


Figure 6 The Proposal



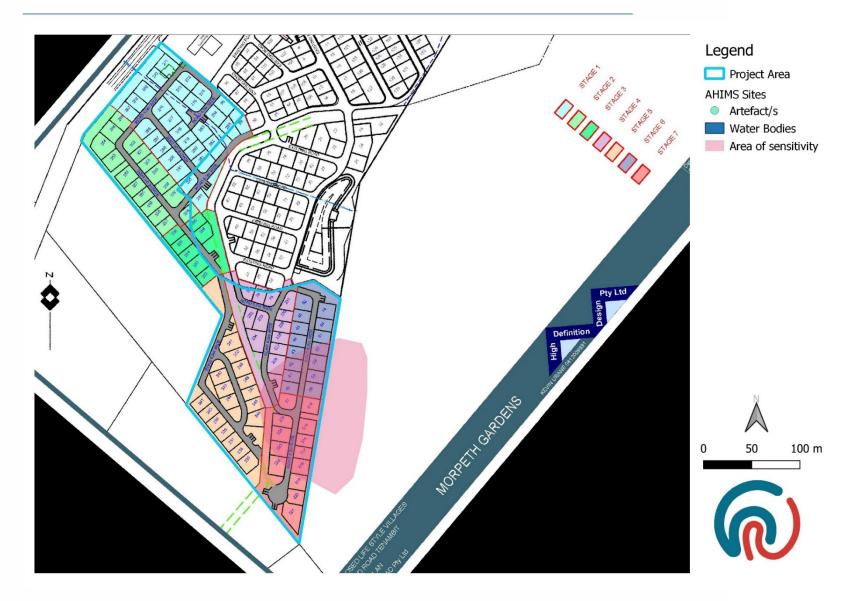


Figure 7 The Proposal and area of sensitivity



7 Conclusions and Recommendations

The background research identified the locality as having potential for Aboriginal occupation, as it consists of wetland resources, which are likely to have been available in the area before the wastewater treatment plant was installed. The Aboriginal Heritage Information Management System (AHIMS) search identified that a 120 x 3-4m artefact scatter with archaeological deposit (AHIMS# 38-4-0396), registered adjacent to the locality, likely extends into the Project Area. No Aboriginal artefacts were identified during the survey; however, visibility was low and it is likely based on the site card description and observed landforms that AHIMS# 38-4-0396 extends into the Project Area and thus an area of archaeological sensitivity was identified.

The Proposal has the potential to impact artefacts associated with AHIMS# 38-4-0396, as such the site will require archaeological test excavation before ground surface disturbance for the development takes place in Stage 4-7. There are no Aboriginal objects or areas of subsurface archaeological potential in the remaining part of the Project Area (Stages 1-3) and thus works can proceed in this area under the Due Diligence Code. General mitigation measures including heritage induction and human remains protocols are also to be implemented.

The Proposal can proceed subject to recommendations below:

Recommendation 1

AHIMS# 38-4-0396 and its associated area of sensitivity (Stages 4-7) is to be subject to archaeological testing under the *Code of Practice for the Investigation of Aboriginal Objects in NSW* before ground disturbing works commence in these stages.

Recommendation 2

All on-site personnel are to be made aware of their obligations under the *National Parks and Wildlife Act 1974*. This includes the protection of Aboriginal sites and the reporting of any new or suspected Aboriginal heritage sites. This may be done through an on-site induction or other suitable format.

Recommendation 3

In the unlikely event that human remains, or suspected human remains, are uncovered during the development, works in that area are to stop and the area is to be cordoned off. The project manager is to contact the NSW Police to establish whether the area is a crime scene. If it is not a crime scene, Heritage NSW is to be notified via the Environment Line on 131 555 and management measures are to be devised in consultation with the local Aboriginal community. Works are not to recommence in the area until the management measures have been implemented.



8 References

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 Toronto, NSW: Report to Mirvac Homes Pty Ltd.



9 Plates



Plate 1. Project Area from Metford Road, view to south-east. (Source: Heritage Now 2021)



Plate 2. Northern portion of Project Area, view to northeast. (Source: Heritage Now 2021)





Plate 3. Exposure in northern portion of the Project Area, view to north-east. (Source: Heritage Now 2021)



Plate 4. Central portion of Project Area, some exposures, such as the one in the foreground, but otherwise thickly grassed, view to south-east. (Source: Heritage Now 2021)





Plate 5. Southern portion of Project Area, thickly grassed, overlooking ponds from waste water treatment works, view to north-east. (Source: Heritage Now 2021)



Plate 6. Central portion of Project Area, dam overgrown with grass and reeds – middle ground, view to north-west. (Source: Heritage Now 2021)





Plate 7. View to east towards AHIMS#38-4-0396. (Source: Heritage Now 2021)



Plate 8. View to east towards AHIMS#38-4-0396, no visibility and little evidence for track as described in the site card. (Source: Heritage Now 2021)



Attachment 1 AHIMS Information



Extensive search - Site list report

Your Ref/PO Number: HN290-A Tenambit

Client Service ID: 603057

<u>SiteID</u>	<u>SiteName</u>	<u>Datum</u>	Zone	Easting	Northing	Context	Site Status	<u>SiteFeatures</u>	SiteTypes	Reports
38-4-2069	RTRD15	GDA	56	373010	6373468	Open site	Valid	Artefact : -		
	Contact	Recorders	Bios	is Pty Ltd - W	/ollongong,Mr	s.Samantha Keats	S	<u>Permits</u>		
38-4-2041	HN-MF-A01	GDA		374559	6375442	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
0.4.2040	Contact	Recorders		0	elmont,Ms.Cry	•	77 1: 1	<u>Permits</u>		
38-4-2040	HN-MF-A02	GDA	56	374374	6375095	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u>	<u>Recorders</u>	Heri	tage Now - B	elmont,Ms.Cry	stal Phillips		<u>Permits</u>		
38-4-2032	Raymond Terrace Road IF1	GDA	56	373702	6374134	Open site	Valid	Artefact : -		
	<u>Contact</u>	Recorders	RPS	Australia Eas	st Pty Ltd - Yor	k Street Sydney	Mrs.Amanda Crick	<u>Permits</u>		
38-4-2031	Raymond Terrace Road IF2	GDA	56	373825	6374148	Open site	Valid	Artefact : -		
	<u>Contact</u>	Recorders	RPS	Australia Eas	st Pty Ltd - Yor	k Street Sydney	Mrs.Amanda Crick	<u>Permits</u>		
38-4-2033	Raymond Terrace Road IF	GDA		373643	6374110	Open site	Valid	Artefact : -		
	<u>Contact</u>	Recorders	RPS	Australia Eas	st Pty Ltd - Yor	k Street Sydney	Mrs.Amanda Crick	<u>Permits</u>		
88-4-1956	RPS JN 4 IF	GDA	56	374186	6374579	Open site	Destroyed	Artefact : -		
	<u>Contact</u>	Recorders	RPS	Australia Eas	st Pty Ltd - Hai	nilton,RPS Austr	alia East Pty Ltd - Han	nilton,Ms.Jo N Permits		
38-4-1955	RPS JN 6 AS	GDA		374233	6374254	Open site	Destroyed	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	RPS	Australia Eas	st Pty Ltd - Hai	nilton,RPS Austr	alia East Pty Ltd - Han	nilton,Ms.Jo N Permits		
38-4-2003	Lot 131 Site 8 Thornton	GDA	56	372523	6373465	Open site	Valid	Artefact : -		
	<u>Contact</u>	Recorders	Mr.0	Giles Hamm				<u>Permits</u>	4531	
88-4-2002	Lot 131 Site 7 Thornton	GDA	56	372714	6373500	Open site	Valid	Artefact : -		
	<u>Contact</u>	Recorders	Mr.0	Giles Hamm				<u>Permits</u>	4531	
38-4-2001	Lot 131 Site 6 Thornton	GDA	56	372274	6373493	Open site	Valid	Artefact : -		
	<u>Contact</u>	Recorders	Mr.0	Giles Hamm				<u>Permits</u>	4531	
38-4-2000	Lot 131 Site 5	GDA	56	372748	6373532	Open site	Valid	Artefact : -		
	<u>Contact</u>	Recorders	Mr.0	Giles Hamm				<u>Permits</u>	4531	
38-4-1999	Lot 131 Site 4 Thornton	GDA	56	372724	6373519	Open site	Valid	Artefact : -		
	<u>Contact</u>	Recorders	Mr.0	Giles Hamm				<u>Permits</u>	4531	
38-4-1966	Valaire Land 6/A	GDA	56	373812	6373466	Open site	Destroyed	Artefact: 1, Potential		
								Archaeological		
								Deposit (PAD) : 1		
20.4.1000	Contact	Recorders			South East Arc	O.	D . 1	<u>Permits</u>		104165
38-4-1988	RTRD06	GDA		373018	6373607	Open site	Destroyed	Artefact : -		104167
	<u>Contact</u>	Recorders	Bios	is Pty Ltd - W	/ollongong,Mr	s.Samantha Keats	S	<u>Permits</u>	4359	

Report generated by AHIMS Web Service on 01/07/2021 for Trishia Palconit for the following area at Lat, Long From : -32.7698, 151.5821 - Lat, Long To : -32.7097, 151.6615 with a Buffer of 0 meters. Additional Info : Assessment. Number of Aboriginal sites and Aboriginal objects found is 114



Extensive search - Site list report

Your Ref/PO Number: HN290-A Tenambit

Client Service ID: 603057

<u>SiteID</u>	<u>SiteName</u>	<u>Datum</u>	Zone	Easting	Northing	Context	Site Status	<u>SiteFeatur</u>	<u>es</u>	<u>SiteTypes</u>	Reports
38-4-1987	RTRD07	GDA	56	373011	6373630	Open site	Destroyed	Artefact : -			104167
	Contact	Recorders	Biosi	s Pty Ltd - V	Vollongong,Mrs	s.Samantha Keats			Permits	4359	
38-4-1986	RTRD08	GDA	56	372982	6373537	Open site	Destroyed	Artefact : -			104167
	Contact	Recorders	Biosi	s Pty Ltd - V	Vollongong,Mr:	s.Samantha Keats			Permits	4359	
38-4-1984	RTRD10	GDA	56	373023	6373444	Open site	Destroyed	Artefact : -			
	Contact	Recorders	Biosi	s Pty Ltd - V	Vollongong,Mr:	s.Samantha Keats			Permits	4359	
38-4-1980	RTRD05	GDA	56	372993	6373548	Open site	Destroyed	Artefact : -			104167
	Contact	Recorders	Biosi	s Pty Ltd - V	Vollongong,Mr:	s.Samantha Keats			Permits	4359	
38-4-1979	RTRD04	GDA	56	372988	6373530	Open site	Destroyed	Artefact : -			104167
	Contact	Recorders	Biosi	s Pty Ltd - V	Vollongong,Mrs	s.Samantha Keats			<u>Permits</u>	4359	
38-4-1978	RTRD01	GDA	56	372949	6373504	Open site	Destroyed	Artefact : -			104167
	Contact	Recorders	Biosi	s Pty Ltd - V	Vollongong,Mr:	s.Samantha Keats			Permits	4359	
38-4-1959	MET/2	GDA	56	370587	6376155	Open site	Destroyed	Artefact : -			
	Contact	Recorders	мсн	- McCardle	Cultural Herita	ge Pty Ltd,MCH - Mo	Cardle Cultural He	eritage Pty Lto	<u>Permits</u>		
38-4-2009	Lot 131 Site 9 Thornton	GDA	56	372692	6373590	Open site	Valid	Artefact : -			
	Contact	Recorders	Mr.G	iles Hamm					Permits	4531	
38-4-1996	Lot 131 Site 3 Thornton	GDA	56	372570	6373596	Open site	Valid	Artefact : -			
	Contact	Recorders	Mr.G	iles Hamm					<u>Permits</u>	4531	
38-4-1995	Lot 131 Site 1 Thornton	GDA	56	372551	6373614	Open site	Valid	Artefact : -			
	Contact	Recorders	Mr.G	iles Hamm					Permits	4531	
45-7-0375	RPS CHISHOLM PAD01	GDA	56	372666	6375765	Open site	Destroyed	Artefact: 1 Archaeolog Deposit (P.	gical		
	Contact	Recorders	RPS	Australia Ea	st Pty Ltd - Har	nilton,RPS Australia	East Pty Ltd - Ham	nilton,RPS Au	<u>Permits</u>	4546	
38-4-1957	RPS CHISHOLM AS01	GDA	56	372645	6376085	Open site	Destroyed	Artefact : 1			
	Contact	Recorders	RPS	Australia Ea	st Pty Ltd - Har	nilton,RPS Australia	East Pty Ltd - Ham	nilton,RPS Au	<u>Permits</u>	4546	
38-4-1845	RPS BP AS1	GDA	56	373978	6376153	Open site	Destroyed	Artefact : -			
	Contact	Recorders	RPS	Australia Ea	st Pty Ltd - Har	nilton,RPS Australia	East Pty Ltd - Ham	nilton,Ms.Jo N	<u>Permits</u>	4196	
38-4-1844	MET/1	GDA	56	370960	6375567	Open site	Valid	Artefact : -			
	Contact	Recorders	MCH	- McCardle	Cultural Herita	ge Pty Ltd,Ms.Penny	Mccardle		Permits	4389	
38-4-1788	RPS JN 1	GDA	56	373954	6374267	Open site	Destroyed	Artefact : -			
	Contact	Recorders	RPS	Australia Ea	st Pty Ltd - Har	nilton,RPS Australia	East Pty Ltd - Ham	nilton,Ms.Jo N	<u>Permits</u>	4157	
38-4-1790	RPS JN 3	GDA	56	374431	6374267	Open site	Destroyed	Artefact : -			
	Contact	Recorders	RPS	Australia Ea	st Pty Ltd - Har	nilton,RPS Australia	East Pty Ltd - Ham	nilton,Ms.Jo N	Permits	4157	
38-4-1789	RPS JN 2	GDA	56	373940	6374242	Open site	Destroyed	Artefact : -			

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Extensive search - Site list report

Your Ref/PO Number: HN290-A Tenambit

Client Service ID: 603057

<u>SiteID</u>	<u>SiteName</u>	<u>Datum</u>	<u>Zone</u>	Easting	Northing	Context	Site Status	<u>SiteFeatures</u>	<u>SiteTypes</u>	Reports
	<u>Contact</u>	Recorders	RPS A	Australia Ea	st Pty Ltd - Ha	milton,RPS Aust	ralia East Pty Ltd - Hai	nilton,Ms.Jo N <u>Permits</u>	4157	
38-4-1734	TB14	GDA	56	372353	6375445	Open site	Valid	Artefact : -, Potential		
								Archaeological		
								Deposit (PAD) : -		
	Contact	Recorders			South East Arc			<u>Permits</u>	3875	
38-4-1733	TB16	GDA	56	372495	6375495	Open site	Valid	Artefact : -, Potential		
								Archaeological		
				_				Deposit (PAD) : -		
	<u>Contact</u>	Recorders	•	son Barr				<u>Permits</u>	3875	
38-4-1732	TB17	GDA	56	372440	6375642	Open site	Valid	Artefact : -, Potential		
								Archaeological		
	Contact	p 1	M D	. 17 1:	C .1 E . A			Deposit (PAD) : -	2075	
20 4 4 5 0 4	Contact	Recorders			South East Arc		77.11.1	<u>Permits</u>	3875	
38-4-1731	TB21	GDA	56	372688	6376367	Open site	Valid	Artefact : -, Potential		
								Archaeological		
	Contact	Recorders	Mr De	tor Vuelrie	South East Arc	hacology		Deposit (PAD) : - Permits	3875	
38-4-1730	TB22	GDA		372463	6375885	0,0	Valid	Artefact : -, Potential	30/3	
00-4-1/30	1022	GDA	50	3/2403	03/3003	Open site	vanu	Archaeological		
								Deposit (PAD) : -		
	Contact	Recorders	South	East Archa	eology			Permits	3875	
38-4-1729	TB26	GDA		372668	6376705	Open site	Valid	Artefact : -, Potential	5075	
,0 1 1,2,		G2.1		0.2000	0070700	open site	7 4.1.4	Archaeological		
								Deposit (PAD) : -		
	Contact	Recorders	South	East Archa	neology			<u>Permits</u>	3875	
38-4-1728	TB25	GDA		372556	6376682	Open site	Valid	Artefact : -, Potential		
						•		Archaeological		
								Deposit (PAD) : -		
	<u>Contact</u>	Recorders	South	East Archa	neology			Permits	3875	
38-4-1727	TB23	GDA	56	372427	6376520	Open site	Valid	Artefact : -, Potential		
								Archaeological		
								Deposit (PAD) : -		
	<u>Contact</u>	Recorders	Mr.Pe	eter Kuskie,	South East Arc	haeology		<u>Permits</u>	3875	
38-4-1760	RPS Thornton AS2	GDA	56	373823	6373858	Open site	Destroyed	Artefact : 1		
	<u>Contact</u>	Recorders	RPS A	Australia Ea	st Pty Ltd - Ha	milton		<u>Permits</u>		
38-4-1759	RPS Thornton AS1	GDA	56	373569	6373835	Open site	Destroyed	Artefact : 1		
	Contact	Recorders	RPS A	Australia Ea	st Pty Ltd - Ha	milton		<u>Permits</u>		
38-4-1756	VALAIRE LAND 2/B	GDA		373722	6373618	Open site	Valid	Artefact : -, Potential		
	·					-		Archaeological		
								Deposit (PAD) : -		

Report generated by AHIMS Web Service on 01/07/2021 for Trishia Palconit for the following area at Lat, Long From: -32.7698, 151.5821 - Lat, Long To: -32.7097, 151.6615 with a Buffer of 0 meters. Additional Info: Assessment. Number of Aboriginal sites and Aboriginal objects found is 114



Extensive search - Site list report

Your Ref/PO Number: HN290-A Tenambit

Client Service ID: 603057

<u>SiteID</u>	<u>SiteName</u>	<u>Datum</u> 7	Zone Easting	Northing	Context	Site Status	<u>SiteFeatures</u>	<u>SiteTypes</u>	Reports
	Contact	<u>Recorders</u>	South East Archa	eology			<u>Permits</u>	3899	
8-4-1755	VALAIRE LAND 2/A	GDA	56 373522	6373438	Open site	Valid	Artefact : -		
	<u>Contact</u>	Recorders	Mr.Peter Kuskie				<u>Permits</u>	3899	
8-4-1754	VALAIRE LAND 1/A	GDA	56 373723	6373735	Open site	Valid	Artefact : -		
	Contact	Recorders	Mr.Peter Kuskie				<u>Permits</u>	3899	
8-4-1684	NMH1	GDA	56 369170	6374453	Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Miss.Nicola Roch	e			<u>Permits</u>		
8-4-1643	Lot 2 Govt Road Thornton	GDA	56 373775	6374010	Open site	Partially Destroyed	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u>	<u>Recorders</u>	Mr.Giles (dup ID#	‡12832) Hamı	n		<u>Permits</u>	3725	
8-4-1521	HINTON BRIDGE MIDDEN	GDA	56 373299	6379585	Open site	Valid	Artefact : 1, Shell : 1		
	Contact	Recorders	Doowakee Cultur	e and Heritag	e Surveys		<u>Permits</u>		
38-4-1209	Hinton PADs (1-3)	AGD	56 373260	6379000	Open site	Partially Destroyed	Artefact : 139, Potential Archaeological Deposit (PAD) : -		101914,1020 2
	Contact	Recorders	Ms.Penny Mccard	lle,Ms.Penny N	Iccardle		<u>Permits</u>	3300,3370,3375	
8-4-0124	Parkwood;	AGD	56 372850	6373300	Open site	Valid	Artefact : -	Open Camp Site	
	<u>Contact</u>	Recorders	P Jones				<u>Permits</u>		
8-4-0362	Tenambit;	AGD	56 369290	6375200	Open site	Valid	Artefact : -	Isolated Find	
	Contact	<u>Recorders</u>	Ms.Jill Ruig				<u>Permits</u>		
8-4-1040	linuwel 1	GDA	56 368964	6377060	Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Mrs.Angela Besar	nt			<u>Permits</u>		
8-4-1054	TV1 (Thornton Vets 1)	GDA	56 372240	6376160	Open site	Valid	Artefact : 1		
	Contact	<u>Recorders</u>	Mr.Peter Kuskie				<u>Permits</u>		
8-4-1053	TV3 (Thornton Vets 3)	GDA	56 371880	6375720	Open site	Valid	Artefact : 2		
	Contact	<u>Recorders</u>	Mr.Peter Kuskie				<u>Permits</u>		
88-4-1052	TV5 (Thornton Vets 5)	GDA	56 371790	6375590	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Peter Kuskie				<u>Permits</u>		
38-4-0988	Hunter River Morpeth	AGD	56 370900	6378200	Open site	Valid	Hearth:-, Non-Human Bone and Organic Material :-, Potential Archaeological Deposit (PAD):-, Shell:-		

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Extensive search - Site list report

Your Ref/PO Number: HN290-A Tenambit

Client Service ID: 603057

<u>SiteID</u>	SiteName	<u>Datum</u>	Zone Easting	Northing	Context	Site Status	<u>SiteFeatures</u>	<u>SiteTypes</u>	Reports
	<u>Contact</u> T Russell	Recorders	Rebecca Simon				<u>Permits</u>		
38-4-1004	Brisbane Fields PAD 1	GDA	56 373596	6378304	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u> Searle	<u>Recorders</u>	Ms.Penny Mcca	rdle,Virtus Heri	tage - Pottsville,	Virtus Heritage - Potts	sville,Miss.Rac Permits	2659,4761	
38-4-1137	Metford Road 1	GDA	56 370216	6376964	Open site	Valid	Artefact : 1		101247
	<u>Contact</u>	Recorders	Mrs.Angela Bes	ant			<u>Permits</u>	3018	
38-4-0978	Thornton North PAD 1	AGD	56 371564	6374950	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u> Searle	<u>Recorders</u>	Ms.Penny Mcca	rdle			<u>Permits</u>	2509	
38-4-0884	Thornton North 2 (TN2)	AGD	56 371950	6375000	Open site	Valid	Artefact : 1		100914
	<u>Contact</u> T Russell	Recorders	Mr.Peter Kuski	e			<u>Permits</u>	2880,2881,3341	
38-4-0883	Thornton North 20 (TN20)	AGD	56 371040	6374400	Open site	Valid	Artefact : 1		100914
	<u>Contact</u> T Russell	<u>Recorders</u>	Mr.Peter Kuski	е			<u>Permits</u>	2880,2881,3341,3642	
88-4-0882	Thornton North 21 (TN21)	AGD	56 371040	6374100	Open site	Valid	Artefact : 6		
	<u>Contact</u> T Russell	<u>Recorders</u>	Mr.Peter Kuski	е			<u>Permits</u>	2468,2592,3642	
38-4-0881	Thornton North 26 (TN26)	AGD	56 371000	6373790	Open site	Valid	Artefact : 5		
	<u>Contact</u> T Russell	Recorders	Mr.Peter Kuski	e			<u>Permits</u>	2468,2592,3642	
38-4-0945	Thornton North 12 (TN12)	AGD	56 371260	6374960	Open site	Valid	Artefact : -		100914
	Contact T Russell	Recorders	Mr.Peter Kuski	e			<u>Permits</u>	2880,2881,3341	
38-4-0944	Thornton North 13 (TN13)	AGD	56 371090	6374740	Open site	Valid	Artefact: 18		100914
	<u>Contact</u> T Russell	Recorders	Mr.Peter Kuski	e			<u>Permits</u>	2468,2592,2880,2881,	3341,3642
38-4-0943	Thornton North 3 (TN3)	AGD	56 371950	6375050	Open site	Valid	Artefact: 3		100914
	<u>Contact</u> T Russell	Recorders	Mr.Peter Kuski	e			<u>Permits</u>	2880,2881,3341	
38-4-0942	Thornton North 7 (TN7)	AGD	56 371410	6375280	Open site	Valid	Artefact: 20		100914
	<u>Contact</u> T Russell	Recorders	Mr.Peter Kuski	e			Permits	2509,2880,2881,3341	
38-4-0941	Thornton A 14 (TA14)	AGD	56 374355	6373459	Open site	Partially Destroyed	Artefact : 73		100546
	<u>Contact</u> T Russell	<u>Recorders</u>	Mr.Peter Kuski				<u>Permits</u>	3103	
38-4-0939	Thornton North Site 9 - Lot 20	AGD	56 372800	6373535	Open site	Valid	Artefact : 1		104167
	<u>Contact</u> T Russell	Recorders	Mr.Giles (dup I	D#12832) Hamı	n		<u>Permits</u>		
38-4-0938	Thornton North Site 8 - Lot 20	AGD	56 372843	6373494	Open site	Valid	Artefact : 2		104167
	<u>Contact</u> T Russell	<u>Recorders</u>	Mr.Giles (dup I	D#12832) Hami	n		<u>Permits</u>		
38-4-0937	Thornton North Site 7 - Lot 20	AGD	56 372818	6373445	Open site	Valid	Artefact : 1		104167
	Contact T Russell	Recorders	Mr.Giles (dup I	D#12832) Hami	n		<u>Permits</u>		

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Extensive search - Site list report

Your Ref/PO Number: HN290-A Tenambit

Client Service ID: 603057

<u>SiteID</u>	<u>SiteName</u>	Datum	Zone	Easting	Northing	Context	Site Status	SiteFeatures	i	<u>SiteTypes</u>	Reports
38-4-0935	Thornton North Site 5 - Lot 20	AGD	56	372960	6373457	Open site	Destroyed	Artefact : 2			104167
	<u>Contact</u> T Russell	Recorders	Mr.G	les (dup ID#	12832) Hamn	1		P	ermits	4359	
38-4-0934	Thornton North Site 4 - Lot 20	AGD	56	372620	6373595	Open site	Valid	Artefact: 3			104167
	<u>Contact</u> T Russell	Recorders	Mr.G	les (dup ID#	12832) Hamn	1		<u>P</u>	<u>ermits</u>	4359	
38-4-0933	Thornton North Site 3 Lot 1	AGD	56	372620	6373595	Open site	Valid	Artefact : 2			
	<u>Contact</u> T Russell	Recorders	Mr.G	les (dup ID#	12832) Hamn	1		<u>P</u>	<u>ermits</u>	4531	
38-4-0932	Thornton North Site 2 Lot 1	AGD	56	372474	6373634	Open site	Valid	Artefact : 2			
	<u>Contact</u> T Russell	Recorders	Mr.G	les (dup ID#	12832) Hamn	1		<u>P</u>	<u>ermits</u>	4531	
38-4-0931	Thornton North Site 1 Lot 1	AGD	56	372597	6373409	Open site	Valid	Artefact : 3			
	<u>Contact</u> T Russell	Recorders	Mr.G	les (dup ID#	12832) Hamn	1		<u>P</u>	<u>ermits</u>	4531	
38-4-0930	Thornton North Site 4- Lot 1	AGD	56	372623	6373439	Open site	Valid	Artefact : 1			
	<u>Contact</u> T Russell	Recorders	Mr.G	les (dup ID#	12832) Hamn	1		<u>P</u>	<u>ermits</u>	4531	
38-4-0929	Thornton North Site 3 - Lot 20	AGD	56	373007	6373565	Open site	Destroyed	Artefact : 2			104167
	<u>Contact</u> T Russell	Recorders	Mr.G	les (dup ID#	12832) Hamn	1		<u>P</u>	<u>ermits</u>	3745,4359	
88-4-0928	Thornton North Site 2 - Lot 20	AGD	56	373068	6373723	Open site	Destroyed	Artefact : 1			
	<u>Contact</u> T Russell	Recorders	Mr.G	les (dup ID#	12832) Hamn	1		<u>P</u>	<u>ermits</u>	3745,4359	
38-4-0927	Thornton North Site 1 - Lot 20	AGD	56	372943	6374863	Open site	Valid	Artefact : 6			
	<u>Contact</u> T Russell	Recorders	Mr.G	les (dup ID#	12832) Hamn	1		<u>P</u>	<u>ermits</u>	4762	
88-4-0893	Thornton North 4	AGD	56	373105	6373500	Open site	Destroyed	Artefact : -			
	<u>Contact</u> T Russell	Recorders	Mr.G	les (dup ID#	12832) Hamn	1		P	<u>ermits</u>	2592,2819,3189	
38-4-0892	Thornton North Site 2	AGD	56	373444	6373951	Open site	Valid	Artefact : 1			
	<u>Contact</u> T Russell	Recorders	Mr.G	les (dup ID#	12832) Hamn	ı		<u>P</u>	<u>ermits</u>	2592,2819	
38-4-0891	Thornton North 3	AGD	56	373185	6373705	Open site	Destroyed	Artefact : -			
	<u>Contact</u> T Russell	Recorders	Navii	n Officer Her	itage Consulta	nts Pty Ltd		P	<u>ermits</u>	2592,2819,3189,3745	
38-4-0890	Thornton North 1	AGD	56	373125	6373986	Open site	Valid	Artefact : -			
	<u>Contact</u> T Russell	Recorders	Mr.G	les (dup ID#	12832) Hamn	ı		<u>P</u>	<u>ermits</u>	2592,2819	
38-4-0889	Thornton North 27 (TN27)	AGD	56	371130	6373600	Open site	Valid	Artefact : 1			100988
	<u>Contact</u> T Russell	Recorders	Mr.Pe	eter Kuskie				<u>P</u>	<u>ermits</u>	2809,3011,3642	
38-4-0888	Thornton Beechwood 6	AGD	56	372275	6374489	Open site	Valid	Artefact : 2			103380
	<u>Contact</u> T Russell	Recorders	Mr.Po	eter Kuskie,N	ır.Peter Kuski	e		<u>P</u>	<u>Permits</u>	2816,2817,3875	
38-4-0887	Thornton Beechwood 11	AGD	56	372340	6375110	Open site	Valid	Artefact : 1			103380
	<u>Contact</u> T Russell	Recorders	Mr.Pe	eter Kuskie				<u>P</u>	<u>ermits</u>	3875	
38-4-0886	Thornton Beechwood 15	AGD	56	372390	6375260	Open site	Valid	Artefact : 1			103380
	<u>Contact</u> T Russell	Recorders	Mr.Pe	eter Kuskie				P	ermits	3875	

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Extensive search - Site list report

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Client Service ID: 603057

<u>SiteID</u>	<u>SiteName</u>	<u>Datum</u>	Zone Easting	Northing	Context	Site Status	<u>SiteFeatures</u>	<u>SiteTypes</u>	Reports
88-4-0885	Thornton Beechwood 27	AGD	56 372775	6376580	Open site	Valid	Artefact: 1		103380
	Contact T Russell	Recorders	Mr.Peter Kuskie	Mr.Peter Kusk	ie		<u>Permits</u>	2816,2817,3875	
88-4-0833	Four Mile Creek PAD	AGD	56 371333	6373772	Open site	Valid	Potential		
							Archaeological		
							Deposit (PAD) : -		
	<u>Contact</u> T Russell	Recorders	AECOM Australi	a Pty Ltd - Sydi	ney		<u>Permits</u>	2140	
8-4-0804	Thornton North 9 - TN9	AGD	56 371580	6375000	Open site	Valid	Artefact : -		100914
	<u>Contact</u> T Russell	Recorders	Mr.Peter Kuskie				<u>Permits</u>	2113,2509,2880,2881	,3341
8-4-0803	Thornton North 8 - TN 8	AGD	56 372030	6375350	Open site	Valid	Artefact : -		100914
	<u>Contact</u> T Russell	Recorders	Mr.Peter Kuskie				<u>Permits</u>	2113,2509,2880,2881	,3341
88-4-0756	Thornton A 12 (TA12)	AGD	56 374465	6373589	Open site	Partially	Artefact : 1		100059,10054
						Destroyed			6
	Contact	Recorders	Mr.Peter Kuskie				<u>Permits</u>	2112,3044,3103	
8-4-0751	Thornton A 9 (TA9)	AGD	56 374450	6373840	Open site	Valid	Artefact : 5		
	Contact	<u>Recorders</u>	Mr.Peter Kuskie				<u>Permits</u>		
8-4-0750	Thornton A 8 (TA8)	AGD	56 374470	6373950	Open site	Valid	Artefact: 9		
	Contact	Recorders	Mr.Peter Kuskie				<u>Permits</u>		
88-4-0749	Thornton A 3 (TA3)	AGD	56 374025	6374149	Open site	Partially	Artefact: 3		100546
						Destroyed			
	Contact	Recorders	Mr.Peter Kuskie				<u>Permits</u>	3044,3103	
8-4-0748	Thornton A 1(TA1)	AGD	56 374125	6373989	Open site	Partially	Artefact : 2		100059,1005
	Contact	Dagandana	Mr.Peter Kuskie			Destroyed	Dormita	2112,3044,3103	6
8-4-0688	Contact Metford Road PAD	Recorders AGD	56 369498	6374833	Open site	Valid	Potential	2112,3044,3103	
0-4-0000	Metiola Roau FAD	AGD	30 309490	03/4033	Open site	vanu	Archaeological		
							Deposit (PAD) : 1		
	Contact	Recorders	Ms.Meaghan Rus	ssell			* * *	1679,1971,2004	
8-4-0626	Thornton Substation PAD1	AGD	56 371688	6373373	Open site	Valid	Potential		
							Archaeological		
							Deposit (PAD): 0		
	Contact	Recorders	MCH - McCardle				<u>Permits</u>	1389	
88-4-0625	Thornton 3 (T3)	AGD	56 371688	6373373	Open site	Valid	Artefact : 1		
	Contact	<u>Recorders</u>	MCH - McCardle	Cultural Herita	ige Pty Ltd		<u>Permits</u>	2141	
88-4-0549	Isolated Artefact 4	AGD	56 368450	6374075	Open site	Valid	Modified Tree		
							(Carved or Scarred):		
							1		
20 4 05 42	Contact	Recorders	Pam Dean-Jones		0 1	77.31.3	<u>Permits</u>		
38-4-0548	Isolated Artefact 3	AGD	56 368400	6374125	Open site	Valid	Artefact : 1		

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Your Ref/PO Number: HN290-A Tenambit

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SiteID	SiteName	<u>Datum</u>	Zone	Easting	Northing	<u>Context</u>	Site Status	<u>SiteFeatures</u>	<u>SiteTypes</u>	Reports
	Contact	Recorders	Pam	Dean-Jones				<u>Permits</u>		_
38-4-0547	Isolated Artefact 2	AGD	56	368325	6374075	Open site	Valid	Artefact : 1		
	Contact	Recorders	Pam	Dean-Jones				<u>Permits</u>		
38-4-0546	Isolated Artefact 1	AGD	56	368350	6374050	Open site	Valid	Artefact : 1		
	Contact	Recorders	Pam	Dean-Jones				Permits		
38-2-0066	Two Mile Creek 1	AGD	56	367330	6373300	Open site	Valid	Artefact : -	Isolated Find	2421,100898,1 02388
	Contact	Recorders	Mr.N	Matthew Barb	er			<u>Permits</u>	540	
38-4-0125	None Specified	AGD	56	372900	6374200	Open site	Valid	Artefact : -	Open Camp Site	
	Contact	Recorders	P Joi	nes				<u>Permits</u>		
38-4-0123	None Specified	AGD	56	373100	6374900	Open site	Valid	Artefact : -	Open Camp Site	
	Contact	Recorders	P Joi	nes				Permits		
38-2-0069	Two Mile Creek 2	AGD	56	367430	6373220	Open site	Valid	Artefact : -	Open Camp Site	2421,100898,1 02388
	Contact	Recorders	Mr.N	Matthew Barb	er			<u>Permits</u>	541	
38-2-0068	Two Mile Creek 3	AGD	56	367720	6373450	Open site	Valid	Artefact : -	Isolated Find	2421,102388
	Contact	Recorders	Mr.N	Matthew Barb	er			Permits		
38-2-0067	Two Mile Creek 4	AGD	56	367510	6373320	Open site	Valid	Artefact : -	Isolated Find	2441,102388
	Contact	Recorders	Mr.N	Matthew Barb	er			<u>Permits</u>		
38-4-0396	Morpeth STW Camp Site;	AGD	56	370750	6376500	Open site	Valid	Artefact : -	Open Camp Site	3835
	Contact	Recorders	Mar	y Dallas Cons	ulting Archaed	ologists (MDCA)		Permits		
38-4-0364	Tenambit 3;	AGD	56	369880	6375220	Open site	Valid	Artefact : -	Isolated Find	
	Contact	Recorders	Ms.J	ill Ruig				<u>Permits</u>		
38-4-0363	Tenambit_2;	AGD	56	369780	6375250	Open site	Valid	Artefact : -	Isolated Find	
	Contact	Recorders	Ms.J	ill Ruig				Permits		
38-4-0153	Corroboree/Contact Site.;	AGD	56	367350	6375980	Open site	Valid	Ceremonial Ring (Stone or Earth):-, Aboriginal Ceremony and Dreaming:-		1333
	Contact	Recorders	War	ren Bluff				<u>Permits</u>		